Ownership Structure, Capital Structure and Firm Growth: Empirical Evidence and Sustainable Growth Implications

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Abstract

This paper investigates the effect of ownership structure and capital structure on different financial variables of firm growth and discusses the implications for sustainable growth. It uses a panel dataset of 2,056 observations of the Vietnamese listed firms for eight years from 2008-2015. The results show that sales growth and asset growth of the firm are determined by private controlling ownership and capital structure instead of state ownership and foreign ownership. The results also imply that ownership structure, initial earnings, and dividend policy are more relevant than capital structure to the firm's sustainable growth rate. This research contributes to an understanding of the influencing factors of firm growth in general, which are helpful to propose some policy recommendations.

Key words: Firm growth, ownership structure, capital structure, sustainable growth, Vietnam

JEL classifications: G32, G34, G38, L25.

1. Introduction

Ownership structure and capital structure are among the core internal attributes of the firm that can affect firm performance and corporate governance framework of the firms (Liang and Lin, 2011, Margaritis and Psillaki, 2010). It is suggested in prior studies that determinants of firm growth come from a range of factors, depending on research perspectives and disciplines (Zhou and de Wit, 2009). As ownership structure and capital structure can be viewed as firm-specific characteristics, it is implied that firm growth is also determined by these two factors.

The roles of ownership structure and capital structure on enhancing firm growth have not been the major focus in the firm growth literature. Previous researchers have drawn more attention to the firm size-firm growth relationship predicted in the well-known Gibrat's law (Gibrat, 1931), or the Law of Proportionate Effect. This law indicates that the growth rate of firms does not depend on firm size. The mixed results of this relationship are found in the literature. While studies conducted by Geroski *et*

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al. (2003), Audretsch *et al.* (2004), and Rasiah *et al.* (2014) confirm the independence of firm growth from firm size, some other researchers do not support it (e.g., Calvo, 2006, Adams *et al.*, 2014) or show that the law is valid for some types of firms only (e.g., Daunfeldt and Elert, 2013, Tang, 2015, Chih-Ping, 2016).

A recent trend in the literature is to focus on other potential determinants of firm growth such as firm age (Coad *et al.*, 2016), capital structure (Margaritis and Psillaki, 2010), profitability (Jang and Park, 2011, Lee, 2014), investment in corporate venture capital (Cumming *et al.*, 2017), and investment in working capital (Aktas *et al.*, 2015). In particular, the effect of ownership structure on firm growth is examined in a few recent studies (Yang and Meyer, 2018, Blandina and Adelino, 2005). Hence, further empirical evidence on the effect of ownership structure and capital structure on firm growth is necessary to reach any definite conclusion on these crucial issues.

In the Vietnamese context, there is little evidence on the relationship between ownership structure, capital structure and firm growth. Different aspects of the privatization of SOEs in Vietnam are examined in previous studies, including those of Truong *et al.* (2006); Pham and Carlin (2008); Gainsborough (2009); Hidenobu and Lai Thi Phuong (2012); Phung and Mishra (2016). However, the links between ownership structure, capital structure and firm growth are not the main interest in such works. There are only a few studies that consider the effect of ownership structure on firm growth; for instance, Nguyen and Van Dijk (2012). In these works, nevertheless, ownership structure is not treated as a determinant of firm growth.

Therefore, this paper aims to find empirical evidence for the following research questions:

Are ownership structure and capital structure negative or positive for firm growth?

Is ownership structure or capital structure more relevant to the sustainable growth rate of the Vietnamese firms?

This paper is structured as follows: Section 2 presents the methodology and data employed in this research, including empirical models and variables. Section 3 reports the results and discusses the implications of the research. Section 4 concludes the research and proposes some policy recommendations.

2. Methodology and Data

2.1 Conceptual Framework

In the literature, profitability performance such as return on assets (ROA) and return on equity (ROE) are often employed as accounting-based proxies for firm performance (e.g., Tian and Estrin, 2008, Margaritis and Psillaki, 2010, Phung and Mishra, 2016). It is also common that firm growth measures are based on such accounting indicators; for example, firm growth is defined as the annual growth rates of ROA or those of ROE (e.g., Jang and Park, 2011, Lee, 2014, Nguyen and Van Dijk, 2012). It is thus plausible to argue that firm performance and firm growth are closely linked concepts; and making inferences for firm growth is equally important as for

firm performance.

Theoretically, ownership structure can influence firm performance because the owners of the firm have different levels of power, incentives, and ability to monitor managers, while they also differ in goals for involving in the firm's decision making (Douma *et al.*, 2006). For example, privatization theory holds that state-owned enterprises are less efficient than private-owned corporations and that government ownership is normally associated with inefficiency and bureaucracy (Djankov and Murrell, 2002, Thomsen and Pedersen, 2000, Netter and Megginson, 2001).

It is also well established in the literature that firm performance is influenced by monitoring effects of creditors and/or debtholders. Agency theory shows that the firm may face agency conflicts between shareholders and managers (i.e. principal-agent problem, Type I), between controlling shareholders and minority shareholders (principal-principal problem, Type II), between the board and the management, or between shareholders and creditors, and so forth (Kumar and Zattoni, 2017). Intuitively, ownership structure, and capital structure also affect firm growth since firm growth and firm performance are intertwined as mentioned above.

In this connection, it is suggested in prior studies that determinants of firm growth come from a range of factors, depending on research perspectives and disciplines. As aforementioned, three following types of factors can affect firm performance: 1) individual determinants; 2) organizational determinants; and 3) environmental determinants (Zhou and de Wit, 2009). While the effect of firm size on firm growth in Gibrat's law (Gibrat, 1931) has been extensively studied, a recent trend in the literature is to test other potential determinants of firm growth; for instance, firm age, capital structure, profitability, and financial risk. In particular, the impact of ownership structure is also tested in a few studies such as Geroski and Gugler (2001); Blandina and Adelino (2005); Yang and Meyer, 2018. Therefore, this paper extends the current literature on the issue by focusing on the impacts of ownership structure and capital structure on firm growth in the context of a transitional economy like that of Vietnam.

2.2 Variable Measurement

Dependent variables: In the literature, different variables have been used to proxy firm growth, including growth in sales, employment, assets, market shares, and profits (Zhou and de Wit, 2009). This paper employs two alternative measures of firm growth. First, *sales growth* (SalesGRO) is calculated as the percentage of change in annual sales divided by one-year lagged annual sales (Hu and Izumida, 2008, Gedajlovic and Shapiro, 2002). Second, following prior studies (e.g., Nguyen and Van Dijk, 2012), *asset growth* (AssetGRO) is calculated as the percentage of change in the book value of total assets divided by the one-year lagged value of the total assets of the firm.

Independent variables: In the context of a transitional economy of Vietnam, there are two typical ownership identities of listed firms since the state-owned enterprises are privatized. They are also the main ownership variables of interest in previous studies of Vietnam's listed firms (e.g., Phung and Mishra, 2016, Vo, 2018).

Under such country-specific characteristics, therefore, state ownership and foreign ownership are employed in this research. Similar to Tian and Estrin (2008), two alternative proxies of state ownership are used. First, *state ownership* (SO) is calculated as the ratio of common equity owned by the government over the total common equity of a firm. Second, state ownership is proxied by *private controlling ownership* (PRICON) which is based on state ownership measurement. A value of 1 is assigned to PRICON if government shareholders own less than 50% of the total common equity of the firm, and zero otherwise. Following previous authors (Djankov and Murrell, 2002, Thomsen and Pedersen, 2000, Netter and Megginson, 2001), it is expected that SO has a negative effect on firm growth, while PRICON helps improve firm growth. In terms of *foreign ownership* (FO), FO is calculated as the ratio of common equity held by foreign investors over the total common equity of a firm. In the context of a developing country, many prior studies such as Pervan *et al.* (2012), Wellalage and Locke (2012) show that foreign ownership has positive effects on firm performance. Hence, it is also expected in this paper that FO has a positive impact on firm growth.

The study uses the *debt ratio* (DEBT) as a proxy of capital structure. It is defined as the ratio of total liabilities over total assets of the firm. The debt ratio represents a source of external funding and financial resources of the firm, which may boost the growth rate of the firm. It is also suggested in the literature that firm growth is positively associated with access to financial resources (Zhou and de Wit, 2009). Thus, it is expected that DEBT has a positive impact on firm growth in this paper.

Control variables

Initial earnings (IE) are employed to capture the impact of previous-year earnings on the current-year growth of the firm. It is defined as the ratio of one-year lagged return on assets (ROA), where the return is calculated as earnings before interest and taxes over the total asset of a firm (EBIT/Assets) (Kim, 2011, John *et al.*, 2008). Using the lagged values of ROA is also to mitigate potential endogeneity between ROA and sales (Chadha and Sharma, 2015, Lee, 2014, Jang and Park, 2011). It is expected that IE has a positive correlation with firm growth.

Firm size (SIZE) is also controlled since it is used to test for Gibrat's law (Gibrat, 1931) in firm growth literature. SIZE is defined as the natural logarithm of the total market capitalization of the firm. In addition, two other proxies of firm size are also employed for robustness tests (see Section 3.3).

Firm age (AGE) is defined as the difference between the observed year and the initial year of listing on stock exchanges. It is generally accepted in the literature that the growth rates of a firm tend to diminish over time as the firm approaches the mature phase of the business cycle; hence, it is expected that AGE is negatively related to firm growth.

2.3. Empirical Models and Estimation Methods

Following previous studies (Yang and Meyer, 2018, Blandina and Adelino, 2005), and based on the above discussions, the effects of ownership structure and capital structure on firm growth are specified as below. Since SO and PRICON are two

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alternative proxies of state ownership, they are treated in different models, of which the setting is similar to Tian and Estrin (2008).

$$SalesGRO_{it} = \alpha_1 + \beta_{11}SO_{it} + \beta_{12}FOR_{it} + \beta_{13}DEBT_{it} + \beta_{14}IE_{it} + \beta_{15}SIZE_{it} + \quad (1a)$$
$$\beta_{16}AGE_{it} + \varepsilon_{1it}$$

$$SalesGRO_{it} = \alpha_2 + \beta_{21}PRICON_{it} + \beta_{22}FOR_{it} + \beta_{23}DEBT_{it} + \beta_{24}IE_{it} + \quad (1b)$$
$$\beta_{25}SIZE_{it} + \beta_{26}AGE_{it} + \varepsilon_{2it}$$

$$AssetGRO_{it} = \alpha_3 + \beta_{31}SO_{it} + \beta_{32}FOR_{it} + \beta_{33}DEBT_{it} + \beta_{34}IE_{it} + \beta_{35}SIZE_{it} + \quad (2a)$$
$$\beta_{36}AGE_{it} + \varepsilon_{3it}$$

$$AssetGRO_{it} = \alpha_4 + \beta_{41}PRICON_{it} + \beta_{42}FOR_{it} + \beta_{43}DEBT_{it} + \beta_{44}IE_{it} + \quad (2b)$$
$$\beta_{45}SIZE_{it} + \beta_{46}AGE_{it} + \varepsilon_{4it}$$

where the i and t subscripts denote firm and year. SalesGRO and AssetGRO are sales growth asset growth, respectively. SO is state ownership. PRICON is private controlling ownership. FOR is foreign ownership. DEBT is debt ratio. Control variables consist of initial earnings (IE), firm size (SIZE), and firm age (AGE). α is intercept and ε is the error term of the models.

The test for multicollinearity among explanatory variables shows that the multicollinearity problem is not present in Model 1a. All the variance inflation factors (VIF) are less than 10 and the mean VIF value is 1.29. Next, the likelihood-ratio test for heteroscedasticity indicates that the heteroscedasticity problem is present in model 1a (LR chi-square value is 704.39, $p < 0.01$). The Wooldridge test result shows that there is the first-order autocorrelation in the idiosyncratic errors of Model 1a. The null hypothesis that there is no first-order autocorrelation is strongly rejected (F-statistic = 40.406, p-value < 0.01).

The test for firm fixed-effects using the Hausman test indicates that the problem of unobserved firm fixed effects exists (chi-square statistic=47.41, p<0.01). It suggests that a fixed-effects estimator is more appropriate for the above models. Model 1a is then tested for cross-sectional dependence in the fixed-effects panel model. The result of Pesaran's test is that there is a problem of cross-sectional dependence in the error terms. The null hypothesis of no cross-sectional dependence is strongly rejected at the 1% significance level and the average absolute value of correlation among residuals is 0.354. This result is supported by the Frees' test since the Frees' statistic is larger than the critical value at $\alpha = 0.10$.

The diagnostic tests reported above are performed for Model 1a when sales growth is employed as the dependent variable. Similar tests are also performed for models 1b-2b. The estimated statistics are not reported here, but all results are similar.

To sum up, the empirical models employed in this paper have unobserved fixed-effects, heteroscedasticity, serial autocorrelation, and cross-sectional dependence problems. Therefore, the regression with Driscoll-Kraay standard errors for fixed-effects models is employed. The standard errors in this regression are robust to heteroscedasticity, cross-sectional dependence problems, and serial correlation up to some lags (Hoechle, 2007).

2.4 Data Sample

The sample dataset of this research is provided by the leading financial data and business information provider in Vietnam (FiinGroup, www.fiingroup.vn). This data collection can be cross-checked for accuracy from different sources on the Vietnamese stock markets where the firms' audited financial statements and annual reports are disclosed. Specifically, the dataset covers all firms listed from 2008-2015 in both Hanoi Stock Exchange (HNX) and Hochiminh Stock Exchange (HSX). The exceptions are financial companies (i.e. securities firms, insurance companies and commercial banks). In total, a balanced panel data sample is obtained with 2,056 firm-year observations (257 firms over 8 years). To eliminate potential biases caused by outliers, therefore, the full sample dataset is winsorized at 5 percent levels on both sides of the distribution.

The pairwise correlation matrix is presented in Table 1. It is shown that all coefficients of correlation among variables are small. The only exception is the coefficient (0.77) between SO and PRICON. The reason for such high correlations is that they are two proxies of the same variables. It is not harmful to regression because each variable in this pair is used alternatively.

Table 1. Pairwise Correlation Matrix of Variables

	SalesGRO	AssetGRO	SO	PRICON	FO	DEBT	IE	SIZE	AGE
SalesGRO	1.00								
AssetGRO	0.38*	1.00							
SO	-0.06*	-0.09*	1.00						
PRICON	0.06*	0.08*	-0.77*	1.00					
FO	0.03	0.05*	-0.19*	0.20*	1.00				
DEBT	0.09*	0.18*	0.11*	-0.16*	-0.28*	1.00			
IE	-0.04*	0.16*	0.15*	-0.09*	0.24*	-0.17*	1.00		
SIZE	0.09*	0.10*	-0.01	-0.02	0.54*	-0.09*	0.16*	1.00	
AGE	-0.18*	-0.23*	-0.05*	0.09*	0.19*	-0.15*	-0.17*	0.17*	1.00

Notes: This table reports the summary of statistics of all main variables employed in the study. * denotes $p<0.1$.

3. Results and Discussions

3.1 Main Regression Results and Discussions

Table 2 below presents the regression results of all empirical models where sales growth is the dependent variable in columns (1) and (2), and asset growth is the dependent variable in columns (3) and (4).

Table 2. The Effects of Ownership Structure and Capital Structure on Firm Growth

	SalesGRO		AssetGRO	
	(1)	(2)	(3)	(4)
SO	-0.092		-0.155	
	(0.097)		(0.086)	
PRICON		3.915		3.737
		(1.300)**		(1.561)*
FO	0.108	0.104	0.009	0.006
	(0.122)	(0.124)	(0.033)	(0.029)

DEBT	0.269	0.262	0.573	0.561
	(0.035)***	(0.035)***	(0.069)***	(0.066)***
IE	-1.029	-1.029	0.809	0.811
	(0.129)***	(0.126)***	(0.108)***	(0.103)***
SIZE	3.001	3.248	8.790	9.394
	(6.289)	(6.791)	(4.920)	(5.167)
AGE	-2.864	-2.848	-2.803	-2.806
	(0.618)***	(0.610)***	(0.457)***	(0.459)***
_cons	-49.430	-60.798	-234.474	-256.323
	(159.314)	(174.139)	(128.367)	(136.452)
N	1,799	1,799	1,799	1,799
Within R²	0.056	0.057	0.176	0.174

* p<0.1; ** p<0.05; *** p<0.01

Notes: The table presents the fixed-effects regression with Driscoll-Kraay standard errors for sales growth. The standard errors (in parentheses) are robust to heteroskedasticity, cross-sectional dependence, and autocorrelation up to lags 2. The statistical significance at the 10%, 5% and 1% levels are indicated by *, **, and ***, respectively.

The study finds that state ownership (SO) is negatively related to both dimensions of firm growth (i.e. sales growth and asset growth) as expected. Although the effect of state ownership is not statistically significant, this inverse effect is observed across all estimations employed. The negative role of state ownership in the firm is further confirmed when private controlling ownership (PRICON) is examined. As shown in columns 2 and 4, it is estimated that there is a significant difference between private-controlled firms and the others in terms of the effect on firm growth. The magnitude of this effect on sales growth and asset growth is strong at both the 5% and 10% level of significance, respectively. This result suggests that private-controlled firms perform better than state-controlled ones in terms of growth rates in the present case during the sample period. Therefore, the above-mentioned evidence on state ownership is consistent with a view of state ownership in the literature that the SOEs can some cases be less efficient than privately-owned firms. This evidence is consistent with other empirical studies such as Thomsen and Pedersen (2000), Ongore (2011), and Sabur *et al.* (2012). However, it can be mentioned that state ownership of firms is a controversial area in the literature. For example, Tian and Estrin (2008), Vaaler and Schrage (2009), and Phung and Mishra (2016) argue that state ownership is value-destroying up to a certain level of shareholding only. Thus, more extensive theoretical and empirical studies compared to the present paper are necessary for reaching a confirmed conclusion on this issue.

Regarding foreign ownership (FO), no statistically significant impact of foreign ownership is found on both measures of firm growth employed in this study. Thus, there is no clear evidence that foreign investors are positive for the growth of Vietnamese listed firms.

The effects of the capital structure (DEBT) are consistently estimated in this research. Specifically, the higher ratio of debt ratio is contemporaneously correlated with the higher growth rates in both sales and assets of the Vietnamese listed firms. However, the impact of DEBT on asset growth is almost twice as much as that on sales growth. On average, an increase of 1% in debt ratio level is respectively associated with an increase of 0.26% and 0.57% in sales growth and asset growth, holding other variables constant. It suggests that debtholders, as well as private

shareholders as discussed earlier, play positive roles to boost the expansion in both sales and assets of the listed firm. This finding is consistent with the claim by Nguyen and Van Dijk (2012) that bank financing may help enhance the growth of the Vietnamese firms, in particular, the SOEs.

In terms of control variables, it is indicated that initial earning (IE) highly contributes to expanding the asset base of the firm, but it has a diminishing impact on sales growth. It might be that the Vietnamese listed firms tend to use financial resources more efficiently for increasing asset value than for improving sales. While prior authors show that previous-year financial performance has a positive effect on current-year firm growth (e.g., Jang and Park, 2011, Zhou and de Wit, 2009), it is estimated in this paper that the effects of prior earnings on sales growth are different from that on the asset growth rate of the firm.

Regarding firm size (SIZE), the paper confirms that Gibrat's law is valid for the Vietnamese listed firms. As shown in Table 2, the effect of firm size on both dimensions of firm growth is not statistically significant, and this result remains unchanged across all estimation methods. It indicates that firm size does not the growth of the listed firms in Vietnam. However, it only indicates that firm growth is contemporaneously independent of firm size. Further studies on the same issue but using deeper lags of firm size should be undertaken to confirm this finding.

In terms of firm age (AGE), firm growth significantly declines over time as expected. This result is found for both measures of firm growth employed in this paper. This negative association in the firm age–firm growth association is consistent with the finding by Nguyen and Van Dijk (2012) for the case of Vietnam.

3.2 Implications for Sustainable Growth

It is well documented in corporate finance literature that a sustainable growth rate is the highest rate that the firm can sustain without any external financing or any additional equity issues, and it depends on the return on equity ratio and the retained earning after dividend (Brealey *et al.*, 2008). Precisely, the sustainable growth rate (g) is defined as the product of return on equity (ROE) and retained earnings (or retention rate, RR); where the RR rate is the difference between ROE and dividend payout ratio and decided by the board of directors (Reilly and Brown, 2003). In practice, a firm can achieve a higher or lower growth rate as compared to the sustainable growth rate.

It is shown in this paper that different dimensions of firm growth should be treated differently. As reported above, it is indicated that asset growth rates and sales growth rates are not similar under the impacts of capital structure (debt ratio) and initial earnings (previous-year ROA). The impact of capital structure on asset growth almost doubles that on sales growth; and the firm's initial earning is positive for the firm to accelerate the growth in assets, but it is detrimental to the firm's sales growth rates. Intuitively, in comparing the sustainable growth rate and the actual growth rate of the firms, it is important to highlight the relevant dimension of firm growth.

This paper also indicates that financing firm growth by increasing debt might be a channel to improving the actual growth in sales. In turn, sales growth may result in higher earnings, which is the source for dividend payment. However, the firm can

keep its dividend payout ratio stable, the capital structure unchanged, while increasing the sales growth rate as much as quickly as it allows. It suggests that the firms can achieve an actual growth rate (in sales) that is higher than a sustainable growth rate through debt ratio.

However, initial earnings may not play a role in this mechanism due to its negative impact on sales growth as aforementioned. This negative effect may be attributed to the dividend policy. It is likely that during the period of study, the dividend is paid excessively or increasingly over the years by the Vietnamese listed firms to signal the firm's positive prospect to the market in order to attract investors. Under this circumstance, the retained earnings may not be sufficient enough to boost firm growth.

Among three proxies of ownership structure, private controlling ownership shows a consistently positive impact on enhancing firm growth in both dimensions of firm growth. Therefore, private controlling ownership may be dynamic for the firm to grow quickly but sustainably.

In contrast, the above-mentioned implications are not necessarily applicable to asset growth. The expansion in the firm's asset base may be costly; for instance, the costs associated with raising funds or interest rates paid to the creditors. It means that asset growth may not help the firm making a profit. Growing in an asset base, either by increasing debt or equity, means that it is difficult for the firm to main a targeted ratio of capital structure. Hence, it is plausible that the annual asset growth, and the determinants of asset growth, are not relevant to keeping sustainable growth rates.

3.3 Robustness Tests

Two further tests are conducted to check for the robustness of the estimated results as reported above. First, firm size is conventionally a key variable in investigating the determinants of firm growth, in particular for testing Gibrat's law. In all empirical models of this paper, firm size is measured by the natural logarithm of the market capitalization of the firm. To test for the robustness of the main regression results, two other proxies of firm size are employed: i) SIZE2 in SalesGRO equations (Models 1a and 1b), where SIZE2 is the natural logarithm of the total asset; and ii) SIZE3 in AssetGRO equations (Models 2b and 2b), where SIZE3 is the natural logarithm of the annual sales. It is shown that the modified models produce almost consistent results. Importantly, the estimates for the main variables of interest (state ownership, private controlling ownership, foreign ownership) remain similar. Hence, the economic meaning of the effect of ownership structure on firm performance does not change. While the sign on the coefficient of debt ratio is still positive, however, the impact of the debt ratio becomes nonsignificant in sales growth models.

Second, firm age (AGE) is removed from all regressions to test for whether the main regression results are sensitive to firm age or not. When firm age is not accounted for, it is shown that the estimates are all similar to the main regression results. The only exception is that the signs on the coefficients of foreign ownership turns negative in sales growth models, and significantly negative in asset growth models. It suggests that the impact of foreign ownership on firm growth in the Vietnamese stock market

is sensitive to firm age. Nevertheless, the implication from the main regression result about foreign ownership remains unchanged: foreign ownership does not contemporaneously contribute to enhancing firm growth in the Vietnamese context.

4. Conclusion

Two main results of this research are summarized as follows. First, ownership structure does matter with regards to firm growth because the former has effects on the latter. Whether these effects are positive or negative depends on how ownership structure is measured. There is also evidence that capital structure has a significantly positive effect on firm growth, in particular, the asset-based measures of firm performance. Second, private controlling ownership, initial earnings and dividend policy are shown to be more relevant factors than capital structure to maintain a sustainable growth rate of the Vietnamese listed firms. These results are also the answers to two research questions mentioned in Section 1.

Theoretically, this paper shows that ownership concentration is an important determinant of firm growth. Future research on the issue can focus on the effect of private ownership concentration in order to provide comparable empirical evidence to this study. Empirically, this paper provides empirical evidence that the change in firm growth is independent of a change in firm size; hence the Gibrat's law is supported. Furthermore, it is also indicated in this paper that the sales growth rates, as compared to asset growth, are more relevant to the sustainable growth rates of the firm. Private controlling shareholders may be significant catalysts for the firm's sustainable growth, i.e. to achieve an actual high growth rate without external sources of funding.

The empirical findings of this paper also have some sustainable firm growth policy implications. At the policy level, empirical findings imply that the state ownership should be reduced to improve the efficiency and growth impact of the SOEs in the condition of a transitional economy like Vietnam. To facilitate the expansion of the firms, in addition, policy measures should be more targeted at raising internal sources of equity (i.e. domestic private shareholders) rather than relying on foreign investors. This implication is based on the finding that foreign ownership does not have any positive impact on firm performance as expected. At the firm level, as the empirical evidence suggests that private-controlled firms perform better than state-controlled firms in terms of growth. For those firms focused on sustainable growth strategy, furthermore, other main factors to be accounted for are previous-year earnings and conservative dividend policy (i.e. stable dividend payout ratio). However, more in-depth and comprehensive studies are necessary to reach any definite conclusions regarding ownership structure and capital structure effects, and sustainable growth policies for firms.

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