Corruption, Business Environment and Firm Growth in Vietnam

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ABSTRACT

Corruption is fought by the governments in both developing and developed countries since it can harm the development of the economies. But it has raised the question that why it is still existing at a high level in a long time in emerging markets like Vietnam? The study provides the impact of corruption on firm growth and also the effect of business environment on corruption at firm perceived level across different types of ownership: state-owned and publicly-owned firms, foreigner-owned firms, shareholding firms and non-shareholding firms in Vietnam. The dataset is collected from 3 surveys in 2005, 2009 and 2015 with 348 observations. We explore that corruption has a negative effect on the growth of firms with all types of ownership except state-owned firms. We also document that the difference in the corruption across different provinces can be influenced by the quality of local business environment.

Keywords: Business Environment; Corruption; Firm growth; Emerging market; Vietnam.

1. Introduction

Corruption is the abuse of entrusted power for private gain and it brings many negative effects to the economy. It reduces the investment/GDP ratios (Mauro, 1995), discourages the direct foreign investment (Wei, 1997) and generally hurts economic growth (Mauro, 1995; Wei, 1998). According to World Bank, the average income in the countries with high level of corruption is around a third of that of countries with lower level of corruption. We all do know that corruption will not disappear from society but we should restrict it since in the end, all corruption costs are paid by the consumer and the taxpayer and they need to be protected to keep a better economy.

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Corruption brings many disadvantages to the economy, as it lowers the rate of economic growth (e.g., North, 1990; Shleifer and Vishney, 1993; Romer, 1994; Mo, 2001); but why does it still exist? Morris (1991) states that corruption is the illegitimate use of public power to benefit a private interest. So, the existing of corruption is because of some reasons. First, it brings the benefits to the public officials based on their power. Second, it brings the economic advantages to the firms who want to "get things done" for their business. The benefits are totally not fare and legal, but it is still happens and develops, especially in the emerging economy even the governments try to avoid it. Generally speaking, emerging markets are characterized by weak rules of law, rampant corruption, government control of the press, a lack of accountability and transparency, government intervention in business activities and low quality public governance (Fan et al., 2011). At the same time financial market volatility in emerging markets is high. From that of emerging markets' characteristics, corruption is put in a good advantage environment to develop rather than in emerged markets[2] (Elvin Mirzayev, 2015).

From the understanding of corruption, featured characteristics of emerging markets, the study aims to figure out the effect of business environment on corruption and also the effect of corruption on firm growth at firm perceived level across different types of ownership: state-owned and publicly-owned firms, firms with and without foreigner investors, shareholding firms and non-shareholding firms. We choose Vietnam as the setting country of the study for four reasons. First, Vietnam shows the typical picture of an emerging market with all of the characteristics (K. E. Meyer and H. V. Nguyen, 2005). Second, Vietnam is ranked 112 out of 168 countries in the 2015 Global Corruption Report[3] (where the country with the highest corruption level is ranked at 168). Therefore, informal payment can advances firms in doing business. But it can raise some problems to the firms. Third, the effects of corruption on firm growth differ across different types of ownership. State-owned firms seem to have good relationships with government, so

[2] Available at http://www.investopedia.com/articles/investing/012215/how-corruption-affects-emerging-economies.asp

[3] The score of Vietnam equals 31 in the Corruption Perceptions Index (CPI), which ranges between 100 (highly clean) and 0 (highly corrupt). The information is available at http://www.transparency.org/country#VNM

that they can get the advantages from their relationships and of course political connections come with both formal and informal costs for the firm (P. V. Ha and Michael Frommel, 2016). Besides, corruption can discourages the foreign investment (Wei, 2000), so that it can harm the growth of firms. Furthermore, “informal payment” to “get things done” in firms can create the asymmetric information and also rise agency cost going with the decrease in firm growth. Fourth, although many studies have done to investigate the impacts of corruption on the economy, but there is not many studies focus on the different impacts of corruption on firm growth and business environment at firm perceived level across the different types of ownership. T. T. Nguyen and Van Dijk (2012) have done a study on the effect of corruption on firm growth and governance, but they just focus on the different between state-owned and private firms only. Thus, the study gives a better understanding about the effects of business environment on corruption and corruption on firm growth across different types of ownership.

We analyse the data obtained from surveys conducted in 2005, 2009 and 2015. The first survey is the ‘‘Enterprise Survey’’ conducted by the World Bank (WB). This dataset includes firm characteristics, financial information, and firms’ assessments of various aspects of the local business environment. The second survey is the ‘‘Vietnam Provincial Competitiveness Index Survey’’ organized by the Vietnam Competitive Initiative (VNCI) and the Vietnam Chamber of Commerce and Industry (VCCI) in the same years of WB’s surveys. This dataset comprises the information about business environment and Province Competitive Index (PCI) at province level. We collect the data of firms, which join to the surveys of World Bank in all conducted years 2005, 2009 and 2015. After deleting the firms with unavailable information, the sample size is 348 observations of 166 firms.

The layout of the paper is as follows. Section 2 is the literature review. Section 3 shows the research models, variable measurement and research data while section 4 presents the data analysis results. Section 5 of the paper provides a summary and some conclusions of the research.

2. Literature Review

2.1 Corruption

Prior to investigating the relation between corruption and firm's growth and other research questions, it is necessary to understand what corruption is. According to a definition established by World Bank (1997) and Transparency International, corruption is the abuse of entrusted power (public power) for private gain. More specifically, the public officer uses his/ her power for personal purpose to violate the order of the game (Jain, 2001). Generally, there are two types of corruption: petty corruption and grand corruption (World Bank). Also, according to World Bank's definition, corruption consists of three main factors: offering, giving or receiving something which affects public officers in the process of purchasing or conducting contracts; frauds leading to false values; and purchasing activities which violate the principles. Corruption is considered to be a type of rent-seeking (the underwriting of the campaigns of legislators, bribery, lobbying, and political violence), though there is a difference between them. For instance, bribery can be listed as a form of lobbying but at the same time, they can be distinguished by questioning whether or not the decisions of involved people are affected.

2.2 Corruption and firm growth

Since corruption became a controversial topic, corruption – firm's growth topic has been added to the to-research list of many financial economists. There are three main types of results conducted by those researchers: positive relationship, negative relationship or both of them between corruption level and firm's growth.

On the one hand, corruption harms the firm growth (Fisman and Svensson, 2007; Thuy and Mathijs, 2012; Peter, 2006; Goedhuys, Mohnen and Taha, 2016; Seker and Yang, 2014). By studying 243 Ugandan firms in the first half of 1998, Fisman and Svensson (2007) indicated that similar to taxation, bribery has a negative effect on firm's growth and this effect is even greater than that of taxation. More interestingly, according to a research in the context of a nearby country – Kenya, corruption does not only dampen firm's growth but it also spoil firms' spirits to export (Peter, 2006). In addition, in a study about 3489 firms from Egypt (2897) and Tunisia (592), Goedhuys, Mohnen and Taha

(2016) found that corruption is likely to have a significant negative relation with firm's growth. By configuring a model with corruption level, innovation as two independent variables and firm's growth as a dependent variable, it was found that there is a significantly negative coefficient of the corruption variable (Goedhuys, Mohnen and Taha, 2016). Far away from Africa continent, in a huge research, Seker and Yang (2014) conducted a study about 6639 firms from 29 countries in Latin America and Caribbean. They found that bribery remarkably falsifies firm's growth.

Furthermore, in some cases, this unexpected effect of corruption on firm's growth exists only in some types of enterprises. As described in the study of 741 private firms and 133 SOEs in Vietnam, Thuy and Mathijs (2012) found that corruption has an effect on private sector's growth, but not the state sector. This problem may come from the close relationship between SOEs and public officials (Thuy and Mathijs, 2012).

On the other hand, corruption may actually improve efficiency and help growth, especially in the context of pervasive and cumbersome regulations in developing countries (Wang and You, 2012; Hasan and Pinar, 2014). With a huge data set as 12212 Chinese firms, Wang and You (2012) interestingly found that to some extent, corruption is likely to support firm's growth. More specifically, corruption has a positive correlation with the growth of firms' sales income. Meanwhile, in a research of 41 manufacturing firms in Turkey, it is indicated that there is a remarkably positive relationship between corruption level and the private firms' growth (Hasan and Pinar, 2014).

Another possibility would be a double-edged sword between corruption and firm's growth (Sharma and Mitra, 2015). In their research of 2287 Indian enterprises, Sharma and Mitra (2015) used two sets of variables: macroeconomic-based and firm-based. While the former consists of factors which are related to government interaction, the latter includes firm-specific features, such as size, age, ownership, innovation, international exposure and competitions. The results are mixed: 'grease the wheels' as well as 'sand the wheels'. More specifically, bribe acts as a kind of tax and results in a decrease in efficiency, meanwhile, bribery supports firms in exporting and product innovation (Sharma and Mitra, 2015).

2.3 Business Environment and Corruption

Apart from the relation between corruption and firm's growth, this study also explores the influence of the local business environment and corruption in different types of ownership. By studying this influence, business environment can be adjusted in order to minimise the likelihood of corruption and thus, to some extent, attract more investment.

Obviously, corruption usually goes along with poor business environment and vice versa. For instance, SMEs in the Philippines operating in cities with poorer business environments are more likely to be affected by corruption (Mendoza and Bancolita, 2013). It is supported by the study of Thuy and Mathijs (2012) that the quality of local public governance, which are regulatory entry costs, land access, the implementation and consistency of policies, has a crucial role in determining the level of corruption. Enhancing public governance quality may result in a decrease in corruption level, and also reducing corruption's effects on the economy. Furthermore, according to Dzhumashev (2014), instead of focusing on bureaucrats, the policies should be adjusted to target tax evaders in order to be more effective regarding to both mitigating corruption and enhancing the potential growth of an economy.

The below table will show clearly about what other authors have done in figuring out the relationships between corruption and firm growth and also the effects of local business environment on corruption in different markets.

Table 1. Summary of Previous Research Results

Author	Year	Data set	Findings
Thuy and Mathijs	2012	741 private firms and 133 SOEs	They find that corruption hampers the growth of Vietnam's private sector, but is not detrimental for growth in the state sector. Corruption may harm economic growth because it favours the state sector at the expense of the private sector and that improving the quality of local public governance can help to mitigate corruption and stimulate economic growth
Fisman and Svensson	2007	243 Ugandan firms	They find that both the rate of taxation and **bribery are negatively correlated with firm growth**. A one-percentage point increase in the bribery rate is associated with a reduction in firm growth of three percentage points, an effect that is about three times greater than that of taxation.
Wang and You	2012	12212 Chinese firms	**Corruption is likely to contribute to firms' growth**
Peter	2006	279 Kenyan firms	**Corruption significantly dampens firm growth** and the propensity to export
Hasan and Pinar	2014	41 manufacturing firms in Turkey	We find specifically **a significantly positive relation between the growth of private firms and corruption level.**
Goedhuys, Mohnen and Taha	2016	3489 firms from Egypt (2897) and Tunisia (592).	Corruption seems to have a **direct negative effect** on growth, as indicated by the negative and significant coefficient of the corruption variable
Seker and Yang	2014	6639 firms from 29 countries in Latin America and Caribbean	**Bribery significantly distorts firm growth**
Sharma and Mitra	2015	2287 Indian enterprises	**The findings on the effects of bribe on firm's performance are rather mixed**. They note that bribe works as tax on profitability of firms and reduces efficiency. However, the evidence is inconclusive relating to productivity. On the other hand, bribing shows a positive effect on the firms' export and product innovation
Mendoza and Bancolita	2013	1700 SMEs in 29 Philippine Cities	More corruption is reported by firms located in cities with very poor business environments and weak provision of public goods
Dzhumashev	2014		The policies reducing tax evasion mitigates corruption and enhances growth

3. Variables measurement and data

3.1 Variables Measurement

Our choice of variables is based on the literature and the data surveys of World Bank and VNCI & VCCI. For the firm growth, we use the growth of sales to measure. Corruption is measured as a dummy variable that based on the answer of firm to the question: "We've heard that establishments are sometimes required to make gifts or informal payments to public officials to ''get things done'' with regard to customs, taxes, licenses, regulations, services etc. Does it occur for establishments in your industry (not necessarily yours)?'' on the questionnaire of World Bank. Our control variables include firm age and firm size. For the variables of different types of ownership: State-owned enterprise, Shareholding enterprise and Foreigner-owned enterprise, in each of variable, the value equals 1 if the firm is State-owned enterprise/Shareholding enterprise/Foreigner-owned enterprise and 0 otherwise.

For the determinants of local business environment, we follow the survey of VNCI and VCCI namely Vietnam Provincial Competitiveness Index Survey. They are including Provincial Competitiveness Index (PCI), Land Access, Transparency, Time Cost, Information Charge, Fair Competition, Dynamic, Firm Support, Labour Training and Regulations. The definitions of variables are shown in the below table.

Table 2. Variable Definitions

Variable		Definition
Panel A: The World Bank's ''Productivity and Investment Climate Enterprise Survey''		
Fage	=	Firm age in years
Fsize	=	Logarithm of total sales (in million VND)
Corruption	=	A dummy variable, which equals 1 if the firm perceives that there are informal payments to public officials in the industry, and 0 otherwise. The value is based on the answer of firm to the question: ''We've heard that establishments are sometimes required to make gifts or informal payments to public officials to ''get things done'' with regard to customs, taxes, licenses, regulations, services etc. Does it occur for establishments in your industry (not necessarily yours)?''

SOE	=	A dummy variable, which equals 1 if the firm is state-owned and 0 otherwise.
SHE	=	A dummy variable, which equals 1 if the firm is shareholding firm and 0 otherwise.
FOE	=	A dummy variable, which equals 1 if the firm has foreign investors and 0 otherwise.
Fgrowth	=	Growth rate of sales.
Panel B: VNCI and VCCI's ''Vietnam Provincial Competitiveness Index Survey''		
PCI	=	Provincial Competitiveness Index
LandAccess	=	Provincial index that measures the access to land and security of business premises
Transparency	=	Provincial index that measures the transparent business environment and equitable business information
TimeCost	=	Provincial index that measures the time requirements for bureaucratic procedures and inspections
InformalCharge	=	Provincial index that measures the minimal informal charges
FairCompetition	=	Provincial index that measures the minimal crowding out of private activity from policy biases toward state, foreign, or connected firms
Dynamic	=	Provincial index that measures the proactive and creative provincial leadership in solving problems for enterprises
FirmSupport	=	Provincial index that measures the developed and high-quality business support services
LabourTraining	=	Provincial index that measures the labour training policies
Regulations	=	Provincial index that measures the fair and effective legal procedures for dispute resolution

3.2 Data

We use data collected from two surveys conducted in 2005, 2009 and 2015. The first survey is the ''Productivity and Investment Climate Enterprise Survey'' conducted by the World Bank. This dataset includes firm characteristics, financial information, and various aspects of the local business environment assessed by firms. The second survey is the ''Vietnam Provincial Competitiveness Index Survey'' conducted by the Vietnam Competitive Initiative (VNCI) and the Vietnam Chamber of Commerce and Industry

(VCCI) in 2005, 2009 and 2015. This dataset comprises of province-level indicators of public business environment quality.

3.3 Descriptive Statistic

Table 3 presents the descriptive statistic of the variables. The corruption level in Vietnam is high when more than 75% of the firms think that they have to pay the informal charges when they run their business. For the business environment, the competitive province index shows that the distance from the province with the highest and lowest indexes in the total of 13 provinces is high, with 45.79 and 76.82 respectively. The impact of local business environment on the corruption is shown in detail in the next part of the paper.

Table 3. Descriptive Statistic

	Mean	Median	Min	Max	Std. Deviation	No. of Obs.
Fage	17,97	13,00	1,00	113,00	15,67	348
Fsize	23,93	23,94	19,01	30,97	1,81	348
Corruption	0,76	1,00	0,00	1,00	0,43	348
LandAccess	5,70	5,26	4,12	8,84	1,09	348
Transparency	5,92	6,10	3,23	7,55	0,90	348
Timecost	6,61	6,56	5,46	8,60	0,75	348
InformalCharge	5,18	5,16	3,38	8,85	1,11	348
FairCompetition	6,41	6,52	3,44	9,52	1,77	348
Dynamic	5,00	4,52	2,84	9,39	1,43	348
FirmSupport	6,31	6,47	2,93	8,55	1,21	348
LabourTraining	6,60	6,52	3,35	9,73	1,38	348
Regulation	5,25	5,26	4,17	8,27	0,71	348
CPI	60,52	59,61	45,79	76,82	5,02	348

3. Methodology

3.1 Corruption and Firm Growth

To examine the impact of corruption on the firm growth, we use the equation is as follows:

$$\textit{Firm Growth} = \beta 0 + \beta 1\ \textit{Firm age} + \beta 2\ \textit{Firm size} + \beta 3\ \textit{Corruption} + e$$

The firm growth is measured by the ratio of sale growth. We use firm age and firm size as the control variables where firm age is measured as the natural logarithm of the total year from the establishment and firm size is the natural logarithm of total sale. Corruption is a dummy variable, it equals 1 if the firm answered "Yes" with the question "It is said that establishments are sometimes required to make gifts or informal payments to public officials to "get things done" with regard to customs, taxes, licenses, regulations, services etc." and 0 otherwise.

We use state owned firm (SOE), shareholding firm (shareholding) and foreigner owned firm as the different dummy variables to figure out the difference in the impact of corruption on firm growth in different types of ownership. In each variable, the value equals 1 if the firm is state owned firm/shareholding firm/foreigner owned and 0 otherwise.

3.2 Business Environment and Corruption

Continue to explore the influence of the local business environment and corruption in different types of ownership; the second equation of the study is as follow:

$$Corruption = \beta 0 + \beta 1\ PCI + \beta 2\ Land\ Access + \beta 3\ Transparency + \beta 4\ Time\ Cost + \beta 5\ Informal\ Charge + \beta 6\ Fair\ Competition + \beta 7\ Dynamic + \beta 8\ Firm\ Support + \beta 9\ Labour\ Training + \beta 10\ Regulations + e$$

We use the provincial governance indicators provided by VNCI and VCCI as the determinants of Corruption, which are all standardized to a ten-point scale. The indicators, whose definitions are: (1) PCI; (2) Land Access; (3) Transparency; (4) Time cost; (5) Informal Charge; (6) Fair Competition; (7) Dynamic; (8) Firm Support; (9) Labour Training and (10) Regulations. The detail in the definitions of variables in this equation is shown in the Panel B of the Table 2.

4. Data Analysis Result

4.1 Corruption and Firm Growth

Table 4 shows the results of 4 variations of the first equation of the paper where (1) shows the impact of corruption on firm growth; and (2), (3) and (4) show the impact of corruption on firm growth in different types of ownership. The values of R square run

from 14.9% to 20.3%. The most interesting result in table 4 is corruption has strong effect on the growth of firms and the effect of corruption is different in different types of ownership.

When we find that corruption can harm the firm growth in shareholding and foreigner-owned firms, the state-owned firms can improve the firm growth with informal payments. Especially, when we take the dummy variable SOE (State-owned enterprises) to the model (2), the overall negative impact of corruption has not changed but this effect in the state-owned enterprises changes to positive. In those types of ownership like shareholding and foreigner-owned, it is easily to understanding that the informal payments can increase the agency problems and therefore the firm efficiency can be affected negatively.

Table 4. Corruption and Firm Growth

	(1)		(2)		(3)		(4)	
	Coef	p-value	Coef	p-value	Coef	p-value	Coef	p-value
Firmage	**-0.031*****	**0.004**	**-0.038*****	**0.001**	**-0.024****	**0.024**	**-0.036*****	**0.001**
Firmsize	**0.152*****	**0.001**	**0.172*****	**0.001**	**0.169*****	**0.001**	**0.15*****	**0.003**
Corruption	**-0.149***	**0.096**	**-0.244****	**0.016**	-0.018	0.850	-0.09	0.349
SOE			1.411	0.389				
SOE*Firmage			0.009	0.227				
SOE*Firmsize			-0.075	0.276				
SOE*Corruption			**0.411***	**0.070**				
SHE					**3.122***	**0.061**		
SHE *Firmage					-0.007	0.281		
SHE *Firmsize					-0.101	0.143		
SHE *Corruption					**-0.739*****	**0.000**		
FOE							0.142	0.945
FOE *Firmage							**0.021***	**0.080**
FOE *Firmsize							-0.009	0.915
FOE *Corruption							**-0.487***	**0.055**
Firmdummy	Yes		Yes		Yes		Yes	
Yeardummy	Yes		Yes		Yes		Yes	
Industrydummy	Yes		Yes		Yes		Yes	
Provincedummy	Yes		Yes		Yes		Yes	
Obs	348		348		348		348	
R square	0.149		0.156		0.203		0.159	

*** p<0.01, ** p<0.05, * p<0.1

Variable definitions are presented in Table 2

4.2 Business Environment and Corruption

Table 4 presents the analysis results of the equation (2). Using the same way of analysis with the previous part, this table shows the impact of local business environment on the informal payments of the firms based on the provincial indexes. The values of Pseudo R Square in those 6 models rank from 2.3% to 19.8%.

From the analysis result, the firms think that with better local business environment, they do not need to pay for informal charges when the influence of PCI on corruption is negatively. One of special thing in the result is that when we take the different types of ownership into the models to the check whether any different impacts occur, only in foreigner-owned firms, when they run their business in the provinces with lower competitive index, they tend to pay more for the informal charges. These impacts in state-owned and shareholding firms are not significant.

To be more detailed, we use different indexes in the "Vietnam Provincial Competitiveness Index Survey" of VNCI and VCCI including Land Access, Transparency, Time cost, Informal Charge, Fair competition, Dynamic, Firm Support, Labour Training and Regulations to figure out the relationships between business environment factors and corruption in different types of firm's ownership. While there is not any significant impact between local business environment and corruption in state-owned firms' perception; the data analysis results are more interesting in shareholding and foreign-owned firms when we find the significant relationships between local business environment and corruption.

Based on the perception of respondents in shareholding firms, they do not need to pay for the informal charges if they do business in the provinces with better business environment. Model (4) in the table 5 presents that six in the total of nine factors of local business environment including Land Access, Time Cost, Dynamic, Firm Support, Labour Training and Regulations have negative effects on corruption in shareholding firms. The effect of local business environment on corruption in foreigner-owned firms is not as strong as in shareholding firms when Transparency is the only factor of local business environment affects to corruption.

Table 5. Local Business Environment and Corruption

	(1)		(2)		(3)		(4)		(5)		(6)	
	Coef	p-value	Coef	p-value	Coef	p-value	Coef	p-value	Coef	p-value	Coef	p-value
PCI	**-0.057****	**0.029**			**-0.046***	**0.076**			**-0.047***	**0.071**		
LandAcess			**0.499****	**0.046**			**0.637****	**0.018**			**0.614***	**0.018**
Transparency			0.209	0.292			**0.473****	**0.028**			**0.508***	**0.014**
TimeCost			-0.18	0.434			-0.138	0.617			-0.169	0.505
InformalCharge			-0.3651	0.107			-0.351	0.156			-0.242	0.301
FairCompetition			0.101	0.429			0.076	0.545			-0.033	0.775
Dynamic			**-0.479****	**0.026**			**-0.731*****	**0.001**			**-0.653*****	**0.002**
FirmSupport			-0.157	0.414			0.032	0.867			0.021	0.905
LabourTraining			-0.0125	0.946			0.041	0.795			-0.078	0.614
Regulations			**0.533***	**0.069**			**0.638****	**0.024**			0.448	0.106
SOE	0.2	0.954	6.59	0.435								
SOE*PCI	-0.012	0.83										
SOE*LandAcess			0.06	0.931								
SOE*Transparency			0.588	0.366								
SOE*TimeCost			-0.66	0.466								
SOE*InformalCharge			0.291	0.663								
SOE*FairCompetition			-0.315	0.241								
SOE*Dynamic			-0.432	0.452								
SOE*FirmSupport			0.099	0.834								
SOE*LabourTraining			-0.2768	0.458								
SOE*Regulations			-0.484	0.456								
SHE					5.557	0.178	**45.584*****	**0.002**				
SHE *PCI					-0.079	0.242						
SHE *LandAcess							**-1.633****	**0.043**				
SHE *Transparency							-0.275	0.629				

SHE *TimeCost				**-2.055****	**0.023**			
SHE *InformalCharge				-0.209	0.758			
SHE *FairCompetition				0.004	0.989			
SHE *Dynamic				**-1.939****	**0.011**			
SHE *FirmSupport				**-1.137****	**0.024**			
SHE *LabourTraining				**-13.346****	**0.03**			
SHE *Regulations				**-2.424****	**0.024**			
FOF						**9.42****	**0.036**	**0.448****	**0.027**
FOF * PCI						**-0.134****	**0.064**		
FOF * LandAcess								-0.109	0.890
FOF * Transparency								**-1.103***	**0.094**
FOF * TimeCost								-0.952	0.197
FOF * InformalCharge								-0.719	0.291
FOF * FairCompetition								0.554	0.139
FOF * Dynamic								0.286	0.602
FOF * FirmSupport								-0.819	0.152
FOF * LabourTraining								-0.009	0.984
FOF * Regulations								0.125	0.887
Obs	348	348	348	348		348		348	
Pseudo R Square	0.023	0.141	0.032	0.198		0.048		0.171	

*** p<0.01, ** p<0.05, * p<0.1

Variable definitions are presented in Table 2

5. Conclusions

Based on theories such as agency theory and rent-seeking behaviour, along with previous articles about the relation between corruption and firm's growth, this study has developed an empirical framework to analyse the effect of corruption on firm's growth in Vietnam. The paper adds to the corporate finance field by analysing previous empirical studies and concluding the best explanation variables. As a result, two regression equations have been built. In the first equation, it comprises firm's growth, firm age, firm size and corruption, while in the second equation, it consists of corruption and 10 determinants which are (1) PCI; (2) Land Access; (3) Transparency; (4) Time cost; (5) Informal Charge; (6) Fair Competition; (7) Dynamic; (8) Firm Support; (9) Labour Training and (10) Regulations. Furthermore, by reviewing theories (agency theory, rent-seeking behaviour) and running these equations based on real data, this study has attempted to minimise the gap between theory and practice.

The results of the regression models pointed out the following relationship between corruption and firm's growth. While corruption affects firm growth (shareholding firms and foreigner-owned firms), it does not influence the firm growth of SOE.

Corruption, or so-called bribery, had a significant negative relationship with firm's growth in shareholding firms and foreigner-owned firms. This result supports the agency theory as bribery money may lead to the asymmetric information and therefore, an increase in agency cost along with the decrease in firm growth. Conversely, corruption had statistically significant positive relationship with SOE's growth, this was consistent with the fact that good relationships with government provides SOE with the advantages from their relationships.

Turning to the effect of local business environment on corruption, while there is not any significant impact between local business environment and corruption in state-owned firms' perception; a significant relationships between local business environment and corruption has been found in shareholding and foreign-owned firms. Specifically, Land Access, Time Cost, Dynamic, Firm Support, Labour Training and Regulations have

negative effects on corruption in shareholding firms. In foreigner-owned firms, Transparency is the only factor of local business environment affects to corruption.

Although a lot of effort was put into the research, there are still some limitations, which should be considered along with the results and discussions of the findings. These limitations, to some extent, arises from the limited data and variables definition. Firstly, the sample used in the research is quite limited. This is due to the limitation of the data from the survey of World Bank. Secondly, corruption is measured as a dummy variable with two values: 0 and 1. Therefore, it is just based on the perception of correspondents and it does not illustrate clearly how serious the corruption is, in other words, it answers the "Yes or No" question, not the "How" question.

After recognising the limitations of the study, there are some recommendations for further study about the effect of corruption on firm's growth. First, future researches may use a bigger data set or combine data sets in order to produce a better and more reliable results. Second, corruption may be defined as a continuous variable and calculated as the amount of informal payments which firms bribe the authorities. By doing these sorts of thing, future studies may bring a more general view and to some extent, this provides the policymakers a better view to issue rules or laws related to corruption.

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