Local Governance and Business Performance in Vietnam:

The Transaction Costs Perspective

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Abstract: This paper adopts transaction costs perspective to explain why growth of small and medium-sized enterprises (SMEs) may vary across regions of an emerging economy. Furthermore, it is argued that young and small firms gain more from improvement of local governance than old and large firms do. In addition, depending on the institutional history, SMEs will respond differently to the incentives provided by local governance. Analysing more than 300,00 SMEs in Vietnam during the 2006-2012 period, it is shown that higher quality local governance positively influences local SME revenue growth; this effect is stronger for young and small firms, and matters more where institutional history suggests less support for entrepreneurship.

JEL codes: D02, H73, L25, L26

Key words: Transaction costs, governance, institutions, local government, entrepreneurship, Vietnam

INTRODUCTION

This article adopts the transaction costs / new institutional economics framework to examine how aspects of local governance affect business performance. The transaction costs that will be considered correspond to corruption and lack of transparency, which are functionally related (COLLIER et al., 2002; MCCULLOCH et al., 2013). Corruption relates to the power of public office being used as a rent-seeking tool for personal benefits, contravening the rules of the game (JAIN, 2001). Lack of transparency implies an uneven distribution of information among economic agents that are not dissimilar (DU and MICKIEWICZ, 2016). Both corruption and lack of transparency increase the transaction costs of doing business. Parallel to this, under a weak governance environment where regulatory frameworks are unclear and underdeveloped, the creativity, flexibility, and cleverness of local governments to interpret and implement central policies (as well as to design their own initiatives for the local entrepreneurship sector[1]) are particularly important. This is even more the case where the local officials are rewarded for local economic performance (WEINGAST, 1995). Nonetheless, this aspect of governance is largely ignored in existing literature[2].

This paper proposes that the above features of local governance affect the transaction costs that local businesses face and are therefore crucial for their performance (DAVIDSSON and HENREKSON, 2002; STENHOLM et al., 2013). It is moreover expected that local governance has more influence on the performance of young and small businesses than it has on the old and large ones (DU and MICKIEWICZ, 2016); and, as will be explored, it is here that the transaction costs perspective offers good insights.

However, local governance may be endogenous (SANTARELLI and TRAN, 2012). A province with a developed entrepreneurial sector may be subject to more pressure to improve the quality of governance. To address the direction of causality effect, this paper makes use of several instruments for assessing local governance quality, including the tenure of provincial leaders, the frequency of change in leadership, and the number of years that leaders stay in power (MCCULLOCH et al., 2013). These variables are strongly correlated with local governance quality but are uncorrelated with local firms' growth performance. The IV-GMM

technique is employed to analyse a panel of more than 300,000 observations of SMEs operating in 63 provinces of Vietnam during the 2006-2012 period, and the results support the positive effects of local governance quality on SMEs' growth performance.

It is also postulated that local governance matters more in those regions where institutional history renders less support for entrepreneurship: entrepreneurial performance may be also affected by long-term cultural persistence. To explore this, a historical event, exogenous to the development process of SMEs in Vietnam, is utilised: the 1954 Geneva Conference partitioned the country into two states, North and South Vietnam. The former was supported by China and Russia, and the latter was supported by the US (MAKINO and TSANG, 2011). In 1975 the North Vietnamese army captured the South, unifying the two states and establishing the Socialist Republic of Vietnam. This study reveals that even four decades after reunification, there is a difference in the way the economic institutions work in the South as compared with the North. In particular, and consistent with the argument that will be presented below, the effects of variation in local governance in the North are more significant than in the South. The quality of governance becomes more important where it needs to compensate for the lack of culturally-embedded business tradition.

More generally, this article's contribution is to utilise concepts taken from the transaction costs theory to provide a better understanding of the impact of the regional business environment on entrepreneurial performance. Following DU and MICKIEWICZ (2016) this paper breaks the implicit assumption that the country-wide constitutional configurations in emerging market economies have homogenous effects on the entrepreneurship sector. The results suggest that business performance is impacted by both the low-level policies and regulations, and the persistent high-level informal institutions. Finally, by forming transaction costs theory-based priors on the expected differential impact of governance on SMEs (conditional on their age and size) and testing these, this study complements existing works that do not consider such interactive effects (BECK et al., 2008).

Our findings are of paramount importance to policymakers. The results imply that business performance is strongly influenced by local governance quality, and by policies which can be amended and improved in the short and medium-term (CHARRON and LAPUENTE, 2013; PARKS and OAKERSON, 2000; SAVITCH and VOGEL, 2000; YE, 2009).

CONTEXT: BUSINESS PERFORMANCE AND INSTITUTIONS IN VIETNAM

Vietnam is an interesting context for studying local governance arrangements and their influence on SMEs, due to its on-going economic and political transformation. In 1991, on the promulgation of the Company Law, private businesses were legalized; and have been encouraged since 1999 following the amendment of the Law, as entry barriers for the private sector were reduced. Despite its recent establishment and fragile development, the private sector contributed considerably to the economic growth of Vietnam (NGUYEN and DIJK, 2012; NGUYEN et al., 2013; TRAN and SANTARELLI, 2014). The private sector accounts for 95% of total registered capital, 65% of national revenue, 97% of registered businesses, and 64% of employees[3].

In North Vietnam industries were built from scratch according to the Soviet blueprint, whereas South Vietnam was transformed away from a market economy only after 1975. It switched to economic liberalisation with the rest of Vietnam in the 1990s. This historical diversity can be treated as an exogenous factor that is reflected in the differences in local informal institutions across regions of Vietnam (MAKINO and TSANG, 2011). Moreover, the differences in informal institutions are expected to persist, despite the political unification four decades ago.

In addition, variations in local institutions have been magnified as a result of the extensive decentralisation program during the *Doimoi* process[4] (LAN PHI and ANWAR, 2011). The foundation of this program was the promulgation of the 1996 (revised in 1998) State Budget Law, which grants local governments autonomy in their fiscal strategies. Local governments are considerably independent of central government in their income and expenditure decisions, and they have substantial freedom to determine their own governance and regulatory frameworks for local businesses.

Compared with China, the entrepreneurship sector in Vietnam is much younger and smaller, and may therefore be more sensitive to local governance environments (COOKE and LIN, 2012). This makes Vietnam a relevant (and arguably more interesting) context for examining the impacts of local institutions on the growth of young and small businesses than is the better understood Chinese context (DU and MICKIEWICZ, 2016).

THEORETICAL BACKGROUND AND HYPOTHESES

WILLIAMSON (1985), in his seminal work on transaction costs, builds on COASE (1937) and argues that when the type of organisation matches the attributes of its chosen economic activity, this leads to superior performance. These core attributes relate to the extent of cognitive complexity, asset specificity, and behavioural risks (of opportunism). Here, transaction is a generic term that denotes any value-generating form of human cooperation, and an overarching concept is that of minimising transaction costs. In other words, the transaction costs of the given form of an organisation is the mirror image of the organisation's effectiveness.

Institutions represent a different, broader form of human organisation (WILLIAMSON, 2000) but they, too, affect the transaction costs faced by those who engage in value-enhancing (economic) cooperation. This impact of institutions on economic organisations leads to the problem of matching between the type of economic organisation and the type of institutional environment; matching that, again, has implications for which types of firms perform best.

While the classic presentation of the transaction costs theory (WILLIAMSON, 1985) assumes a mature market economy as its institutional context, a generalised approach (WILLIAMSON, 2000) accounts for variety in institutions, and therefore extends the analysis to the emerging markets. Institutions differ from organisations in that they are more difficult to change. There are also levels of institutions. In particular, one may distinguish between the most stable level of informal institutions (i.e., culture), long-term constitutional rules, and lower level government regulations (ESTRIN et al., 2013).

From the transaction costs perspective, the most key dimension of the high (constitutional) level of institutions relates to the security of property rights. Secure property rights are a feature of effective constraints on the executive branch of the government; constraints which typically come from a strong and independent judiciary (ESTRIN et al., 2013). This is the feature missing in most of the developing economies (EASTERLY and KRAAY, 2000). However as noticed by WEINGAST (1995), its absence may be partly compensated by 'market supporting federalism'; that is, interregional competition combined with officials being rewarded on regional economic performance. This model applies to China, drawing on its tradition of meritocracy (FUKUYAMA, 2011), but also to Vietnam, which makes it an interesting case to explore.

Federalism implies a variation in local governance across space (EFENDIC et al., 2015); thus, the phenomena located at the lower level of institutional hierarchy (as defined by WILLIAMSON, 2000) become increasingly relevant.

In transition economies, such as Vietnam's, business environments are partially shaped by market systems but remain subject to the discretionary actions of governments. Furthermore, there is pronounced uncertainty induced by the political and economic transition. This ambiguity of formal institutions suggests that local governance and informal institutions (cultural settings) play a remarkable role in shaping local business environments. However, the literature has yet to help us understand the exact nature of these local forces, and the possible mechanisms of their impacts on local entrepreneurship performance (COOKE and LIN, 2012).

Below, we utilise the transaction costs / institutional theory perspective to examine how aspects of local governance, including corruption, transparency, and proactivity, influence local SMEs' performance, and how such effects may be moderated by firm age and size, and the informal institutions.

Here, corruption is defined as the abuse or misuse of public authority by government officials and politicians, in order to serve their private interests, by taking advantage of their decision rights over the allocation of benefits. There are three reasons for the influence of corruption on SMEs' performance, all based on the transaction costs arguments.

First, corruption impedes value-enhancing business cooperation because it implies "the change in time frame within which occurs the desired action" (HUSTED, 1994). It gives rise to delays, or imposes constraints on entrepreneurs in gaining access to productive resources. Corrupt bureaucracies may delay the distribution of permits and licences, thereby slowing down the process through which new ventures could be established (NORTH, 1990).

Second, bureaucratic government may create barriers to information in order to benefit from corruption (CAETANO and CALEIRO, 2009). In order to explain that kind of behaviour we need to reach beyond the narrow neoclassical economic theory, and allow for the possibility of opportunism. Moreover, as argued by (HUSTED, 1994), with respect to corruption we see another aspect that is at the core of the transactions cost perspective: "cognitive limitations are significant … especially as one faces large bureaucratic structures in many third world countries, it often becomes difficult to know" with whom to transact in a corrupt way to get things done.

This also implies that entrepreneurs may need to develop specific human capital: that is, the local competence and knowledge that facilitates operating in the corrupt environment (HUSTED, 1994). Entrepreneurs have to invest more time and effort in building relational capital with local governments (DU and MICKIEWICZ, 2016; MCCULLOCH et al., 2013). Moreover, they need to protect their specific investments, forging trust relations anchored in repeated transactions between the donor and the recipient (HUSTED, 1994). Yet, this shifts entrepreneurial efforts from productive activities to rent-seeking activities, which may hamper growth.

Finally, there is the direct financial costs of corruption. HUNT and LASZLO (2012) and (ESTRIN et al., 2013) propose that corruption could be regarded as a kind of tax. Thus, without corruption, small and medium-sized businesses could reduce their costs, improve competitive advantage, and eventually their performance. In this context, HUSTED (1994) distinguishes between two types of corruption. With the 'market corruption', dealings are standardised: they relate to activities such as obtaining business permits, and may come with unofficial but commonly known prices that affect costs. In contrast, the 'parochial corruption' relates to larger, more idiosyncratic transactions, like large construction contracts. Here specific human capital and competence may play a decisive role (HUSTED, 1994).

Turning to the second, related dimension of governance, the degree of administrative transparency is both a factor that may amplify corruption (COLLIER et al., 2002) and an important direct determinant of local SMEs' performance. Lack of transparency typically concerns the uneven distribution of information that leads to uneven distribution of resources (e.g. capital) between economic actors that are not dissimilar (DU and MICKIEWICZ, 2016). The cost of acquiring and processing information increases.

Specifically, in the case of Vietnam, the non-transparent distribution of information on planning regulations and the legal documents necessary to run businesses, and the poor communication to firms of any new policies and laws, were found to negatively influence regional performance (HANSEN et al., 2009). Parallel to the impact of corruption, non-transparency requires entrepreneurs to build political connections in order to obtain access to resources (MCCULLOCH et al., 2013), implying higher transaction costs; yet unlike corruption it does not automatically involve illegal activities. Again, however, effort is allocated to unproductive activities.

As already argued, in common with many emerging market economies, Vietnam's constitutional features do not offer effective constraints on the executive branch of the government, which implies there are no strong guarantees for private property rights. However, as in China, this effect is partly alleviated by market-supporting federalism (WEINGAST, 1995)and elements of meritocracy conducive to regional competition: local governors are evaluated according to regional performance, and they are endowed with sufficient scope of

decision rights to make this competition meaningful. This implies that besides the two interconnected aspects of corruption and transparency, the local leadership's proactivity is important.

Incompleteness of laws and institutions is a feature stressed by the transaction costs theory. These characteristics relate even more to transition economies. Weak and incomplete formal institutions imply, in turn, that there are other ways in which local authorities may proactively create an entrepreneurship-friendly business environment. One of the approaches is to be creative and clever in implementing central policy, and working within sometimes unclear national regulatory frameworks so as interpret them in favour of local private firms (GREEN and MOSER, 2013).

In general, local governance features such as freedom from corruption, administration transparency, and proactivity in planning and implementing business policies, could reduce local transaction costs. They are therefore expected to be important determinants of SMEs' growth and performance. This leads us to the following hypotheses:

H1: In a given region, (a) governmental transparency, (b) freedom from corruption, and (c) proactivity of the local leadership will be positively associated with local SMEs' revenue growth.

Factors moderating the effects of local governance

Differences in transaction costs by firm's age and size

SMEs in Vietnam are on average very young and small (MEYER et al., 2006), and under weak institutional environments the incumbent, large companies are in an advantageous position (AIDIS et al., 2008). Another words, being old and large may condition positively on how the firm is impacted by the policy environment (DU and MICKIEWICZ, 2016). More generally, the literature on entrepreneurship widely recognizes that a young age and a small size are both liabilities to SMEs, preventing them from gaining full access to productive resources (DU and GIRMA, 2012; GIORDANI, 2015). This is for the following reasons.

First, young and small firms have yet to accumulate sufficient resources to build operational capability. Therefore, the higher transaction costs of accessing external resources impede their economic performance and growth.

Second, young and small firms are confronted with a severe asymmetric information problem because they have yet to establish trackable operational records, or to successfully build trusts in their operations (NGUYEN and ROSE, 2009). NGUYEN et al. (2006) suggest that in the absence of effective market institutions and business data, banks in Vietnam face considerable uncertainties in lending to private firms. Consequently, banks employ a combination of uncertainty avoidance, and a reliance on trust in their lending decisions. An environment where signalling one's own economic performance and potential for growth is more difficult, will disproportionately hamper the firms that are new and small.

Third, consistent with the discussion above, under a corrupt and non-transparent local environment, firms need to develop specific human capital and skills, facilitating access to resources (HUSTED, 1994). With respect to petty 'market' corruption, where frequently repeated transactions imply unofficial prices paid for, say, easier access to information and resources, the specific skills may not be needed. However, in line with the transaction costs theory, this specific human capital becomes more important for larger, complex, and less standard operations, such as for example getting a large construction contract from the government; this may often imply multi-party unofficial bargaining. Developing such capabilities to efficiently engage with corruption takes time and resources, and that gives a comparative advantage to large and established companies. At the same time, such complex corrupt transactions create high gains, and this has implications for relative performance.

Fourth and related, where transactions are not supported by governance (and formal governance cannot, by definition, support corrupt transactions), they may instead be supported by long-term relational capital (WILLIAMSON, 1985). Here, again, large and old firms may have an advantage in building such network capital, both because of repeated dealings and because of multiple parallel dealings. GOTO (2012) and SANTARELLI and TRAN (2013) suggest that social capital is particularly important in the case of Vietnamese

economy, where economic transactions are usually supported by personal relations rather than arm's length principles. Yet again, local conditions differ, and so does the relative importance of (costly) relational capital versus formal governance.

For all these reasons, in transition economies such as Vietnam's, the processes of accumulating resources and alleviating cognitive constraints may be frustrating for young and small private companies (PINCUS, 2009). This leads us to expect that if local governments are able to reduce the average transaction costs for local businesses by being free from corruption, improving administration transparency, and being entrepreneurially proactive in their policies, young and small firms will gain more benefits than the old and large ones. Hence:

H2: The effect of (a) local governmental transparency, (b) freedom from corruption, and (c) proactivity is stronger on small firms compared to large ones.

H3: The effect of (a) local governmental transparency, (b) freedom from corruption, and (c) proactivity is stronger on young firms compared to old ones.

Informal institutions

We have just considered how the lowest level of (WILLIAMSON, 2000) institutional hierarchy (firms' attributes) interact with the level of (local) policies and regulation. We argue however that local regulations and policies also interact with the highest institutional level: the norms, culture, and informal codes of conduct that are embedded in the shared cognition. Due to the incompleteness of formal institutions, the role of informal institutions is particularly significant in emerging countries (ZHOU, 2013).

A number of empirical studies show that informal institutions differ significantly across regions within a country (MOODYSSON and ZUKAUSKAITE, 2014; PUR and MOORE, 2010; RODRÍGUEZ-POSE, 2013). This may then affect local entrepreneurship activities (FRITSCH and STOREY, 2014). A regional entrepreneurship-friendly culture, once established, tends to persist over time (FRITSCH and MUELLER, 2004).

This has recently been investigated using the case of West and East Germany. FRITSCH and STOREY (2014) suggest that the social acceptance or legitimacy of entrepreneurship remains higher in the West than in the East, even after more than two decades of reunification. This is because the culture of the West is more tolerant to individualism, independence, innovation, and achievement. Similar results could be expected for Vietnam, where the South was exposed to more pro-entrepreneurial culture until 1975. This paper subscribes to the arguments of FRITSCH and WYRWICH (2014) that a regional culture of entrepreneurship could be regarded as a spatially sticky characteristic, and postulate that SMEs in the South of Vietnam, on average, perform better than SMEs in the North of Vietnam in terms of economic growth.

In addition, it is suggested that in the regions with a weaker heritage of pro-entrepreneurial culture (the North), the impact of local governance is more significant. In other words, the quality of governance and proactive policies of local governments matter more where local informal institutions are less accommodating to entrepreneurship. That is, as the pro-entrepreneurial culture in the South already helps firms to achieve strong growth; the marginal effects of local governance on the firms in the South may be lower in comparison to the effects on the firms in the North. Good local governance, with strong commitments and stability over time, may be more important where there is a stronger need to offset the weaknesses in the formal and informal institutional structures (ESTRIN et al., 2013; see also: WILLIAMSON, 2000). Therefore, in summary:

H4: The effect of (a) local governmental transparency, (b) freedom from corruption, and (c) proactivity is stronger on SMEs in North Vietnam regions compared to SMEs in South Vietnam regions.

DATA AND VARIABLES

Data

Our empirical tests rely on a combination of several datasets. The first is the Annual Survey on Enterprises of Vietnam General Statistics Office (GSO). It is a 13-year panel from 2000 to 2012 containing firm-specific

information for all of the manufacturing, mining, and service sectors in the economy. However, the study period in this paper is seven years, 2006-2012, due to the availability of the second dataset: Provincial Competitiveness Index (PCI)[5], which was first created for a sample of regions in 2005 and then for all of the 63 provinces and municipal cities. The survey is a product of the collaboration between the Vietnam Chamber of Commerce (VCCI) and the U.S Agency for International Development (USAID). PCI is a weighted average of the 9 sub-indices, each measuring a different aspect of local governance. Consistent with the discussion above, the empirical analysis focuses on the Transparency, Informal Charge (corruption), and Proactivity indices, but below the results related to Legal Institutions are also presented. Definition and summary statistics of these indices are presented in Appendix 1. The third dataset is the GSO Provincial Annual Report, which includes information about provincial population, consumption, and the accumulated value of FDI and state-owned firms in the regions.

Variables and summary statistics

To clean the data, all the firms with negative total assets, fixed assets, depreciation and employees are dropped, and likewise those whose fixed assets are greater than their total assets. The outliers are controlled by censoring the top and bottom 1% of observations in the distributions of each variable used. Only small and medium-sized businesses (as defined by the Law on Enterprises of Vietnam) are selected[6]. The final sample in regressions constitutes 307,591 firm-year observations over 7 years.

Dependent variables: revenue growth

The dependent variable in this study is the revenue growth of SMEs, measured by the percentage change of sales revenue between two consecutive years. We focus on a firm's growth taken as an indicator of overall performance. Unlike profits, it has the advantage of being more robust to the tax-avoidance accounting manipulation that is quite notorious in emerging market economies. However, we also test the robustness of the findings using profitability measures and the results remain similar.[7]

Table 1 shows the definition and summary statistics of the variables. On average, revenue growth of SMEs is around 5% per year. However, the large standard deviation, and a wide range between the minimum and the maximum values indicate considerable variations in the revenue performance.

[Table 1 insert here]

Independent variables: local governance quality

For the freedom from corruption and administrative transparency measures, this paper uses two indices in the PCI dataset: Informal Charges, and Transparency. The former is a measure of how much firms pay in informal charges (bribes), how much of an obstacle those extra fees pose for their business operations, whether payment of those extra fees results in expected results or "services", and whether local officials use compliance with local regulations to extract rents.

In turn, transparency is a measure of whether firms have access to the proper legal and planning documents necessary to run their businesses, whether those documents are equitably available, whether new policies and laws are communicated to firms and predictably implemented, and if the provincial webpage has a business-related facility.

In order to measure the proactivity of local government towards the entrepreneurship sector, this paper makes use of the Proactivity of Provincial Leadership index, which is a measure of the creativity and cleverness of local officials in implementing central policy, in designing their own initiatives for private sector development, and in working within sometimes unclear national regulatory frameworks to assist and interpret them in favour of local private firms.

According to Table 1, change in freedom from corruption, with positive mean, is the only governance aspect that improved during the period. The other two governance dimensions: transparency and proactivity, both

change with negative means. Thus, the direction of the institutional transformation process remains ambiguous, consistent with NGUYEN et al. (2013). However, within the country, there is significant institutional variation among provinces, represented by the wide range between the minimum and maximum values; likewise, the standard deviations are large.

Control variables

Following the literature, firm-specific covariates that have been previously found to significantly influence small and young businesses' performance are included. They are: firm age, size, asset structure, and ownership. Firm age is measured as the number of years since an SME was established. Size is measured in the natural log of the number of employees an SME hires in a particular year. On average, SMEs in Vietnam are only 7 years old with about 44 employees. Assets structure variable is a ratio of fixed assets to total assets.

To control for ownership sectors, three dummies are specified: for private, state-owned and foreign-owned SMEs. The private sector accounts for nearly 90% of total registered firms, the state sector is 6%, and the foreign sector is 4% of total firms. It should be noticed that observations are firm-years, in which a firm is allowed to change its ownership structure annually.

In addition to firm-level control variables, entrepreneur-specific variables are also included (SANTARELLI and TRAN, 2012). Because the sampled firms are small and young, the owner-level determinants, such as owner age and education, are crucial in explaining the entrepreneurial performance of the firm. Therefore, owner age and gender are used. Age could be a good proxy for entrepreneurial experience, as older entrepreneurs may get more years of working and establishing networks. Meanwhile, gender could be a good proxy for education since in Vietnam, gender is highly correlated with access to education: male entrepreneurs are more likely to be well educated than their female counterparts (LESHKOWICH, 2015; RYDSTROM, 2015).

To control for the macro-characteristics, several provincial level variables are included (SANTARELLI and TRAN, 2012, 2016). First, "construction per capita" is the per capita value of government spending on local infrastructure. Second, "consumption per capita" measures the average expense of each person in a particular

year in a province. The latter proxies the local economic level of development. Third, "FDI per capita" and "SOE per capita" are variables capturing the accumulated values of FDI and state-owned firms' capital in each province. The two variables are normalised by the provincial population. The variable "distance" measures the distance from each province to the closest economic centre city[8]. This variable is to control for economic inter-linkages across provinces.

Finally, this paper also uses geography to proxy for the historical persistence of informal institutions. In particular, the seventeenth parallel was the provisional military demarcation line between North and South Vietnam, introduced by the Geneva Accords of 1954. This specific history allows us to create a dummy variable – the South, which takes the value of 1, for provinces to the south of the seventeenth parallel (which were far less exposed to the traditional type of Soviet command economy), and the North, which takes the value of 0 for provinces to the north of the parallel.

EMPIRICAL SPECIFICATION

The Hypotheses 1a-1c about the influence of local governance on the revenue growth of SMEs are tested using a growth equation in the following form:

$$(\mathbf{1})\ RG_{igt} = \beta_0 + \beta_1\left(Firm\ level\ controls_{igt}\right) + \beta_2\left(Owner\ level\ controls_{igt}\right) + \beta_3\left(Province\ level\ controls_{gt}\right) + \beta_4\left(Governance\ indicators_{gt}\right) + v_j + v_t + v_i + \mu_{it}$$

where RG_{igt} is the revenue growth of an individual SME i in province g in year t.

$Firm\ level\ controls_{igt}$ represents a matrix of firm-level variables including firm age, firm size, ownership, and asset structure; $Owner\ level\ controls_{igt}$ is a matrix of two columns including owner age, and owner gender; and $Province\ level\ controls_{gt}$ includes province construction expenditures, consumption value, cumulative value of FDI as a proxy for the size of foreign sector, total capital of SOEs as a proxy for the size of state sector, and distance to the closest municipalities. The governance variables are in

$Governance\ indicators_{gt}$, which consists of three aspects of local governance, i.e. freedom from corruption, administration transparency, and governmental proactivity. The model includes an industry-specific component v_j, and a time-specific component v_t, in form of dummies. The term v_i represents time-invariant, firm-level fixed effects. Finally, μ_{it} is the idiosyncratic error.

It is important to recognise that while local governance affects entrepreneurship, the effect may also be reversed: entrepreneurship development may influence the quality of institutions (CARBONARA et al., 2016). Regions with a strong entrepreneurial sector may be subject to more bottom-up pressure to adopt business-friendly governance. Given that the entrepreneurial sector is an important contributor to the development of emerging countries, the influence of local businesses on the local governance environment is expected to be present.

To address this simultaneity (endogeneity) problem, this paper proposes the use of instrumental variables within the context of the generalised method of moments estimator (IV-GMM)[9]. In particular, external instrumental variables are employed to mitigate potential endogeneity.

The key issue when looking for potential instruments was to find external variables that are correlated with the endogenous local governance variables, but are uncorrelated with firm growth performance. This paper suggests the following set of variables that meets these requirements.

The first IV is the length of the period a provincial leader holds office. In Vietnam, power is centralised in the provincial leaders. Because the provincial leaders are appointed by central government, this variable is unlikely to be correlated with local business performance. At the same time, it is expected that the corruption, transparency, and proactivity of a province in a particular period are significantly dependent on the leader's characteristics and period in office. In this study, period in office is measured by the number of months (average for a given year) that a leader is in his/her position. Yet *a priori*, good arguments can be advanced for this being both a negative and a positive relationship. On the one hand the longer the tenure, the more the local informal structures of special interests may become entrenched, leading to more corruption, less transparency and less

proactivity for the province. On the other hand, a short tenure may create incentives for rapid rent extraction[10]. We therefore remain neutral as to the expected sign of the effect.

Second, measuring the changes of leaders, the "leader switch" dummy variable is used as an instrument for local governance variables. Because power is highly concentrated at the leaders' disposal, and each leader may have idiosyncratic knowledge of local administration and a different management style, the switching of leaders in a province may initially trigger more corruption, less transparency, and less proactivity, due to a lack of knowledge by the incoming leader. Thus, while it is assumed that long tenure results in a deterioration of governance practice, a switch in leadership positions may also temporarily lead to a deterioration in local practices as a result of monitoring problems. The "leader switch" variable is a dummy which takes the value of 1 if there is a change of provincial leader in a year, and value 0 otherwise.

Finally, this paper also uses variables capturing the specific time points in tenure years that can make corruption more likely. The "third year" dummy take the value of 1 if a leader is in the third year of his tenure, and 0 otherwise. According to the data, in actual practice leaders are most likely to be changed every three years. Therefore, in the third year of tenure, anticipating demotion, leaders may have more incentive to be corrupt, and to become less proactive. The fifth year may have similar effect – it is the last year in the five-year official tenure period of appointment by central government. The "fifth year" dummy takes value 1 if a leader is in the fifth year of his tenure, and 0 otherwise.

An over-identification test is employed to investigate whether the external variables are truly exogenous. The Hansen (J) tests confirm the validity of the suggested IV. Moreover, we also test multicollinearity among the regressors using VIF test and find no evidence of its presence (Table 2). However, using the Cumby-Huizinga test for autocorrelation of the current error term with the error terms up to five lags, we find that autocorrelation is significant. Following that, we estimate the equations with HAC - heteroskedasticity and autocorrelation - robust standard errors, choosing a bandwidth of five (the highest possible, considering the time length of the

data used). The use of bandwidth, combined with robust HAC SEs, produces estimates that are robust to both arbitrary heteroskedasticity and arbitrary autocorrelation.

Before discussing the findings, the modelling for testing Hypotheses 2a-3c on the moderating effects of firm age and size will be presented. Extending the above benchmark specification, Hypotheses 2a-3c were tested using the following:

$$(\mathbf{2})\ RG_{igt} = \beta_0 + \beta_1\left(Firm\ level\ controls_{igt}\right) + \beta_2\left(Owner\ level\ controls_{igt}\right) + \beta_3\left(Province\ level\ control_{gt}\right) + \beta_4\left(Governance\ indicators_{gt}\right) + \beta_5\left[\left(Governance\ indicators\right)_{gt} \times \left(Age_{igt}\right)\right] + v_j + v_t + v_i + \mu_{it}$$

$$(\mathbf{3})\ RG_{igt} = \beta_0 + \beta_1\left(Firm\ level\ controls_{igt}\right) + \beta_2\left(Owner\ level\ controls_{igt}\right) + \beta_3\left(Province\ level\ controls_{gt}\right) + \beta_4\left(Governance\ indicators_{gt}\right) + \beta_5\left[\left(Governance\ indicators\right)_{gt} \times \left(Size_{igt}\right)\right] + v_j + v_t + v_i + \mu_{it}$$

The specification (2) corresponds to Hypotheses 2a-2c, and includes an interaction term between local governance and firm age. Specification (3) is for the interaction with firm size.

Likewise, for Hypotheses 4a-4c, the following augmented specification is used:

$$(\mathbf{4})\ RG_{it} = \beta_0 + \beta_1\left(Firm\ level\ controls_{igt}\right) + \beta_2\left(Owner\ level\ controls_{igt}\right) + \beta_3\left(Province\ level\ controls_{gt}\right) + \beta_4\left(Governance\ indicators_{gt}\right) + \beta_5\left(South_g\right) + \beta_6\left[\left(Governance\ indicators\right)_{gt} \times \left(South_g\right)\right] + v_j + v_t + v_i + \mu_{it}$$

This specification includes the *South* dummy, which takes value of 1 if the province is in the South of Vietnam, and the interaction terms between local governance variables with this dummy.

All the equations are first estimated using a fixed effect (FE) panel estimator, corrected by robust standard errors clustered on province level per year, relying on *reghdfe* routine for Stata[11]. Hausman tests for each specification indicate the appropriateness of the panel FE over the random effect estimator. Next, the GMM IV

panel estimator is applied. These are reported as models (1) to (3) below. However, for the specifications with the interaction terms, this paper uses only fixed effects (instead of the IV-GMM technique), because the use of IV-GMM on these specifications did not meet the over-identification tests.

EMPIRICAL RESULTS

Regression results are reported in Table 2.1 and Table 2.2. Columns (1), (2), and (3) correspond to the benchmark specification separately for the three local governance aspects: corruption, transparency, and proactivity. Columns (4) to (7) exhibits the results of the interaction between local governance and firm age; columns (8) to (11) are the interactions with firm size; and finally, the results of the interaction between the South dummy and local governance indicators are shown in columns (12) to (16).

[Table 2.1 and 2.2 insert here]

In all specifications, the coefficients of the three local governance variables are positive and precisely determined. This result is consistent with the hypothesis H1 that firms in regions with stronger local governance arrangements perform better in terms of revenue growth.

Comparing the magnitude of the effects, transparency has the strongest impact on firm revenue growth. One point of transparency improvement leads to 2.1% revenue growth, all else being constant. Decrease in corruption has a slightly smaller impact, with 1.4% of total revenue growth for each point of corruption index reduction. Finally, leadership proactivity has the smallest economic influence on firm growth: 1 point of improvement in the index leads to 0.2% increase in total revenue growth.

The negative and strongly significant coefficients of the interaction terms of local governance variables with firm age in columns (4) to (6), and with firm size in columns (7) to (9), are consistent with the hypotheses H2 and H3: the effects of local governance on small and young firms are stronger than those on large and old firms.

In Appendix 2, we visualise the margins of revenue growth by firm age, size, and region[12]. As corruption diminishes, there is a positive effect on young firms and at the same time there is little effect on old firms. Next, there is a positive effect of diminished corruption on small firms, yet there is actually a negative effect of diminished corruption on large firms. This indicates that a corrupt environment gives a big advantage to large firms at the cost of small firms. Similar to rent seeking, corruption comes with high transaction costs, and in those deals, large firms benefit from economies of scale. The pattern corresponds to the one described by (VORLEY and WILLIAMS, 2016) for Bulgaria and Romania, where large firms benefit strongly from corrupt links with the government, to the cost of small firms.

To explore the impact of being located in the South on revenue growth, the South dummy and the corresponding interaction terms are included in the regressions, and the results are presented in columns (13) to (16). The positive and significant coefficients of the dummy in all specifications indicate that firms established in South Vietnam perform better than those in North Vietnam. More importantly, the negative and precisely determined coefficients of the interaction terms between local governance variables and the South dummy indicate that the effect of local governance in the North is stronger than that in the South. Therefore, the hypothesis H4 is supported. The predictive margins of the corruption variable are presented in Appendix 2.

Extension: the effect of legal policies

While it was argued above that corruption, transparency and proactivity are the key dimensions of provincial level governance that affect the performance of SMEs, this paper also explored the impact of law enforcement. Here, we follow (MCCULLOCH et al., 2013) who used the corresponding indicator, labelled Legal Policies, in estimations of investment by Vietnamese firms and found it insignificant. The indicator corresponds to the perceived effectiveness of legal institutions.

What is to be expected? Under conditions of the rule of law, effective law enforcement should have a positive impact. However, under an opaque legal system and administration, the incentives of adjudicators may become distorted. Punishment rather than the enforcement of justice may become the objective of an adjudicator (GLAESER et al., 2001). Under these conditions the impact of law enforcement may be ambiguous, and may

even be harmful on small and young firms. Findings reported in Appendix 3 are consistent with this intuition. In addition, the effectiveness of law enforcement appears to have no effect in the South, where it may be combined with a stronger pro-entrepreneurship culture, while it has a negative effect in the North.

DISCUSSION AND CONCLUSION

This paper follows the call of WILLIAMSON (2000) to further develop the new institutional economics theory based on the transaction costs approach, by considering the impact of institutional levels on individual business performance. Williamson delineates the institutional levels as follows: the first institutional level is culture; the second is the formal (constitutional level) institutions; and the third level is governance. These three interact with the firms' attributes to produce effects on business performance. More specifically, by extending ROTHSTEIN and TEORELL (2008), this paper proposes that freedom from corruption, the extent of administrative transparency, and a degree of proactivity in designing and implementing entrepreneurship-friendly policies are important arrangements of local governance. This is especially the case in the context of an emerging market economy, and more specifically still for supporting the development of young and small firms. While most existing studies focus on the impact of country-wide institutional configurations, this paper argues that local governance quality may have a yet more significant influence on the local entrepreneurship sector. This argument is based on an observation that young and small firms are typically geographically constrained to local business environments, which in turn are strongly shaped by local governance structures. Indeed, it is found that local governance quality - including corruption, transparency, and proactivity - may be important determinants of local SMEs' growth performance.

At the same time, the results suggest that local governance matters more for young and small businesses. Old and large firms, with their accumulated capital and resources, are less sensitive to the vagaries of local governance. More than that, the pattern of the results suggests that corruption, while significantly constraining the growth of small companies, may actually be beneficial to large companies. This is consistent with the

findings and argument of VORLEY and WILLIAMS (2016), who see corruption as something more than just an imposition inflicted by the government administration on small companies, but rather as a collusion between large companies and the government against small firms and newcomers. Likewise, HUSTED (1994), utilising the transaction costs approach, argues that 'parochial' corruption (more idiosyncratically corrupt trasactions of higher signifiance) is supported by relational capital based on multiple transactions. As argued here, that again gives an advantage to large and established companies.

This paper also examines the interplay between informal institutions and local governance quality. It is expected - in line with the institutional theory - that a pro-entrepreneurial culture could moderate the effects of local governance. Indeed, empirical results indicate that local governance quality matters more where, historically, local institutions were less supportive to entrepreneurship.

It is proposed that the effect of governance institutions is salient at sub-national levels because governance is more concerned with how governments deliver policies, rather than with what they deliver (ROTHSTEIN and TEORELL, 2008). Local governments are more involved in the delivery process because they are at the end of the governance system, being in charge of implementing and enforcing central policies. At the same time, as already argued, this conclusion may be specific to constitutional settings, where the lack of effective constraints on the executive branch of the government is to some extent compensated for by 'market preserving federalism' (WEINGAST, 1995) and elements of meritocracy, so that the regional authorities retain a degree of autonomy and are incentivized to support regional development. These conditions are characteristics of China and Vietnam, but do not hold in Russia for example (DU and MICKIEWICZ, 2016). A call for more comparative studies follows immediately from this observation.

This constitutional feature of 'market preserving federalism' helps to explain why the results show that besides freedom from corruption and transparency, the proactivity of local governments also plays an important role in enhancing business performance. Again, it would be interesting to explore the extent to which the proactive

leadership of local governments towards local entrepreneurship sectors is important in other emerging countries, where institutional frameworks may differ.

It follows that findings in this paper have implications for policymakers in transition economies. Even where the institutional settings are weak, local governments may create a more even playing field for local firms. Importantly, the findings suggest that in regions with an initially weaker pro-entrepreneurial culture, local governments could particularly help in facilitating entrepreneurship. To entrepreneurs, the commitment and stability in the policies of local governments could, to some extent, introduce similar incentives and trust as do the (absent) pro-entrepreneurial informal institutions. Bearing in mind the fact that informal institutions take time to change, local governance could and should be the instrument that transition economy governments utilize in order to maintain and accelerate the development of their entrepreneurship sector, which ultimately may become the growth engine of the whole economy.

This study has some important limitations that future research may want to address.

First, as already discussed, the findings in this study may be country-specific. Especially in the case of Vietnam, great power is centralised at the local leader's disposal but, as in China, there are also meritocratic elements of regional political competition, based on delivering positive effects on regional development. Therefore, future research investigating the informal forces of local governance may want to examine other economies with different political systems and traditions. For example, Brazil and Russia may be interesting candidates for comparison with Vietnam and China, utilising the new framework of institutional economics – transaction costs. Brazil's constitution combines federalism with a higher degree of democratic accountability for its leaders. In Russia, there is no democratic accountability, and no federalism except in name, and the incentives for local governors may not prioritise economic development (on both countries, see: AIDIS et al., 2008). How these different conditions play out and affect local business performance at a micro level remains an interesting question.

Last but not least, future research concerning the persistence of regional cultures across the South and the North of Vietnam, could make use of a richer set of variables in addition to using dummies. And accounting for a number of additional differences between the regions, such as location, demographic, and economic factors, could be interesting and further investigate the robustness of the results on the effects of institutional persistence on micro performance. More generally, there is still a scarcity of multilevel conceptualisations and empirical studies on regional entrepreneurial sectors (BOSMA, 2017; FRITSCH and STOREY, 2014; STERNBERG, 2012; TUROK et al., 2017), and this paper is a minor step in that direction.

REFERENCES

AIDIS R., ESTRIN S. and MICKIEWICZ T. (2008) *Institutions and entrepreneurship development in Russia: A comparative perspective*.

AUDRETSCH D. B., BELITSKI M. and DESAI S. (2015) Entrepreneurship and economic development in cities, *The Annals of Regional Science* **55**, 33-60.

BECK T., DEMIRGÜÇ-KUNT A. and MAKSIMOVIC V. (2008) Financing patterns around the world: Are small firms different?, *Journal of Financial Economics* **89**, 467-87.

BOSMA N. S. (2017) *The geography of entrepreneurial activity and regional economic development : a multilevel approach*. Edward Elgar, Cheltenham.

CAETANO J. and CALEIRO A. (2009) Is There a Relationship Between Transparency in Economic and Political Systems and Foreign Direct Investment Flows?, *Journal of Applied Economics* **8**, 45-58.

CARBONARA E., SANTARELLI E. and TRAN H. (2016) De jure determinants of new firm formation: how the pillars of constitutions influence entrepreneurship, *Small Business Economics* **47**, 139.

CHARRON N. and LAPUENTE V. (2013) Why Do Some Regions in Europe Have a Higher Quality of Government?, *Journal of Politics* **75**, 567-82.

COASE R. H. (1937) The Nature of the Firm, *Economica* 10.2307/2626876, 386.

COLLIER P., UNIVERSITY OF M., INSTITUTIONAL R., THE INFORMAL SECTOR C., UNITED S. and AGENCY FOR INTERNATIONAL D. (2002) *Making aid smart : institutional incentives facing donor organizations and their implications for aid effectiveness*. IRIS ; USAID, [College Park, Md.]; [Washington, D.C.].

COOKE F. L. and LIN Z. (2012) Chinese firms in Vietnam: Investment motives, institutional environment and human resource challenges, *Asia Pacific Journal of Human Resources* **50**, 205-26.

CORREIA S. (2014) Explanation of the HDFE iteration 3 FEs, *Duke University, mimeo.*

DAVIDSSON P. and HENREKSON M. (2002) Determinants of the Prevalence of Start-Ups and High-Growth Firms, *Small Business Economics* **19**, 81-104.

DU J. and GIRMA S. (2012) Firm Size, Source of Finance, and Growth--Evidence from China, *International Journal of the Economics of Business* **19**, 397-419.

DU J. and MICKIEWICZ T. (2016) Subsidies, rent seeking and performance: Being young, small or private in China, *Journal of Business Venturing* **31**, 22-38.

EASTERLY W. R. and KRAAY A. (2000) Small States, small problems? : income, growth, and volatility in small States, *World development.* **2000**, 2013-27.

EFENDIC A., MICKIEWICZ T. and REBMANN A. (2015) Growth aspirations and social capital: Young firms in a post-conflict environment, *International Small Business Journal* **33**, 537-61.

ESTRIN, KOROSTELEVA J. and MICKIEWICZ T. (2013) Which institutions encourage entrepreneurial growth aspirations?, *Journal of Business Venturing* **28**, 564-80.

FRITSCH M. and MUELLER P. (2004) Effects of new business formation on regional development over time, *Regional Studies*, 961.

FRITSCH M. and WYRWICH M. (2014) The long persistence of regional levels of entrepreneurship: Germany, 1925-2005, *Regional Studies*.

FRITSCH M. and STOREY D. J. (2014) Entrepreneurship in a Regional Context: Historical Roots, Recent Developments and Future Challenges, *Regional Studies* **48**, 939.

FUKUYAMA F. (2011) *The origins of political order*. Farrar, Straus and Giroux, New York.

GIORDANI P. (2015) Entrepreneurial finance and economic growth, *Journal of Economics* **115**, 153-74.

GLAESER E., JOHNSON S. and SHLEIFER A. (2001) Coase versus the Coasians, p. 853. MIT Press.

GOTO K. (2012) Social networks, informal trade credit and its effects on business growth: Evidence from the local garment trade in Vietnam, *Journal of the Asia Pacific Economy* 10.1080/13547860.2012.742683.

GREEN A. and MOSER C. (2013) Do Property Rights Institutions Matter at the Local Level? Evidence from Madagascar, *Journal of Development Studies* **49**, 95-109.

HANSEN H., RAND J. and TARP F. (2009) Enterprise Growth and Survival in Vietnam: Does Government Support Matter?, *Journal of Development Studies* **45**, 1048-69.

HUNT J. and LASZLO S. (2012) Is Bribery Really Regressive? Bribery's Costs, Benefits, and Mechanisms, *World Development* **40**, 355-72.

HUSTED B. W. (1994) Honor among Thieves: A Transaction-Cost Interpretation of Corruption in Third World Countries, *busiethiquar Business Ethics Quarterly* **4**, 17-27.
JAIN A. K. (2001) Corruption: A Review, *Journal of Economic Surveys* **15**, 71-121.
LAN PHI N. and ANWAR S. (2011) Fiscal decentralisation and economic growth in Vietnam, *Journal of the Asia Pacific Economy* **16**, 3-14.
LESHKOWICH A. M. (2015) Vietnam's New Middle Classes: Gender, Career, City, *SOJOURN: Journal of Social Issues in Southeast Asia* 10.1355/sj30-2m, 584.
MAKINO S. and TSANG E. W. K. (2011) Historical Ties and Foreign Direct Investment: An Exploratory Study, *Journal of International Business Studies* **42**, 545-57.
MCCULLOCH N., MALESKY E. and DUC N. N. (2013) Does Better Provincial Governance Boost Private Investment in Vietnam?, *IDW3 IDS Working Papers* **2013**, 1-27.
MEYER, TRAN Y. T. T. and NGUYEN H. V. (2006) Doing business in...Vietnam, *Thunderbird International Business Review* **48**, 263-90.
MOODYSSON J. and ZUKAUSKAITE E. (2014) Institutional Conditions and Innovation Systems: On the Impact of Regional Policy on Firms in Different Sectors, *Regional Studies* **48**, 127-38.
NGUYEN and DIJK V. (2012) Corruption, Growth, and Governance: Private vs. State-Owned Firms in Vietnam, *Journal of Banking and Finance* **36**, 2935-48.
NGUYEN, LE N. T. B. and BRYANT S. E. (2013) Sub-national institutions, firm strategies, and firm performance: A multilevel study of private manufacturing firms in Vietnam, *Journal of World Business* **48**, 68-76.
NGUYEN T. V. and ROSE J. (2009) Building trust—Evidence from Vietnamese entrepreneurs, *Journal of Business Venturing* **24**, 165-82.
NGUYEN T. V., LE N. T. B. and FREEMAN N. J. (2006) Trust and Uncertainty: A Study of Bank Lending to Private SMEs in Vietnam, *Asia Pacific Business Review* **12**, 547-68.
NORTH (1990) *Institutions, institutional change and economic performance / Douglass C. North*. Cambridge : Cambridge University Press, 1990.
PARKS R. B. and OAKERSON R. J. (2000) Regionalism, Localism, and Metropolitan Governance: Suggestions from the Research Program on Local Public Economies, p. 169. Carl Vinson Institute of Government, University of Georgia.
PINCUS J. (2009) Vietnam: Sustaining Growth in Difficult Times, *ASEAN Economic Bulletin* **26**, 11-24.
PUR K. A. and MOORE M. (2010) Ambiguous Institutions: Traditional Governance and Local Democracy in Rural South India, *Journal of Development Studies* **46**, 603-23.
RODRÍGUEZ-POSE A. (2013) Do Institutions Matter for Regional Development?, *Regional Studies* **47**, 1034-47.
ROTHSTEIN B. and TEORELL J. (2008) What Is Quality of Government? A Theory of Impartial Government Institutions, *Governance* 10.1111/j.1468-0491.2008.00391.x, 165.
RYDSTROM H. (2015) Vietnam's Socialist Servants: Domesticity, Class, Gender, and Identity, *SOJOURN: Journal of Social Issues in Southeast Asia* 10.1355/sj30-3l, 888.
SANTARELLI E. and TRAN H. T. (2012) Growth of Incumbent Firms and Entrepreneurship in Vietnam, *Growth & Change* **43**, 638-66.
SANTARELLI E. and TRAN H. T. (2013) The interplay of human and social capital in shaping entrepreneurial performance: the case of Vietnam, *Small Business Economics* **40**, 435-58.
SANTARELLI E. and TRAN H. T. (2016) Diversification Strategies and Firm Performance in Vietnam: Evidence from Parametric and Semi-parametric Approaches, *Economics of Transition* **24**, 31-68.
SAVITCH H. V. and VOGEL R. K. (2000) Paths to New Regionalism, *State and Local Government Review* **32**, 158.
STENHOLM P., ACS Z. J. and WUEBKER R. (2013) Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity, *Journal of Business Venturing* **28**, 176-93.
STERNBERG R. J. (2012) The Assessment of Creativity: An Investment-Based Approach, *Creativity Research Journal* **24**, 3-12.
TRAN H. T. and SANTARELLI E. (2014) Capital Constraints and the Performance of Entrepreneurial Firms in Vietnam, *Industrial and Corporate Change* **23**, 827-64.
TUROK I., BAILEY D., CLARK J., DU J., FRATESI U., FRITSCH M., HARRISON J., KEMENY T., KOGLER D., LAGENDIJK A., MICKIEWICZ T., MIGUELEZ E., USAI S. and WISHLADE F. (2017) Global reversal, regional revival?, *Regional Studies Regional Studies* **51**, 1-8.
VORLEY T. and WILLIAMS N. (2016) Not Just Dialling It in:Examining Cognitive-Based Approaches in Enterprise Education Using a Smartphone Application, *Education & Training* **58**, 45-60.

WEINGAST B. R. (1995) The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development, *Journal of Law, Economics, & Organization* **11**, 1-31.
WILLIAMSON O. E. (1985) *The economic institutions of capitalism : firms, markets, relational contracting*. Free Press ; Collier Macmillan, New York; London.
WILLIAMSON O. E. (2000) The New Institutional Economics: Taking Stock, Looking Ahead, *Journal of Economic Literature* **38**, 595-613.
YE L. (2009) Regional Government and Governance in China and the United States, *Public Administration Review* **69**, S116-S21.
ZHOU (2013) Political connections and entrepreneurial investment: Evidence from China's transition economy, *Journal of Business Venturing* **28**, 299-315.

Table 1: Variable definitions and summary statistics

Variable	Definition	Mean	S.D.	Min.	Max.
Revenue growth	The percentage change of sales revenue growth between two consecutive years: $\ln(\text{revenue})_{it} - \ln(\text{revenue})_{it-1}$	0.05	1.41	-12.35	12.34
Age	Years of operation since establishment	6.67	5.44	1	33
Ownership	Code "1" state-owned SMEs, code "2" private SMEs, code "3" foreign-owned SMEs	1.98	0.32	1	3
Size	Natural log of the number of employees (reported the number of employees)	43.84	70.08	10	475
Assets structure	The ratio of firm fixed assets to total assets	0.24	0.25	0	0.94
Owner age	Age of the owner of the firm	44.64	9.88	16	90
Owner gender	Code "1" male, code "2" female	0.70	0.46	0	1
Provincial construction	The value of spending for local infrastructure systems, in million VND per capita	9.32	6.76	0.59	37.94
Provincial consumption	The value of average consumption of a province in a year, in billion VND per capita	24.13	14.64	2.01	50.58
Cumulative value of FDI	Cumulative value of FDI of a province in a year, in billion VND per capita	667.82	568.94	0.14	2561.76
Value of SOEs capital	Value of state-owned firms of a province in a year, in billion VND per capita	88.32	145.91	0.43	634.42
Distance	Distance from a province to the closet economic centre, in km	91.68	123.74	1	499
Corruption	The difference of the Informal charges indicator in two consecutive years: $\text{Informal charges}_{it} - \text{Informal charges}_{it-1}$	0.04	0.83	-3.39	3.62
Transparency	The difference of the Transparency indicator in two consecutive years: $\text{Transparency}_{it} - \text{Transparency}_{it-1}$	-0.05	0.62	-2.99	3.05
Proactivity	The difference of the Proactivity indicator in two consecutive years: $\text{Proactivity}_{it} - \text{Proactivity}_{it-1}$	-0.22	1.10	-5.46	6.18
Legal Policies	The difference of the Legal institutions indicator in two consecutive years: $\text{Legal institutions}_{it} - \text{Legal institutions}_{it-1}$	-.2245	1.501	-3.738	4.020

Note: Studying panel encompasses all 63 provinces and municipal cities in Vietnam in 2006-2012. Governance variables were obtained from Provincial Competitiveness Index (PCI) dataset. Firm-specific variables were obtained from Annual Enterprises Survey of the General Statistical Office. All values are depreciated using official inflation rate (2010 prices).

Table 2.1: Regression results

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Firm age	-0.002*	-0.026***	-0.023***	-0.057***	-0.074***	-0.054***	-0.061***
	(0.001)	(0.000)	(0.000)	(-0.010)	(-0.010)	(-0.010)	(-0.010)
Firm size	0.112***	0.078***	0.095***	0.207***	0.205***	0.207***	0.206***
	(0.007)	(0.004)	(0.003)	(-0.009)	(-0.009)	(-0.009)	(-0.009)
Assets structure	-0.022	0.019	0.039***	-0.112***	-0.109***	-0.111***	-0.110***
	(0.030)	(0.016)	(0.012)	(-0.030)	(-0.030)	(-0.030)	(-0.030)
Owner age	-0.003***	-0.007***	-0.006***	-0.064***	-0.053***	-0.072***	-0.070***
	(0.000)	(0.000)	(0.000)	(-0.010)	(-0.010)	(-0.010)	(-0.010)
Owner gender	0.058***	0.084***	0.063***	0.199***	0.192***	0.200***	0.189***
	(0.019)	(0.009)	(0.007)	(-0.022)	(-0.022)	(-0.022)	(-0.022)
Provincial construction	-0.012	-0.009***	-0.002	0.028***	0.026***	0.028***	0.026***
	(0.008)	(0.001)	(0.002)	(-0.002)	(-0.002)	(-0.002)	(-0.002)
Provincial consumption	0.019***	-0.001***	0.002***	0.060***	0.055***	0.061***	0.056***
	(0.003)	(0.000)	(0.000)	(-0.003)	(-0.003)	(-0.003)	(-0.003)
Distance	-0.000**	-0.001***	-0.000***	0.007***	0.006***	0.007***	0.006***
	(0.000)	(0.000)	(0.000)	(-0.002)	(-0.002)	(-0.002)	(-0.002)
Value FDI	-0.000***	0.000***	-0.000***	-0.001***	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Value SOEs	-0.001***	-0.000***	-0.000***	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Transparency	2.066***			0.0638***			0.0242***
	(0.300)			(-0.007			(-0.007
Corruption		1.436***			0.141***		0.127***
		(0.103)			(-0.008		(-0.009
Proactivity			0.230***			0.044***	0.015***
			(0.035)			(-0.005	(-0.005
Transparency × Firm age				-0.005***			-0.001**
				(-0.001)			(-0.001
Corruption × Firm age					-0.007***		-0.005***
					(-0.001)		(-0.001
Proactivity × Firm age						-0.005***	-0.003***
						(0.000)	(0.000)
Hausman p_value	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	307,591	307,591	307,591	307,591	307,591	307,591	307,591
Hansen (J) p_value	0.35	0.93	0.84	NA	NA	NA	NA
Mean VIF	3.83	4.08	4.03	4.14	4.16	4.15	4.13
R-squared	NA	NA	NA	0.350	0.352	0.350	0.352

Table 2.2: Regression results (continue)

	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Firm age	-0.066***	-0.072***	-0.066***	-0.071***	-0.071***	-0.073***	-0.078***	-0.073***	-0.079***
	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)
Firm size	0.208***	0.213***	0.194***	0.208***	0.206***	0.206***	0.205***	0.206***	0.205***
	(-0.009)	(-0.009)	(-0.009)	(-0.009)	(-0.009)	(-0.009)	(-0.009)	(-0.009)	(-0.009)
Assets structure	-0.113***	-0.115***	-0.110***	-0.115***	-0.112***	-0.112***	-0.110***	-0.113***	-0.111***
	(-0.030)	(-0.030)	(-0.030)	(-0.030)	(-0.030)	(-0.030)	(-0.030)	(-0.030)	(-0.030)
Owner age	-0.055***	-0.055***	-0.059***	-0.058***	-0.051***	-0.046***	-0.047***	-0.052***	-0.046***
	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)	(-0.010)
Owner gender	0.190***	0.153***	0.188***	0.147***	0.205***	0.205***	0.199***	0.205***	0.198***
	(-0.022)	(-0.022)	(-0.022)	(-0.022)	(-0.022)	(-0.022)	(-0.022)	(-0.022)	(-0.022)
Provincial construction	0.028***	0.026***	0.028***	0.026***	0.029***	0.029***	0.028***	0.029***	0.028***
	(-0.002	(-0.002	(-0.002	(-0.002	(-0.002	(-0.002	(-0.002	(-0.002	(-0.002
Provincial consumption	0.059***	0.054***	0.061***	0.054***	0.060***	0.059***	0.058***	0.062***	0.058***
	(-0.003)	(-0.003)	(-0.003)	(-0.003)	(-0.003)	(-0.003)	(-0.003)	(-0.003)	(-0.003)
Distance	0.008***	0.006***	0.008***	0.006***	0.007***	0.007***	0.006***	0.008***	0.006***
	(-0.002)	(-0.002)	(-0.002)	(-0.002)	(-0.002)	(-0.002)	(-0.002)	(-0.002)	(-0.002)
Value FDI	-0.070***	-0.067***	-0.069***	-0.068***	-0.072***	-0.075***	-0.069***	-0.073***	-0.069***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Value SOEs	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Transparency	0.201***			0.023		0.048***			0.019***
	(-0.016)			(-0.016)		(-0.006)			(-0.006)
Corruption		0.522***		0.492***			0.117***		0.116***
		(-0.018)		(-0.018)			(-0.007)		(-0.007)
Proactivity			0.177***	0.060***				0.011**	-0.016***
			(-0.010)	(-0.010)				(-0.004)	(-0.005)
Transparency × Firm size	-0.051***			-0.003					
	(-0.004)			(-0.004)					
Corruption × Firm size		-0.125***		-0.115***					
		(-0.004)		(-0.004)					
Proactivity × Firm size			-0.051***	-0.023***					
			(-0.003)	(-0.003)					
South					1.246***	1.250***	1.168***	1.238***	1.161***
					(-0.427)	(-0.426)	(-0.427)	(-0.427)	(-0.427)
Transparency*South						-0.066***			-0.0153*
						(-0.008)			(-0.009)
Corruption*South							-0.089***		-0.082***
							(-0.009)		(-0.009)
Proactivity*South								-0.026***	0.00134
								(-0.006)	(-0.006)
Hausman p_value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Observations	307,591	307,591	307,591	307,591	307,591	307,591	307,591	307,591	307,591
Mean VIF	4.53	4.55	4.54	5.38	4.19	4.13	4.15	4.17	4.09
R-squared	0.350	0.356	0.351	0.357	0.350	0.350	0.352	0.350	0.352

Note: Results in columns (1) to (3) were estimated using IV-GMM estimator (routine *ivreg2* with gmm2s option in Stata). The results in columns (3) to (16) were estimated using fixed effect panel estimator (routine *reghdfe* in Stata). All specifications include year dummies, 2-digit industry dummies, and ownership dummies (private, state-owned and foreign-owned). The figures reported in parentheses are heteroskedasticity and autocorrelation (HAC) robust standard errors, clustered by region per year. Hausman test statistics are reported for the endogeneity of fixed effects. *** indicates significant at 1%. ** indicates significant at 5%. * indicates significant at 10%.

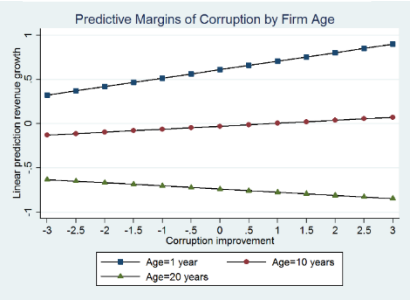
Appendix A: Governance index definition and summary statistics

Variable	Definition	Mean	S.D.	Min.	Max.
Corruption	Measures how much firms pay in informal charges, how much of an obstacle those extra fees pose for their business operations, whether payment of those extra fees results in expected results or "services," and whether provincial officials use compliance with local regulations to extract rents. The indicator is two-digit value, ranging from 1 to 10, the higher the score, the lower the charges (corruption).	6.48	0.80	4.52	8.62
Transparency	Measures whether firms have access to the proper planning and legal documents necessary to run their businesses, whether those documents are equitably available, new policies and laws are communicated to firms and predictably implemented. The indicator is two-digit value, ranging from 1 to 10, the higher the score, the more transparent.	5.79	0.97	2.15	8.85
Proactivity	Measures the creativity and cleverness of provinces in implementing central policy, designing their own initiatives for private sector development, and working within sometimes unclear national regulatory frameworks to assist and interpret in favour of local private firms. The indicator is two-digit value, ranging from 1 to 10, the higher the score, the more proactive.	5.05	1.46	1.39	9.39
Legal Policies	Measures the private sector's confidence in provincial legal institutions; whether firms regard provincial legal institutions as an effective vehicle for dispute resolution, or as an avenue for lodging appeals against corrupt official behaviour. The indicator is two-digit value, ranging from 1 to 10, the higher the score, the more proactive.	4.60	1.16	2.00	7.34

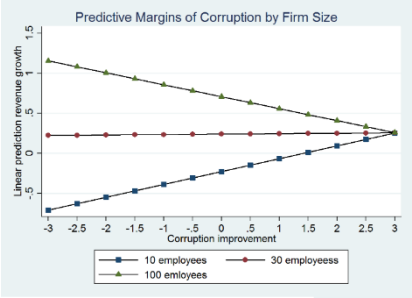
Note: Studying panel encompasses all of 63 provinces and municipal cities in Vietnam in the period 2006-2012, obtained from the Provincial Competitiveness Index (PCI).

Appendix B: Predictive margins of revenue growth on firm age, size, and region

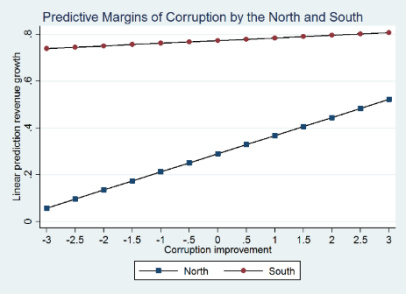
Graph B1: Firm age



Graph B2: Firm size



Graph B3: Regions



Appendix C: Estimates of sales growth with Legal Policies included as governance indicator

VARIABLES:	(1)	(2)	(3)
Firm age	-0.042***	-0.059***	-0.081***
	(-0.010)	(-0.010)	(-0.010)
Firm size	0.206***	0.140***	0.207***
	(-0.009)	(-0.010)	(-0.009)
Asset structure	-0.111***	-0.109***	-0.114***
	(-0.030)	(-0.030)	(-0.030)
SOEs	-0.199***	-0.214***	-0.224***
	(-0.050)	(-0.051)	(-0.051)
FOEs	-0.246	-0.21	-0.244
	(-0.222)	(-0.222)	(-0.219)
Owner age	-0.081***	-0.0613***	-0.027***
	(-0.010)	(-0.010)	(-0.010)
Owner gender	0.161***	0.124***	0.172***
	(-0.022)	(-0.022)	(-0.022)
Provincial construction	0.024***	0.023***	0.024***
	(-0.002)	(-0.002)	-0.002)
Provincial consumption	0.055***	0.054***	0.048***
	(-0.003)	(-0.003)	(-0.003)
Distance	0.007***	0.006***	0.005***
	(-0.002)	(-0.002)	(-0.002)
Cumulative FDI value	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)
Cumulative SOE value	0.00***	0.001***	0.001***
	(-0.000)	(-0.000)	(-0.000)
Legal policies	-0.151***	-0.461***	-0.127***
	(-0.007)	(-0.016)	(-0.006)
Legal policies*firm age	0.001***		
	(-0.001)		
Legal policies*firm size		0.110***	
		(-0.004)	
South			1.172***
			(-0.430)
Legal policies*South			0.127***
			(0.007)
Hausman p_value	0.000	0.000	0.000
Observations	307,591	307,591	307,591
R-squared	0.352	0.357	0.351

Note: The results were estimated using fixed effect panel estimator (routine *reghdfe* in Stata). All specifications include 7-year dummies, 2-digit industry dummies, and 3 ownership dummies (private, state-owned and foreign-owned). The figure reported in parentheses are robust standard errors clustered by region per year. Hausman test statistics are reported for the endogeneity of fixed effects. *** indicates significant at 1%. ** indicates significant at 5%. * indicates significant at 10%.

[1] Here, the entrepreneurship sector is understood as young, small and private companies, following DU J. and MICKIEWICZ T. (2016) Subsidies, rent seeking and performance: Being young, small or private in China, *Journal of Business Venturing* **31**, 22-38..
[2] See however: AUDRETSCH D. B., BELITSKI M. and DESAI S. (2015) Entrepreneurship and economic development in cities, *The Annals of Regional Science* **55**, 33-60.
[3] Source: https://www.gso.gov.vn/Default_en.aspx?tabid=515
[4] *Doimoi* is the term describing the radical economic transformation in Vietnam that started from 1986.
[5] Details of PCI methodology please visit www.eng.pcivietnam.org.
[6] According to the Vietnam Enterprise Law, there are 4 types of firms in terms of size. Microenterprises are firms operating with fewer than 10 employees. Small enterprises are firms having 10 to 200 employees and total registered capital less than 20 billion VND (approximately 1 million USD). Medium enterprises are firms having 200-300 employees and total registered capital less than 100 billion VND (approximately 5 million USD). And large enterprises are firms operating with more than 300 employees and 100 billion VND registered capital. Capital is the first criterion in categorization.
[7] We test the robustness of the results by running the regressions using profitability as dependent variables, including Earning after tax, earnings before interest and tax (EBIT), ROS, and ROA. We use both IV-GMM and FE estimators. The results overall support our main hypothesis concerning the positive effects of local governance on local SMEs' performance. These are available on request.
[8] In Vietnam, there are five large economic centres, administratively defined as municipalities: Hanoi, Haiphong, Hochiminh, Danang, and Cantho.
[9] The command in Stata is *ivreg2* with the two-step feasible GMM estimation (*gmm2s* option).
[10] Short tenure may also trigger more corruption. If officials know that they just hold the position in short time (just one term, for instance), they may try to reap maximum benefit from their power.
[11] The use of the *reghdfe* is appropriate for multiple levels of fixed effects. The routine uses a robust algorithm to efficiently absorb the fixed effects from different levels of observations, and by default iteratively removes singleton groups to avoid biasing the standard errors, see CORREIA S. (2014) Explanation of the HDFE iteration 3 FEs, *Duke University, mimeo.*.
[12] For the sake of saving space, this paper exhibits the predictive margins of the corruption variable only. The predictive margins of the other governance variables (transparency and proactivity) are similar to those of corruption. These graphs are available on request.