

An Empirical Analysis of Corruption and Firm Growth across Southeast Asian Economies Using World Bank Enterprise Data

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Abstract

This study examines the relationship between corruption and firm performance in Southeast Asian economies using firm-level data from the World Bank Enterprise Surveys (2005–2024). The dataset comprises over 15,900 firms across ten countries. Given the pooled nature of the data, arising from irregular survey frequency and random sampling, the analysis employs a pooled Ordinary Least Squares (OLS) model with country fixed effects to control for unobserved heterogeneity. Firm performance is measured using sales growth and labor productivity. The empirical results indicate a significant non-linear negative relationship between corruption and firm performance, with stronger adverse effects at low to moderate levels of bribery. The findings consistently support the “sand the wheels” hypothesis, suggesting that corruption acts as a constraint on firm growth rather than facilitating efficiency. Overall, the results demonstrate that even low levels of corruption impose measurable economic costs on firms. These findings underscore the importance of reducing bureaucratic inefficiencies and enhancing transparency to improve firm performance and support sustainable economic development.

Keywords: Corruption, Firm performance, Non-linear, Short and long run, Sand the wheel

1. Introduction

Corruption has been widespread in developing economies and has generated extensive debate regarding its effects on private sector performance. In Southeast Asia, where systems of governance, economic regulation, and public administration differ considerably and political arrangements are highly diverse, the consequences of corruption are often multifaceted and, at times, paradoxical. According to the 2025 Corruption Perceptions Index (CPI), the region presents a starkly heterogeneous landscape: while Singapore leads with a score of 84 (ranking 3rd globally), nations like Cambodia (20) and Myanmar (16) continue to grapple with systemic governance failures. The regional average score of 41 remains below the global average,

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highlighting pervasive public sector integrity challenges. Data from the World Bank Enterprise Surveys further quantify these burdens, reporting bribery incidence rates the percentage of firms experiencing at least one bribe request at 27.1% for Cambodia and 20.3% for Indonesia.

The region is found to be heterogeneous in terms of institutions, and this presents a distinct setting in which to examine whether corruption limits or enhances firm-level growth. Some companies have been able to overcome bureaucratic inefficiencies by making informal payments but others are unable to exploit the opportunities available to them, and thus face limited opportunities in accessing markets, credit, and government contracts. The publications that utilize the firm-level approach and conduct cross-country research in the context of the Southeast Asian environment are few. The current studies are mostly nation-based or industry-based, giving a partial picture of how corruption influences the dynamics of firms in the region. Thus, the expansive regional analysis is necessary to determine the regular trends as well as region-specific distortions. This study attempts to fill this research gap by using a pooled dataset of the World Bank Enterprise Surveys that encompasses a number of Southeast Asian economies in the period between 2005 and 2024. Under the pooled method, both within-country and between-country variation can be exploited, thus making it possible to come up with a stronger inference on the connection between corruption and firm growth.

The economies of Southeast Asia are at different levels of institutional development. Whereas the anti-corruption structures and the rule of law are relatively strong in certain nations, some, such as Myanmar and Cambodia, to this day continue to struggle with structural governance failures, with Singapore being the opposite of that (Bak, 2022; Sorn & Fu, 2023). These variations provide a natural environment to test the difference in that relationship which exists between corruption and the growth of a firm between different governance regimes. Indonesia indicates the existence of a threshold effect, meaning that the adverse effect of corruption will get worse beyond a particular point and disproportionately affecting small and medium-sized enterprises (Alfada, 2019). Equally, Laos has been linked to corruption that reduces incentives to invest long-term and do research and development, thus limiting the level of innovation and competitiveness in new sectors (Tasane et al., 2023).

However, firms do not respond to corruption as mere victims, but most tend to develop adaptive measures, which determine their growth paths. The case of Vietnam suggests that the companies that were in a highly corrupt province have either paid facilitation payments to speed up the administrative process or they did not pay bribes at the expense of quarantined opportunities (Nguyen et al., 2020). These responses are not uniform and stable, but depend on the size of firms, their belonging to specific industries, their orientation on exports, and their foreign ownership. The bigger companies and exporters can be more susceptible to the predatory behavior because of their exposure and the size of operations (Ha & Froemmel, 2023). Corruption has been revealed to corrupt the allocation of resources in Malaysia and the ability of firms

to participate in innovative efforts, which decreases the growth in productivity in the long run (Chung et al., 2022).

Corruption also leads to more widespread distortions in the business settings that are going through economic integration or institutional transition, including Lao PDR and Timor-Leste where informal norms are still embedded into the formal institutions (King & Rafay, 2023; Sayavong, 2023). Corruption is informal, leads to the development of two types of economies, and encourages the development of rent-seeking behavior. Its impact has also been observed on the insolvency risk and more conservative financial policy of small and medium enterprises in the relatively stable economy of Thailand, even though only a few studies have identified administrative corruption as a risk in the short-term transaction cost Dheera Aumpon and Changwatchai (2024), Jaitang et al., (2025). This paper is relevant to the literature as it challenges the traditional dichotomy that only defines corruption as greasing or sanding the wheels of economic activity, in accordance with the analytical designs of Ravago et al., (2025) and Tran et al., (2024).

The remainder of the paper is organized as follows. Section 2 reviews the theoretical and empirical literature on corruption and firm growth in the context of Southeast Asia. Section 3 describes the dataset, variable construction, and empirical methodology, and presents the main results and their economic significance. Section 4 concludes.

2. Literature Review

Corruption and more specifically, bribery, continues to be a vital cross-cutting issue in developing economies due to their effect on business operations and economic growth. Different institutional frameworks, the degree of regulatory evolution, and the diverse ways of developing economically predetermine the complexity of the interplay of bribery and business performance in the context of various ASEAN countries (Kalim et al., 2022; Khan et al., 2023). According to the standard economic analysis, corruption is considered to be a negative externality and it causes an inefficient allocation of resources and also subverts market incentives (Mauro, 1995). Nonetheless, a considerable number of studies have explored the "grease the wheels" notion. Bribery, in this framework, is a way of escaping the inefficiencies that are typical of underdeveloped bureaucratic systems (Méon & Weill, 2010; Nguyen & Van Dijk, 2012). However, empirical data has shown that the current reality puts this argument to test, meaning that quality of institutions is the most significant moderating factor to attain heterogeneous effects (Fisman et al., 2024; Paunov, 2016).

2.1. Relevant Theoretical Framework

Institutional theory offers a high-level framework to explain failures in governance, which assumes that economic decisions are facilitated and limited by complicated institutional setups (Appolloni & Nshombo, 2014; Scott, 2008). The three-pillar model holds that systemic voids are not only caused by weak regulations (the regulative pillar) but also by systematic relationships between normative weaknesses and cultural-cognitive misalignments (Scott, 2008). Firms tend to shift to

rent-seeking behavior and risky projects in markets where institutional voids exist, including poor disclosure laws or a weak investor protection (La Porta et al., 2000). This implies that bribery will be institutionalized when it is considered a normal and correct method of doing business in a particular social context, although it may be against the law (Kaufmann & Wei, 1999). Adding to institutional theory, the collective action approaches imply that endemic corruption exists due to the absence of trust and the institutionalization of unethical behaviors (Persson et al., 2013). In contrast to the classical principal-agent model, which considers corruption as an individual agency problem to be addressed by monitoring, collective action theory describes corruption as a social trap, in which people participate in corruption activities because they believe that it is not rational to be the only honest person within a corrupt society (Marquette & Peiffer, 2015). In places where corruption constitutes a social phenomenon, anti-corruption efforts at the top are more likely to fail because of lack of principled principals to enforce formal rules (Klitgaard, 2004).

2.2. The Evolving Debate: Grease vs. Sand the Wheels

The dichotomy between the "grease" and "sand" hypotheses has been scrutinized using nuanced firm-level datasets. The hypothesis of grease the wheels is that the companies in rigid bureaucracies can gain a short-term efficiency due to bribery helping to conduct business (Lui, 1985; Méon and Weill, 2010). Some contexts, like Vietnamese Small and Medium Enterprises (SMEs), have shown that greasing refers to the process of bribery positively affecting the adoption of environmental innovations by enabling firms to avoid administrative bottlenecks. Moreover, there are short-run positive effects, such as cases when bribery makes the process of getting operating licenses and permits in the case of private companies faster (Trinh, 2019).

Nevertheless, the hypothesis of sand the wheels, which suggests that bribery is an ultimate defeat of the growth, is supported by broad empirical research with overwhelming evidence (Fisman et al., 2024; Mauro, 1995). This is shown by global analysis of 141 economies that show that the growth of firms paying zero informal payments in high corruption environments slows compared to moderate bribers (indicating their exclusion of opportunities), but the growth of those bribing is reducing sharply (Fisman et al., 2024). This means that, as much as bribery can aid in entry of some in the market, its strength is an unofficial and very volatile tax that lowers productivity and prevents long-term investment (Mauro, 1995; Paunov, 2016).

2.3. Regional Institutional Dynamics

The role of institutions in international business is especially acute in such densely populated areas as SAARC and ASEAN where the aspect of governance directly affects exports, imports, and Foreign Direct Investment (FDI) (Kalim et al., 2022; Khan et al., 2023). Empirical interpretations of the data based on the Feasible Generalized Least Square (FGLS) technique on SAARC data show that democratic accountability and political stability are crucial facilitators of trade and FDI inflows (Kalim et al., 2022). On the other hand, the presence of an external conflict and

political instability is a serious source of friction, which adversely impacts business transactions on the international level (Arshed et al., 2019; Kalim et al., 2022).

The relations in the ASEAN region are also complicated. Although there are members who have experienced high FDI levels in a medium level of corruption, the findings indicate that the hypothesis of the grabbing hand is valid, where foreign investors in high corruption levels incur bigger costs (Karim et al., 2022). The business environment in Vietnam is institutional dependent where enforcement is largely dependent on the changing political commitment as opposed to an independent legal framework (Nguyen, 2025; Huy et al., 2025).

2.4. Governance and Sustainable Development: A Simultaneous Approach

One of the most important developments in recent literature is the acknowledgement of a bi-directional endogenous relationship between governance and sustainable development. With panel Generalized Method of Moments (GMM) and panel three-stage least squares (3SLS), studies covering 59 developing nations show that governance, tax-to-GDP ratio and financial development have positive relationships with sustainable development. Importantly, the attainment of sustainable development goals equally positively affects governance structures back (Siddiqi et al., 2025). This implies a virtuous circle in which institutional betterments lead to development, which subsequently supplies the means and justification to more governance reforms. The policies to enhance bureaucratic openness should consequently be incorporated into the overall process of development to alleviate the social inequalities and guarantee the welfare of citizens (Irtysheva et al., 2023; Siddiqi et al., 2025).

2.5. Gap Identification

The impact of bribery varies significantly based on the size of firms, their age, and type of ownership (Nam et al., 2020; Magerakis & Tzelepis, 2023). Based on the agency theory, managerial corruption raises the costs of internal agency which lowers performance, especially in younger and smaller companies with the lack of sufficient resources to effectively deal with illicit transactions (Magerakis & Tzelepis, 2023). Older and bigger companies are less affected negatively, which may be because of economies of scale in dealing with corruption or because it has stronger internal controls (Jacobson, 1988; Magerakis & Tzelepis, 2023).

In spite of these insights, there are a number of research gaps. The first is the lack of interaction between macro-level institutional measures and micro-level behavioral data, namely on such factors as individual levels as the demographics of managers, education, and religiosity (Han, 2022; Karim et al., 2022). Second, not enough studies have been conducted on the role of the accounting and regulatory environment in reducing corruption in the ASEAN context, and the existing norms tend to emphasize transparency instead of corrupt transactions (Bhagia et al., 2022). Lastly, additional longitudinal modeling is required to reflect overall effectiveness of the anti-corruption campaigns on firm-level productivity (Huy et al., 2025).

2.6. Research Questions

Based on the identified research gaps and the objective of examining firm-level growth dynamics, this study is guided by a central research question: how does firm-level bribery affect the growth and performance of enterprises in Southeast Asian economies within varying institutional environments? To address this, the analysis focuses on several subsidiary questions. First, it evaluates the extent to which institutional quality moderates the relationship between bribery and firm performance, particularly in terms of sales growth and productivity. Second, it investigates the role of firm heterogeneity, including size, age, and ownership structure, in shaping the magnitude of corruption's impact. Finally, it examines whether firm-specific characteristics can mitigate the adverse effects of corruption in weak institutional settings.

3. Data and Methodology

3.1. The Data

Our empirical estimates rely upon pooled firm-level information of the Enterprise Surveys by the World Bank, comprising ten economies of Southeast Asia between 2005 and 2024. The surveys involve a standardized approach used by other countries all around the globe, with similar questions being asked on firm performance, experiences in corruption, and business environment restraints. The nature of the data enables a meaningful comparison of firms across nations and offers a special chance to study the impact of corruption on firm growth in different institutional environments. The sample consists of Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Timor-Leste, Thailand, and Vietnam firms. We have a total of 25 surveys. All countries are represented in at least one survey round, and some countries are found in more than one. As an example, the Lao PDR was sampled in the years 2009, 2012, 2016, 2018, and 2024, whereas Cambodia was observed in 2016 and 2023. The survey follows a stratified sampling plan to ensure that it covers all sectors, firm sizes, and geographic locations. This sample is limited to the firms registered formally with five or more full-time employees that do not include wholly state-owned enterprises. After cleaning the data, the final dataset consists of 15952 firms based on the sales growth per worker across countries and years.

This research used two measures of firm performance, i.e., sales growth per year and sales growth per worker, for the short and long run, respectively. Sales growth is calculated as the log difference between the lagged and most recent fiscal years in total sales, divided by two to take annualized growth. Alternate outcomes that we also build include labour productivity as the log of sales per worker and employment growth as the log difference in the number of fulltime employees during the same time window.

The data used to construct sales growth variables are directly obtained from the World Bank Enterprise Surveys, which collect firm-level information on total annual sales for the most recent fiscal year and three years prior to the survey year.

Specifically, firms report their total sales in the last completed fiscal year (variable: sales) and sales three fiscal years earlier (variable: sales three years ago). Using these two data points, we compute annualized sales growth as the log difference between current and lagged sales divided by the number of years between observations. This approach follows standard practices in the literature using Enterprise Survey data and ensures consistency in measuring firm performance across countries and survey rounds. Corruption can be determined in terms of firm behavior as well as perception. This research used three indicators of corruption. First, companies are requested to quantify what percentage of their annual sales they pay in informal payments or gifts to government officials to get things done, as far as taxes, licenses, regulations, and other administrative procedures are concerned. This gives an ongoing gauge of the thriving extent of bribery, which we allude to as the bribery rate. We exclude observations where the bribery rate exceeds 50%. Besides, a binary variable is constructed on the basis of whether or not the firm reports that it has paid informally and is represented as a non-bribing firm. The second indicator of bribery is the log of the amount paid as a bribe. Third, we additionally apply a scale of 1-5 in capturing the view of firms when corruption is viewed as a problem to their operations, with zero meaning that the corruption has no obstacle and five meaning that corruption has a very severe obstacle. These behavioral and attitudinal variables enable us to compare the real payment of bribes and the subjective business conditions.

We also present firm-level control variables as a rich set to obtain firm heterogeneity and possible confounding variables. These are natural logarithms of sales three years prior in order to get initial firm size, exporter status, foreign ownership, state ownership, firm age, age square, and a kvetch index. Exporter status, foreign ownership, and state ownership are dummy variables. Firm age is in the log form. The kvetch index represents an extension of the extent to which the national average of reporting of other business restraints, such as electricity, access to land, and transport, a firm may differ, and acts as a control in all the reports of firms to complain. Monetary values are expressed in U.S. dollars at the current exchange rates of the day.

In growth variables and bribery variables, according to existing literature, we eliminate extreme values to overcome misreporting and outliers. Companies that report bribes of more than 50% of sales are excluded. To address the issue of possible non-linearity, we simply create discrete bribe rates: 0-2 percent, 3-6 percent, 7-10 percent, 11-20 percent, and 21-50 percent. These categories are employed to check on the presence of threshold effects, like whether moderate levels of bribery are linked to greater rates of growth than growth that does not involve bribery, and when bribery is excessive.

The data also responds to governance environment differences across nations. Although the country-level indicators of governance, like the Control of Corruption Index presented by World Governance Indicators, are not directly involved in reduced-form regressions, cross nation configuration allows us to characterize the impact of institutional quality on moderating the relationship involving the impact of

bribery on business growth. In all specifications, country, year, and firm size fixed effects are added to absorb unobserved structural variation, and standard errors are clustered at the country-year-firm size level to adjust for survey design and heteroscedasticity.

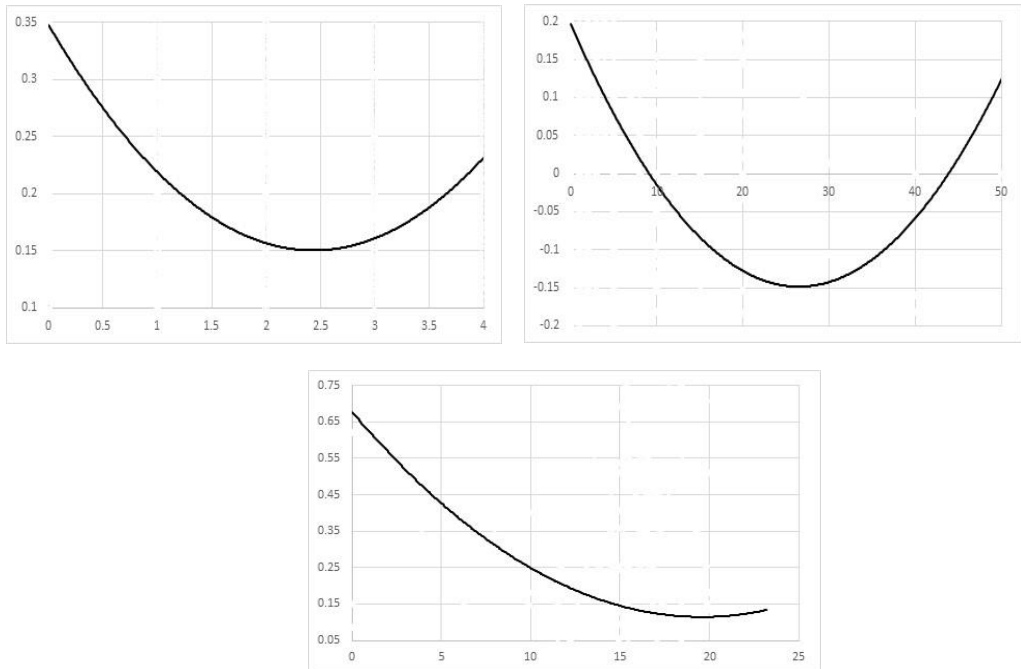
The data to be used presents a vivid picture of the experiences of firms with corruption and the respective growth dynamics of Southeast Asia. The depth of the Enterprise Survey data and the considerable cross-firm, as well as cross-country variation, allows us not only to investigate the direct effect that bribery has on firm outcomes, but also to examine when bribery can be more or less harmful. In the following subsection, the summary statistics of the main variables used in the analysis are provided. The empirical findings provided in Table 1 show that there is a statistically significant negative correlation between bribery and firm performance, especially in the areas of labor productivity and sales growth. Considering the productivity regression, the significant coefficient of the log of informal payments is -0.126, affirming that the increment of 1 unit in the log of bribes is linked to a 12.6% decrement in the productivity of labor. In the sales growth model, the significant coefficient -0.0621, affirming that the increment by 1 in the log of bribes is associated with the 6.2% reduction in the annual sales growth. When being squared and cubed, the negative impact of bribery levels off at high levels, as evidenced by a positive coefficient on the square term (e.g., 0.00940 in the case of productivity and 0.00505 in the case of sales growth) and a strong negative coefficient on the cube term. These imply a U-shaped relationship where smaller to moderate rates of bribery are especially harmful, even when the marginal effect decreases (or possibly reverses) at the extremely high levels.

In Model 5, firms that reported any payment of a bribe (i.e., a non-zero bribe dummy) had an average penalty of a growth in sales of 5.7 percentage points relative to those firms, which did not make informal payments (coefficient -0.0573, $p < 0.01$). In all the models, the log sales of the previous period are always negative and significant, and the coefficients range between -0.15 and -0.30, indicating decreasing returns to scale in the growth of firms. The association between employment growth and firm performance is positive and very strong, as coefficients are between 0.15 and 0.22 in the sales growth regressions. Adjusted squared among specifications varies between 0.19 and 0.34, and the same is expected in cross-sectional firm level regressions. Taken together, these estimates strongly suggest that bribery and particularly low- to moderate-sized bribery lower productivity and growth of firms, with no signs that informal payments can be used to “grease the wheels” in poorly developed institutional settings.

The Table 2 results confirm a strong negative correlation between corruption and performance of a firm in both the levels of bribe intensity, as well as perceived corruption inhibition. Firms that paid 3-6% of sales in bribes suffered a 16.3% decline in productivity and a 7.6% decline in sales growth, whereas those in the upper end of bribes, 21-50%, were subjected to a 92.5% and 46.7% decline, respectively. Performance was significantly lower, even when working with small amounts of

money as bribes (0-2%). The perceptions of corruption as a moderate obstacle were also associated with the slower growth, reaffirming that both the actual and perceived corruption negatively affect firm performance. There is no piece of evidence that bribery can help performance at any level.

Figure 1. Relationship between the Growth Rate of Sales per Worker and Corruption



Note: There are three panels. The y-axis of each panel represents the growth rate in sales per worker, and the x-axis represents the corruption as an obstacle, informal payments (paid), and informal payments (percentage of sales), respectively.

Figure 1 represents the relationship between the sales growth per worker and different indicators of corruption. In the top panel, corruption as an obstacle is used as a measure of bribery, where it is a scale variable from 0 (no obstacle) to 4 (very severe obstacle). If we divide the panel into two parts based on the value of 2.5 on the x-axis, it will give more precise interpretations. In the first part, there is a negative relationship between corruption and sales growth, while in the other, there is a positive relationship. When there is zero level of corruption as an obstacle, the sales growth is 35%, and decreases with the level of corruption. While in the case of corruption as a major and very severe obstacle, the sales growth increases. Hence, in the case of Southeast Asian economies, corruption supports both hypotheses of sand the wheels and grease the wheels. The second panel represents the interesting relationship, i.e.,

sand the wheel in the first half and grease the wheel in the second half. Furthermore, the sales growth becomes negative after informal payment (10% to approximately 43%). On the contrary, the last panel appears to suggest the grease the wheel hypothesis. Hence, it implies there is a U-shaped relationship between corruption and firm performance.

3.2. The Methodology

In order to investigate the relationship between corruption and firm performance, we estimate a reduced-form linear regression model based on pooled cross-sectional data using the Ordinary Least Squares (OLS) estimation method. The empirical model is as follows:

$$Sales\ Growth_{it} = \alpha + \beta_1 Bribe_{it} + \beta_2 X_{it} + \delta_t + \theta_s + \epsilon_{it}$$

Where *Sales Growth_{it}* is the outcome variable of the firm *i* in year *t*. The main explanatory variable is *Bribe*. We have two indicators for *Sales Growth* and three indicators for *Bribe_{it}*. *X_{it}* is a vector of firm-level controls. δ_t is a control for year, and θ_s captures firm size categories. ϵ_{it} is the error term for the regression model. Firm-level controls are the log of sales three years ago, the Kvetch Index, Foreign Own, State Own, Exporter, Age, and Square of Age, and employee growth.

4. Empirical Results

The central hypothesis we are trying to analyze empirically in this table is the U-shaped relationship between corruption and firm performance, as analyzed in Figure 1. For this, we have added the square and cubic terms of informal payments in the respective models. The empirical results of Table 1 are divided into two parts based on the dependent variable.

The first half of Table 1 implies that Model 2 is preferable statistically, compared to Model 1 and Model 3, and is consistent with economic theory and Figure 1. Model 2 indicates a nonlinear relationship between corruption (measured as a log of informal payments paid) and firm performance (measured as sales growth per worker), and offers strong support for the negative effect of corruption on firm performance, i.e., the sand the wheels hypothesis. As an example, a one-unit increase in corruption is linked to a 12.6% decline in firm performance, with an increase rate of 0.4%. Furthermore, negative value sales 3 years ago imply that larger firms grow more slowly than smaller firms, possibly due to diminishing returns to scale or approaching market saturation.

Similarly, Model 2 and Model 4 in the second half of Table 1 indicate the non-linear negative relationship between corruption and firm performance (measured as Sales Growth per Year). Furthermore, the dummy variable of non-zero bribery payments in Model 4 and Model 5 also indicates a significant penalty; bribing firms have 5.7 percentage points lower sales growth than non-bribing peers on average. The control variables act as expected: prior firm size is negatively related to growth, which proves diminishing returns to scale, and employee growth has a strong and positive relation. Characteristics of ownership, like foreign or state ownership, and exporter, have problematic or weak effects on performance. The adjusted R^2 values among the

models are 0.19- 0.34, which is rational among cross-sectional firm-level data, and affirms that the models indicate considerable variance in results.

Table 2 further supports these observations by examining the extent of bribery as a percentage of yearly sales, as well as encompassing corruption perception as a barrier to business. Bribes as low as 1% to 2% of sales have been linked to sharp declines in firm performance, and the adverse performance is worse with larger bribes. As an example, a firm that has to pay 16-25 % of its sales as bribes experiences up to a 21.9% decrease in productivity and a 10.4% decline in sales growth, with a firm that has to pay between 26-40% showing even worse results. This trend in the negative direction in all the categories indicates the fact that any form of bribery at any level negatively affects the growth and productivity of the firm. Moreover, there is a strong relationship indicating underperformance between companies that view corruption as a moderate challenge and those that view it as zero hindrance, with the former performing very poorly, although very severe perceived challenges demonstrate a lack of statistical significance, possibly due to adaptation or an underreporting trend. These models consistently yield predictable firm-level controls where age, ownership and employee growth affect the performance behavior expectedly. The combination of these findings is a credible argument against the hypothesis that bribery can be a cheap way to conduct business in weak institutional environments and underlines the system-wide expenses of corruption.

Table 1: Empirical Results of Regression

	Sales Growth per Week			Sales Growth per Year				
	Model 1	Model 2	Model 3	Model 11	Model 12	Model 13	Model 14	Model 15
Dependent Variable								
Informal Payments, Paid, Log	-0.0216 (0.0132)	-0.126*** (0.0453)	-0.170 (0.105)	-0.0100 (0.00668)	-0.0621*** (0.0233)	-0.0882 (0.0545)	-0.0736 (0.0521)	
Informal Payments, Paid Log, Square		0.00469** (0.00209)	0.00940 (0.0102)		0.00232** (0.000995)	0.00505 (0.00525)	0.00434** (0.000783)	
Non-Zero Bribe Share			-0.000136 (0.000290)		-0.0000783 (0.000148)		-0.280*** (0.0792)	-0.0573*** (0.0126)

Sales 3 years -	-0.305***	-0.305***	-0.149***	-0.153***	-0.153***	-0.122***	-0.0906***
ago, Log	0.296***						
	(0.0231)	(0.0234)	(0.0234)	(0.0116)	(0.0117)	(0.0117)	(0.0266)
Kvetch	0.0513	0.0356	0.0349	0.0259	0.0180	0.0176	-0.105**
Index							0.0213***
	(0.0487)	(0.0490)	(0.0490)	(0.0244)	(0.0245)	(0.0246)	(0.0509)
Foreign	0.111	0.106	0.105	0.0555	0.0529	0.0527	0.165*
Owned							0.0359***
	(0.117)	(0.117)	(0.117)	(0.0585)	(0.0583)	(0.0584)	(0.0887)
State Owned	0.0476	0.0653	0.0665	0.0238	0.0322	0.0328	-0.678**
							0.164***
	(0.221)	(0.221)	(0.221)	(0.111)	(0.110)	(0.111)	(0.267)
Exporter	0.000673	0.000623	0.000629	0.000344	0.000316	0.000319	-0.00111
							0.000753**
	(0.00136)	(0.00136)	(0.00136)	(0.000681)	(0.000680)	(0.000680)	(0.00112)
Age of	0.210	0.238	0.241	0.0973	0.109	0.109	0.261
Firm, Log							-0.131***
	(0.366)	(0.365)	(0.365)	(0.184)	(0.183)	(0.183)	(0.327)
Age of	-0.0307	-0.0364	-0.0373	-0.0137	-0.0161	-0.0164	-0.0592
Firm,							0.0274***
Log,							
Square							
	(0.0712)	(0.0710)	(0.0711)	(0.0358)	(0.0357)	(0.0357)	(0.0694)
Growth of	-	-	-0.564***	0.217***	0.218***	0.218***	0.152***
Employee	0.566***	0.565***					0.202***
s							
	(0.0846)	(0.0844)	(0.0844)	(0.0424)	(0.0422)	(0.0423)	(0.0574)
Constant	4.345***	5.119***	5.210***	2.179***	2.570***	2.628***	2.572***
	(0.730)	(0.796)	(0.819)	(0.366)	(0.402)	(0.416)	(0.721)
N	760	760	760	757	757	757	135
R²	0.265	0.271	0.271	0.266	0.271	0.272	0.342
adj. R²	0.231	0.236	0.236	0.233	0.238	0.237	0.265
FE: Size,							0.187
Year,							
Country							

Note: Standard errors in parentheses * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ represent the significance level.

Table 2: Empirical Results Using Informal Payments as a Percentage of Sales and Corruption as an Obstacle

	Dependent Variable	Growth Rate of Sales per Worker		Growth Rate of Sales per Year	
		Model 1	Model 2	Model 1	Model 2
Informal Payments (% of	1%	-0.0840**		-0.0356***	
		(0.0370)		(0.0189)	
	2%	-0.191*		-0.0850*	
		(0.0505)		(0.0264)	
	3% to 5%	-0.144*		-0.0727*	
		(0.0423)		(0.0218)	

	6% to 10%	-0.156*		-0.0709**
		(0.0585)		(0.0296)
	11% to 15%	-0.0846		-0.0425
		(0.114)		(0.0573)
	16% to 25%	-0.219**		-0.104**
		(0.0964)		(0.0490)
	26% to 40%	-0.375*		-0.239*
		(0.145)		(0.0753)
	41% to 50%	-0.146		-0.0752
		(0.174)		(0.0870)
Corruption Obstacle No. Obstacle is a Base Category	Minor Obstacle		-0.0111	-0.00607
			(0.0219)	(0.0110)
	Moderate Obstacle		-0.0898*	-0.0463*
			(0.0266)	(0.0134)
	Major Obstacle		0.00825	0.00385
			(0.0329)	(0.0166)
	Very Severe Obstacle		-0.0699	-0.0356
			(0.0476)	(0.0244)
	Sales 3years ago, Log.	-0.177*	-0.197*	-0.0890*
		(0.00478)	(0.00446)	(0.00241)
	Kvetch Index	0.0439*	0.0402*	0.0229*
		(0.0100)	(0.0136)	(0.00503)
	Foreign Owned	0.0785*	0.100*	0.0391*
		(0.0268)	(0.0255)	(0.0136)
	State Owned	0.204**	0.234*	0.112**
		(0.0919)	(0.0731)	(0.0466)
	Exporter	0.00131*	0.00123*	0.000732*
		(0.000349)	(0.000326)	(0.000179)
	Age of Firm, Log	-0.276*	-0.224*	-0.128*
		(0.0730)	(0.0699)	(0.0370)
	Age of Firm, Log, Square	0.0578*	0.0471*	0.0271*
		(0.0137)	(0.0131)	(0.00694)
	Growth of Employees	-0.607*	-0.614*	0.201*
		(0.0236)	(0.0222)	(0.0119)
	Constant	4.784*	3.277*	2.387*
		(0.800)	(0.119)	(0.400)
<i>N</i>		9767	12523	9614
<i>R</i> ²		0.183	0.195	0.191
adj. <i>R</i> ²		0.180	0.192	0.187

*Note: Standard errors in parentheses, *** $p < 0.1$, ** $p < 0.05$, * $p < 0.01$ represent the significance level.*

5. Discussion and Economic Significance

The findings of this paper provide strong support to the claim that corruption hinders the development of firms in Southeast Asian economies. The correlation between informal payments and productivity is negative, implying that corruption is a limiting factor in firm efficiency. Our results corroborate evidence demonstrating that a one-percentage-point increase in the public sector corruption index is associated with a significant reduction in sales growth (Fisman et al., 2024). This aligns with the “sand the wheels” perspective (Mauro, 1995). While some short-term “greasing” effects have been identified in transitional markets (Trinh, 2019), our findings in the ASEAN context suggest that reliance on informal payments retards long-term productivity and deters capital expenditure.

Further, both real and perceived corruption influence firm performance. Firms that perceive corruption as a moderate obstacle tend to exhibit poorer outcomes, as both actual and expected informal costs disrupt operations. This finding is consistent with empirical evidence showing that perceived corruption significantly reduces firm performance (Fisman et al., 2024). Smaller, domestically owned firms are disproportionately affected, consistent with agency theory, which suggests that corruption increases internal agency costs (Magerakis & Tzelepis, 2023). Corruption extends beyond direct financial losses to broader market distortions, discouraging sustainable investment (Paunov, 2016; Trinh et al., 2024).

These findings have critical implications for policymakers, especially when viewed in the ASEAN agenda of economic integration. Anti-corruption laws should not be on punitive lines, but instead be on institutionalized arrangements which favor or promote bribery. These structures include complex regulative regimes, lack of consistency in enforcement, and institutional weaknesses that provide a lot of room in informal bargaining. Administrative visibility and bureaucratic dysfunction are also significant problems; more transparency and improvement in the performance of the bureaucracy would enable the establishment of a weaker incentive that would make firms desire to pay off informally. In addition, the enhancement of the effectiveness of the legal systems on the institutional responsibility level can help to make the state government more credible and promote more sustainable and overall development of businesses.

Finally, this research brings into question the notion that corruption may be tactically applied to enhance business performance. Instead, it shows how even minor manifestations of bribery are a part of a greater culture of incompetence and inequity. The long-term competitiveness of Southeast Asian economies is compromised by the overall impact of corruption on firms, which is slower growth, decreased productivity and distorted markets. Therefore, to be effective, necessary reform should focus on

the strengthening of the institutions and promoting transparency to create a more equitable and growth-enabling business environment in which all firms, large or small, state-owned or privately-owned, will operate.

6. Conclusion and Future Research Avenues

This paper explored how corruption is linked to firm growth in Southeast Asian economies based on large and pooled firm-level data in the World Bank Enterprise Surveys (2005-2024). All the results indicate a substantial negative effect of corruption (actual informal payments and firm perceptions) on firm performance, particularly sales growth and labor productivity. Although non-linear effects are detected at very high bribery levels, it may still be a case of survival bias rather than true efficiency gains and does not give much support to the hypothesis of greasing the wheels.

The data are strongly in favor of “the sand the wheels” hypothesis: very small amounts of bribes cause large reductions in firm performance. Such effects are stronger in smaller or even domestically owned companies and show how corruption contributes to the distortion of markets, lowering the competitiveness, and deterring innovations. Furthermore, the view of corruption as an obstacle is also a predictor of poor firm performance in its own right, implying that firm performance may be affected at least as much by anticipation as action in the business environment.

These findings have important policy implications. Instead of only focusing their reform efforts on enforcing anti-corruption laws, reform efforts need to address the deeper institutional deficits that cause bribery to remain a functional imperative to many firms. Southeast Asian countries can establish a business environment in which a company can expand on the basis of merit and not on informal influence by simplifying regulatory frameworks and processes, enhancing transparency, and developing administrative capacity. This way, the governments will be able to facilitate a more inclusive, sustainable, and equitable economic growth in the region.

Future research should address the endogeneity between bribe payments and firm performance using rigorous causal modeling to distinguish between survival-based bribery and proactive rent-seeking. Second, studies should investigate the accounting and regulatory environment's role in mitigating corruption; strengthening specific standards remains a recommended strategy (Bhagia et al., 2022). Finally, integrating cognitive and emotional mechanisms of institutional trust and exploring the role of Artificial Intelligence in reducing human discretion in governance could offer innovative solutions to dismantle systemic corruption in the ASEAN region.

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