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Which Entrepreneurs Bribe and What Do They Get From It? Exploratory Evidence From Vietnam

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This article investigates whether bribery in emerging economies matters and whether such bribery has a diminishing return to performance. Bribery allows entrepreneurs to develop and foster a network of informal relationships with public officials, and reap the accompanying benefits; but it may also have disadvantages, such as an inefficient allocation of resources. The relationship between bribery and performance was estimated using unique data derived from a survey of 606 Vietnamese entrepreneurs. We controlled for various entrepreneurial, organizational, and industrial characteristics. The exploratory results provide support for a hill-shaped non-monotonic relationship between bribery and revenues.

Introduction

Bribery has attracted the attention of scholars in various fields and is usually studied at either the country or the individual level (Luo, 2004). Depending on context, the word "bribery" can have different meanings (Bardhan, 1997). According to the World Bank (2000), bribery is the abuse of public office for private gain. In our research, it is the payment of cash by an organization with the aim of influencing the actions of a public official. Notwithstanding substantial progress, it is not yet fully understood why firms are willing to pay bribes and how bribes are related to their performance (Hannafey, 2003; Martin, Cullen, Parboteeah, 2007). Exploring in more detail such a firm-specific rationale of bribery would be important because the firm is usually the unit that decides to bribe. Although the payment of bribes by firms has been acknowledged (Aidis & Van Praag, 2007; Svensson, 2003), relatively little is known about what distinguishes bribing from non-bribing entrepreneurs as well as about the relationship between bribery and entrepreneurship performance in general, and for transition economies such as Vietnam in particular. Our study aimed to further this new field of research by addressing these two research gaps.

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We draw on the extant literature about entrepreneurship in transition economies (for excellent reviews see Bruton, Ahlstrom, & Obloj, 2008, or Chilosi, 2001). This literature highlights the importance of institutions to entrepreneurship because they provide guidance, allow for routines to develop, and ultimately reduce the uncertainty of interaction (Baumol, 2005; Boettke & Coyne, 2009; North, 2005). Entrepreneurs in transition economies, however, face many difficulties that can be directly linked to deficiencies in their formal institutional structure such as legal activism and underdeveloped financial markets in starting up and running their businesses (Scase, 1997). Notwithstanding these obstacles, large parts of the new markets in transition countries developed spontaneously, through the initiatives of entrepreneurs. Smallbone and Welter (2001), for example, identify various forms of entrepreneurship under transition conditions including nomenclatura enterprises, self-employment and part-time businesses, small business ownership, and family businesses (cf. Chrisman, Steier, & Chua, 2008). Networking appears to be a common underlying principle for the various forms of entrepreneurship. In particular, political connections are extremely important in transition economies (Peng & Zhou, 2005; Yiu & Lau, 2008). The incentive for entrepreneurs to establish government relationships ultimately arises from state control of key resources. In transition economies, the government controls bank loans, business formation, investment size, and finance. Relationships with local government officials help to, e.g., mobilize resources, win orders, and cope with the constraints imposed by bureaucratic structures, ultimately improving the performance of entrepreneurs. In this context, bribery can be regarded as an investment that entrepreneurs need to make in order to operate successfully in an institutionally weak transition economy (Peng & Heath, 1996).

Although this suggests a positive relationship between bribery and entrepreneurship performance, there is a question to what extent such a positive relationship exists *ad infinitum*. Bribes, for example, may crowd out alternative investments and erode incentives for innovation or other activities such as training and marketing (Luo, 2004). The higher the bribes the more the disadvantages may contaminate the entrepreneurial organization. As the volume of bribes increases, the positive effect of the increased access to key resources may be offset by the inefficient allocation of resources and thus result in lower performance. This implies that bribery may have a diminishing return to entrepreneurship performance.

Hence, the purpose of this article was to contribute to a better understanding of the performance of entrepreneurs in transition economies by: (1) exploring which entrepreneurs bribe; and (2) examining the relationship between bribery and entrepreneurship performance. In so doing, we offer the following contributions to the literature. First, ours is one of the few studies to assess bribery at the level of individual agents, i.e., entrepreneurs. With few exemptions, the existing literature is based on cross-country analyses, applying data on bribery derived from perception indices that are constructed by the assessment of foreign experts of overall bribery in a country, and explain bribery as a function of public policies and institutions. Aggregate data, however, offer limited opportunities to study the relationship between bribery and individuals and why firms facing similar institutions pay different amounts of bribes for the same services. We believe that micro-level empirical research helps to understand the likely heterogeneity of bribery within countries. Second, ours is one of the few studies that explicitly examined in detail the consequences of bribery for entrepreneurial performance. The dominant view of bribery put forward by, e.g., international institutes considers bribery as an illegal act that seriously hampers the well-being of citizens. Existing research tends to "over-moralize" (cf. Granovetter, 1985) bribery and therefore inadequately accounts for the potential benefits of bribery. Our work departed from the norm and, fully cognizant of the ethical

issues involved, accepts that bribery in transition economies exists and that, at least at micro level, bribery may have advantages and disadvantages. In summary, the present research not only shows that quantitative data of bribery at the level of individual entrepreneurs can be collected but also why some entrepreneurs are more likely to engage in bribes than others and how variations in bribery explain variations in organizational performance. Hence, in comparison to existing studies, our research provides additional insights into the role of bribery at a different level of analysis using new, exploratory data.

Theoretical Background and Hypothesis

In our research, bribery is the payment of cash by an organization with the aim of influencing the actions of a public official. A distinction can be made between *administrative* or *bureaucratic corruption*, which refers to paying bribes for services concerning the implementation of regulations, and *state capture*, where firms try to influence the formulation of laws and other government policies to their own advantage through illicit or non-transparent means (Fries, Lysenko, & Polanec, 2003). The former includes regular payments of relatively small amounts of money by small- and medium-sized organizations to officials; and the latter relatively large amounts infrequently paid by in particular large organizations to political leaders. We focus on the first category as it establishes a direct link between the volume of the bribes and entrepreneurial returns. For instance, in the Vietnamese context, entrepreneurs must acquire the consent of officials in order to start their business and to carry out their investment plans. A small amount of cash money may help to speed up the delaying bureaucratic process.

Bribery activities have a demand and a supply side and may involve public or private sector institutions (Cuervo-Cazurra, 2006). There is a substantial amount of research aimed at understanding the characteristics of countries or public institutions that affect the demands for bribes (Wu, 2005). From these studies we know that national levels of bribery relate to socio economic factors (Getz & Volkema, 2001) and that bribery may hinder the entry of multinational enterprises (Uhlenbruck, Rodriguez, Doh, & Eden, 2006). This line of research also offers various explanations to explain bribe extraction by bureaucrats. For example, an often-used approach to explain the incidence of bribery is the so-called Klitgaard formula, according to which bribery positively depends on the monopsony power of government officials and their bureaucratic discretion and negatively on their accountability (Klitgaard, 1988). An alternative explanation is the wage level in the public sector, that is, civil servants with low wages need to supplement their income with bribes to reach an acceptable income level (World Bank, 2000).

Contrary to the aforementioned research, the focus of our article is on the supply side of bribery and on the entrepreneur as the unit of analysis (cf. Aidis & Van Praag, 2007; Martin et al., 2007). The payment of bribes by entrepreneurs to government officials needs to be put into the perspective of the transition economy because the weak institutional environment promotes the need to establish and maintain political connections (Peng & Luo, 2000). We will argue that a multi-level and interdisciplinary analysis is a viable approach to understand bribery determinants. The entrepreneur is a first level of analysis. In line with human capital theory (Marvel & Lumpkin, 2007), we suggest that well-educated entrepreneurs would see and capture bribery opportunities better than less-educated entrepreneurs because of their superior cognitive skills. The organization is a second level of analysis. In line with bargaining theory (Svensson, 2003), we may understand that small- and medium-sized firms are more likely to pay bribes because they have less resources to tap than their larger counterparts in the bribery game. The

environment of an organization is a third level of analysis. Following anomy theory (Martin et al., 2007), we can explain that bribery offers entrepreneurs a unique tool to counter hostile industry conditions.

In order to explore the second research question, we will analyze the positive effects of bribes and explain why bribes may be subject to diminishing returns. Diminishing returns means that at any single point in time, holding all other resources constant, the benefit–cost ratio diminishes with the size of the bribe. Diminishing returns offers a feasible perspective for entrepreneurs in transition economies because they are usually very small firms and therefore their production capacity, level of innovation, labor input, and capital stock is fixed, at least in the short run. Bribery is among the few instruments that can be varied on the short term, but given the peculiarities of entrepreneurs in transition economies, is expected to have a diminishing marginal return.

We will argue that bribes facilitate entrepreneurship performance through higher levels of social capital. Building such social capital will have a positive effect on performance through at least two different interdependent channels of influence. First, bribes increase trust and establish a shared belief of reciprocity (cf. Graeff, 2005). Through bribes, entrepreneurs obtain favorable treatment that will increase their revenues because it enables them to win government projects or to obtain loans. Second, bribes are investments in networks that overcome liabilities of "newness" or "smallness" (Aldrich & Auster, 1986). Favorable relationships with public officials provide entrepreneurs legitimacy and thus decrease the risk for closure. These network effects may be subject to diminishing returns because of firm-specific congestion effects. All else equal, the positive performance effect of an additional unit of bribery will decrease because particularly small- and medium-sized organizations cannot unlimitedly absorb new opportunities that bribes create (cf. Yiu & Lau, 2008). In addition to the two network arguments, bribes can also be considered as "grease money," meaning that paying bribes will speed up the bureaucratic processes (Kaufmann & Wei, 1999). It reduces delay in moving files in administrative offices and in getting ahead in slow-moving queues for government services as well as the relaxation of audits and inspections or advice on legal ways of reducing the regulatory burden. This will increase the efficiency of the entrepreneur and will be reflected in higher revenues.

There are also at least four rationales supporting the possibility that bribery may be an impediment to the revenues of entrepreneurs. The four rationales are arguments that the entrepreneur in a transition economy does not have control over the amount of bribes. Therefore, there is a tendency to bribe past the point where it is justified by the marginal benefits. First, bribes may increase rather than decrease the costs of red tape (Kaufmann & Wei, 1999). Entrepreneurs that pay bribes are more likely to be under bureaucratic control and are therefore more exposed to bribe demands (Svensson, 2003). These entrepreneurs will pay higher bribes in an effort to reduce the cost of red tape, but despite the higher bribes they will have more and more regulations and arbitrary behavior to deal with. Second, bribes may have crowding out effects and opportunity costs. They create disincentives for investments in innovation, which limits the potential scale and scope economies as financial and human resources are misallocated and wasted (Bardhan, 1997). Third, bribes breed bribes. In a way, this density-dependence effect is a reflection of economics' Law of Say in the bribery arena. By introducing a bribe, demand for additional bribes is boosted as officials are triggered to ask for more, being aware of the potential to regulate. As a consequence, the growth in bribes increases as the volume of bribes goes up, implying that bribery expand almost of its own accord. Because of the effect on the number of bribes, high volumes of bribes are expected to be less effective than small volumes. In a transition economy, a public official may try to extract as high a

bribe as possible—subject to the virtually non existent constraints that he/she might get caught—using all the power at their discretion for personal gain. Hence, entrepreneurs are either forced to pay bribes or to exit. Given that exiting is not a viable situation for entrepreneurs—due to high costs of starting up a new firm and because this new firm would face bribery again—entrepreneurs are easily trapped into vicious circles of ever-increasing bribes that absorb resources and limit revenues. Fourth, a disadvantage of a network is that it increases liabilities of "staleness" and "sameness" (Starr & Bygrave, 1991). The former means that the entrepreneur will base guidelines and shortcuts on a relatively small sample of actors, which may impair the entrepreneur's ability to bring a new perspective on business activities. The latter implies that entrepreneurs often favor familiar circles of network relationships. Uzzi (1997) argues that such embeddedness initially promotes economies of time, integrative agreements, and complex adaptation. However, these positive effects rise up to a threshold, after which embeddedness can derail economic performance by making firms vulnerable to exogenous shocks or by insulating them from information that exists beyond their network. Consequently, putting strong and increasing, excessive emphasis on bribery may lead to liabilities of staleness and sameness, which may lower entrepreneurial performance.

In sum, we argue that in transition economies, bribery can be revenue-enhancing but will be subject to diminishing returns. The arguments above lend support to the following hypothesis:

> **Hypothesis:** There will be an inverted u-shape relationship between bribery and entrepreneurship performance.

Research Methods

Research Context

Among the transitional economies, Vietnam is one of the least studied, in particular in terms of entrepreneurship performance. Vietnam offers an interesting research context, for it is an extreme case in its lack of formal market-institutions but it reports a robust growth of *de novo* private firms (Heberer, 2003).[1] The country is the third largest transitional economy after China and Russia, with 80% of its population of more than 80 million people living in rural areas (Masina, 2006). Despite its rich natural resources, Vietnam remains a poor country with per capita GDP at US$ 832 (in 2007). The war for independence against the French stretched from the late 1950s to the early 1960s leading to the division of the country into North and South. This was soon followed by the war against the United States, which continued until the country was reunited in 1975. Under the rule of the Vietnamese Communist Party, Vietnam's economy was built on a Soviet-style central planning model. This was not successful, and by the mid-1980s, Vietnam was close to bankruptcy after the withdrawal of Soviet assistance and several years of conflict with China. Prior to the mid-1980s, essentially all economic activity in Vietnam was undertaken by state firms or cooperatives. The transition to a market economy began in

1. For example, the four main state-owned banks account for approximately 80% of total Vietnamese bank assets and prefer to support state-owned enterprises rather than entrepreneurs, who often have insufficient reputational capital and are therefore considered high-risk borrowers (Masina, 2006). The costs and delays of setting up a business are on average much higher in transition economies. In Vietnam, an official application takes nearly six months and costs 150% of per capita gross domestic product (GDP) in government fees (McMillan & Woodruff, 2003).

1986 when a series of economic reforms (*doi moi*) were introduced. Most importantly, under state supervision, entrepreneurship was encouraged.

Along with other Asian countries, Vietnam has a reputation for bribery; for decades it has been among the top 10 of the most corrupt countries (World Bank, 2000). There have been many attempts by the Vietnamese government to limit bribery by means of legislation, sentencing people to long periods in prison, or even imposing the death penalty (Johnson, Kaufmann, McMillan, & Woodruff, 2000). Nonetheless, bribery continues to exist. There are at least three explanations for the persistence of bribery in Vietnam. First, bribery tends to take place in secret; no contracts are written, making it hard to detect in the first place (Bardhan, 1997). There are many cases where bribery is mutually beneficial, which fosters tacit collusion between the participants. Furthermore, policy measures aimed at detecting and correcting bribery have to be sustained over long periods of time in order to be credible. The campaigns in Vietnam are usually *ad hoc* and induce bureaucrats to direct bribery transactions towards lower-detection activities (McMillan & Woodruff, 2003). Also, the content of anti-bribery regulations in Vietnam is often complex and of a low quality. The resulting difference between "law on paper" and "law in reality" has often created more rather than fewer opportunities for bribery. Second, those who complain may, in turn, become the subject of retaliatory measures themselves. Many Vietnamese do not feel guilty about their own personal attempt at bribery (Masina, 2006). Close family and business structures (*guanxi*) are an integral part of Vietnamese society. It is widely accepted that these social relationships have to be fostered through favors, gifts, or hospitality such as invitations to restaurants or karaoke bars. Those who oppose bribery become outcasts in a society where bribery has become an ever-present and "legal" phenomenon that extends throughout all areas of life (Heberer, 2003). Third, Vietnam is a growing and strongly decentralized economy. It is a state with an advanced system of permits and licenses that especially affects entrepreneurs because their activities need government approval. As the economy expands and becomes more complex, public officials see more opportunities to make money (Bardhan). Different agencies, ministries, and local governments have broad autonomy to introduce their own regulations. Subsequently, they all set their own bribes in order to maximize their own revenues. Hence, bribery also persists due to a decentralized local government with badly trained and poorly paid bureaucrats who operate in a poorly developed institutional framework and use all power at their discretion to maximize their income.

Sample and Data Collection Procedures

Much anecdotal and case-study evidence of bribery in Vietnam is available (Heberer, 2003; Masina, 2006; World Bank, 2005). Case studies help to identify and explore processes, and for that reason many bribery studies have used this method to investigate particular bribery-related events. From these studies we have learned about the structure and methods of bribery. Using case studies, researchers revealed insights into the origin, flow, and process of network-based bribery, and the role of bribery methods such as red-envelope (money payment), adult entertainment, and power exchange. Notwithstanding the importance of case studies, they focus on single events and therefore lack the scope needed to generalize findings, determine correlations, and discuss causalities. This study intends to move beyond case-study literature and to collect firm-level information for a sample of companies. Although our survey method has limitations—which we will elaborate on in the discussion section—the data have enabled us to develop a good insight into both factual information and subjective interpretations concerning the role of bribery in entrepreneurial performance.

In Vietnam, secondary data can be easily collected for each province, using local administrative offices such as those concerned with statistics, investment, and tax, but these data are often aggregated and thus are not applicable at the firm level. For this reason, the key activities of our research project included the design and implementation of a large-scale business survey to collect firm-level information. Such business surveys are rare in Vietnam. One of the implications is that business managers will not be used to providing confidential business information to outsiders or to providing opinions on Likert-scale-rated questions (see, e.g., Aidis & Van Praag, 2007, for a list of similar challenges). This article will apply a data set from 2004.

Our research proceeded in three stages. In the preparatory phase of the fieldwork, we revised an existing business questionnaire (Le, 2003), discussing it with researchers and business practitioners, and consulting other business questionnaires. Next, we implemented several pilot surveys in two provinces of the Mekong River Delta, namely Can Tho and Kien Giang. This resulted in a number of modifications to the questionnaire. The final questionnaire contained 35 questions that offered us the chance to measure our constructs. Additionally, we also learned that personal interviews would be the best strategy for collecting firm-level data in Vietnam. The reason for this was two-fold. First, given the sensitive nature of some of the questions (e.g., bribery and revenues), we expected a very high level of non-response from a mail survey (computerized surveys via the Internet are not a feasible alternative at this moment in Vietnam). Personal contacts are pivotal in the Vietnamese (business) culture. Bribery, for example, is a well-known phenomenon and to some extent a subject for debate, but then only in a personal conversation. Second, while secondary data first provided us with a list of private firms, we doubted the reliability of this data due to the fact that it was not up-to-date, especially with respect to the number of newly established firms, mergers, or changes of ownership type. Therefore, it was decided that a personal interview with business managers would be the best strategy in order to collect our required data in Vietnam.

In the second stage, a team of interviewers was trained, consisting of teachers and students from the School of Economics and Business Administration, Can Tho University, Vietnam. The selected interviewers were required to have experience in conducting surveys. We trained the interviewers on the key topics of the survey. We also made them aware of the importance of the data they would be collecting for the university, with the intention of motivating the interviewers to take personal responsibility for the data collection as a means of improving data quality. The interviewers were generally younger than the participants and hence, not a threat for the entrepreneurs. In addition, the interviews were conducted in the local dialect of Vietnamese, which interviewees respond to more easily, making their answers more precise. In the third stage, we conducted intensive interviews with entrepreneurs of 606 firms identified in six out of the 13 provinces of the Mekong River Delta (one of which had recently been reclassified). The reason we concentrated on the Mekong River Delta was because it has shown a significant increase in the number of private firms in recent years, the performance of which is differently reflected in profits. Additionally, the key role of private firms in this region contributes greatly to the GDP of the entire country. The six provinces were Kien Giang, An Giang, Dong Thap, Can Tho, Vinh Long, and Soc Trang. Because of cost-efficiency reasons, we concentrated our efforts on these six provinces; the density of firms is the greatest in these provinces.

We did not select a sample prior to the interviews; rather, the sample was selected on the basis of those entrepreneurs willing to cooperate. The interviewees were either the owners or the persons who directly managed the company, who we define as

entrepreneurs.[2] Demographic studies in advanced economies tend to focus on the role of the top management team because many companies are large and are supervised by teams. In Vietnam, however, the entrepreneur is the most appropriate unit of analysis because decision-making power is predominantly centralized in the hands of this person, especially when the person is also the owner, as is often the case. The entrepreneur has the power to make final decisions and has a direct impact on any strategy. If the prospective interviewees agreed, we started to interview them; whereas, if they refused, we apologized and proceeded to the next firm. The questionnaire was conducted only if the owner was available to answer personally in order to obtain complete and correct information. If the prospective interviewees were absent, we left the questionnaire and returned having made a new appointment. At the start of the interview, the interviewers showed their university employee card and an introduction letter from the Dean of the university that, among other things, ensured full anonymity of the company and of the information provided. During the interview, the main topics, such as work experience, education, investment, loans, and industry context, were discussed. Some extra questions were added to invigorate the interview and to enable the respondents to tell their own story to some extent.

This approach resulted in a satisfactory response rate. We contacted approximately 1,000 prospective firms and obtained 606 useable responses. Occasionally, this sample included missing observations for particular items. For our regression analysis, we deleted all observations with missing values on any questionnaire item. This resulted in a conservative dataset with 395 full observations, giving an effective response rate of approximately 40%. This response rate is considered to be adequate for analysis and reporting (Aidis & Van Praag, 2007). The reasons for not participating in the survey included not wishing to disclose information, being too busy, or feeling uncomfortable when being asked about their business. We were not able to collect information from the non-respondents. Often, survey research collects data from secondary data sources on simple but key characteristics, such as firm size or turnover, and applies bivariate tests to determine whether significant differences between the sample and non-respondents exist. This information was not available, and for that reason, we were not able to perform sample bias tests. Although this contributes to the exploratory nature of our research, we believe that the quality of the survey, the interview process, and the substantial number of respondents ensures sufficient confidence in the quality of the data set (for an extensive discussion on related methodological issues in entrepreneurship research, see for example, Coviello & Jones, 2004).

Control Variables

We entered three sets of controls when we tested the hypothesized relationships. The first set concerned the human capital of the entrepreneur (Wright, Hmieleski, Siegel, & Ensley, 2007). Entrepreneurs may increase their human capital through work experience and formal and informal education. The longer an entrepreneur has held a management position in the focal firm or elsewhere, the more work experience has been gained. This

2. We take a broad view of entrepreneurship, focusing not only on the creation of new business organizations, but also on the generation of new economic opportunities (Casson, 2003). A person can be said to engage in an entrepreneurial venture if she perceives and creates new products, services, organizational schemes, or product market combinations; and introduces her idea in the market, in the face of uncertainty and other obstacles by making decisions on location, form, and the use of resources and institutions (Wennekers & Thurik, 1999). Our respondents meet these criteria. All private firms in our sample are *de novo* enterprises and not *ad hoc* spin-offs from state firms.

is important because, for example, entrepreneurs with a great deal of experience tended to put more weight on the process of developing formal strategies than those who lack the relevant managerial work experience. The level of formal education was defined as having an official degree as a result of full-time or long-term training, and it measured an individual's knowledge or competence base. Entrepreneurs with higher levels of formal education were expected to generate a wider range of creative solutions when faced with complex problems. The level of informal training was determined by participation in management courses, including short-term ones (post-graduate education). These investments in human capital would also foster the productivity and cognitive skills of the entrepreneurs. The second set concerns firm characteristics, that is, firm age, firm size, and the firm's type of ownership. The age of a firm may be a potential moderator of a firm's financial value as generated by managers (Jayaraman, Korona, Nelling, & Covin, 2000). Older firms may have lower performance levels than younger ones because of the continued use of outdated management and/or obsolete technology and their resistance to new approaches. Previous literature has documented firm size as an organizational attribute that significantly impacts firms' strategic orientation and performance (Peng & Luo, 2000). Specifically, large firms enjoy advantages such as low costs and higher returns due to greater access to the capital market and economies of scale. The ownership structure may influence firm performance. For instance, with substantial ownership of cash-flow rights, sole proprietorship provides the incentive and power to undertake actions that will benefit the owner at the expense of the firm's performance. In contrast, firms with shareholders are presumed to evaluate investments using market-value rules that maximize the value of the firm's residual cash flows (Anderson & Reeb, 2003). The third set concerns the industry context. Firms in new, expanding industries are expected to perform better than those operating in old, declining industries (in Vietnam, the new industries are predominantly service-related, which are usually more relationship-intensive and rely more on external resources). Our final control variable was the level of competition. Some firms operated in emerging markets, that is, in new markets characterized by modest competition due to low demand and high uncertainty, since potential customers are often unfamiliar with the products and services offered (Eisenhardt & Schoonhoven, 1990). Others operated in growth markets that were characterized by severe competition due to high rates of entry.

Measurements

We measured entrepreneurship performance using the natural logarithm of the firm's total revenues in 2004 (in millions of Vietnamese dong). Total revenue is a commonly used item in firm surveys because, among other things, respondents have instant and accurate knowledge of their enterprise's achievements in terms of yearly revenues (Brush, Manolova, & Edelman, 2008; Kurakto & Audretch, 2009; Murphy, Trailer, & Hill, 1996). Bribery is measured by the amount of money that the enterprise pays to government officials to conduct their business (in millions of Vietnamese dong per year).[3] Work

3. The question was asked in Vietnamese. We used the usual forward and backward translation process to obtain the English version. The specific question was: "Monthly, how much must your enterprise pay 'to lubricate' its business affairs." The expression "bôi trơn" in the original Vietnamese question literally means "to lubricate." This is a colloqial, synonym reference to money paid as bribes at government offices or administrative regulators. The closest English equivalent is "to grease someone's palm." In the survey, we explicitly defined "to lubricate" as money spent. Our measure does not include other forms of bribery such as gifts that may have monetary value as well. Our measure is very similar to the ones used by Transparency

experience was measured by the total number of years the respondent had worked for both the focal firm and at other firms (Hambrick & Fukutomi, 1991). Formal education was measured by a dummy variable that equaled 1 if a respondent had a university degree, and 0 otherwise (Aidis & Van Praag, 2007). Informal education was measured by the number of times a respondent had participated in management training courses (Aidis & Van Praag). The age of the company was calculated by subtracting the year the firm was founded from the current year (Goll & Rasheed, 2005). Firm size was measured by the actual number of employees who in 2004 worked frequently for the company (Peng & Heath, 1996).[4] Firm ownership was measured by a dummy variable that equals 1 if the firm was a sole proprietorship, and 0 otherwise (Gundry & Welsch, 2001).[5] Our respondents operate in three main industries, namely services, trading, and manufacturing. We constructed two dummy variables to account for industry differences, that is, one for services (that equals 1 if the firm operates in the service sector, and 0 otherwise) and one for trading (that equals 1 if the firm operates in the trading sector, and 0 otherwise). Manufacturing was considered as the base case in the model and was thus not included. Competition is the final control variable in our model. We use a perceptual measure because, among other things, it has been argued that small- and medium-sized enterprises form their competitive maps based on perceived information and events (Daniels, Johnson, & Chernatony, 2002; Hodgskinson, 1997). In our survey, we asked the respondent's opinion of the level of competition in their industry. We measured the level of (perceived) competition using a dummy variable that equals 1 if the respondent indicates that the company operates in a sector with a high or very high competition level, and 0 otherwise (Lang, Calantone, & Gudmundson, 1997).

Empirical Results

Means, standard deviations, and correlations are provided in Table 1. The yearly untransformed average volume of sales in the sample was VND 4,522 billion (US$ 270,290, with the 2004 official exchange rate of VND 15,770 to US$ 1). Of the observations, 75% (297 firms) reported that they did not pay bribes. According to our data, for the firms reporting positive bribes, the yearly average amount of bribes that firms paid was VND 60.2 million (US$ 3,815). These are substantial amounts, on average corresponding to US$ 109 per worker, or roughly about 10% of the total cost.

International and the World Bank. Also, we asked the respondents to indicate the amount in thousands of Vietnamese dong per month. For the regression analysis, we transformed this into millions of Vietnamese dong per year in order to maintain consistency with the scale for firm performance.

4. As elsewhere, the number of employees in our Vietnamese organizations varied during the year. These entrepreneurs generally do not maintain employee records with, for example, employee contracts that would allow respondents to precisely determine start and end dates for all their employees. However, given the relatively small scale of their companies, the respondents knew the number of employees with fixed appointments as well as the number of persons they employed during peaks. The former category consisted of persons with an oral agreement concerning working hours and salaries (written employee contracts are rare in Vietnam) and who worked for the company throughout the year. We used this information to measure the size of the company. Our respondents also indicated the number of seasonal employees. We decided not to use this information because the length of peak seasons was not known and typically varies for companies and industries.

5. The type of ownership in Vietnam is determined by the Central Institute for Economic Management (CIEM). The rights and obligations per ownership type are specified in the Enterprise Law (CIEM, 2005). The Enterprise Law specifies five main ownership types: sole proprietorship, limited liability company, shareholding company, family business, and collectives.

Table 1

Correlations, Means, and SDs

	Mean	SD	1	2	3	4	5	6	7	8	9	10
Firm performance (lgsales)	6.40	1.86										
Bribery	16.15	77.40	.15**									
Work experience	8.05	6.55	.01	−.01								
Formal education	.22	.41	.25**	.18**	−.09							
Informal education	1.00	2.58	.21**	.06	−.01	.11*						
Firm age	7.76	7.72	−.11*	−.08	.63**	−.19**	.06					
Firm size	18.54	58.03	.30**	.17**	.05	.11**	.18**	−.03				
Firm ownership	.52	.50	.10*	−.02*	−.11*	−.01	.04	−.09	−.07			
Services	.16	.36	−.10	.09	−.08	.05	.07	−.14**	.17**	.01		
Trade	.50	.50	.10	.01	−.14**	.12*	.04	−.12*	−.17**	.04	−.44**	
Competition	.67	.47	.13*	.03	.02	−.02	−.01	−.06	−.02	.10*	.00	.05

* $p < 0.05$; ** $p < 0.01$, two-tailed test.
SD, standard deviation.

Including firms reporting zero bribe payments, the average payment is VND 16.1 million (US$ 1,024).

Characteristics of Bribing Entrepreneurs

We used our data to explore our first research question, that is, to analyze why some firms bribe and some do not. For this, we estimated a logit model differentiating the bribing and non-bribing firms using data on entrepreneurs' personal attributes, firm characteristics (excluding performance), and industry sectors (see Table 2). We measured the dependent variable by a dummy that equals 1 if the respondent indicates that the company paid a bribe, and 0 otherwise. In what follows, we offer a theoretical interpretation for each of these bribery determinants.

Work experience is our first demographic characteristic of an entrepreneur. Top management team literature emphasizes the importance of work experience particularly for the design of a firm's strategy (Finkelstein, Hambrick, & Canella, 2009). Experience might influence the likelihood of bribery because more mobile, short-term tenured entrepreneurs are more likely to engage in high-risk activities such as bribery. Working experience is associated with moral development, deliberateness in decision making, and more accurate diagnosis of the information. For that reason, entrepreneurs with much working experience are expected less likely to engage in bribery activities. Working experience, however, seems to be a less relevant determinant of bribery incidence. The impact of experience on the likelihood of bribery is positive but not significant (B = .02; not significant [n.s.]).

The second finding is at first sight perhaps counterintuitive: The higher the level of formal education, the more likely an entrepreneur will pay a bribe (B = .50; $p < .10$). By contrast, macro-level studies have found that countries with higher levels of education are positively correlated with lower figures of corruption (Ades & Di Tella, 1999; Treisman, 2000). This correlation, in turn, has been interpreted as proof that education decreases corruption supported by the argument that a more educated society would be expected to

Table 2

Antecedents of Bribery in Vietnam

	Model 1
Constant	−2.08*** (.41)
Characteristics-entrepreneur	
Work experience	.02 (.02)
Formal education	.50* (.29)
Informal education	.16*** (.05)
Characteristics-firm	
Firm age	−.02 (.02)
Firm size	.01** (.00)
Firm ownership	.49* (.26)
Industry sector	
Services	.84** (.37)
Trade	.06 (.31)
Competition	.06 (.27)
Fitness indices	
LR	42.56***
Pseudo R^2	.098

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$
LR, likelihood ratio.

tolerate bribes less (Rest & Thoma, 1986). However, there is a plausible explanation why more education results in a higher likelihood of paying bribes. Bribery is a complex strategic tool because it involves uncertainty and ambiguity. Entrepreneurs must select appropriate information in order to offer the appropriate bribe to the appropriate official at the appropriate time. In line with human capital theory (Marvel & Lumpkin, 2007), well-educated managers would see and capture bribery opportunities better than less-educated managers because of their superior awareness levels, cognitive skills, and decision-making capabilities. Thus, entrepreneurs that are endowed with superior human capital are better able to effectively plan and play bribery games to their advantage (cf. Guerrero & Rodriguez-Oreggia, 2008; Olken, 2009).

Our third finding concerning entrepreneurial characteristics is in line with the previous one. Attending (short-term) management courses allows entrepreneurs to update their business competencies and knowledge. Like formal (higher) education, these investments in human capital will improve the cognitive skills and competencies of entrepreneurs and, as such, increase the likelihood of bribery (B = .16; $p < .01$). The content of business courses offers an additional explanation for the significant effect of informal training on bribery incidence. As mentioned previously, the level of education often is positively associated with the level of moral development. However, it is argued that *business* education may cause a *decline* in moral development because these programs typically focus on learning competitive strategies that stress the importance of free riding, defection, and selfishness (Goshal, 2005; Williams, Barrett, & Brabston, 2000). Additionally, management courses are often attended not only to update knowledge and improve managerial skills but also to initiate and develop personal networks. Privileged knowledge is the key advantage of a business network. Hence, by attending management courses, entrepreneurs may build networks and learn about prevailing norms and practices of bribery (Brass, Butterfield, & Skaggs, 1998). Informal education is often organized by

government institutes and participated in by government officials as well. The effect of a social network can be pervasive because existing network members might enforce their norms to new participants at the threat of exclusion from the network (Cartier-Bresson, 1997).

Our second set of bribery determinants concerns the characteristics of the firm. The age of the company is our first firm-level characteristic. It stands to reason that young private firms are more likely to pay bribes than established companies because bribes help to develop a network of relationships with government officials, which, in turn, helps them to overcome "liabilities of newness." Such government networks enable access to economic resources and relevant, exclusive information. Firm age, however, seems to be a less relevant determinant of bribery incidence. The impact of firm age on the likelihood of bribery is negative as expected but not significant (B = –.02; n.s.).

Table 2 confirmed that the size of the organization increases the likelihood of paying a bribe, a finding that can be supported by the bargaining theory of bribery (Svensson, 2003). If all firms face the same set of rules and regulations, then the bribe to be paid depends on the bargaining power of the firm. The bargaining theory suggests that the amount a firm is requested to pay depends on the officials' perception of the firm's ability to pay, which varies from firm to firm. The size of the company is a proxy for a firm's bargaining power. Small- and medium-sized firms are more likely to pay a bribe than their larger counterparts because large companies can use their resources to influence public officials or pursue legal action. Furthermore, larger firms are more established and connected, do not fear exiting the market, are less likely to be harassed and for that reason, have better bargaining positions (McKendall & Wagner, 1997). Smaller firms, however, have fewer resources and are therefore perceived by officials as "ideal" trading partners. The fact that we find a significant positive effect of firm size on the likelihood of bribery (B = .01; $p < .05$) supports the bargaining hypothesis because our sample is dominated by small- and medium-sized enterprises.

The type of ownership is relevant for the incidence of bribery as well. Theoretical support for the observed positive relationship between single proprietorship and the incidence of bribery (B = .49; $p < .10$) derives from agency theory (Fama & Jenssen, 1983). Stockholders of large publicly held corporations delegate decision making to managers. Among others, large companies have boards of directors or audit committees that monitor the behavior of managers and, as such, limit the incentives and opportunities for bribery. An entrepreneur who owns the company by himself has a strong motive to maximize company performance—because company performance is almost synonymous to personal income—and he or she operates without any form of supervision. Due to these incentives and opportunities, firm ownership in terms of single proprietorship contributes to the likelihood of bribery as is confirmed in our sample.

Our third set of bribery determinants concerns characteristics of the environment in which the entrepreneur operates. Anomie theory is one of the leading sociological theoretical frameworks that helps to understand deviant behavior, such as bribery, due to peculiarities in a context (Merton, 1968; Zahra, Priem, & Rasheed, 2005). At societal level, anomie theory proposes that individuals who are unable to achieve their aspiration by conventional means experience strain and may seek to relieve this strain by using deviant means such as violence. Hence, in anomic organizational contexts, pressures exist to take any path that leads to the achievement of organizational goals, regardless of its acceptability or legitimacy (Martin et al., 2007). Table 2 offered partial support for the anomie hypothesis. On the one hand, it supported the perspective that a firm's industry may be a good way to understand the likelihood of bribery. Challenging conditions in the service sector—such as short investment horizons and decreasing financial returns due to

environmental hostility or heterogeneity—explain that firms in this industry are more likely to bribe government officials (B = .84; $p < .05$) than firms in other industries such as the trade sector (B = .06; n.s.). On the other hand, we do not find support for the impact of perceived competition on the likelihood of bribes (B = .06; n.s.).

In summary, our significant results suggest that particular entrepreneurial-, firm-, and industry-specific characteristics affect the likelihood of bribes. An interdisciplinary model that integrates theoretical perspectives along the lines as we suggested above offers a unique opportunity to understand why some firms bribe and others do not.

Bribery and Entrepreneurship Performance

We continue with the analysis of our second research question. Results from the hierarchical ordinary least squares (OLS) regression analyses are summarized in Table 3. In preparation for the regression analyses, we performed the regular tests to obtain reliable estimates. These tests reported satisfactory results, that is, there is no heteroskedasticity, multicollinearity, or serial autocorrelation. Among other things, we tested for possible bias caused by collinearity among variables by calculating the variance inflation factor (VIF) for each of the regression coefficients. Calculations of VIF ranged from a low of 1.05 to

Table 3

Regression Results of the Effect of Bribery on Vietnamese Entrepreneurial Performance

	Model 1	Model 2	Model 3
Constant	5.52*** (.25)	5.52*** (.25)	5.51*** (.25)
Control-entrepreneur			
Work experience	.11* (.02)	.10* (.02)	.10* (.02)
Formal education	.19*** (.21)	.18*** (.21)	.18*** (.21)
Informal education	.15*** (.03)	.15*** (.03)	.14*** (.03)
Control-firm			
Firm age	−.15** (.01)	−.14** (.01)	−.14** (.01)
Firm size	.28*** (.00)	.28*** (.00)	.26*** (.00)
Firm ownership	.11** (.17)	.11** (.17)	.10** (.17)
Control-industry			
Services	−.16*** (.26)	−.16*** (.26)	−.18*** (.26)
Trade	.04 (.19)	.04 (.19)	.04 (.19)
Competition	.11** (.18)	.11** (.18)	.12*** (.18)
Independent variable			
Bribery		.06 (.00)	.34*** (.00)
Independent variable-square term			
Bribery^2			−.29** (.04)
Fitness indices			
R^2	.225	.228	.241
Adj. R^2	.207	.209	.219
F	12.453***	11.397***	11.027***
ΔR^2		.003	.013
F ΔR^2		1.692	5.878**

* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Note: The entries in the table are standardized coefficients (βs). The numbers in parentheses are standard errors.

a high of 7.64. The higher values were for bribery and the squared term of bribery but all were well below the cut-off figure of 10 recommended by Neter, Wasseman, and Kutner (1985).

The various fit parameters show that our model increasingly fits the data better. The R-square index improves from 22.5% in Model 1 to 22.8% in Model 2 ($F = 1.692$, n.s.) and, subsequently, to 24.1% in Model 3 ($F = 5.878$, $p < .05$). Also, the estimates remain robust in terms of signs and significance levels. In Model 1, log revenues were regressed on control variables. In Model 2, bribery was added. Surprisingly, bribery had a positive but nonsignificant effect on performance ($\beta = .06$; n.s.). The bribery variable also explained only a marginal additional percentage of the variance beyond that explained by the control variables in Model 1. This indicated that in Vietnam, there is no direct relationship between bribery and revenues. However, when we entered the squared bribery term in Model 3, we found that the bribery term was positive and significantly related to revenues ($\beta = .34$; $p < .01$), and the squared term negative and significantly related to revenues ($\beta = -.29$; $p < .05$). The size of the estimated coefficients for bribery is among the largest compared with the estimated coefficients of the other variables in the model indicating the relative importance of bribery for entrepreneurship performance. Taken together, these results confirmed our hypothesis that bribery has a diminishing return to entrepreneurial performance.[6]

Among the control variables, Table 3 showed that all entrepreneurial characteristics fostered entrepreneurship performance. Thus, work experience ($\beta = .10$; $p < .10$), formal education ($\beta = .18$; $p < .01$), and informal education ($\beta = .14$; $p < .01$) each significantly improve the revenues. These relationships were in line with our expectations. The results also validate the incorporation of our firm characteristics. Conforming to expectations, firm age was negatively ($\beta = -.14$; $p < .05$), and firm size ($\beta = .26$; $p < .01$) and sole proprietorship ($\beta = .10$; $p < .05$) were positively related to revenues. Finally, Table 3 reports that entrepreneurs who operate in service industries report mediocre performance more often than those who operate in other industries ($\beta = -.18$; $p < .01$), albeit that the dummy for trade reports has a positive but non significant effect on revenues ($\beta = .04$; n.s.). A high level of competition as perceived by our interviewees increased performance as expected ($\beta = .12$; $p < .01$).

Robustness Tests

We performed five additional tests of robustness. First, we replaced the missing value for a particular question by an estimated mean value of that question. By doing so, we were able to include all 606 observations, to compare the regression models and determine whether a sample bias existed. It turned out that the regression results were the same as for the conservative data set. Additionally, a one-way analysis of variance test was employed to compare the final sample and the cases deleted. No significant difference was found in terms of industry, size, bribery, and revenues. Second, although all of our VIF values are well below the threshold value, in an additional test, we mean-centered bribery to minimize the threat of multicollinearity in equations where we had included the squared term of bribery. This did not affect the regression results. Third, we re-estimated our model for a sample without potential outliers. This also did not change the results. Fourth, we estimated our model for a sample with firms that pay positive bribes ($n = 106$). Accounting

6. Because the log function is monotonic, this result applies to the relationship between revenue and bribery as well.

for outliers, the results from this test confirmed the non-monotonic relationship between bribery and firm performance in terms of revenues (log), by and large. Fifth, we also estimated a set of regression models with net profits as the dependent variable ($n = 363$, the number of observations is somewhat smaller due to missing values for net profits). Accounting for outliers, these results also showed a non-monotonic relationship between bribery and net profits. Separate tables for these robustness tests are available from the first author upon request.

Limitations

Our study is not without limitations. First, the use of cross-sectional data from Vietnamese entrepreneurs in the Mekong River Delta limits the generalizability of our results. Second, it is well known that cross-sectional databases prevent intertemporal, causal analysis of processes that determine the outcomes observed with the use of a questionnaire. Third, a lack of other financial measurements for performance, such as market share or sales growth, limits us to using revenues as a performance measurement (with the exception of net profits, see the robustness tests for this). Within the entrepreneurship literature, entrepreneurial performance can be revenues but it can also be the launching of the venture, survival after a number of years, growth, or value created. The sets of determinants for these alternative measures overlap but may not completely coincide. Similarly, our measure for bribery considers solely payment of cash. The interaction between an entrepreneur and a public official may also incorporate other forms of bribery. For example, entrepreneurs may indirectly spend money on bribery via e.g., gifts or visits to bars. Our measure may understate the total amount of bribes paid when direct and indirect expenditures go together. New data with other bribery measures not only allows us to test the role of different forms of bribery but also whether our measure understates bribery and how this matters for the performance of entrepreneurs.

Fourth, the concept of diminishing returns applies to a single firm situation. We test our proposition in a cross-section sample of firms with the presumption that the firms are homogeneous. This presumption is a limitation and contributes to the exploratory nature of our research. We would like to mention that our approach is common practice in management research. Individual decisions and behavior such as the development of trust, for instance, are often tested with cross-sectional data (Chua, Ingram, & Morris, 2008; Welter & Smallbone, 2006). Nonetheless, more research including longitudinal data is needed to overcome this limitation.

Fifth, our results may be biased because our analysis was based on a nonrandom survey. A random data set in Vietnam was difficult because a list of Vietnamese entrepreneurs in general as well as of those who bribe in particular was not available. Similarly, we used one respondent per company to obtain our information. Our assessment relies on the personal judgments of these individuals, which is a recognized limitation of the study. Although management research often obtains reliable information from single respondents (Seppännen, Blomqvist, & Sundqvist, 2007), bias may exist due to a person's vested interest in the practices being described. For larger organizations, it is a question to what extent a single respondent represents the overall firm. Bias may also exist because we measure all our constructs from one survey (no secondary data were available to apply triangulation) and we did not use multiple questions to measure bribery. As a result, respondents may have reported too high or too low levels for bribery and revenues. Our focus, however, is not on levels of bribery and revenues per se, but rather on the correlates (cf. Svensson, 2003). We believe that the data-collection strategy has minimized bias in the correlation between our key variables. The whole survey instrument was carefully

piloted and built on existing surveys. The survey was implemented by academic researchers whom most entrepreneurs had confidence in—in Vietnam there is a deep-rooted distrust of the government—and so avoided the problem of suspicion by the entrepreneurs concerning the objective of the data-collection effort. Furthermore, the sequence of the questions first addressed the overall performance and the background of the entrepreneur. The bribery question was asked in the middle of the interview, by which time the interviewer had established some necessary credibility and trust. The questions were simple and we used different scales for revenues and bribery. Nonetheless, bias may exist and a replication of our study with, for example, more and other questions concerning bribery would allow for cross-validation of the non-monotonic relationship between bribery and revenues that is reported here.

Conclusions

Added Value of the Research

The role of entrepreneurs in economic theory and in Western economies is well established (Brush et al., 2008; Low, 2001). By the same token, we suggest that entrepreneurs play an important role in transition economies as well (cf. Yamakawa, Peng, & Deeds, 2008). They create employment, productivity growth, and innovation, and produce important spillovers that affect regional economic growth. Until now, the performance of entrepreneurs in transition economies in general and that in Vietnam in particular has largely remained unaddressed. Svensson (2003) offers a landmark study concerning firm-level antecedents of bribery in developing economies. Based on quantitative information of 176 Ugandan firms, he shows that firms' "ability to pay" and firms' "refusal power" can explain a large part of the variation in bribes across graft-reporting firms. Our focus on the bribery-performance relationship, research setting, and particular set of bribery antecedents adds to Svensson's contributions. In particular, our added value to the field of research is threefold. The first contribution concerns the role of bribery in transition economies. The results have implications for and must be taken into consideration in entrepreneurial decision making. Our emphasis on bribery complements recent performance literature that focused on human capital (see, for instance, Van Praag & Versloot, 2007). Notwithstanding the importance of these and other performance antecedents, we argue that bribery is key for entrepreneurs who operate in a business environment with insufficient formal institutions, and that is dominated by a dual market structure (state versus non-state-owned enterprises) and powerful government officials who, among other things, preferentially distribute government resources. The precise form of the relationship between bribery and entrepreneurship performance is, however, an open question. Bribes enable entrepreneurs to use government resources, avoid red tape, and thus foster revenues. We suggest, however, that bribes are subject to diminishing returns because high levels of bribes increasingly absorb the returns on entrepreneurial activities, and distort entrepreneurial spirit and behavior.

The second contribution concerns the empirical study. In the analysis of the relationship between bribery and entrepreneurship performance, we used unique firm-level data. Firm-level data is needed not only to understand bribery and how it works for entrepreneurs, but also to move beyond the available country- and individual-level studies. Our research was based on primary data collected from the owners directly responsible for their Vietnamese firms. The topic of research (i.e., bribery and revenues) and the research context (i.e., a transition economy) make large-scale empirical studies at firm level challenging. For example, there is no government database on bribing by firms; hence, a

database like ours is exceptional and shows that firm-level information on bribery can be collected by means of a carefully designed questionnaire and data-collection strategy (cf. Svensson, 2003).

Our third contribution derives from the significant empirical findings of our work. Measuring bribery with quantitative indicators is one thing, explaining variations in bribes is another. This study makes a contribution to the literature by simultaneously looking at how individual-, firm-, and context variables determine bribery incidence of entrepreneurs within a nation state. A combination of the significant results suggests that well-educated entrepreneurs with single proprietorship of small- or medium-sized service-delivering companies are more likely to bribe government officials than others. Furthermore, to the best of our knowledge, ours is one of the first that has explored the relationship in transition economies between bribery and entrepreneurship performance in terms of revenues. We found support for a diminishing return of bribery to revenues, while controlling for a substantial number of entrepreneurial, firm, and industrial characteristics. By doing so, we eliminated potentially spurious relationships as well as alternative explanations for entrepreneurship performance.

Future Research

Given the increasing focus on bribery and entrepreneurship performance in transition economies, our study can only be a first step. We would like to mention that Vietnam shares many similarities with its neighbors (Taiwan, Singapore, Hong Kong, and South Korea) as well as China. For more than 100 years, China occupied Vietnam. The countries share the cultural inheritance of Confucianism and have similarities in market structures, state ideologies, reform processes, institutional frameworks, and entrepreneurial vividness (Heberer, 2003). A next logical step would be to test our model in China and, in so doing, determine whether the role of bribery in entrepreneurship performance in these two countries is similar as well. In a similar vein, new data from entrepreneurs in Central and Eastern European countries or advanced nation states allow testing of the general validity of our findings in other transition economies and whether our perspectives hold for modern democracies as well. Although bribery is omnipresent in transition states, it is acknowledged that it also exists in Western economies (Wu, 2005). An international firm-level data set enables us to investigate the combined effect of macro- and micro-level variables on, e.g., the incidence of bribery payouts by entrepreneurs and, as such, to determine how the role of bribery for entrepreneurs varies across institutional frameworks. New data collection would also allow confirmation of the validity of our results by utilizing financial and non-financial performance indices other than revenues or net profits as well as alternative measures for bribery.

Our results only suggest that bribery may have a non-monotonic relationship with entrepreneurial revenues, while no evidence of causality can actually be provided. Although we provide theoretical arguments that bribery impacts revenues, one could also argue that revenues determine bribery. For example, some of the low-revenue firms may have small transactions that call for small bribes to local officials. Bribery in Vietnam, however, involves much asymmetric information. Government officials usually do not know the size of revenues of a particular entrepreneur either because the entrepreneur will not provide credible information or the entrepreneur lacks this information (a new entrepreneur does not yet know his revenues and costs). Government officials may use firm size as a proxy for revenues because large firms will likely earn large revenues. In that case, however, the reversed causality will likely run via firm size and may bias results for large companies (albeit that large firms will also have

more opportunities to impose political power or ignore bribery demands). Our Vietnamese respondents manage and own small and very small organizations, and size has been included as a control variable in our model. Furthermore, the Durbin-Wu-Hausman or augmented regression test reports that our OLS estimates are consistent, and therefore that endogeneity with respect to revenues and sales in our sample is of less concern (Davidson & MacKinnon, 1993). Nonetheless, additional longitudinal or lagged data will be needed to test alternatives and address the causality issue in more detail.

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