State Owned Enterprises as Bribe Payers: The Role of Institutional Environment

Abstract Our paper draws attention to a neglected channel of corruption – the bribe payments by state-owned enterprises (SOEs). This is an important phenomenon as bribe payments by SOEs fruitlessly waste national resources, compromising public welfare and national prosperity. Using a large dataset of 30,249 firms from 50 countries, we show that, in general, SOEs are less likely to pay bribes for achieving organizational objectives owing to their political connectivity. However, in deteriorated institutional environments, SOEs may be subject to potential managerial rent seeking behaviors, which disproportionately increases SOE bribe propensity relative to privately-owned enterprises (POEs). Specifically, our findings highlight the importance of fostering democracy and rule of law, reducing prevalence of corruption and shortening power distance in reducing the incidence of SOE bribery.

Keywords Agency theory; Bribery; Institutional theory; Managerial rent-seeking; State-owned enterprises

Authors: SHAHEER, Noman; YI, Jingtao; LI, Sali; CHEN, Liang

Published in Journal of Business Ethics (2019), 159, 221–238. DOI: 10.1007/s10551-017-3768-z

Introduction

The issue of corporate bribery has received significant attention in management, ethics and international business research. Scholars have examined a variety of topics including the causes of bribery (Lee et al. 2010; Powpaka 2002; Wu 2009), institutional influences on bribery behavior (Husted 1999; Martin et al. 2007) and strategies for curtailing organizational corruption (Misangyi et al. 2008). Despite the variety of research focuses so far, few studies have casted spotlight on the bribe payments by state-owned enterprises (SOEs).

Ignoring SOE bribery leaves open an important research gap as international media has found SOEs across multiple countries to bribe politicians and public officials (e.g. South China Morning Post 2012; The Economist 2014; The Guardian 2015). As SOEs are mainly financed by people's taxes and play an important role in promoting public welfare (Estrin et al. 2016; Meyer et al. 2014; Zhang et al. 2011), bribe payments by SOEs may drain precious public funds, compromising SOE effectiveness and jeopardizing national competitiveness (Ramamurti and Vernon, 1991; Sun 2004). Therefore, the problem of SOE bribery is increasingly garnering attention of public policy makers and many governments are launching crackdowns against SOE bribery (e.g. Chow 2013; Global Times 2014; South China Morning Post 2012). However, a theoretical understanding of factors that trigger SOE bribery is still scarce, even though prominent economic forums, such as Organization for Economic Co-operation and Development (OECD), has emphasized the need for advancing research on the role of SOEs not only as bribe takers but also as bribe payers (OECD Foreign Bribery Report 2014). In this paper, we address this gap by identifying and empirically evaluating some important drivers of SOE bribery.

We draw from SOE literature to argue that some intrinsic characteristics of SOEs may distinguish SOE bribery behavior from that of privately owned enterprises (POEs). In general, organizations resort to bribery for the purpose of achieving some business related benefits (Ades and Di Tella, 1999; Jeong and Weiner, 2012; Rose-Ackerman 1978). As SOEs can capitalize on their political connectivity for achieving their goals, they are likely to have lower bribe propensity compared with POEs (Buckley et al. 2007; Cuervo-Cazurra and Dau, 2009; Lee et al. 2010). While these contentions hold in general, SOEs operating under weaker institutional environments may be influenced by some important secondary considerations of their managers, which may disproportionately increase SOE bribery, narrowing down the gap between SOE and POE bribe propensities. Mainly, SOEs are embedded in large bureaucratic systems (Boisot and Child, 1988; Eggertsson 1990; Lee et al. 2010; Musacchio and Lazzarini, 2014), where careers of SOE managers hinge on the fondness of politicians and public officials across government apparatus (Estrin et al. 2016; Peng and Luo, 2000). Hence, SOE managers may strive to please senior officials outside their organizations and one important way for SOE managers is to induce their organizations for entertaining the bribe requests of these influential officials, even if organizational goals could be achieved through other means (e.g. lobbying). Such tendencies may be particularly prominent in countries where institutions fail to mitigate the misconduct of SOE managers via adequate monitoring, leading to severe agency problems in SOEs.

If SOE bribe propensity is partly determined by the appropriation motives of their managers, we expect SOE bribery to be triggered by absence of democracy, ineffective rule of law, prevalence of corruption and high power distance. This is because SOEs in less democratic and more corrupt societies are more likely to face inadequate monitoring and higher agency problems (Estrin et al. 2016). Similarly, ineffective rule of law and high power distance may

subject SOE managers to greater influence of hierarchical structures (Boisot and Child, 1988; Boisot and Child, 1996; de Soto 2000), inducing SOE managers to please higher ranked officials by entertaining their bribe requests. We find empirical support for these theoretical contentions in a cross-national sample of 30,249 firms, including both SOEs and POEs, from 50 countries.

Our study makes important contributions to the literatures on institutions and business ethics. Going beyond the relationship between institutions and corporate ethics, we analyze how institutional influences vary across different types of organizations. We enrich this line of thinking by theorizing how intrinsic SOE characteristics interact with certain institutional factors to distinguish SOE bribery behavior from that of POEs. Hence, we show how studying institutional influences with respect to organizational attributes can advance current research on business ethics and institutional theory.

We also enrich corruption literature by cross-fertilizing SOE literature with bribery research. While bribery is traditionally conceptualized as an economic transaction geared at achieving organizational objectives (Ades and Di Tella, 1999; Rose-Ackerman 1978), we indicate the possibility that managerial expropriation may also influence the likelihood of organizational bribery in SOEs. Hence, we contend that considering the varieties of motivations behind bribe payments, besides merely achieving firm objectives, can provide greater explanatory power to existing theoretical frameworks.

Finally, we address the critical topic of SOE bribery which is increasingly garnering attention in real world. For practitioners, the distinction we identify between bribery behaviors of SOEs and POEs may pave the way for devising more targeted policies to curb bribery in different sectors. We also present SOE bribery as an important domain for future research, which offers the potential of enriching our theoretical understanding of corporate bribery.

Theory and Hypotheses

The research on organizational bribery is nested in broad literature on business ethics (McLeod et al. 2016), and particularly on corporate illegality and unethical behavior, which deal with business engagement in unethical or illegal activities (Baucus and Near, 1991; McKendall and Wagner, 1997; Mishina et al. 2010; Yiu et al. 2014). However, bribery literature maintains a unique focus on unofficial payments made by organizations to public officials in order to receive business related benefits (Lee and Weng, 2013; Uhlenbruck et al. 2006), providing important theoretical understanding of unethical interactions between businesses and authorities. Accordingly, we follow prior scholars (e.g. Boles 2014; Hess 2009; Sanyal 2005; Wrage and Wrage, 2005) who define bribery as offering, promising, or giving something to a public official in order to obtain or retain a business. Particularly, we focus on bribes that are paid from company accounts to government officials.

Scholars have long recognized the tendency of firms to pay bribes in order to achieve their organizational goals and also identified a number of factors that may trigger corporate bribery (Lee et al. 2010). For instance, some researchers view firms as victims who resort to bribery when societies institutionalize bribery and corruption as social norms (Argandoña 2005; Rose-Ackerman 2002; Spencer and Gomez, 2011; Vaughan 1999). Such corrupt institutions force firms to pay bribes in exchange for even their basic, legitimate rights such as access to infrastructures (Powpaka 2002; Treisman 2000). However, other researchers recognize that firms may act as perpetrators, who actively and purposefully seek unfair advantages through bribery (Clarke and Xu, 2002; Cuervo-Cazurra 2006; Martin et al. 2007; Wu 2009). For example, De Jong et al. (2012) note that entrepreneurs bribe government officials to mobilize resources, win

contracts, and cope with the constraints imposed by bureaucratic structures. Lee and Weng (2013) also report that firms may use bribes to gain permits for production and sales of questionable products that do not meet quality standards.

Regardless of whether institutions force firms into bribery or firms actively supply bribes, the literature largely treats bribery as an economic transaction, assuming that firms will bribe only when the business benefits of doing so outweigh its costs (e.g. Ades and Di Tella, 1999; Brass et al. 1998; Lee et al. 2010; Martin et al. 2007; Rose-Ackerman 1978). Scholars argue that illicit payments essentially provide businesses an opportunity to enhance efficiency (Iriyama et al. 2016; Mishina et al. 2010). For instance, firms in weaker institutional environments may face additional costs from delays in government approvals or prolonged dealings with public officials (Banfield 1975; Svensson 2003; Zhou and Peng, 2012). Such firms may use bribes to overcome institutional voids insofar as the cost of bribery is lower than the costs imposed by weaker institutions. Similarly, for firms that opt to gain illegitimate benefits through bribe payments, bribery mainly serves as an investment, justifiable only when bribery confers a strategic or tactical advantage that is otherwise costly or difficult to obtain (Lee and Weng, 2013; Webb et al. 2009). For example, Montiel et al. (2012) noted that even in highly corrupt societies, firms may not bribe to obtain various certifications if the cost of bribery exceeds the cost of implementing the required standards.

If bribery is conceptualized as an economic transaction geared at achieving organizational objectives, one would posit that SOEs are less likely to pay bribes as their affiliation with state authorities provides them various business benefits without incurring the cost of bribe payments. By definition, SOEs are organizations that are under direct state ownership and whose objectives are mostly aligned with the goals of their respective governments (Jia 2014; Meyer et al. 2014;

Shi et al. 2014; Zhang et al. 2011). Given that the success of SOEs is in the state's best interests, the government would preferentially provide various public services to facilitate the business operations of SOEs, shielding SOEs from the necessity of paying bribes for overcoming institutional voids. By the same token, governments may help SOEs in commanding any strategic or tactical advantage necessary for their sustained success, without payments of bribes (Herrera and Rodriguez, 2003; Lee et al. 2010). Hence, if the assumption of economic motivations underlying bribery activities holds true, one should not expect SOEs to be caught on paying bribes, even in underdeveloped institutional environments.

Despite these theoretical contentions, media (e.g. The Economist 2014; The Guardian 2015) and researchers (e.g. Ades and Di Tella, 1999; Chow 2013; Li 2013) have been increasingly reporting cases of SOE bribery, particularly in emerging economies characterized by weaker institutions. For instance, there have been a series of accusations related to bribe payments by SOEs to politicians in Brazil, which led to high profile investigations of many prominent Brazilian SOEs including Correios, Banco do Brasil, Petrobras and Furnas (Musacchio and Lazzarini, 2014). In fact, Petrobras has recently written off US$ 2 billion as bribery related costs (CNN 2015). Similarly, Sun (2004) studied a number of bribery incidents in China and concluded that SOE bribery is more serious than POE bribery as it encourages corrupt connections among officials across SOEs. His concern appears well warranted in light of the recent crackdown by Chinese government on corruption, which revealed lucrative bribe payments by SOEs to public officials and the Communist Party leaders (Global Times 2014; South China Morning Post 2012). While there is a clear gap between theoretical frameworks and real world observations, little effort has been made to specifically analyze SOEs as bribe payers.

We argue that this gap arises from the fact that framing bribery in economic terms dismisses the variety of motives that could shape organizational bribery behavior, especially in the context of SOEs. In particular, bribe paying organizations may be driven by the unethical behavior of their own managers who can extract personal rents while paying bribes on behalf of their organizations (Cuervo-Cazurra 2006; Jeong and Weiner, 2012). We argue that these secondary considerations of extracting personal rents may be more prominent in SOEs mainly because SOEs are subject to severe agency problems and hierarchical structures, which – particularly in weak institutions – may disproportionately increase SOE bribe propensity.

Firstly, SOE bribery may be subject to managerial rent extraction because SOEs face relatively higher agency problems compared with POEs under weak institutions. As argued by Laffont and Tirole (1993), SOEs have no individual owners, who would have strong incentives of closely monitoring managerial misconduct. Even in publicly traded SOEs, managers are unlikely to encounter the same level of market controls as POE managers (Cuervo-Cazurra et al. 2014). Therefore, when national institutions fail to adequately discipline the conduct of SOE managers (Estrin et al. 2016), the inherent weaknesses in SOE monitoring may give some leeway for SOE managers to fulfill their personal goals using financial resources of their organizations.

Secondly, compared to POEs, SOEs have relatively lower focus on financial performance, which may facilitate managers to extract rents through bribe payments. As noted by various scholars (e.g. Dharwadkar et al. 2000; Gedajlovic and Shapiro, 1998; Jensen and Meckling, 1976; La Porta and López-de-Silanes, 1999; Vickers and Yarrow, 1988), governments as SOE owners are driven to achieve social objectives, and less likely to hold SOE managers accountable for financial goals such as cost reduction and profit improvement. The compensation schemes in most SOEs tend not to be linked to economic performance but instead follow bureaucratic

criteria such as hierarchy and seniority (Dixit 2002). Therefore, SOE managers may perceive little incentive for saving costs and find it more beneficial to entertain the bribe requests of senior officials in expectation of building personal connections and reaping personal benefits such as career progression.

Finally, the embeddedness of SOEs with other government organizations in a hierarchical structure (Boisot and Child, 1988; Eggertsson 1990) may provide SOE managers with the channels required to seek personal benefits from bribe payments. Under the hierarchal structure of SOEs, incentive arrangement, promotions, and appointments of SOE managers are all subject to the approval of political figures and public officials (Dixit 2002; Estrin et al. 2016; Peng and Luo, 2000). Accordingly, SOE managers tend to pay significant attention to pleasing political and bureaucratic officials outside their organizations (Mi and Wang, 2001; Nguyen 2006). Moreover, it is documented that an organization will be more likely to engage in corruption when its members have strong social identification with other entities upon which it is dependent (Pinto et al. 2008). As SOE managers and the other public officials or politicians belong to the same bureaucratic system, they share a similar social identification. As a result, when SOE managers decide to bribe for achieving certain organizational objectives, they are likely to take into consideration their personal rapport with the bribe-taking officials along with the potential benefits to their organizations.

Due to these intrinsic characteristics of SOEs, we expect SOE bribery behavior to differ from POE bribery behavior, which has been the focus of the existing studies. To address this research gap, we draw from literature on SOEs to develop hypotheses regarding some distinctive features of SOE bribery behavior, with particular reference to the institutional environments of

SOEs. We contend a closer investigation of SOE bribe payments will enrich business ethics literature by highlighting the hidden facets underlying corporate bribery.

SOE bribery behavior

The research on SOEs has identified various differences between SOEs and POEs particularly in terms of their corporate objectives (Meyer et al. 2014; Zhang et al. 2011) and political connectivity (Clarke and Xu, 2002; Martin et al. 2007; Nguyen 2006). These distinctions may lead to some important differences between bribery behaviors of SOEs and POEs, reducing SOE bribe propensity in general.

First, government ownership mandates SOEs to achieve certain state goals that may differ from typical commercial objectives (Gupta 2005; Lee et al. 2010; Vernon 1979). This relatively lower emphasis on profit-seeking is likely to reduce the incentives for SOEs to undertake bribery as a means to obtain commercial benefits like reduced taxes, monopoly creation, and procurement contracts, which are found to be the major drivers for corporate bribery (Clarke and Xu, 2002; Powpaka 2002; Rose-Ackerman 2002). Instead, as missions of SOEs align with the political and socioeconomic agendas of their governments (Meyer et al. 2014; Zhang et al. 2011), state authorities would have a vested interest in the successes of SOEs. Accordingly, government and public officials are less likely to demand bribes in order for them to extend preferential treatments to SOEs (Cui and Jiang, 2012; Shi et al. 2014; Vaaler and Schrage, 2009). Past research has also found that SOEs receive various favors from government offices in the form of loans, procurement contracts, and favorable legislation (Lee et al. 2010; Shleifer and Vishny, 1994).

Second, the political connectivity of SOEs may provide them alternatives avenues to bribery in pursuit of their organizational goals. The connections with state authorities enable SOEs to approach and lobby public officials in attempts for desirable benefits (Bennedsen et al. 2009; Clarke and Xu, 2004). Furthermore, SOEs can offer indirect benefits, such as appointments of relatives on key position in SOEs, to politician and government officials instead of making illicit payments (Boycko et al. 1996; Krueger 1990; Lee and Weng, 2013). Therefore, we hypothesize that

Hypothesis 1 *State-owned enterprises are less likely to engage in bribery than POEs.*

Our baseline hypothesis suggests that government affiliation, in general, may reduce SOE bribe propensity as compared to POEs. However, organizational bribery is a complex phenomenon, which tends to vary across institutions, firms, and industries (Lee et al. 2010; Wu 2009). In this paper, we emphasize on institutional determinants of bribery because SOEs are, by definition, a part of their home-country institutions (Cui and Jiang, 2012; Zhang et al. 2011). Accordingly, Estrin et al. (2016) applied Williamson's (2000) hierarchy of institutions to argue that the conduct of SOEs is mainly a function of institutional quality as weaker institutions subject SOEs to less effective monitoring, tolerating many self-serving actions by SOE managers. POEs, on the other hand, are active agents who only conform to local institutional environment when it is strategically beneficial for their organizations (Goodstein 1994; Oliver 1991; Scott 2005). Even under weaker institutional environments, POE managers are subject to relatively stricter monitoring which prevents many self-serving managerial behaviors (Cuervo-Cazurra 2006; Fisman and Gatti, 2006).

Extending these insights into the context of corporate bribery, we argue that institutions may have a closer bearing on SOE bribery compared with POEs for two main reasons. First,

public officials in weaker institutions may target even SOEs for paying bribes to attain organizational goals. Second, SOE managers in weaker institutional environments may take advantage of relatively inadequate monitoring and entertain bribe requests from higher officials in a hope to reap personal benefits. The effect of institutions, however, may be less salient on POE bribery. Even when stronger institutions strictly prohibit bribery, corrupt POEs may still strive to entice public officials to accept bribes in exchange for business benefits (Martin et al. 2007). Similarly, when weaker institutions force firms to bribe, POEs may refuse bribe requests that do not make economic sense for organizations.

In the following sections, we focus on political (democracy), regulatory (rule of law), social (public perception about prevalence of corruption) and cultural (power distance) institutional factors. The premise is that if SOE bribe propensity is determined by agency problems and hierarchical structures as argued, these factors should exhibit a stronger effect on SOE bribery than POE bribery. More specifically, as institutional quality deteriorates, SOE bribe propensity shall excessively increase compared with POEs, narrowing down the gap between bribe propensities of SOEs and POEs.

Democratic system

Democratic system refers to an institutional arrangement for arriving at political decisions in which individuals endeavor to acquire political office through competition for the votes of a broad electorate (Becker 1958). Research by economists and political scientists have stressed the importance of democratic traditions in stimulating such competition by which politicians tend to

improve the accuracy of their checks and balances, subsequently leading to lower corruption across society (Rock 2009; Treisman 2000).

We expect that the effect of democracy will be more pronounced for SOE bribe propensity because democracy makes politicians accountable to real principals (citizens of the country), motivating politicians to improve monitoring and reduce agency problems in order to improve SOE performance (Aharoni 1982; Boswell and Rose-Ackerman, 1996; Jensen and Meckling, 1976; Wong 2004). This may reduce the incentive for SOE managers to please politician and public officials through lucrative bribe payments as managerial appointments and promotions in performance focused SOEs are likely to be made on merit (Musacchio and Lazzarini, 2014).

While democracy may also reduce bribes paid for the sole purpose of achieving organizational benefits, we expect the impact to be more salient for SOE bribery. Various scholars have noted POE tendency to bribe even under well-functioning democratic systems because POEs attempt to influence the formulation of laws and other government policies to their own advantage through illicit or non-transparent means including bribery, a practice termed as state capture (Grzymala-Busse 2008; Kunicová 2006; Omelyanchuk 2001). POEs in democratic systems may also bribe for safeguarding their interests against potential instability caused by frequently shifting policies and changes in electoral representatives after every election (Olson 1993; Zhou and Peng, 2012). Additionally, politicians in democratic systems may tend to demand and accept bribes from POEs in order to cover massive election campaign expenditures. Voters may also approve such illegal contributions if they benefit personally from the corrupt politician's largesse (Boswell and Rose-Ackrman, 1996).

By contrast, SOEs are less likely to need bribery for achievement of their organizational objectives because they enjoy closer relationships with elected or appointed public authorities

regardless of changes in governments, legislations and policies (Nguyen and Dijk, 2012; Nguyen 2006). In absence of the secondary considerations of pleasing bribe receiving officials, SOE managers are more likely to capitalize on their political connectedness to achieve SOE goals, instead of resorting to bribery. Predatory politicians in democratic system may also avoid demanding bribes from SOEs as deterioration in SOE performance may risk their own political careers. Even if bribery does facilitate SOEs in attainment of organizational goals, democracy may prevent SOEs from engaging in bribery. As Wong (2004) notes, elected politicians may not be appreciated for their achievement but are called into account when things go wrong. Fearful of any backlash, politicians would be less tolerant of SOE bribery even if it improves organizational performance. Therefore, while democratic system is expected to curb bribery by both SOEs and POEs, we expect the effect to be greater for SOEs due to improved monitoring and a focus on performance.

Hypothesis 2 *The relationship of SOEs with bribe propensity will be negatively moderated under a democratic system, such that SOE bribe propensity decreases more than that of POEs in more democratic countries.*

Rule of law

Rule of law refers to the extent to which citizens abide by state regulations and the degree to which the authorities fairly and capably enforce the law (Kaufmann et al. 2008). The concept of the rule of law encompasses not only the existence of fair and predictable rules but also an adequate oversight by regulatory bodies and enforcement of formal laws (Kaufmann et al. 2010; Oh and Oetzel, 2011). Any deterioration in rule of law grants excessive power to government

officials who can authoritatively decide how resources will be distributed among different sectors of society, including business organizations (Habib and Zurawicki, 2002; Bruno et al. 2013). Hence, predatory officials can demand bribes from businesses in exchange of the provision of various services whereas victim organizations may be better off bribing powerful government officials instead of appealing to ineffective legal institutions (Friedman et al. 2003; Nwabuzor 2005).

We argue that SOE bribe propensity may increase more than that of POEs in societies that are governed by discretions of individual government officials, rather than formal and codified laws. As rule of law weakens, social ties and networks with influential officials become crucial for success and bribery may be needed for establishing and cultivating such relationships (Boist and Child, 1996; de Soto 2000; Luo and Chung, 2005). SOEs may be particularly vulnerable to such pressures because connections with powerful officials have important bearings for personal careers of SOE managers. When incentives and promotions of SOE managers are determined by their ties with powerful officials instead of established procedures, SOE managers may not dare to refuse the bribe demand by corrupt officials even if they could achieve organizational objectives through other means. The connectivity with powerful officials may also protect bribe paying SOE managers should they come under investigation due to allegations of unnecessary bribe payments. This is because such investigations are mostly conducted by public officials themselves, as opposed toneutral, third parties (Krueger 2009).

The increase in POE bribe propensity may be lower than that of SOEs under weakened rule of law because POEs may look for more efficient alternatives to achieve organizational objectives and use bribery only as a last resort. Furthermore, POEs may be aware that their managers can strive to cultivate personal relationships with powerful authorities by unnecessarily

entertaining bribe requests. Therefore, as noted by Cuervo-Cazurra (2006), POEs would strictly monitor their managers to ensure that bribes are paid only when organizational objectives could not be met otherwise. Finally, many POEs with foreign ownerships are bound by laws of their home countries and avoid paying bribes even at the cost of suffering business related losses. Therefore, we hypothesize that

Hypothesis 3. *The relationship of SOEs with bribe propensity will be negatively moderated by rule of law, such that SOE bribe propensity decreases more than that of POEs in countries with stronger rule of law.*

Corruption perception and social norms

The general perception about the prevalence of corruption corresponds to the institutionalization of corruption in given countries (Spencer and Gomez, 2011). Institutionalization or normalization of corruption refers to a situation in which violation of a "hypernorm", a standard of right and wrong that transcends organizational and national cultures, turns into an impersonal norm and acceptable procedure (Ashforth and Anand, 2003; Donaldson and Dunfee, 1994; Spicer et al. 2004). Once bribery is institutionalized, firms may start seeking legitimacy by matching their behaviors with societal expectations regarding bribe payments (DiMaggio and Powel, 1983; Gao 2010; Venard and Hanafi, 2008). For instance, when former chairman of China Railway Container Transport, Luo Jinbao, was accused for accepting bribes from other SOEs, he reported that it is a norm for Chinese SOEs to give about 2% of their total budget to the regional railway bureaus after winning a bid (South China Morning Post 2012).

We expect that the prevalence of corruption in a society may have a more profound impact on SOE bribery compared with POEs. As bribery practices are normalized in a society, SOE managers may not take the risk by negotiating bribe requests or seeking alternative means to achieve organizational objectives. In fact, refusing bribe demands may put SOE managers in a disadvantaged position as different SOE managers compete in the same political system for promotions and career growth. This may develop strong peer pressure, further reducing the capability of SOE managers to resist bribe demands. Hence, SOE managers may take advantage of normalized corruption in society by unnecessarily using SOE funds to entertain the bribe requests of senior officials and expect personal favors in return.

The prevalence of corrupt practices may be relatively modest in POEs because they widely differ in their corporate policies and ethical codes of conduct. For instance, while it is conceivable that some POEs competing for government contracts may follow bribery behaviors of each other, many POEs may not join the bandwagon because their policies or foreign affiliations prohibit bribe payments. Similarly, POEs who are faced with weak competitive pressures or rarely deal with government customers may not indulge in bribery regardless of how commonplace bribery is in the society. Even bribe paying POEs may surrender to the social norm of bribery only when perceived benefits to organizations are substantial (Gao 2010), whereas SOEs are more likely to entertain bribe requests by senior officials in such environments. Therefore, social norms about corruption may have a relatively modest impact on POE bribe propensity compared with that of SOEs.

Hypothesis 4. *The relationship of SOEs with bribe propensity will be positively moderated by perception of corruption, such that SOE bribe propensity increases more than that of POEs in countries with higher perception of corruption.*

Power distance

While all dimensions of cultures have been found to influence different aspects of corporate behaviors, we focus on the cultural dimension of power distance as we expect power distance to have a more profound impact on SOE bribe propensity. This is because, as argued by Shane (1994, 1995), power distance is particularly salient when hierarchical structures are prominent and power holders enjoy greater authority over subordinates. As SOEs are embedded in hierarchical bureaucratic systems where SOE managers are dependent on senior officials across government apparatus for their careers (Boisot and Child, 1988; Eggertsson 1990; Estrin et al. 2016; Peng and Luo, 2000), an increase in power distance is likely to strengthen this dependence, forcing SOE managers to entertain bribe requests of senior officials even when organizational goals could be met otherwise.

As argued by various scholars (Hofstede 2001; Takyi-Asiedu 1993; Waldman et al. 2006), power holders in high power distance societies may face fewer checks and balances on their use of power, leading to a stronger temptation to enrich themselves illegally. In fact, high-level public officials consider bribe extortion as a privilege of their class, and they are relatively more tolerant to corrupt practices (Getz and Volkema 2001; Husted 1999). In such a culture, senior public officials, who believe they are entitled to take bribes, are more likely to pressure their juniors in other SOEs for illegal payments before they allow the provision of various public services. Managers in victim SOEs, owing to their higher corruption tolerance, may not resist bribe requests by their superiors in public and political offices when power distance is high. POEs, on the other hand, may not be subject to same pressures in high power distance societies.

POE managers may not hesitate to refuse the bribe requests by even most senior public officials who do not offer a sizable business benefit in exchange, while only entertaining the requests of only few, highly relevant officials.

Power distance may also enhance the rent extraction motives of bribe paying SOE managers. As greater power distance societies are characterized by paternalistic systems (Chui and Kwok, 2008; De Luque and Sommer, 2000; Husted 1999), SOE managers are likely to view superior public officials and politicians as having a paternal role. Accordingly, SOE managers, in anticipation of future favoritism by bribe demanding officials, tend to please corrupt officials through lucrative bribes. However, POE managers are less likely to be influenced by these considerations while deciding on the bribe requests of senior public officials.

In summary, unlike POEs, SOE bribery in greater power distance cultures may not be determined by attainment of organizational goals alone. Instead, it might be partly motivated by submission to higher authorities, exchange of favors, and demonstrations of loyalty, which may reduce the ability of SOEs to effectively control the incidence of bribery. Therefore,

Hypothesis 5. *The relationship between SOEs and bribe propensity will be positively moderated by power distance in that SOE bribe propensity may increase more than that of POEs in societies with higher power distance.*

Data and Methods

Sample

We took advantage of more recent World Enterprise Survey (WES) conducted by the World Bank during 2006 to 2013. WES is a cross-sectional survey of the managers of more than 94,000 firms from over 120 countries. WES collects worldwide firm-level data through several rounds of surveys across years, developing a rich database of various firm and business environment specific characteristics. Related to our research on bribery, the survey contains items asking for the percentage of sales firms pay in bribes to public officials for achieving business related goals. The validity of several components of the bribery items in the survey has been confirmed by recent research (Uhlenbruck et al. 2006). In addition, WES data applies a stratified sampling approach to select the surveyed firms from the complete population of registered companies and surveyed firms exhibit a great deal of heterogeneity in terms of size, type of ownership, industry, and country of origin. It alleviates the important problems related to the unrepresentative samples, which is encountered in many cross-country studies (Beck et al. 2006).

We employed the latest available survey results in each country to form a cross-sectional dataset. We constructed our sample in three steps. First, we excluded observations with missing information for our main variables of interest i.e. bribery and firm ownership. Second, we excluded all observations from countries for which no SOEs were surveyed by the WES. Finally, we merged our data with five country-level data sources, the World Bank's World Development Indicators, the World Bank's Worldwide Governance Indicators (WGI), the Corruption Perception Index (CPI) by Transparency International, the Democracy Index provided by The Economist Intelligence Unit (EIU), and Hofstede's (2001) cultural indices. Our final sample consisted of 30,249 firms from 50 countries. Table 1 presents a brief summary of our sample.

[Insert Table 1 about here]

We performed several statistical tests to control for any systematic correlation between the main variables due to the measurement method. First, we applied the Kolmogorov-Smirnov test (Siegel and Castellan, 1988) to assess the impact of nonresponse bias by comparing the observable characteristics of bribe paying firms against other firms. We did not find evidence for significant differences between firms, who reported that they engage in bribery and firms who did not. Second, we performed a confirmatory factor analysis to control for the effect of a single unmeasured latent method factor. We compared the fit of a model that included the latent method factor with a model that did not (Podsakoff et al. 2003). We did not find evidence indicating that common method bias and common method variance exist in our sample.

Measures

Dependent Variables. Our study examines how the bribe propensity is influenced by institutional factors. We obtained the measure of bribe propensity from the WES survey in which participants are requested to indicate the percentage of annual sales paid to public officials in informal payments for getting things done. The responses for this question are reported in percentages.

To measure *bribe propensity*, defined as the likelihood of participation in bribery by a given firm, we encoded all firms who reported bribery activities with the value of one and the value of zero otherwise. Hence, we obtained a binary variable measuring whether or not a firm bribed in given year. This measure of bribe propensity has a theoretical basis similar to those used in previous bribery and ethics studies (Morgan 1993; Zhou et al. 2013).

Independent Variable. Our main independent variable indicates whether the given firm is an SOE based on the percentage of shares held by government. While any shareholding by

government may indicate government interference and interest in an organization, the properties specific to SOEs (i.e. alignment of state-firm objectives, agency issues etc.) may be more salient in firms that are predominately under state control via majority state ownership (Inoue et al. 2013; Liang et al. 2015; Musacchio et al. 2015). Therefore, we treated our main independent variable, *SOE*, as a binary variable, which equals one if at least 50% of a given firm's shares were owned by the government and zero otherwise. However, to affirm that our results are not driven by our specification as to what constitutes an SOE, we also run various robustness tests under different specifications of SOEs and our results remained largely the same.

Moderators. Following our hypotheses, we included four institutional factors at the political, regulatory, social, and cultural levels as possible moderators.

Our first moderator, *democratic system*, is measured by the Democracy Index, provided by the EIU, which collects and provides country-specific information annually. This index measures the state of democracy in 167 countries based on 60 indicators grouped in five different categories including pluralism, civil liberties, press freedom, and political culture. Higher scores indicate a leaning toward a more democratic system.

We obtain our second moderator, *rule of law*, from World governance indicators (WGI) database provided by Kaufmann et al. (2010). This variable captures perceptions of "the extent to which agents have confidence in and abide the rules of society, and in particular the quality of contract enforcement, property rights, the police and the courts, as well as the likelihood of crime and violence" (Kaufmann et al. 2010, p4). This indicator is measured based on the views of businesses, citizens, and expert survey respondents across multiple countries. The composite measure scores between -2.5 to +2.5, whereas higher scores indicate improved quality of legal institutions in a particular country.

Our third moderator, *perception of corruption,* is based on the Corruption perception index (CPI) provided by Transparency International. This index is the most comprehensive quantitative indicator of cross-country corruption available, which measures the perceived levels of public sector corruption across countries annually. It has been used as the means for measuring the prevalence of corruption in a society (DiRienzo et al. 2007). The CPI is measured on a continuous scale and the scores on corruption perception index range from 0 to 10. We converted scores in 2012 and 2013 in accordance with those in 2011 and double checked the ranking of countries to ensure the consistency. We reversed the coding of this measure in that higher scores imply a higher level of corruption in a particular society.

The final moderator in our study, *power distance,* is derived from the cultural dimensions constructed by Hofstede (2001). Hofstede Power Distance Index (PDI) captures the extent to which the less powerful members of institutions and organizations in a country presume that power will be distributed unequally (House et al. 2013; Waldman et al. 2006; Wollan et al. 2009; Zheng et al. 2013). We operationalized power distance through country-specific time invariant Hofstede cultural scores as provided by the website of Greet Hofstede. The higher the value along this index, the greater the power distance.

Control Variables. We followed prior research in controlling for a comprehensive set of firm- and country-level determinants of bribery and corruption. Many scholars have noted that smaller firms may have a higher propensity to bribe because they lack the power to resist bribe demands, and also lack the internal procedures to effectively monitor corruption (Arvis and Berenbeim, 2003; Herrera and Rodriguez, 2003; Zhou and Peng, 2011). Therefore, we controlled for *firm size* as a continuous variable measured by the logarithm of the total annual sales. As

sales were reported in local currencies, we converted all sales to USD by using the exchange rate for the year in which WES collected data for that particular firm.

As indicated by Tilley (2000) and Amato and Amato (2007), younger firms are more likely to become involved in unethical and fraudulent activities such as bribery because they tend to focus more on survival and growth at early stages. Accordingly, we controlled for *firm age*, which was measured by the number of years since the establishment of the firm.

We also controlled for foreign ownership as foreign owned firms may not be subject to the same institutional pressures as domestically owned firms (Kostova et al. 2008) and therefore, exhibit different bribery behavior. We measured *foreign ownership* by the percentage of total assets of the firm that are dependent on foreign capital (Lee and Weng, 2013).

In addition, Wu (2009) noted that the use of external auditors is considered one of the most important obstacles to corruption. We controlled for this effect by including *external audit,* a dummy variable that equals one if the establishment has its annual financial statement checked and certified by an external auditor, and zero otherwise. All of these firm-level variables were obtained from the WES.

Moreover, we controlled for a number of institutional factors that have been found to influence firm-level bribery in previous research. Since Wu (2009) empirically found that the integrity of the court system tends to reduce the propensity of firms to bribe, we incorporated *court system,* which is measured by country-specific perceptions about whether the court system is fair, impartial, and uncorrupted. It is measured as an ordered variable, which ranges between 1 and 4. Higher scores indicate the perception of better court systems.

Furthermore, we controlled for cultural influences by including *individuality* and *long term orientation* as both of these dimensions have been found to be negatively correlated with

corruption and bribery (Cullen et al. 2004; DiRienzo et al. 2007; Husted 1999). Measures on cultural dimensions were obtained from Hofstede cultural scores. Last, we used a group of dummy variables to control for potential industry, region, and year effects.

Results

Table 2 provides the descriptive statistics and the correlation matrix for all variables. In our sample, around 22% of firms were found to engage in bribery. The highest correlation coefficient is below 0.7, suggesting that multicollinearity is not a problem. In addition, our variance inflation factor (VIF) for all independent variables and interaction terms ranged between 1.01 and 4.26, much lower than the threshold value of 10 (Hsieh et al. 2003).

[Insert Table 2 about here]

Given our dependent variable, bribe propensity, is a binary one, we employed Probit model with robust standard errors to estimate the coefficients for our explanatory variables and interaction terms. We also followed the approach of Long (1997) to calculate the marginal effects for our regression coefficients. Table 3 reports the regression results with bribe propensity as the dependent variable. Model 1 in Table 3 is the baseline model that includes only control variables. Model 2 adds the main explanatory variable, SOE, and the main effects of democratic system, rule of law, perception of corruption, and power distance. Model 3 is the full model with all explanatory variables, moderators, and interaction terms. Each subsequent model represents an improvement over the respective baseline models in terms of log-likelihood of estimation.

[Insert Table 3 about here]

In Model 1 of Table 3, our statistical results for control variables are largely consistent with previous studies. We find the likelihood of firms to engage in bribery decreases with increase in firm size ($p<0.01$), firm age ($p<0.001$), foreign ownership ($p<0.05$), and presence of external auditor ($p<0.05$) (Amato and Amato, 2007; Arvis and Berenbeim, 2003; Herrera and Rodriguez, 2003; Svensson 2003; Tilley 2000). Among institutional factors, our results indicate that court system ($p<0.001$) and individuality ($p<0.001$) tend to reduce bribe propensity, consistent with previous research. In contradiction with past studies however (Cullen et al. 2004; DiRienzo et al. 2007; Husted 1999), we find that long term orientation tends to increases bribe propensity ($p<0.001$).

Model 2 tests our first hypothesis, which proposes that SOEs have a lower likelihood to bribe. Consistent with our expectations, the coefficient of our main variable, SOE, is negative ($p<0.05$), supporting Hypothesis 1. The effect size is also substantial as we find that, on average, SOEs are 12% less likely to bribe than POEs. Model 2 also includes the main effects for democratic system, rule of law, perception of corruption, and power distance. As expected, our results show that democratic system ($p<0.05$) and rule of law ($p<0.001$) tends to reduce bribe propensity, while perception of corruption ($p<0.001$) and power distance ($p<0.01$) increase it.

Model 3 tests our Hypotheses 2 to 5. Hypothesis 2 posits that improvements in democratic systems lead to a significant reduction in bribe propensity for SOEs compared with POEs. The coefficient of the interaction term between SOE and democratic system is negative and significant ($p<0.1$), providing supports to our Hypothesis 2. Hypothesis 3 proposes that deterioration in rule of law has a relatively higher impact in increasing bribe propensity for SOEs than that for POEs. The result of interaction term between SOE and rule of law is positive and significant ($p<0. 1$), supporting hypothesis 3. Hypothesis 4 predicts that worsening perception of

corruption (indicated by a higher CPI score) has a relatively higher impact on SOE bribe propensity compared with POEs. The result of interaction term between SOE and perception of corruption is positive and significant ($p<0.05$). Hence, we find support for Hypothesis 4. Finally, Hypothesis 5 proposes that power distance has a more profound impact on SOE bribe propensity than POE bribe propensity. As expected, the coefficient of moderating term is positive and significant ($p<0.05$), supporting Hypothesis 5. The effect sizes of these coefficients are also large. We find that one standard deviation improvement in democratic system and rule of law and one standard deviation reduction in perception of corruption and power distance from their respective means will result into respectively 7%, 13%, 4% and 10% greater reduction in SOE bribe propensity as compared to POEs.

Post-hoc Analyses

Besides main results, we also tested the impact of some additional moderators on bribery behavior of SOEs. First, we evaluated how the governance in an institutional system impacts SOE bribery. Out of six governance indicators provided by WGI, we chose to test the impact of control of corruption, as it appears to be most relevant to the topic of bribery. While we found control of corruption to reduce firm bribery in general, we did not find any significant interaction effect, indicating that control of corruption may not have any differential impact on SOE bribery. In addition, while our democracy index already includes media freedom, current research increasingly evaluates the impact of media on corporate conduct (e.g. Brunetti and Weder, 2003; Camaj 2013). Hence, we separately tested the impact of press freedom while excluding

democracy index from our model. We found a significant and positive interaction, which provided further support to our hypothesis 2. The results are available on request.

Robustness tests

To ensure the robustness of our results to alternative measures and model specifications, we conducted a number of sensitivity tests. First, we tested the robustness of our findings to different specifications of SOEs. We used alternative cutoff points of 30% and 5% respectively to reclassify the SOE status of all firms. Models 4 to 7 in table 3 show the results for robustness tests that used these different cutoffs. As indicated in table 3, the results in models 4 to 7 are qualitatively consistent with our main results in Models 2 and 3. Furthermore, we also used a continuous measure of SOE, indicating the percentage of shares in a firm held by government and obtained consistent results. Moreover, some scholars (e.g. Jones and Mygind, 1999; Meyer et al. 2014) have used ultimate controlling shareholder approach while operationalizing firm ownership as a binary variable. Following this approach, we reclassified a firm as SOE if government had the highest shareholding as compare to any other segment of shareholders. Our results stayed largely the same under this alternate specification. Finally, given most SOEs originate from transitional economies, we further tested the robustness of our results for the subsample in transitional economies. Our exercises produce similar results.

Second, we conducted propensity score matching (PSM) to test the reliability of our results. PSM helps to alleviate such concerns by matching firms in the treatment (SOEs) and control conditions (non-SOEs) on observable factors, thus eliminating spurious results due to these factors (Rosenbaum and Rubin, 1983). We included firm size, firm age, industry dummies and

year dummies as explanatory variables to obtain propensity score. By applying the 5 nearest neighbor matching without replacement and a caliper of 2 standard deviations, we have a sample of 1108 firms and the results of the exercise remain qualitatively unchanged. In addition, we applied Logit model as a robustness test of alternative model specifications, and the results remain largely consistent. Finally, we followed Shaver (1998) to test our hypotheses by splitting the sample into SOEs and POEs instead of using interaction terms between SOEs and moderating variables. We found that the main results remained unchanged under this alternative approach.

Discussion and Conclusion

The goal of our study is to draw research attention towards the important problem of SOE bribery and to highlight the role of institutions in perpetuating SOE misconduct. By demonstrating the disproportionate increase in SOE bribery under deteriorating institutional environments, we point to an important gap in existing literature that tends to overlook SOE bribery on grounds of relatively lower incidence of SOE bribery. Our study strives to fill this gap by encompassing the theoretical underpinnings behind SOE bribery. In this endeavor, we draw from SOE literature and institutional theory to theorize the possible role of managers in determining SOE bribery. This is a notable departure from extant literature, which mainly focuses on bribery as a means to attain organizational objectives and assumes managers to act in the best interests of their organizations. Such assumptions may overlook the complex mechanisms regarding the multifaceted motivations behind corporate bribery. Although scholars (e.g. Cuervo-Cazurra 2006; Jeong and Weiner, 2012) have noted the possible influence of the

motivations of managers on firm bribery, this dimension of bribery has yet to be fully explored. Our study revitalizes this theoretical account by extending it to the overlooked context of SOE bribery, a phenomenon hard to justify under the conventional framework in bribery literature. In so doing, we reveal the opportunity, and also the need, to acknowledge the diversity of motives behind corporate bribery.

We also extend research on the differential impact of home-country institutions on SOE bribery behavior. As argued by Kostova et al. (2008), institutional influences vary across different types of organizations. Extending their arguments into SOE context, we demonstrate that institutions have a more profound impact on SOE bribery partly because they determine the effectiveness of SOE monitoring and extent of agency problems (Estrin et al. 2016; Gedajlovic and Shapiro, 1998; Jensen and Meckling, 1976; Nguyen 2006). Hence, we pave the way for segregating the drivers of bribery based upon the unique characteristics of organizations, which may lead to more fine grained analysis of corporate bribery.

Furthermore, while SOE literature provides valuable insights on SOE monitoring (e.g. Cuervo-Cazurra 2006; Estrin et al. 2016; Laffont and Tirole, 1993), we map the role of interconnected and hierarchical SOE structures on agency issues in SOEs. Especially when an institutional system leans more on social ties instead of meritocracy, SOE managers may be tempted to establish their personal connections with senior officials across government apparatus, even by sacrificing the interests of their organizations. A deeper analysis of the impact of SOE hierarchical structure may uncover more facets of agency problems in SOEs.

Besides offering the prospects for theoretical advancements, our research carries important practical implications. Primarily, we uncover an overlooked channel of corruption that fruitlessly waste precious public funds. We emphasize the need of understanding the unique drivers behind

SOE bribery in order to take more targeted interventions. For instance, if the extent of POE bribery is mainly determined by cost and benefit analyses (Jeong and Weiner, 2012), a legal crackdown against corporate bribery may be more effective against POE bribery as it may increase the costs and risks underlying bribe payments. However, curbing SOE bribery may require deeper institutional and policy reforms that could minimize the dependence of SOE managers on their superiors and link the careers of SOE managers with firm performance.

Our analysis also reveals specific actions governments and policy makers can take to mitigate SOE bribery. Mainly, we suggest that introducing democracy or reducing power distance is essential to curb SOE bribery in the long run. However, governments can also take immediate measures. First, governments may introduce more transparent and merit based systems for promotions of SOE managers. Such measures may enable SOE managers to not only refuse bribe requests by senior officials but also resist any other illegitimate demands by their superiors. In addition, while we concur with prior research (e.g. Dharwadkar et al. 2000; Jensen and Meckling, 1976; La Porta and López-de-Silanes, 1999; Lee et al. 2010) that many SOEs are not created to generate profits in a way similar to POEs, we argue that a ignoring financial considerations may lead to unnecessary wastage of resources for unproductive purposes like bribe payments. Therefore, governments must link the incentives of SOE managers with cost controls and efficiency enhancements. Finally, we emphasize the need of strong regulations and clear ethical guidelines, particularly related to the distinction between bribery and gifting. Possibly, governments can prohibit managers from personally using any gifts given by POEs or SOEs. Such systems are functioning in many developed countries where any gifts received by public officials are transferred to their respective organizations.

We acknowledge some limitations of our study, which may also guide future research. We have conducted our research using WES data, which has been extensively employed in prior bribery studies. However, due to the sensitive nature of bribery question, WES employs indirect questioning technique to inquire about organizational bribery. The probability of information concealment by survey respondents still exists even though the World Bank takes several measures to ascertain the accuracy of responses. While scholars have confirmed the usefulness of indirect questioning (Campbell 1950; Holmes 1968; Neeley and Cronley, 2004; Sherwood 1981) and appreciated the validity of WES data (Lee and Weng, 2013; Uhlenbruck et al. 2006), caution should be exercised while interpreting our findings. Furthermore, WES data may not fully reveal the subtleties regarding the involvement of managerial rent extraction in bribery decisions. Further research could use more sophisticated techniques such as in-depth interviews or qualitative research to investigate the role of managers in determining corporate bribery. Also, the current datasets used in bribery research, including ours, are mostly cross-sectional. Future researchers may look for longitudinal datasets to better reflect on the causal relations underlying bribery.

In addition, similar to most bribery research, our focus is limited to bribes that are paid to achieve business objectives. This is mainly due to a limitation in the WES questionnaire, which specifically asks firms about bribe payments for attaining organization goals. However, organizational bribery can be triggered by various other motives. For instance, SOE officials can form corrupt networks where managers receive bribes from other entities and distribute them to public officials and politicians. Similar practices were reported in Brazilian SOE, Petrobras (CNN 2015). SOEs have also been found to bribe other SOEs and other types of entities, such as auditors or media, for the purposes of hiding their corrupt practices (Ades and Di Tella, 1999; Li

2013; Sun 2004). SOE Managers can also use personal funds to bribe senior officials for buying promotions and career growth (Sun 2004). At first glance, such bribery may not seem to fall under the corporate bribery domain. However, career growth via bribery may promote incompetent managers on top positions and seriously undermine SOE performance. More importantly, these bribe paying officials may use their newly gained power to extort more bribes for recovering their money. Finally, rent seeking tendencies can be found among POE managers as well, although they may be less visible in the context of bribery. These limitations of our study encourage researchers to broadly view and investigate diverse bribery practices.

Our study represents an initial step toward understanding SOEs' graft behavior, and examines a subset of possible factors that could have a differential impact on SOE vs POE bribery. We acknowledge that SOE bribery presents a more complex problem and examining all of its intricacies is beyond the scope of a single study. As cases of SOE bribery have been reported in prominent emerging economies such as Brazil and China (e.g. CNN 2015; Musacchio and Lazzarini, 2014; South China Morning Post 2012), we call for future research to identify more drivers behind SOE bribery and examine relevant environmental contingencies associated with these drivers. Doing so would require explicit mechanism testing of organizational and personal motivations behind the incidence and magnitude of SOE bribery, and identifying the conditions under which certain motivations might prevail[1]. One useful starting point may be Svensson's (2003) seminal study.

In conclusion, our study aims at encouraging research on the critical topic of SOE bribery, which is increasingly getting prominence in real world. The importance of SOE bribery is

[1] We are grateful to the Section Editor Mary Sully de Luque, as well as an anonymous reviewer, for drawing our attention to these important areas for future research.

evident not only from the recent call by OECD to investigate SOE bribery (OECD Foreign Bribery Report 2014), but also from the recent crackdowns by numerous governments against bribe paying SOEs (e.g. Chow 2013; Global Times 2014; South China Morning Post 2012). Theoretically as well, the differences in SOE and POE bribery behaviors highlight the need for integrating SOE and ethics literature to better reflect on mechanisms behind SOE bribery. We believe our paper is a modest entry into a vast research paradigm and future research can further exploit the full potential of this area.

References

Ades, A. Di Tella, R. (1999). Rents, competition, and corruption. *The American Economic Review* 89(4), 982-993.

Aharoni, Y. (1982). State-owned enterprise: An agent without a principal. In L.P. Jones (eds.) *Public enterprise in less-developed countries*, (pp. 67-76). Cambridge University Press, NY.

Amato, L. H. and Amato, C. H. (2007). The effects of firm size and industry on corporate giving. *Journal of Business Ethics* 72(3), 229-241.

Argandoña, A. (2005). Corruption and companies: The use of facilitating payments. *Journal of Business Ethics* 60(3), 251-264.

Arvis, J. F. and Berenbeim, R. E. (2003). *Fighting corruption in East Asia: solutions from the private sector*. World Bank, Washington.

Ashforth, B. E. and Anand, V. (2003). The normalization of corruption in organizations. *Research in Organizational Behavior* 25, 1-52.

Banfield, E. C. (1975). Corruption as a feature of governmental organization. *The Journal of Law and Economics* 18(3), 587-605.

Baucus, M. S. and Near, J. P. (1991). Can illegal corporate behavior be predicted? An event history analysis. *Academy of Management Journal* 34(1), 9-36.

Beck, T. Demirguc-Kunt, A. and Levine, R. (2006). Bank supervision and corruption in lending. *Journal of Monetary Economics* 53(8), 2131-2163.

Becker, G. S. (1958). Competition and democracy. *Journal of Law & Economics* 1, 105-109.

Bennedsen, M. Feldmann, S. E. and Lassen, D. D. (2009). *Strong firms lobby, weak firms bribe: A survey-based analysis of the demand for influence and corruption*. EPRU Working

Paper Series No. 2009-08, Economic Policy Research Unit (EPRU), University of Copenhagen, Department of Economics.

Boisot, M. and Child, J. (1988). The iron law of fiefs: Bureaucratic failure and the problem of governance in the Chinese economic reforms. *Administrative Science Quarterly* 33(4), 507-527.

Boisot, M. and Child, J. (1996). From fiefs to clans and network capitalism: Explaining China's emerging economic order. *Administrative Science Quarterly* 41(4), 600-628.

Boles, J. (2014). Examining the Lax Treatment of Commercial Bribery in the United States: A Prescription for Reform. *American Business Law Journal* 51(1), 119-174.

Boswell, N. Z. and Rose-Ackerman, S. (1996). Corruption and democracy. Proceedings of the Annual Meeting. *American Society of International Law* 90, 83-90.

Boycko, M. Shleifer, A. and Vishny, R. W. (1996). A theory of privatisation. *The Economic Journal* 106(435), 309-319.

Brass, D. J. Butterfield, K. D. and Skaggs, B. C. (1998). Relationships and unethical behavior: A social network perspective. *Academy of Management Review* 23(1), 14-31.

Brunetti, A. and Weder, B. (2003). A free press is bad news for corruption. *Journal of Public economics* 87(7), 1801-1824.

Bruno, R. L. Bytchkova, M. and Estrin, S. (2013). Institutional determinants of new firm entry in Russia: A cross-regional analysis. *Review of Economics and Statistics* 95(5), 1740-1749.

Buckley, P. J. Clegg, L. J. Cross, A. R. Liu, X. Voss, H. and Zheng, P. (2007). The determinants of Chinese outward foreign direct investment. *Journal of International Business Studies* 38(4), 499-518.

Camaj, L. (2013). The media's role in fighting corruption: Media effects on governmental accountability. *The International Journal of Press/Politics* 18(1), 21-42.

Chow, D. C. K. (2013). China's crackdown on commercial bribery, corruption in state-owned enterprises, and the impact on U.S.-based multinational companies doing business in China. Presented in CECC Roundtable Conference, http://www.cecc.gov/sites/chinacommission.house.gov/files/CECC%20Roundtable%20-%20Corruption%20in%20China%20-%20Daniel%20Chow%20Written%20Statement.pdf, accessed 24 October 2015.

Chui, A. C. and Kwok, C. C. (2008). National culture and life insurance consumption. *Journal of International Business Studies* 39(1), 88-101.

Clarke, G. R. and Xu, L. C. (2002). *Ownership, competition, and corruption: bribe takers versus bribe payers*. Working paper. No. 2783, World Bank Policy Research.

Clarke, G. R. and Xu, L. C. (2004). Privatization, competition, and corruption: how characteristics of bribe takers and payers affect bribes to utilities. *Journal of Public Economics* 88(9), 2067-2097.

CNN. (2015). Brazil's Petrobras: We lost $2 billion to bribery, 23 April, http://money.cnn.com/2015/04/23/news/companies/petrobras-brazil-corruption-cost.

Cuervo-Cazurra, A. (2006). Who cares about corruption? *Journal of International Business Studies* 37(6), 807-822.

Cuervo-Cazurra, A. (2016). Corruption in international business. *Journal of World Business* 51(1), 35-49.

Cuervo-Cazurra, A. and Dau, L. A. (2009). Promarket reforms and firm profitability in developing countries. *Academy of Management Journal* 52(6), 1348-1368.

Cuervo-Cazurra, A. Inkpen, A. Musacchio, A. and Ramaswamy, K. (2014). Governments as owners: State-owned multinational companies. *Journal of International Business Studies* 45(8), 919-942.

Cui, L. and Jiang, F. (2012). State ownership effect on firms' FDI ownership decisions under institutional pressure: A study of Chinese outward-investing firms. *Journal of International Business Studies* 43(3), 264-284.

Cullen, J. B. Parboteeah, K. P. and Hoegl, M. (2004). Cross-national differences in managers' willingness to justify ethically suspect behaviors: A test of institutional anomie theory. *Academy of Management Journal* 47(3), 411-421.

De Jong, G. Tu. P. A. and Van Ees, H. (2012). Which entrepreneurs bribe and what do they get from it? Exploratory evidence from Vietnam. *Entrepreneurship Theory and Practice* 36(2), 323-345.

De Luque, M. F. S. and Sommer, S. M. (2000). The impact of culture on feedback-seeking behavior: An integrated model and propositions. *Academy of Management Review* 25(4), 829-849.

De Soto, H. (2000). *The mystery of capital: Why capitalism triumphs in the West and fails everywhere else*. Basic Civitas Books.

Dharwadkar, B. George, G. and Brandes, P. (2000). Privatization in emerging economies: An agency theory perspective. *Academy of Management Review* 25(3), 650-669.

DiMaggio, P. and Powell, W. W. (1983). The iron cage revisited: Collective rationality and institutional isomorphism in organizational fields. *American Sociological Review* 48(2), 147-60.

DiRienzo, C. E. Das, J. Cort, K. T. and Burbridge, J. (2007). Corruption and the role of information. *Journal of International Business Studies* 38(2), 320-332.

Dixit, A. (2002). Incentives and organizations in the public sector: An interpretative review. *Journal of Human Resources* 37(4), 696-727.

Donaldson, and T. Dunfee, T. W. (1994). Toward a unified conception of business ethics: Integrative social contracts theory. *Academy of management review* 19(2), 252-284.

Eggertsson, Þ. (1990). *Economic Behavior and Institutions: Principles of Neoinstitutional Economics*. Cambridge University Press: Cambridge.

Estrin, S. Meyer, K. E. Nielsen, B. B. and Nielsen, S. (2016). Home country institutions and the internationalization of state owned enterprises: A cross-country analysis. *Journal of World Business* 51(2), 294-307.

Fisman, R. J. and Gatti, R. (2006). Bargaining for bribes: The role of institutions. *CEPR Discussion Paper* No. 5712. http://ssrn.com/abstract=923590

Friedman, E. Johnson, S. and Mitton, T. (2003). Propping and tunneling. *Journal of Comparative Economics* 31(4), 732-750.

Gao, Y. (2010). Mimetic isomorphism, market competition, perceived benefit and bribery of firms in transitional China. *Australian Journal of Management* 35(2), 203-222.

Gedajlovic, E. R. and Shapiro, D. M. (1998). Management and ownership effects: Evidence from five countries. *Strategic Management Journal* 19(6), 533-553.

Getz, K. A. and Volkema, R. J. (2001). Culture, Perceived Corruption, and Economics A Model of Predictors and Outcomes. *Business & Society* 40(1), 7-30.

Global Times. (2014). SOE executive gets 5 years for bribery, 27 March, http://www.globaltimes.cn/content/851237.shtml#.UzkRkPmSz5t/, accessed 17 February 2015.

Goodstein, J. D. (1994). Institutional pressures and strategic responsiveness: Employer involvement in work-family issues. *Academy of Management Journal* 37(2), 350-382.

Grzymala-Busse, A. (2008). Beyond Clientelism Incumbent State Capture and State Formation. *Comparative political studies* 41(4-5), 638-673.

Gupta, N. (2005). Partial privatization and firm performance. *The Journal of Finance* 60(2), 987-1015.

Habib, M. and Zurawicki, L. (2002). Corruption and foreign direct investment. *Journal of international business studies* 33(2), 291-307.

Herrera, A. M. and Rodriguez, P. (2003). *Bribery and the nature of corruption*. Working paper. Department of Economics, Michigan State University.

Hess, D. (2009). Catalyzing corporate commitment to combating corruption. *Journal of Business Ethics* 88(4), 781-790.

Hofstede, G. H. and Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions and organizations across nations*. Sage: Newbury Park.

House, R. J. Dorfman, P. W. Javidan, M. Hanges P. J. and de Luque, M. F. S. (2013). *Strategic leadership across cultures: GLOBE study of CEO leadership behavior and effectiveness in 24 countries*. Sage Publications.

Hsieh, F. Y. Lavori, P. W. Cohen, H. J. and Feussner, J. R. (2003). An overview of variance inflation factors for sample-size calculation. *Evaluation & the Health Professions* 26(3), 239-257.

Husted, B. W. (1999). Wealth, culture, and corruption. *Journal of International Business Studies* 30(2), 339-359.

Inoue, C. F. Lazzarini, S. G. and Musacchio, A. (2013). Leviathan as a minority shareholder: Firm-level implications of state equity purchases. *Academy of Management Journal* 56(6), 1775-1801.

Iriyama, A. Kishore, R. and Talukdar, D. (2016). Playing dirty or building capability? Corruption and HR training as competitive actions to threats from informal and foreign firm rivals. *Strategic Management Journal* 37(10), 2152–2173.

Jensen, M.C. and Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3(4), 305-360.

Jeong, Y. and Weiner, R. J. (2012). Who bribes? Evidence from the United Nations' oil‐for‐food program. *Strategic Management Journal* 33(12), 1363-1383.

Jia, N. (2014). Are collective political actions and private political actions substitutes or complements? Empirical evidence from China's private sector. *Strategic Management Journal* 35(2), 292-315.

Jones, D. C. and Mygind, N. (1999). The nature and determinants of ownership changes after privatization: Evidence from Estonia. *Journal of Comparative Economics* 27(3), 422-441.

Kaufmann, D. Kraay. A. and Mastruzzi, M. (2008). *Governance matters VII: aggregate and individual governance indicators, 1996-2007.* World Bank Policy Research. Working Paper No. 4654. World Bank: Washington, DC.

Kaufmann, D. Kraay, A. and Mastruzzi, M. (2010). *The worldwide governance indicators: Methodology and analytical issues.* Policy Research Working Paper No. 5430. World Bank (September 2010).

Kostova, T. Roth, K. and Dacin, M. T. (2008). Institutional theory in the study of multinational corporations: A critique and new directions. *Academy of Management Review* 33(4), 994-1006.

Krueger, A. (1990) Government Failures in Development. *The Journal of Economic Perspectives* 4(3), 9–23.

Krueger, D. A. (2009). Ethical reflections on the opportunities and challenges for international business in China. *Journal of Business Ethics* 89(2), 145-156.

Kunicová, J. (2006). Democratic institutions and corruption: incentives and constraints in politics. *International handbook on the economics of corruption* 140-160.

La Porta, R. Lopez-de-Silanes, F. Shleifer, A. and Vishny, R. (1999). The quality of government. *Journal of Law, Economics, and organization* 15(1), 222-279.

Laffont, J. J. and Tirole J. (1993). *A theory of incentives in procurement and regulation*. MIT press: Cambridge.

Lee, S. H. and Oh, K. and Eden, L. (2010). Why do firms bribe? *Management International Review* 50(6), 775-796.

Lee, S. H. and Weng, D. H. (2013). Does bribery in the home country promote or dampen firm exports? *Strategic Management Journal* 34(12), 1472-1487.

Liang, H. Ren, B. and Sun, S. L. (2015). An anatomy of state control in the globalization of state-owned enterprises. *Journal of International Business Studies* 46(2), 223-240.

Li, R. (2013). Media corruption: A Chinese characteristic. *Journal of business ethics* 116(2), 297-310.

Long, J. S. (1997). *Regression models for categorical and limited dependent variables.* Thousand Oaks: Sage.

Luo, X. and Chung, C. N. (2005). Keeping it all in the family: The role of particularistic relationships in business group performance during institutional transition. *Administrative Science Quarterly* 50(3), 404-439.

Martin, K. D. Cullen, J. B. Johnson, J. L. and Parboteeah, K. P. (2007). Deciding to bribe: A cross-level analysis of firm and home country influences on bribery activity. *Academy of Management Journal* 50(6), 1401-1422.

McKendall, M. A. and Wagner III, J. A. (1997). Motive, opportunity, choice, and corporate illegality. *Organization Science* 8(6), 624-647.

McLeod, M. S. Payne, G. T. and Evert, R. E. (2016). Organizational ethics research: A systematic review of methods and analytical techniques. *Journal of Business Ethics* 134(3), 429-443.

Meyer, K. E. Ding, Y. Li, J. and Zhang, H. (2014). Overcoming distrust: How state-owned enterprises adapt their foreign entries to institutional pressures abroad. *Journal of International Business Studies* 45(8), 1005-1028.

Mi, Z. and Wang, X. (2001). Agency cost and the crisis of China's SOE. *China Economic Review* 11(3), 297-317.

Misangyi, V. F. Weaver, G. R. and Elms, H. (2008). Ending corruption: The interplay among institutional logics, resources, and institutional entrepreneurs. *Academy of Management Review* 33(3), 750-770.

Mishina, Y. Dykes, B. J. Block, E. S. and Pollock, T. G. (2010). Why “good” firms do bad things: The effects of high aspirations, high expectations, and prominence on the incidence of corporate illegality. *Academy of Management Journal* 53(4), 701-722.

Morgan, R. B. (1993). Self-and co-worker perceptions of ethics and their relationships to leadership and salary. *Academy of Management Journal* 36(1), 200-214.

Montiel, I. Husted, B. W. and Christmann, P. (2012). Using private management standard certification to reduce information asymmetries in corrupt environments. *Strategic Management Journal* 33(9), 1103-1113.

Musacchio, A. and Lazzarini S. G. (2014). *Reinventing state capitalism.* Harvard University Press.

Musacchio, A. Lazzarini, S. G. and Aguilera, R. V. (2015). New varieties of state capitalism: Strategic and governance implications. *The Academy of Management Perspectives* 29(1), 115-131.

Nguyen, T. A. (2006). Fiscal risks from the perspective of state-owned enterprises in Vietnam. APEC Finance Ministers' Meeting.

Nguyen, T. T. and Van Dijk, M. A. (2012). Corruption, growth, and governance: Private vs. state-owned firms in Vietnam. *Journal of Banking & Finance* 36(11), 2935-2948.

Nwabuzor, A. (2005). Corruption and development: new initiatives in economic openness and strengthened rule of law. *Journal of Business Ethics* 59(1), 121-138.

Oh, C. H. and Oetzel, J. (2011). Multinationals' response to major disasters: how does subsidiary investment vary in response to the type of disaster and the quality of country governance?. *Strategic Management Journal* 32(6), 658-681.

Omelyanchuk, O. (2001). *Explaining state capture and state capture modes: The cases of Russia and Ukraine*. CEU, Budapest.

Organization for Economic Cooperation and Development. (2014). *OECD Foreign Bribery Report: Analysis of the Crime of Bribery of Foreign Public Officials*. OECD Publishing.

Oliver, C. (1991). Strategic responses to institutional processes. *Academy of Management Review* 16(1), 145-179.

Olson, M. (1993). Dictatorship, democracy, and development. *American Political Science Review* 87(3), 567-576.

Peng, M. W. and Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal* 43(3), 486-501.

Pinto, J. Leana, C. R. and Pil, F. K. (2008). Corrupt organizations or organizations of corrupt individuals? Two types of organization-level corruption. *Academy of Management Review* 33(3), 685-709.

Podsakoff, P. M. MacKenzie, S. B. Lee, J. Y. and Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology* 88(5), 879.

Porta, R. L. Lopez-de-Silanes, F. Shleifer, A. and Vishny, R. W. (1998). Law and finance. *Journal of political economy* 106(6), 1113-1155.

Powpaka, S. (2002). Factors affecting managers' decision to bribe: An empirical investigation. *Journal of Business Ethics* 40(3), 227-246.

Ramamurti, R. and Vernon, R. (1991). *Privatization and control of state-owned enterprises*. World Bank: Washington.

Rock, M. T. (2009). Corruption and democracy. *Journal of Development Studies* 45(1), 55-75.

Rose-Ackerman, S. (1978). *Corruption: A study in political economy*. Academic Press: New York.

Rose-Ackerman, S. (2002). “Grand” corruption and the ethics of global business. *Journal of Banking & Finance* 26(9), 1889-1918.

Rosenbaum, P. R. and Rubin, D. B. (1983). The central role of the propensity score in observational studies for causal effects. *Biometrika* 70(1), 41-55.

Sanyal, R. (2005). Determinants of bribery in international business: The cultural and economic factors. *Journal of Business Ethics* 59(1), 139-145.

Scott, W. R. (2005). Institutional theory: Contributing to a theoretical research program. *Great Minds in Management: The Process of Theory Development* (pp. 460-485). Oxford, UK: Oxford University Press.

Shane, S. (1994). The effect of national culture on the choice between licensing and direct foreign investment. *Strategic management journal* 15(8), 627-642.

Shane, S. Venkataraman, S. and MacMillan, I. (1995). Cultural differences in innovation championing strategies. *Journal of management* 21(5), 931-952.

Shaver, J. M. (1998). Accounting for endogeneity when assessing strategy performance: does entry mode choice affect FDI survival? *Management Science* 44(4), 571-585.

Shi, W. Markóczy, L. and Stan, C. V. (2014). The continuing importance of political ties in China. *Academy of Management Perspectives* 28(1), 57-75.

Shleifer, A. and Vishny, R. W. (1994). Politicians and firms. *The Quarterly Journal of Economics* 109(4): 995-1025.

Siegel, S. C. and Castellan, J. N. J. (1988). *Nonparametric statistics for the behavioral sciences*. McGraw-Hill New: York.

South China Morning Post. (2012). State firms paid half the bribes rail executive Luo Jinbao received, 30 December. http://www.scmp.com/news/china/article/1115500/state-firms-paid-half-bribes-rail-executive-luo-jinbao-received, accessed 10 January 2014.

Spencer, J. and Gomez, C. (2011). MNEs and corruption: The impact of national institutions and subsidiary strategy. *Strategic Management Journal* 32(3), 280-300.

Spicer, A. Dunfee, T. W. and Bailey, W. J. (2004). Does national context matter in ethical decision making? An empirical test of integrative social contracts theory. *Academy of Management Journal* 47(4), 610-620.

Sun, Y. (2004). *Corruption and market in contemporary China*. Cornell University Press: Ithaca, NY.

Svensson, J. (2003). Who must pay bribes and how much? Evidence from a cross section of firms. The *Quarterly Journal of Economics* 118(1), 207-230

Takyi-Asiedu, S. (1993). Some socio-cultural factors retarding entrepreneurial activity in sub-Saharan Africa. *Journal of Business Venturing* 8(2), 91-98.

The Economist. (2014). State capitalism in the dock, 20 November. http://www.economist.com/news/business/21633831-performance-state-owned-enterprises-has-been-shockingly-bad-state-capitalism-dock.

The Guardian. (2015). Former Petrobras executive sentenced over alleged congressional bribe, 17 August. http://www.theguardian.com/world/2015/aug/17/former-petrobras-executive-nestor-cervero-sentenced-bribe.

Tilley, F. (2000). Small firm environmental ethics: how deep do they go? *Business Ethics: A European Review* 9(1), 31-41.

Treisman, D. (2000). The causes of corruption: a cross-national study. *Journal of Public Economics* 76(3), 399-457.

Uhlenbruck, K. Rodríguez, P. Doh, J. and Eden L. (2006). The impact of corruption on entry strategy: Evidence from telecommunication projects in emerging economies. *Organization Science* 17(3), 402-414.

Vaaler, P. M. and Schrage, B. N. (2009). Residual state ownership, policy stability and financial performance following strategic decisions by privatizing telecoms. *Journal of International Business Studies* 40(4), 621-641.

Vaughan, D. (1999). The dark side of organizations: Mistake, misconduct, and disaster. *Annual Review of Sociology* 25(1), 271-305.

Venard, B. and Hanafi, M. (2008). Organizational isomorphism and corruption in financial institutions: Empirical research in emerging countries. *Journal of Business Ethics* 81(2), 481-498.

Vernon, R. (1979). The international aspects of state-owned enterprises. *Journal of International Business Studies* 10(3), 7-14.

Vickers, J. and Yarrow, G. K. (1988). Privatization: An economic analysis (Vol. 18). MIT press.

Waldman, D. A. De Luque M. S. Washburn, N. House, R. J. Adetoun, B. Barrasa, A. ... and Dorfman, P. (2006). Cultural and leadership predictors of corporate social responsibility values of top management: A GLOBE study of 15 countries. *Journal of International Business Studies* 37(6), 823-837.

Webb, J. W. Tihanyi, L. Ireland, R. D. and Sirmon, D. G. (2009). You say illegal, I say legitimate: Entrepreneurship in the informal economy. *Academy of Management Review* 34(3), 492-510.

Wrage, S. and Wrage, A. (2005). Multinational enterprises as "moral entrepreneurs" in a global prohibition regime against corruption. *International Studies Perspectives* 6(3), 316-324.

Williamson, O. E. (2000). The new institutional economics: taking stock, looking ahead. *Journal of economic literature* 38(3), 595-613.

Wollan, M. L. Sully de Luque, M. F. and Grunhagen, M. (2009). Motives for helping: Exploring cultural influences on extra-role behavior. *Multinational Business Review* 17(1), 99-119.

Wong, S. C. (2004). Improving corporate governance in SOEs: An integrated approach. *Corporate Governance International* 7: 5-15.

Wu, X. (2009). Determinants of bribery in Asian firms: Evidence from the world business environment survey. *Journal of Business Ethics* 87(1), 75-88.

Yiu, D. W. Xu, Y. and Wan, W. P. (2014). The deterrence effects of vicarious punishments on corporate financial fraud. *Organization Science* 25(5), 1549-1571.

Zhang, J. Zhou, C. and Ebbers, H. (2011). Completion of Chinese overseas acquisitions: Institutional perspectives and evidence. *International Business Review* 20(2), 226-238.

Zheng, X. El Ghoul, S. Guedhami, O. and Kwok, C. C. (2013). Collectivism and corruption in bank lending. *Journal of International Business Studies* 44(4), 363-390.

Zhou, X. Han, Y. and Wang, R. (2013). An empirical investigation on firms' proactive and passive motivation for bribery in China. *Journal of business ethics* 118(3), 461-472.

Zhou, J. Q. and Peng, M. W. (2012). Does bribery help or hurt firm growth around the world?. *Asia Pacific Journal of Management* 29(4), 907-921.

Table 1 Sample distribution

Panel A: Sample distribution by country

Country	Obs.	Percent	Country	Obs.	Percent	Country	Obs.	Percent
Angola	589	1.95	Indonesia	1053	3.48	Romania	446	1.47
Bangladesh	513	1.70	Iraq	462	1.53	Russia	3064	10.13
Bhutan	230	0.76	Israel	404	1.34	Rwanda	371	1.23
Bulgaria	892	2.95	Jordan	386	1.28	Senegal	493	1.63
Burkina Faso	199	0.66	Kenya	1104	3.65	Serbia	285	0.94
Burundi	258	0.85	Latvia	205	0.68	Slovenia	230	0.76
China	1794	5.93	Lithuania	209	0.69	Sri Lanka	450	1.49
Colombia	1496	4.95	Malawi	108	0.36	Tanzania	738	2.44
Croatia	800	2.64	Mali	592	1.96	Togo	77	0.25
Djibouti	174	0.58	Mauritania	195	0.64	Uganda	777	2.57
Fiji	109	0.36	Mexico	890	2.94	Ukraine	244	0.81
Gambia	129	0.43	Namibia	551	1.82	Uruguay	596	1.97
Ghana	803	2.65	Nigeria	2319	7.67	Vietnam	416	1.38
Guatemala	64	0.21	Pakistan	251	0.83	Yemen	535	1.77
Guinea	182	0.60	Peru	1231	4.07	Zambia	959	3.17
Guinea Bissau	99	0.33	Philippines	1132	3.74	Zimbabwe	535	1.77
Hungary	186	0.61	Poland	424	1.40	Total	30249	100.00

Panel B: Sample distribution by industry

Industry	Obs.	Percent	Industry	Obs.	Percent	Industry	Obs.	Percent
Food	3357	11.10	Basic metals	432	1.43	Retail	4908	16.23
Textiles	1182	3.91	Fabricate metal products	449	1.48	IT	444	1.47
Garments	1914	6.33	Machinery and equipment	473	1.56	Hotels and restaurants	226	0.75
Chemicals	1198	3.96	Electronics	485	1.60	Other services	5976	19.76
Plastics and rubber	348	1.15	Other manufacturing	6548	21.65	Construction	384	1.27
Nonmetallic mineral products	721	2.38	Wholesale	1044	3.45	Transport	160	0.53

Panel C: Sample distribution by year

Year	Obs.	Percent	Year	Obs.	Percent	Year	Obs.	Percent
2006	4850	16.03	2009	3623	11.98	2012	4701	15.54
2007	6778	22.41	2010	2949	9.75	2013	5635	18.63
2008	102	0.34	2011	1611	5.33	Total	30249	100.00

Table 2 Pairwise correlations matrix[a]

	Mean	S.D	1	2	3	4	5	6	7	8	9	10	11	12
1. Bribe propensity	0.221	0.415												
2. SOE	0.007	0.082	-0.025***											
3. Democratic system	5.141	1.581	-0.123***	-0.053***										
4. Rule of Law	-0.489	0.543	0.220***	-0.007	0.672***									
5. Perception of corruption	6.706	1.071	0.270***	-0.007	-0.575***	-0.690***								
6. Power distance	74.561	13.128	0.049***	0.003	-0.391***	-0.406***	0.422***							
7. Firm size	1.633	0.746	-0.049***	0.078***	0.045***	0.050***	-0.068***	-0.002						
8. Firm age	15.932	14.489	-0.051***	0.060***	0.174***	0.096***	-0.135	-0.119***	0.286***					
9. Foreign ownership	0.073	0.242	-0.019***	-0.015**	0.069***	0.047***	-0.019**	-0.035***	0.179***	0.038***				
10. External audit	0.434	0.496	-0.050***	0.061***	0.087***	0.127***	-0.105***	-0.123***	0.349***	0.190***	0.172***			
11. Court system	2.300	0.960	-0.138***	0.015**	-0.065***	0.104***	-0.094***	-0.041***	0.003	-0.012*	0.022***	0.057***		
12. Individuality	27.717	11.396	-0.102***	-0.006	0.146***	0.427***	-0.395***	-0.120***	-0.024***	0.032***	-0.006	0.024***	0.023***	
13.Long term orientation	22.561	30.245	-0.046***	0.084***	-0.219***	0.162***	-0.166***	-0.051***	0.138***	-0.051***	0.005	0.144***	0.122***	-0.030***

Note : [a] n=30,249. $^{\dagger}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$.

Table 3 Probit analyses of bribe propensity

Variables	SOE cutoff at 50%			SOE cutoff at 30%		SOE cutoff at 5%	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
SOE		-0.570***	-5.046*	-0.589***	-6.113***	-0.430***	-4.661***
		(0.132)	(2.009)	(0.115)	(1.844)	(0.082)	(1.212)
Democracy system		-0.022*	-0.022*	-0.023*	-0.023*	-0.023*	-0.022*
		(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Rule of law		-0.602***	-0.599***	-0.601***	-0.598***	-0.602***	-0.596***
		(0.036)	(0.036)	(0.036)	(0.036)	(0.036)	(0.036)
Perception of corruption		0.017***	0.017***	0.017***	0.017***	0.017***	0.017***
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Power distance		0.003**	0.003**	0.003**	0.003**	0.003**	0.003**
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
SOE * Democratic system			-0.080†		-0.057†		-0.032†
			(0.044)		(0.032)		(0.017)
SOE * Rule of law			-0.989†		-1.148*		-0.868**
			(0.593)		(0.528)		(0.334)
SOE * Perception of corruption			0.048*		0.040*		0.033**
			(0.024)		(0.019)		(0.012)
SOE * Power distance			0.047*		0.055**		0.046***
			(0.021)		(0.019)		(0.014)
Firm size	-0.035**	-0.051***	-0.052***	-0.050***	-0.050***	-0.050***	-0.049***
	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
Firm age	-0.004***	-0.001+	-0.001+	-0.001	-0.001	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Foreign ownership	-0.090*	-0.106**	-0.107**	-0.106**	-0.107**	-0.103**	-0.107**
	(0.036)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)	(0.038)
External audit	-0.047*	0.014	0.014	0.014	0.015	0.014	0.015
	(0.019)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)	(0.020)
Court system	-0.197***	-0.173***	-0.173***	-0.172***	-0.173***	-0.173***	-0.173***
	(0.009)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Individuality	-0.015***	0.010***	0.010***	0.010***	0.010***	0.010***	0.010***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Long term orientation	0.003***	0.008***	0.008***	0.008***	0.008***	0.008***	0.008***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Fixed region effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed industry effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fixed year effect	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	30249	30249	30249	30249	30249	30249	30249
Log likelihood	-14713.849	-13762.337	-13752.506	-13758.490	-13745.272	-13759.270	-13740.056

Note: Standard errors in parentheses † $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.