

Impact Of Financial Capability On Sustainable Growth Of Listed Businesses In Vietnam

Tran Van Hai

Email: Haitv2008@gmail.com

Hanoi University of Natural Resources and Environment

<https://orcid.org/0000-0001-7066-4927>

Abstract:

This study aims to analyze the impact of financial capability on the sustainable growth of listed businesses in Vietnam. The research sample consists of 68 listed companies, corresponding to 628 observations during the period from 2010 to 2022. By using qualitative research methods (synthesis method; interpretative method) and quantitative research methods (linear regression method), the author identified six financial capability factors that influence sustainable growth: (1) Firm size (Size); (2) Short-term debt ratio (Std); (3) Fixed asset investment ratio (Inv); (4) Return on assets (ROA); (5) Return on equity (ROE); (6) Age of the company (Age). Based on the research findings, the author provides discussions and evaluations on the crucial role of enhancing financial capability of businesses, along with financial solution recommendations to achieve sustainable growth for listed businesses in Vietnam amidst the Industry 4.0 revolution.

Keywords: Sustainable growth, listed businesses, financial capability of listed businesses, Industry 4.0 revolution

1. Introduction.

In a market economy, the majority of businesses view growth objectives as playing a role akin to maximizing profitability. In fact, many enterprises consider growth to be a life-sustaining factor. This is because, with growth, cash flows increase, profits rise, revenues expand, capital grows, funding sources multiply, and the company's reputation improves rapidly. Even publicly listed companies are no exception; they always need to set goals for

sustainable growth while minimizing risks. Growth, in essence, has two aspects: when a business controls and ensures the stability of resources for growth, sustainable growth will yield maximum benefits. Conversely, if a company's growth is uncontrolled, lacks balance between resources and financial demands, and if the rate of revenue growth surpasses the rate of net cash flow, profit, and capital increase, it becomes reliant on external financing sources. Unrepayable debt burdens, financial imbalances, and potential risks may arise. At the same time, other companies, if their growth is slow, will miss out on development opportunities. So, how can growth be achieved in a sustainable manner, aligned with a company's capabilities? This is one of the fundamental principles of corporate management aimed at maximizing long-term profitability.

In recent years, newly listed enterprises have garnered significant attention and support from the government. Many of these companies have become major driving forces in stimulating the economy, making substantial contributions to the nation's economic development. However, alongside these successes, there still exist smaller-scale companies in sectors that demand substantial financial resources for projects with high risks, with long-term investment returns. The most crucial aspect for companies is to have appropriate financing strategies, optimize resource allocation and utilization, and address inefficiencies in capital utilization. In the current phase, publicly listed businesses are facing significant challenges. Most of them operate inefficiently due to business strategies that do not ensure sustainable growth and initial capital shortages during startup and development phases (Boyer, Creech, & Paas, 2008). Their expansion is hampered by limited access to research and technological support, gender-related barriers, complex partner relationships, progress monitoring, and particularly financial capacity. Numerous innovative ideas from businesses remain unexplored, causing missed opportunities in building a sustainable economy (Creech, Huppé, Paas, & Voora, 2013). With limited financial capabilities, many publicly listed companies are constrained in innovating products, technologies, research, and development (R&D) (Zhang & Xu, 2019). Meanwhile, most of their business activities and outcomes are influenced by the context and business listing (Littlewood & Holt, 2015). Many companies have failed to keep up with the Fourth Industrial Revolution, where Artificial Intelligence (AI) technology has become a crucial factor in

complex, novel, data-driven, and challenging business fields, providing a powerful tool to enhance efficiency and effectiveness.

In reality, in Vietnam, alongside businesses that have invested in technological innovation in production, production processes, and management methods to meet competitive demands, many inefficient enterprises still exist. These companies lack strategic plans, while others have yet to proactively enhance their financial capabilities and implement effective investment projects.

2.Theoretical Overview

2.1. Capability and Financial Capability

The term "capability" is widely used in various fields. According to the Vietnamese dictionary by Professor Nguyen Nhu Y (1998), "Capability is (i) the sufficient or inherent conditions to perform a task; (ii) the ability to perform a task well" (Nguyen Nhu Y, 1998). This definition is consistent with the perspective presented in the financial dictionary by Associate Professor Le Van Te (1996), stating that "Capacity is (i) the maximum amount that a company or industry can have to produce, utilizing capacity to achieve the highest efficiency currently available. (ii) In macroeconomics, capacity refers to the potential within the national total production" (Le Van Te, 1996). Thus, most researchers agree that "capability is the ability to achieve the highest efficiency."

The capacity of an entity can be considered from various aspects, such as competitive capacity, management and leadership capacity, human resource capacity, financial capacity, and more. Therefore, financial capacity is one of the criteria used to evaluate the capacity of an entity. Each entity has its own goals, operational principles, and distinct characteristics, resulting in unique financial capacities within the economy.

Presently, the concept of financial capacity of listed enterprises has not received unanimous recognition and is still subject to various interpretations. According to Professor Darrell Duffie (2010) from Stanford University in the United States, a leading expert in analyzing the failures of financial institutions, "The financial capacity of securities companies and derivatives depends on the business efficiency and the ability to utilize the company's capital" (Duffie, 2010). Researchers Xiuping Wang and Tuoyu Wang (2017) from China's Science and Technology University assert that "The financial capacity of securities

companies refers to the financial ability of securities companies" (Wang, 2017). Meanwhile, according to Pham Thi Van Anh, financial capacity "is the ability to secure financial resources for business operations to achieve the company's set goals" (Pham Thi Van Anh, 2012).

According to Phan Thi Hang Nga (2013), "Financial capacity of a business is the financial ability to effectively implement and develop business activities" (Phan Thi Hang Nga, 2013). In contrast, TS. La Thi Lam (2016) states that "The financial capacity of commercial banks is the ability to generate and use capital to meet the maximum demand in the business operations of commercial banks, achieving the set objectives of commercial banks" (La Thi Lam, 2016).

Moreover, TS. Hoang Thi Phuong Lan (2019) believes that "Financial capacity is a term describing the financial ability of a business. This capacity is reflected through the optimization of two main elements: capital structure and ensuring capital safety to create high and stable profits for sustainable, long-term development of the business" (Hoang Thi Phuong Lan, 2019). TS. Nguyen Thi Tuyet (2020) adds that "Financial capacity of a business is the ability to mobilize, allocate, and utilize financial resources to achieve the goals set by the business. It is expressed through the ability to mobilize capital, manage and utilize capital, and ensure financial safety in business activities" (Nguyen Thi Tuyet, 2020).

From these various viewpoints on financial capacity, while considering the specific nature of listed businesses, the author of this article believes that "The financial capacity of listed enterprises is the financial ability of the company, which brings clear competitive advantages to the business. Inputs and operational processes constitute the capacity concerning capital, payment ability, and achieving the business's profit objectives. Financial capacity not only reflects the current financial ability of a business but also presents potential and prospects for financial ability, all of which are more evident in the future."

2. Financial Capability for Sustainable Growth of Listed Businesses

Around the world, there are different views regarding the financial capability for sustainable growth of listed businesses. According to Higgins (1977), a researcher developed the Sustainable Growth Rate (SGR) model and introduced four basic financial indicators affecting sustainable growth, including dividend distribution, profit

rate, asset turnover, and capital structure (Higgins, 1977).

Asgar and colleagues (2015) found a reverse relationship between a company's growth opportunity and changes in the retained income ratio. They also found a direct and significant relationship between the company's size and changes in the retention ratio, meaning a positive correlation (Asgar et al., 2015).

Hafid (2016) believed that factors leading to declining company profit are due to the increasing components of costs in selling prices and other expenses. The correlation between Return on Liabilities (ROL), reflected in profit rate, and Total Asset Turnover (TATO) jointly influences the Sustainable Growth Rate (SGR) of the company, showing a strong connection between them (Hafid, 2016).

Mukherjee and Sen (2018) suggested a significant positive relationship between liquidity, profitability, leverage, and the sustainable growth rate of the company (Mukherjee & Sen, 2018). Junaidi and colleagues (2019) identified negative relationships affecting SGR, including liquidity as the ratio of borrowing to funding (LFR), asset quality due to unrealized loans (NPL), and efficiency according to Operating Cost for Income Activity (BOPO) for SGR (Junaidi et al., 2019).

Rubunda and colleagues (2019) demonstrated that a financial structure based on owner's equity has a positive and notable impact on growth, while the structure of retained profit has an insignificant effect (Rubunda et al., 2019). Nugroho (2020) found that the Return on Equity (ROE) is the sole factor influencing sustainable growth rate (SGR) (Nugroho, 2020).

Akhtar and colleagues (2022) applied three financial leverage measures, namely short-term debt (STD), long-term debt (LTDL), and total debt (TLEVR), to examine their impact on operational efficiency, meaning sustainable growth (SGR). They found a significantly negative impact of financial leverage on sustainable growth, with short-term debt contributing to higher capital risk and negatively affecting operational efficiency (Akhtar et al., 2022).

Mubeen and colleagues (2022) concluded that businesses facing secondary equity capital issues are more likely to achieve sustainable growth compared to those without such issues. Specific company factors crucial for evaluating the SGR model include leverage and size, while dividend policy and profit yield differing results (Mubeen et al., 2022).

From these differing perspectives on financial capability

for sustainable growth, considering the specific context of businesses operating in the listed sector, the article's author suggests that financial capability for the growth of listed businesses consists of two parts: intrinsic financial capability and extrinsic financial capability. Intrinsic financial capability for growth involves reinvesting retained earnings, while extrinsic financial capability involves growth that businesses raise externally to meet capital needs for expansion.

3. Research Methodology

The research aims to quantitatively examine the impact of financial capability on sustainable growth of listed businesses in Vietnam. The study employs a linear regression model using panel data techniques: Pooled Ordinary Least Squares (Pooled OLS), Fixed-Effects Model (FEM), and Random-Effects Model (REM).

Method: The study utilizes STATA 14 software for regression analysis, model selection, hypothesis testing, and estimation of the panel data regression model (StataCorp, 2005). For panel data, three regression methods are applied: Pooled Ordinary Least Squares (Pooled OLS), Fixed-Effects Model (FEM), and Random-Effects Model (REM). The Hausman test is used to choose the appropriate model among the three. The selected model is then tested for any omitted variable bias and adjusted accordingly.

Data Source: The secondary data used in the study is collected from (Vietstock.vn), annual reports of listed companies, and the General Statistics Office (Gso.gov.vn). The dataset includes financial reports of listed companies in Vietnam from 2010 to 2022. Startups and merged businesses that may distort data comparability are excluded from the study. Following Bollen (1989), the sample size calculation for linear structural models is $n=5*2i$ (where i is the observed variable in the model). According to Tabachnick and Fidell (2007), the sample size for multiple linear regression is calculated as $n= 50 + 8q$ (where q is the number of independent variables in the model).

Variable Selection: The dependent variable is Sustainable Growth (SGR), measured by the ratio of Reinvested Retained Earnings to Initial Owner's Equity. The independent variables consist of the financial capabilities of the businesses.

Figure 1. Research models

H1,2,3,4,5 (+)

6, 7, 8, 9, 10 (+)

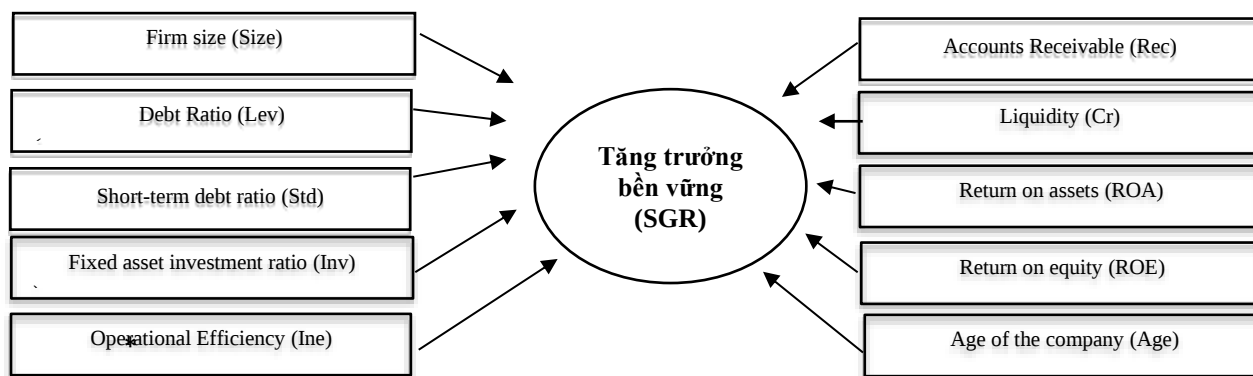


Table 1. Statistics of variables in the model, variable names and symbols, calculation formulas

No.	Variable Name and Symbol	Calculation Formula	Expectation
Dependent Variable: Sustainable Growth Rate (SGR)			
Independent Variable:			
1	Firm size (Size)	Ln (Total Assets)	+
2	Debt Ratio (Lev)	Total Debt / Equity Ratio	-
3	Short-term debt ratio (Std)	Short-term Debt / Total Debt Ratio	+
4	Fixed asset investment ratio (Inv)	Fixed Assets / Total Assets Ratio	+
5	Operational Efficiency (Ine)	Operating Expenses / Net Revenue Ratio	-
6	Accounts Receivable (Rec)	Accounts Receivable / Total Assets Ratio	+
7	Liquidity (CR)	Short-term Assets / Short-term Debt Ratio	+
8	Return on assets (ROA)	Net Profit after Tax / Average Total Assets	+
9	Return on equity (ROE)	Net Profit after Tax/ Average Equity	+
10	Age of the company (Age)	Ln (Year of Data Collection - Year of Establishment)	+

(Author's synthesis from theoretical basis)

* The research model is structured as follows:: $SGR = \beta_0 + \beta_1 * Size_{it1} + \beta_2 * Lev_{it2} + \beta_3 * Std_{it3} + \beta_4 * Inv_{it4} + \beta_5 * Ine_{it5} + \beta_6 * Rec_{it6} + \beta_7 * Cr_{it7} + \beta_8 * ROA_{it8} + \beta_9 * ROE_{it9} + \beta_{10} * Age_{it10} + v_i + \varepsilon_{it}$ với $i = 1, 2, \dots, n$ và $t = 1, 2, \dots, t$ (*)

Where:

β_0 : Intercept coefficient

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}$: Slope coefficients of independent variables

$\mu_{it} = v_i + \varepsilon_{it}$, the error of the model is divided into two parts: v_i represents unobservable factors that vary between entities but do not change over time, and ε_{it} represents unobservable factors that vary between entities and change over time.

4. Research findings

4.1. Research sample information

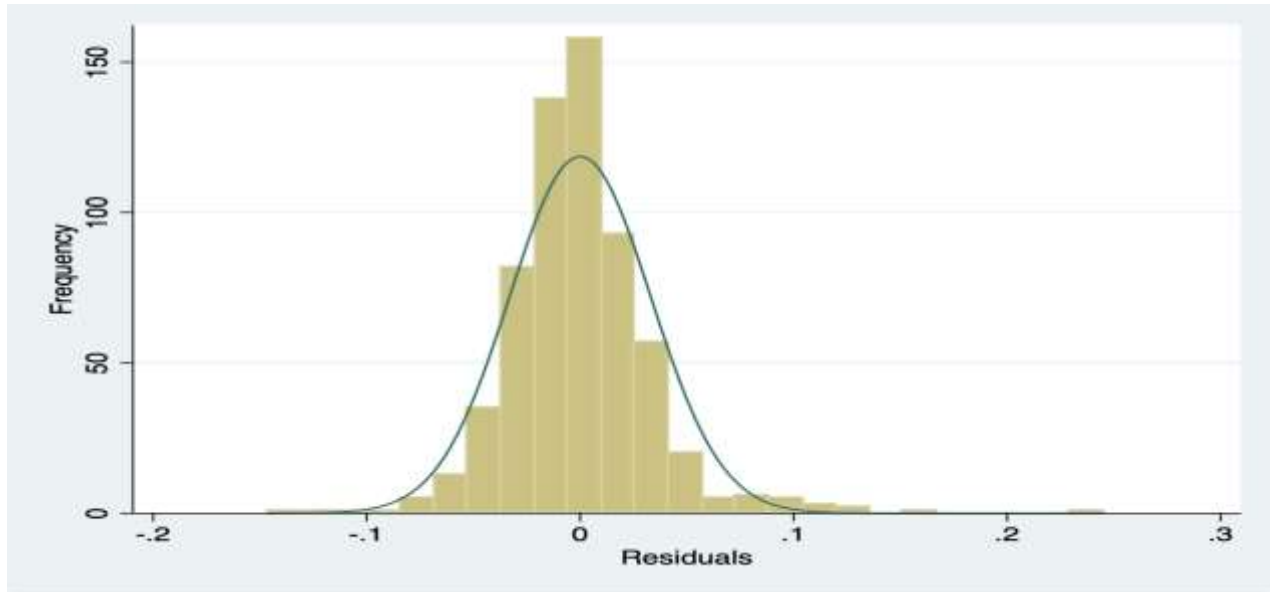
Table 2. Statistical results of variables in the model.

Variable	Obs	Mean	Std. Dev.	Min	Max
SGR	628	.1201595	.1120984	-.238611	.5225551
Size	628	2.653.761	1.013.044	2.412.928	3.025.409
Lev	628	.9559288	110.376	.016701	1.294.755
Std	628	.5860507	.3014083	.0440225	1
Inv	628	.5731925	.2178929	.0007943	.9583164
Ine	628	.6945237	.1396083	0	1.015.925
Rec	628	.0964714	.1126978	.0008471	.7852504
CR	628	2.069.052	1.780.492	.1440224	1.533.877
ROA	628	.0539298	.0559165	-.1132254	.3170683
ROE	628	.0895497	.0808088	-.2391432	.5069428
Age	628	1.243.864	.7975497	0	2.397.895

(Source: Statistical research using Stata 14 software)

The standard deviation is utilized to measure the extent of dispersion of the dataset around the mean value. It is noticeable that the STD Deviation/Mean values of most variables are smaller than 1. This implies that the standard deviation is lower than the mean, indicating weak data fluctuation. The observed statistical data of the sample show a low level of disparity (Figure 2).

Figure 2. Data dispersion in the sample



(Source: Statistical research by the author using STATA 14 software)

4.2. Regression model testing

Testing for multicollinearity. The study employs the Variance Inflation Factor (VIF) to test for multicollinearity. If the VIF coefficient does not exceed 10, there is no sign of multicollinearity in the research model.

Table 3. Results of multicollinearity test in the model.

Variable	VIF	1/VIF
ROA	9.47	0.105600
ROE	8.45	0.118305
Inv	2.03	0.492124
Std	2.03	0.493385
Rec	1.93	0.517179
Lev	1.86	0.538639
Size	1.59	0.627779
Ine	1.39	0.719843
CR	1.29	0.777384
Age	1.10	0.911079
Mean VIF	3.11	

(Source: Statistical research by the author using STATA 14 software)

The variables included in the model (*) are related to

capital turnover and share common characteristics, so the author performed separate regressions to avoid multicollinearity. However, to examine whether the remaining independent variables are multicollinear with each other, the author conducted a multicollinearity test with the independent variables simultaneously included in the model. Observing Table 3, the VIF coefficients of the variables in the model are all smaller than 10. This indicates that the regression model in the study does not suffer from multicollinearity, and the independent variables do not affect the explanatory results of the model.

Model selection:

To conduct regression on panel data, one can use the method of Pooled Ordinary Least Squares (Pool-OLS), the Fixed Effects Method (FEM), and the Random Effects Method (REM).

The study utilizes the Hausman test to choose between the Fixed Effects Model (FEM) and the Random Effects Model (REM) for the panel data of the research sample.

The Hausman test has the following hypotheses:

H0: There is no correlation between the explanatory variables and the random component (meaning the REM is appropriate).

H1: There is a correlation between the explanatory variables and the random component (meaning the FEM is appropriate).

The results of the Hausman test (Table 4) indicate that the probability value is 0.0000, which is less than 0.05 (5%). Thus, with a significance level of 5%, there is no basis to reject the null hypothesis (H0). Therefore, the appropriate method chosen is the Fixed Effects Method (FEM). Consequently, the study will use the FEM to regress the impact of capacity on the sustainable growth of listed businesses in Vietnam during the period from 2010 to 2022.

Table 4. Hausman Test results for model selection.

`. hausman FEM REM`

	Coefficients		{b-B} Difference	sqrt(diag(V_b-V_B)) S.E.
	{b} FEM	{B} REM		
Size	-.0000301	.0035009	-.003611	.0037059
Lev	-.0025205	-.0010928	-.0005276	.0005818
Std	-.0103551	.0047556	-.0151107	.0052785
Inv	.0243107	.0133246	.0109862	.0046242
Ine	.0062009	.0080131	-.0018122	.0147747
Rec	.0500613	.0356995	.0152618	.0096907
CR	.0005922	.0006409	-.0000487	.000294
ROA	.0660594	.1735016	-.1066223	.0362266
ROE	1.132733	1.130703	.0020308	.0143902
Age	-.0073843	-.004552	-.0028323	.0009151

b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ho, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

chi2(10) = {b-B}'{[(V_b-V_B)^(-1)]}{b-B}
= 67.29
Prob>chi2 = 0.0000
(V_b-V_B is not positive definite)

((Source: Statistical research using STATA 14 software))

Checking the adequacy of the model:

Testing for changing error variance, the results from Table 5 of the Fixed Effects Model (FEM) (command: `xttest3`) indicate that $\text{prob}=0.0000 < 0.05$, suggesting the presence of changing error variance in the FEM.

Table 5. Results of the test for changing error variance in the Fixed Effects Model (FEM)

```
. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (68) = 1.9e+05
Prob>chi2 = 0.0000
```

(Source: Statistical research using STATA 14 software)

Testing for serial correlation (command: `xtserial`), Table 6 demonstrates that the Fixed Effects Model (FEM) has a prob value of $0.1303 > 0.05$, indicating the absence of serial correlation in the FEM.

Table 6. Results of serial correlation test in the Fixed Effects Model

```
. xtserial SGR Size Lev Std Inv Ine Rec CR ROA ROE Age

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation

F( 1, 67) = 2.347
Prob > F = 0.1303
```

(Source: Statistical research using STATA 14 software)

Next, the study proceeds to conduct multicollinearity tests

among the variables in the model and tests for changing error variance (command: collin). The results of the multicollinearity test are presented in Table 7, indicating that the independent variables have VIF values < 10, suggesting the absence of multicollinearity.

Table 7. Multicollinearity test results in the Fixed Effects Model (FEM)

Variable	VIF	SQRT VIF	Tolerance	R-Squared
Size	1.59	1.26	0.6278	0.3722
Lev	1.86	1.36	0.5386	0.4614
Std	2.03	1.42	0.4934	0.5066
Inv	2.03	1.43	0.4921	0.5079
Ine	1.39	1.18	0.7198	0.2802
Rec	1.93	1.39	0.5172	0.4828
CR	1.29	1.13	0.7774	0.2226
ROA	9.47	3.08	0.1056	0.8944
ROE	8.45	2.91	0.1183	0.8817
Age	1.10	1.05	0.9111	0.0889
Mean VIF	3.11			

(Source: Statistical research using STATA 14 software)

Thus, the Fixed Effects Model (FEM) does not exhibit multicollinearity. To address the issue of changing error variance, the study employs the Feasible Generalized Least Squares (FGLS) model to achieve robust and efficient estimates. The research utilizes the "esttab" command to compare models among themselves (Table 8). Lệnh: esttab OLS FEM REM GLS, r2 star(* 0.1 ** 0.05 *** 0.01) brackets nogap compress

Table 8. Regression results of the financial capacity model impacting sustainable growth of listed businesses in Vietnam.

```
. esttab OLS FEM REM GLS, r2 star(* 0.1 ** 0.05 *** 0.01) brackets nogap compress
```

	(1) SGR	(2) SGR	(3) SGR	(4) SGR
Size	0.00358 [1.42]	-0.0000301 [-0.01]	0.00358 [1.42]	0.00231** [2.54]
Lev	-0.00199 [-1.22]	-0.00252 [-1.45]	-0.00199 [-1.22]	0.000643 [0.69]
Std	0.00476 [0.63]	-0.0104 [-1.12]	0.00476 [0.63]	0.00907*** [2.96]
Inv	0.0133 [1.41]	0.0243** [2.31]	0.0133 [1.41]	-0.0108** [-2.26]
Ine	0.00801 [0.52]	0.00620 [0.29]	0.00801 [0.52]	0.00140 [0.25]
Rec	0.0357** [2.00]	0.0510** [2.51]	0.0357** [2.00]	-0.0158 [-1.51]
CR	0.000641 [0.73]	0.000592 [0.64]	0.000641 [0.73]	-0.000198 [-0.47]
ROA	0.174** [2.18]	0.0670 [0.76]	0.174** [2.18]	0.394*** [5.96]
ROE	1.131*** [23.69]	1.133*** [22.72]	1.131*** [23.69]	1.067*** [25.28]
Age	-0.00455*** [-2.79]	-0.00738*** [-3.95]	-0.00455*** [-2.79]	-0.00171** [-2.12]
_cons	-0.100 [-1.38]	0.00919 [0.07]	-0.100 [-1.38]	-0.0562** [-2.06]
N	628	628	628	628
R-sq		0.850		

t statistics in brackets

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

(Source: Regression study in STATA 14 software)

5. Conclusion and Managerial Implications

Regression model results (Table 8):

$$\text{SGR} = -2.06 + 0.00231 \cdot \text{Size} + 0.00907 \cdot \text{Std} - 0.0108 \cdot \text{Inv} + 0.394 \cdot \text{ROA} + 1.067 \cdot \text{ROE} - 0.00171 \cdot \text{Age} + \mu$$

The coefficient of determination (R²) is an indicator assessing the adequacy of the regression model. The value of the coefficient (R²) indicates the percentage of variation in the dependent variable that can be explained by the regression model. The regression results provide the following insights, including 6 independent variables explaining 85.0% of the variance in the dependent variable SGR. These variables are: Business size (Size), Short-term debt ratio (Std), Fixed asset investment ratio (Inv), Return on assets (ROA), Return on equity (ROE), and Business age (Age). Specifically, the impact of these results is as follows:

Business size (Size): It has a positive impact on sustainable growth (SGR) of the business, with a high significance level of 5%.

If a business has a larger capital size, its financial capacity will be stronger. For each unit increase in business size, the sustainable growth will increase by 0.00231 units. This aligns with the reality in Vietnam, where larger listed companies tend to have better financial independence, enabling them to undertake independent business projects and mitigate risks effectively.

Short-term debt ratio (Std): It has a positive impact on sustainable growth (SGR) of listed businesses, with a significance level of 1%. During the period from 2010 to 2022, listed businesses in Vietnam tended to use short-term funding for their operations. Although this approach carries higher interest rate risks, it promptly fulfills capital needs, which adversely affects sustainable growth.

Fixed asset investment ratio (Inv): It has a negative impact on sustainable growth (SGR) of businesses, with a high significance level of 5%. If a business increases its fixed asset investment ratio, its financial capacity weakens. For each unit increase in this ratio, the sustainable growth decreases by 0.0108 units. This is consistent with the Vietnamese context, where many listed companies have undertaken inefficient investment projects, leading to capital loss and hindering sustainable growth.

Return on assets (ROA): It has a positive impact on sustainable growth (SGR) of listed businesses, with a significance level of 1%. An increase of 1 unit in return on assets leads to a 0.394 unit increase in sustainable growth. During the research period, businesses effectively utilized their assets, contributing to improved financial capacity and sustainable growth.

Return on equity (ROE): It has a positive impact on sustainable growth (SGR) of listed businesses, with a very high significance level of 1%. A higher return on equity indicates stronger financial capacity and greater sustainable growth. For each unit increase in return on equity, sustainable growth increases by 1.067 units. This aligns with the Vietnamese context, where a higher return on equity signifies efficient business operations and contributes to increased owner's equity through retained earnings.

Business age (Age): It has a negative impact on sustainable growth (SGR) of listed businesses, with a very high significance level of 5%. In theory, businesses with longer operational history and stronger brand recognition would have an advantage in enhancing financial capacity and sustainable growth. However, the regression results show the opposite. This implies that long-

established businesses need restructuring to improve operational efficiency and ensure financial capacity meets the goals of sustainable growth.

Additionally, in model (*), it indicates a less significant relationship among the variables: Operational efficiency (Ine), Accounts receivable ratio (Rec), and Liquidity (CR). The managerial implication is that activities aimed at improving liquidity, maintaining low accounts receivable, and enhancing operational efficiency have not significantly contributed to increased financial capacity and sustainable growth of listed businesses.

Based on the research results, the author presents several financial recommendations to achieve sustainable growth for listed businesses in Vietnam, within the context of the Industry 4.0 revolution. These solutions include:

Firstly, increasing equity capital through retained earnings is recommended. For the group of large-scale businesses with efficient operations and strong cash flow, there is a need for significant capital for project implementation, investment opportunities, or at least a plan to increase registered capital. The shareholders of these businesses are not concerned about dividend fluctuations. Such companies might consider a surplus dividend policy. For the remaining large-scale and efficient businesses with surplus funds but plans to reduce investment projects currently or in the future in favor of ongoing business activities or a strategy for stock listing on the exchange, a stable dividend policy could be considered. For small and medium-sized businesses that are profitable to a certain extent but not entirely stable, retaining 100% of after-tax profits in the short term is recommended to enhance financial capacity and ensure long-term sustainable growth.

Secondly, increasing equity capital through issuing new shares is another option. The private placement approach can be applied to a large extent for small-scale and medium-sized business groups. Private placement of shares only needs to satisfy two conditions: (i) not offering shares through public information channels; (ii) offering to fewer than 100 investors, excluding professional securities investors or only offering to professional securities investors. Large-scale businesses can use the option of issuing additional shares to the public. The company must meet the following conditions: (i) Registered capital of at least 30 billion VND; (ii) The plan to increase equity capital is approved by the General Meeting of Shareholders. Furthermore, the company

must have financial statements and reports on contributions of shareholders approved by an auditing organization in the last 2 years.

Thirdly, for debt capital sources, options include issuing bonds (convertible bonds with a maturity period of about 2-3 years are reasonable), expanding credit channels from commercial banks (including short-term credit), and credit guarantees.

Fourthly, listed companies should reassess the efficiency of their ongoing investment projects, eliminate inefficient projects, and collaborate with universities to research and transfer modern technology to enhance project efficiency.

Fifthly, well-established listed companies are advised to restructure their organizational structure to improve operational efficiency, thereby achieving the goal of sustainable growth.

Lastly, consider transitioning the business model. Companies currently organized as limited liability companies should transition to joint-stock companies. Non-public companies can become public companies through Initial Public Offerings (IPOs) to increase capital and enhance financial capacity.

6. References

- Pham Thi Van Anh. (2012). Solutions to Enhance Financial Capacity of Small and Medium Enterprises in Vietnam Today. Financial Academy.
- La Thi Lam. (2016). Enhancing Financial Capacity of Joint Stock Commercial Banks in Vietnam Today. Financial Academy.
- Hoang Thi Phuong Lan (2019). Solutions to Enhance Financial Capacity of Vietnamese Seaport Enterprises. Maritime University.
- Phan Thi Hang Nga (2013). Financial Capacity of Commercial Banks in Vietnam. University of Banking, Ho Chi Minh City.
- Le Van Te (1996). Dictionary of Economics, Finance, and Banking: National Political Publishing House.
- Nguyen Thi Tuyet (2020). Solutions to Enhance Financial Capacity of Listed Construction Companies in Vietnam. Financial Academy.
- Nguyen Nhu Y (1998). Vietnamese Pronoun Dictionary: Culture and Information Publishing House.
- Akhtar, M., Yusheng, K., Haris, M., Ain, Q. U., & Javaid, H. M. (2022). Impact of financial leverage on sustainable growth, market performance, and profitability. *Economic Change and Restructuring*, 55(2), 737-774.
- Asgari, M. R., Pour, A. A. S., Zadeh, R. A., & Pahlavan, S. (2015). The relationship between firm's growth opportunities and firm size on changes ratio in retained earnings of listed companies in Tehran Stock Exchange. *International Journal of Innovation and Applied Studies*, 10(3), 923.
- Boyer, D., Creech, H., & Paas, L. (2008). Report for SEED Initiative Research Programme: Critical success factors and performance measures for start-up social and environmental enterprises: International Institute for Sustainable Development= Institut international
- Creech, H., Huppé, G. A., Paas, L., & Voora, V. (2013). Social and Environmental

- Enterprises in the Green Economy: Supporting sustainable development and poverty eradication on the ground—Analysis of a 3-year study for policy-makers.
- Duffie, D. (2010). How big banks fail and what to do about it. In *How Big Banks Fail and What to Do about It*: Princeton University Press.
- Hafid, I. (2016). The effect of margin profit and total assets towards sustainable growth rate of the distributor and trade company. *International Business Management*, 10(4), 423-428.
- Higgins, R. C. (1977). How much growth can a firm afford? *Financial management*, 7-16.
- Junaidi, S., Sulastri, S., Isnurhadi, I., & Adam, M. (2019). Liquidity, asset quality, and efficiency to sustainable growth rate for banking at Indonesia Stock Exchange. *Jurnal Keuangan dan Perbankan*, 23(2), 308-319.
- Littlewood, D., & Holt, D. (2015). Social and environmental enterprises in Africa: context, convergence and characteristics. In *The business of social and environmental innovation* (pp. 27-47): Springer.
- Mubeen, M., Ahmed, M., Iqbal, A., & Arif, K. (2022). Sustainable Growth of Nonfinancial Firms: An Empirical Examination of Emerging Economies. *Journal of Entrepreneurship, Management, and Innovation*, 3(2), 331-354.
- Mukherjee, T., & Sen, S. S. (2018). Sustainable growth rate and its determinants: A study on some selected companies in India. *Global Multidisciplinary*, 10(1).
- Nugroho, V. C. (2020). Sustainable Growth Rate Model in Indonesia Manufacturing Firms. *The Winners*, 21(2), 93-100.
- Rubunda, E., Namusonge, G. S., & Oluoch, O. (2019). The Influence of Retained Earnings and Equity Finance Structure on the Growth of Small and Medium Manufacturing Enterprises in Rwanda. *European Journal of Social Sciences*, 58(2), 112-123.
- Wang, X. W. T. (2017). Empirical research on financial capability evaluation of A-share listed companies in the securities industry based on principal component analysis. *Research on Modern Higher Education* 4, 01004 (2017).
- Zhang, X., & Xu, B. (2019). R&D internationalization and green innovation? Evidence from Chinese resource enterprises and environmental enterprises. *Sustainability*, 11(24), 7225.
- StataCorp, L. (2005). *Stata base reference manual*. College Station: StataCorp LLC.