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State ownership and SMEs' performance in Vietnam

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Abstract

The debate on the impact of state ownership on firm performance has drawn considerable interest from both scholars and professionals in the field of corporate finance. However, prior research has primarily focused on listed firms, whose characteristics differ from those of small- and medium-sized enterprises (SMEs). Hence, this paper investigates how state ownership influences SMEs' performance. The sample includes 5,092 firm-years from over 2,000 SMEs with state ownership in Vietnam from 2013 to 2019. The model was estimated using three regression methods, including fixed effects, random effects, and pooled ordinary least squares. The results show that state ownership is positively associated with SMEs' performance. This finding implies that state ownership creates competitive advantages for SMEs rather than reducing their performance. Therefore, policymakers should consider the advantages and disadvantages of privatizing state-owned SMEs or reducing state ownership in these enterprises. Moreover, investors should divert their capital to state-owned SMEs and increase their value.

Keywords: State ownership, SMEs, Firm performance, Vietnam

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1. Introduction

Firms with state ownership play an important role in the world economy, especially in transition economies. They have accounted for 15% of the largest enterprises and about 10% of foreign subsidies worldwide (Kalotay, 2017). In China, Zhang (2019) showed that state-owned firms comprise 23-28% of the country's GDP. According to the Ministry of Planning and Investment of Vietnam, state-owned firms constituted over 29% of the national GDP in 2020. Therefore, the role of state ownership in firm performance has attracted much attention from academics and practitioners. However, this topic is controversial in corporate finance worldwide. Previous studies showed that state ownership dampens firm performance since it goes with severe agency problems, low attention to economic goals, and conservative investment strategies (Aguilera *et al.*, 2021). Other studies, such as Le and Buck (2011), Le and Chizema (2011), and Sun *et al.* (2002), found a positive effect of state ownership on corporate performance.

Firms with state ownership are important in the Vietnamese economy. Most state-owned firms in Vietnam were established from 1975 to 1986 due to a centrally planned economy. During that period, state-owned firms were in charge of the main economic activities, and private firms were not allowed to participate. However, since 1986, the Vietnamese government decided to reform, and the economy was transitioned from a centrally planned economy to a "socialist-oriented" market economy. Over the period from 1992 to 1998, the government implemented a pilot policy to privatize 100% of state-owned firms that were small- and medium-sized, profitable, and non-strategic. Witnessing the success of the pilot stage, the government strongly promoted the privatization policy over the next ten years, from 1998 to 2007; therefore, about 80% of state-owned firms were privatized around the country (Le, 2022). However, privatization has been slow since 2008, when most small and medium-sized and strategically unimportant firms were privatized.

This paper investigates the relationship between state ownership and the performance of small- and medium-sized enterprises (SMEs) in Vietnam for the following reasons. First, there has been no research conducted for SMEs on this topic. Prior research focuses on listed firms that are more important in government policies and thus receive more attention from the government. SMEs are less important, and the role of state ownership in their performance is unanswered. Second, SMEs face less severe agency problems since their organizational structure is simple. Third, in recent decades, the government of Vietnam has made many efforts to reduce state ownership in several industries. Although SMEs have not been the focus of this policy so far, empirical evidence for the effect of state ownership on SMEs' performance provides important policy implications. Finally, the Vietnamese government has many policies to support SMEs. In 2009, the government issued Decree No. 56/2009/ND-CP on assistance to developing SMEs. In 2012, the Prime Minister issued Decision No. 1231/QD-TTg approving the plan for developing medium and small enterprises for the period 2011-2015. In 2017, the National Assembly promulgated a Law on assisting SMEs. These policies provide SMEs with financial aid, technological support, training, and other benefits.

The study uses firm profitability as a dependent variable and state ownership as an independent variable. Control variables include firm growth, asset tangibility, and firm size. Estimation results from fixed effects, random effects, and pooled ordinary least squares models consistently show a positive impact of state ownership on SMEs' performance. In addition, the paper also uses a dummy of state-owned firms to replace state ownership and estimate the fixed effects model for different levels of state ownership to confirm the findings. These robustness checks show that the findings are stable. The research results imply that state ownership is important for SMEs. SMEs with state ownership may receive favorable treatment from the government and thus have better performance. Due to their simple structure, SMEs face lower agency costs. Moreover, state ownership may give them more advantages in government procurement tenders and external financing.

The remainder of this paper is organized as follows. Section 2 focuses on analyzing prior studies and arguments to develop the hypothesis. Section 3 describes the design of the empirical models and the collection of data for the subsequent estimation. Section 4 summarizes the sample, main regression results, and robustness checks. Finally, section 5 presents the conclusions and implications.

2. Literature review and hypothesis development

Unlike individuals and business organizations, a government is a special shareholder in a firm. It is both a ruler and a player in the economy. Consequently, the effect of government or state ownership on firm performance has been investigated thoroughly. Nevertheless, the extant literature shows mixed results. On one hand, several studies find that state ownership is an obstacle preventing firms from achieving optimal performance. According to Laffont and Tirole (1993), the government tends to follow economic and social goals; therefore, firms with state ownership are less likely to have strong monitoring mechanisms to make their managers strictly pursue shareholders' interests. This weak corporate governance reduces corporate investment efficiency when managers are more flexible to overinvest. In addition, according to Gugler (2003), firms with state ownership experience a "double principal-agent problem". Besides the agency problem between corporate managers and shareholders, these firms also face the agency problem between elected politicians and citizens. Politicians are not real shareholders; they are elected to work on behalf of citizens who are real shareholders. Therefore, they are not active in monitoring and controlling corporate managers. Poor corporate governance caused by this "double principal-agent problem" provides corporate managers with many opportunities to expropriate shareholders. Chen *et al.* (2017) and He and Kyaw (2018) found that state ownership results in low investment efficiency in Chinese listed firms. Moreover, government officials are more risk-averse since they want to maintain their political positions. This makes firms with state ownership more careful in business decisions, causing unprofitable investment opportunities. With a sample of 1,034 listed firms in China, Gunasekarage *et al.* (2007) found that state ownership negatively affects firm profitability. Abramov *et al.* (2017) investigated how state shareholders affected the financial efficiency of 144 largest firms in Russia and found that state-owned firms were less efficient than

private ones on average. Lazzarini and Musacchio (2018) compared the firm performance of listed state-owned enterprises (SOEs) and similar private firms across 66 developed and emerging economies. They documented that the former has better performance than the latter. Consistently, Tihanyi *et al.* (2019) applied meta-analysis for 210 papers across 139 countries and found that firms with state ownership have slightly lower levels of financial performance. Liljeblom *et al.* (2020) also showed that firms with state ownership are valued lower in Russia.

On the other hand, state ownership may be a strategic capital instead of an obstacle to firm performance (Le and Buck, 2011). State ownership is considered an important connection between a firm and the government, and thus it provides the firm many benefits. First, the government tends to grant firms with state ownership preferences and privileges for public tenders since the politicians consider these firms' performance to promote their political reputation and maintain their positions. Therefore, firms with state ownership have better access to resources and more opportunities to win public tenders. Second, firms with state ownership are less exposed to corrupt behaviors. Billon and Gillanders (2016) showed that firms with high state ownership have lower levels of informal payment to corrupt officials. Particularly, with a sample of 55,000 observations from 105 countries over the period of 2006-2010, they found that the bribery amount decreased by 125 USD when state ownership increased by 1%. Third, state ownership implies a lower risk of default since the government is less likely to let firms with state ownership go bankrupt. In other words, firms with high state ownership face lower costs of debt financing. Empirical studies document that state ownership has a negative effect on costs of debt in many countries like China (Ge *et al.*, 2020; Shailer and Wang, 2015) and Vietnam (Tran, 2021). With a sample of 1,000 Chinese firms listed from 2003 to 2005, Le and Buck (2011) found that state ownership positively influences firm profitability. Consistently, Le and Chizema (2011) also documented that state ownership positively affects both firm profitability and firm value in China. These findings can be explained that state ownership is a signal of firm performance, and thus outside investors give firms with state ownership higher value.

In Vietnam, empirical studies also show mixed implications for the impact of state ownership on firm profitability. Examining investment efficiency across various ownership groups, O'Toole *et al.* (2016) documented that different state ownership groups have no significant gaps in their investment efficiency. However, Hung (2018) found that central government ownership has a negative effect on listed firms' investment efficiency, whilst there is no evidence for the effect of local government ownership. With a sample of non-financial firms listed on the Ho Chi Minh City Stock Exchange from 2006 to 2010, Kubo and Phan (2019) found a positive relationship between state ownership and listed firms' performance.

It is clear that prior studies only examined how the level of state ownership determines the performance of listed large firms with complicated organizational structures. This paper investigates this relationship in a different context - SMEs. According to Abor and Biekpe (2006), SMEs face less severe agency problems between managers and shareholders than large firms due to their organizational structure. When state ownership is low, SMEs are less

likely to have a separation of ownership and control (i.e., large shareholders and managers are the same). When the government holds a large proportion or 100% of shareholders, the agency problem is also less serious since SMEs' organizational structure is simple. Moreover, the role of SMEs in the government's social policies is limited; therefore, the government is less likely to sacrifice SMEs' economic benefits to pursue social goals. Consequently, state ownership is less likely to be an obstacle to SMEs' performance. By contrast, SMEs may take advantage of state ownership to obtain favorable treatment from the government.

H1: The level of state ownership is positively related to SMEs' performance.

3. Research methods

3.1 Research model

Following Lazzarini and Musacchio (2018) and Le and Chizema (2011), the study uses accounting-based return (i.e., firm profitability) to measure firm performance. The research fails to use stock return since SMEs' stock prices are unavailable. In the empirical model, firm profitability is the dependent variable, and state ownership is the independent variable as follows:

$$PRO_{i,t} = \alpha + \beta_1 STA_{i,t} + \beta_2 GRO_{i,t} + \beta_3 TAG_{i,t} + \beta_4 SIZ_{i,t} + \varepsilon, \quad (1)$$

where *i* and *t* represent the firm and year, respectively; PRO is firm profitability; STA is state ownership; GRO is firm growth. Firm growth is a proxy for investment opportunities. Firms with more investment opportunities have higher levels of profitability (Modigliani and Miller, 1958; Fama and French, 2001). TAG is asset tangibility. Firms with high asset tangibility are more able to raise external funds; therefore, they have enough capital to finance investment projects (Tran, 2020). This helps them improve their profitability. SIZ is a firm size. Large firms have better reputations and thus have better access to external funds. Besides, they have a strictly organized structure and strong corporate governance mechanisms; hence, their investment efficiency is high. In other words, larger firms have high profitability. The research variables are defined in Table 1.

Table 1. Variable definitions

Variables	Variable names	Definitions
PRO _{i,t}	Firm profitability	$\frac{\text{EBIT in year t}}{\text{Total assets in year t}}$
STA _{i,t}	State ownership	The proportion of shares held by government agencies in year t
GRO _{i,t}	Firm growth	The growth rate of total assets in year t
TAG _{i,t}	Asset tangibility	$\frac{\text{Net fixed assets in year t}}{\text{Total assets in year t}}$
SIZ _{i,t}	Firm size	Natural logarithm of total assets in year t

Source: Authors' compilation

3.2 Data collection and analysis

The study uses data of SMEs covered in annual surveys conducted by the General Statistics Office of Vietnam from 2013 to 2019. The definition of SMEs is in line with Article 6 of Decree No. 39/2018/ND-CP issued by the Vietnamese government on 11 March 2018 to provide guidelines for the law on supporting SMEs. Firms in the financial and utilities industries are not included in the data since their accounting standards differ from others (Fama and French, 2001). After removing firm-years with incomplete accounting information or without state ownership, a final sample consists of 5,092 observations. Since the number of SMEs without state ownership in the database is too large, a sample of both SMEs with and without state ownership leads to no significant regression results. Consequently, the research only focuses on a sample of SMEs with state ownership. Furthermore, the study winsorizes all variables at 3% to ensure that the data are not driven by extreme values².

To estimate equation (1), the study uses three regression techniques, including pooled ordinary least squares (OLS), fixed effects, and random effects. First, pooled OLS stacks observations for each firm over time. In other words, it fails to distinguish firms and over time. This regression technique disregards the effects on firms and time. Therefore, it distorts the true picture across firms and over time. Second, the FE regression technique can catch the individual effects over time. Third, the RE regression technique keeps unobserved variables across firms or time periods in the error term. If the three regression techniques show consistent results, the findings are robust. Moreover, the correlation matrix in Appendix 1 shows that research variables are not strongly correlated. Hence, multicollinearity is not present.

4. Empirical results

4.1 Data description

Table 2 describes the main characteristics of the sample. Descriptive statistics in Panel A show that firm profitability significantly varies from -6.4% to 56.7%. On average, SMEs in the sample have a profitability level of 9.9%. In addition, a wide range of state ownership is found from 1% to 98%. Its mean and median are 41.5% and 44.0% respectively. Moreover, Panel B illustrates the number of firms included in the sample annually. There are many fluctuations in the distribution of firms since the number depends on the coverage of surveys and SMEs' willingness. The year contributing the largest number of firms is 2017 and the year with the smallest number is 2013. Panel C presents the distribution of observations by industry based on the Vietnamese classification standard. Like many prior studies, the study also faces an unbalanced distribution of firm-years across industries. The highest proportion of observations is contributed by manufacturing with 33.99%, followed by wholesaling and retailing with 20.48% and construction with 20.35%. The mineral industry is the smallest,

² We have tried the 5% winsorization and found that our main results are unchanged. This implies that they are robust.

with only 2.32%. Consequently, the study adds dummies representing years and industries to control their effects.

Table 2. Sample description

Panel A. Firm-specific data					
Variables	Mean	Median	SD	Min	Max
PRO _{i,t}	0.099	0.040	0.144	-0.064	0.567
STA _{i,t}	0.415	0.440	0.272	0.010	0.980
GRO _{i,t}	0.073	0.009	0.299	-0.399	1.095
TAG _{i,t}	0.340	0.257	0.294	0.000	0.970
SIZ _{i,t}	10.527	10.527	1.266	8.058	13.184
Panel B. Annual number of firms					
Year	N	Year	N	Year	N
2013	285	2016	1,105	2019	665
2014	442	2017	1,401		
2015	366	2018	828		
Panel C. Industry distribution					
Industry	N	Percent	Industry	N	Percent
Agriculture	176	3.46	Wholesaling and retailing	1,043	20.48
Minerals	118	2.32	Transportation and communication	431	8.46
Manufacturing	1,731	33.99	Services	557	10.94
Construction	1,036	20.35			

Source: Authors' calculation

4.2 The effect of state ownership on SMEs' performance

Table 3 reports estimation results to analyze the relationship between state ownership and SME's performance. Three estimation techniques are used, such as fixed effects, random effects, and pooled OLS, to check whether this relationship is robust. To control within-firm correlated residuals, standard errors by the firm are clustered. The coefficient of state ownership is significantly positive across three regression results. In other words, firms with high state ownership tend to have better profitability. Consistent with Le and Buck (2011), Le and Chizema (2011), Kubo and Phan (2019), this finding implies that state ownership is a source of competitive advantage instead of an obstacle to firm performance. In addition, it is in line with SMEs' characteristics shown by Abor and Biekpe (2006). Many prior studies showed that state ownership harms firm performance mainly for two reasons. First, it makes corporate governance less effective and thus creates more opportunities for managers to expropriate shareholders. Second, government agencies or

politicians may sacrifice economic goals to serve social goals. However, SMEs are less likely to face these problems. SMEs have a simple organizational structure; therefore, they face less conflict of interest between shareholders and managers. Besides, they are less likely to be used to conduct social policies that large state-owned enterprises mainly serve.

Table 3. The effect of state ownership on SMEs' performance

Variables	Fixed effects	Random effects	Pooled OLS
Intercept	0.465*** (3.70)	0.249*** (11.81)	0.252*** (12.48)
STA _{i,t}	0.048** (2.01)	0.049*** (5.73)	0.035*** (3.97)
GRO _{i,t}	0.009 (0.85)	0.003 (0.50)	0.008 (1.30)
TAG _{i,t}	-0.049*** (-4.88)	0.014* (1.82)	0.025*** (3.15)
SIZ _{i,t}	-0.033*** (-2.92)	-0.023*** (-12.83)	-0.024*** (-13.53)
Industry dummies	No	Yes	Yes
Year dummies	Yes	Yes	Yes
F statistics	6.12***		66.76***
Wald chi-squared		1,099.94***	
Number of observations	5,092	5,092	5,092

Notes: The dependent variable is firm profitability in year t (PRO_t). t-statistics are in parentheses. *, **, *** indicate statistical significance at 10%, 5%, and 1%, respectively.

Source: Authors' calculation

Furthermore, the estimation results show that asset tangibility positively correlates with firm profitability in the random effects and pooled OLS regression results. Firms with more tangible fixed assets face lower default risk and thus incur lower costs of external financing. Therefore, they have higher profitability. Firm size is negatively related to firm performance. Although this finding contradicts the expectation, it is consistent with prior empirical evidence from Ramasamy *et al.* (2005), Bhutta and Hasan (2013). Remarkably, it supports SMEs' characteristics that explain the positive effect of state ownership on firm performance. Larger SMEs have a more complicated organizational structure that leads to higher agency costs. Furthermore, they are more likely to be requested to conduct social policies by the government. Therefore, their business activities are less efficient. In other words, larger SMEs have lower levels of profitability.

4.3 Robustness checks

According to the regulations on enterprises in Vietnam, a firm with more than 50% of shares held by the government is state-owned. Besides, descriptive statistics in Panel A of Table 2 show that state ownership varies dramatically. Therefore, following Chen *et al.* (2017) and Tran (2020), the study conducts two robustness checks. First, a dummy for state-owned SMEs in year t (SOE_t) is used to replace state ownership in year t (STA_t) in equation (1) and estimate it with the three regression techniques. Table 4 shows that the SOE dummy is positively related to firm profitability. This is consistent with the findings in Section 4.2.

Table 4. State-owned status and SMEs' performance

Variables	Fixed effects	Random effects	Pooled OLS
Intercept	0.256** (2.28)	0.244*** (11.61)	0.251*** (12.46)
$SOE_{i,t}$	0.011** (1.98)	0.019*** (4.18)	0.014*** (3.06)
$GRO_{i,t}$	-0.007 (-0.79)	0.001 (0.11)	0.006 (1.02)
$TAG_{i,t}$	-0.018* (-1.81)	0.017** (2.36)	0.028*** (3.61)
$SIZ_{i,t}$	-0.021** (-1.98)	-0.022*** (-12.33)	-0.023*** (-13.42)
Industry dummies	No	Yes	Yes
Year dummies	Yes	Yes	Yes
F statistics	67.89***		66.40***
Wald chi-squared		1,091.44***	
Number of observations	5,092	5,092	5,092

Notes: The dependent variable is firm profitability in year t (PRO_t). t -statistics are in parentheses. *, **, *** indicate statistical significance at 10%, 5%, and 1%, respectively.

Source: Authors' calculation

Second, the study presents regression results for different groups of state ownership to investigate whether state ownership levels drive the results. Table 5 shows that the positive effect of state ownership is statistically significant in most groups. In the group from 30% to 50% of state ownership, although the coefficient of state ownership is not statistically significant, it is positive. These regression results imply that the findings in Section 4.2 are robust.

Table 5. Different levels of state ownership and SMEs' performance

Variables	STA<0.1	0.1≤STA<0.3	0.3≤STA<0.5	STA≥0.5
Intercept	-0.513 (-1.23)	0.513* (1.82)	0.678** (2.34)	0.605*** (3.13)
STA _{i,t}	1.004** (2.06)	0.260* (1.91)	0.214 (1.19)	0.006* (1.85)
GRO _{i,t}	0.005 (0.12)	0.015 (0.65)	0.016 (0.78)	0.017 (1.10)
TAG _{i,t}	-0.044 (-1.25)	-0.072*** (-3.31)	-0.052** (-2.22)	-0.044*** (-3.05)
SIZ _{i,t}	0.060 (1.39)	-0.043* (-1.70)	-0.044* (-1.71)	-0.046** (-2.54)
Industry dummies	No	No	No	
Year dummies	Yes	Yes	Yes	
F statistics	2.53***	3.49***	3.06***	4.23***
Number of observations	918	851	1,085	2,238

Notes: The dependent variable is firm profitability in year t (PRO). t-statistics are in parentheses. *, **, *** indicate statistical significance at 10%, 5%, and 1%, respectively.

Source: Authors' calculation

5. Conclusions

The effect of state ownership on firm performance is a controversial topic in corporate finance. Although academics and practitioners pay much attention to this topic, prior studies have investigated it in listed firms whose characteristics are different from those of SMEs. Consequently, this paper analyzes how state ownership affects SMEs' performance. With a sample of 5,092 observations from Vietnamese SMEs with state ownership, the study shows that state ownership has a positive effect on SMEs' performance. The robustness checks with SOE dummy and different levels of state ownership show consistent results. This finding implies that state ownership is not a barrier to SMEs' efficiency but a value-creating factor.

In Vietnam, state-owned firms are important tools in the government's economic and social policy. Large state-owned firms are strictly controlled by the central government. They have to follow both economic and social goals. This double-goal mechanism creates opportunities for managers to expropriate shareholders since it is difficult to consider whether managers have tried their best to maximize shareholders' wealth. In other words, state ownership weakens corporate governance and thus reduces firm performance. However, SMEs with state ownership are less expected to contribute their resources to economic and social goals since they are much smaller. In addition, SMEs have a simple organizational structure. Therefore, they face less severe agency problems. By contrast, state ownership provides them

with opportunities to develop strong connections with government officials and thus receive favorable treatment and preferences from the government. Moreover, with many SMEs supporting policies in accordance with Decree No. 56/2009/ND-CP, Decision No. 1231/QD-TTg, and the Law on assisting SMEs, SMEs with high state ownership may receive more support from the government. Collectively, state ownership helps SMEs improve their performance. Consequently, policymakers should consider the advantages and disadvantages when privatizing state-owned SMEs or reducing state ownership in SMEs. Reducing state ownership in SMEs may be consistent with the privatization policy but may also lead to decreased performance. Therefore, to avoid criticism of state ownership, the government should create a level playground for all firms regardless of ownership structure. Moreover, investors should consider firm size when they invest in firms with state ownership.

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Appendix 1. Correlation matrix

	$PRO_{i,t}$	$SOE_{i,t}$	$GRO_{i,t}$	$TAG_{i,t}$
$SOE_{i,t}$	0.004			
$GRO_{i,t}$	0.022	-0.142***		
$TAG_{i,t}$	0.035**	0.229***	-0.124***	
$SIZ_{i,t}$	-0.235***	0.173***	0.033**	0.024*

Notes: *, **, *** indicate statistical significance at 10%, 5%, and 1%, respectively.

Source: Authors' calculation