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Research on factors affecting the performance of listed real estate companies in Vietnam

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Abstract

This paper examines factors affecting the performance of listed real estate companies in Vietnam. Evaluating business performance is necessary to help firms realize whether their business activities are efficient or not. This study evaluates business performance based on the measure of return on assets (ROA). The study used quantitative methods by employing descriptive statistical analysis, correlation analysis, and regression analysis to process data collected from 77 companies listed on stock exchanges from 2018-2022. The research results show five factors affecting the performance of listed real estate companies in Vietnam. Firm size, revenue growth rate, fixed asset investment, and short-term solvency have a positive impact on the performance of companies. Meanwhile, financial leverage has a negative effect on the performance of the enterprise. Based on the findings, the research proposes recommendations for firms to have appropriate policies to improve performance and competitiveness.

Keywords: *Determinants, real estate business, performance, revenue growth rate.*

1. Introduction

In the era of globalization, economic competition has become more fierce than ever. Vietnam is also in the process of integrating more and more deeply with economic organizations in the region as well as in the world. In particular, officially joining the World Trade Organization has brought opportunities as well as challenges to the national economy. One factor that creates the foundation to help Vietnam seize opportunities and overcome competitive pressures is the efficiency of businesses. Real estate is an industry with great potential for development, attracting resources and promoting other economic sectors to develop. In 2019, the Covid-19 epidemic clearly impacted the performance of businesses. One of the challenges of real estate businesses is the fierce competition in the market economy, with competitors stronger in capital, technology, capital usage, and management methods. This study indicates the question: How can real estate businesses maintain good operational efficiency and improve competitiveness is an urgent issue for real estate businesses?

The results of this paper contribute empirical studies on models to evaluate the influence of factors on the performance of listed real estate enterprises in Vietnam. In addition, the study synthesizes and systematizes factors affecting the performance of listed real estate enterprises in Vietnam. The research results are reference documents for relevant subjects such as business managers, investors, state management agencies, and other subjects. Thereby, businesses can improve their capacity and operational efficiency.

2. Objectives

This study aims to identify factors affecting the performance of listed real estate enterprises in Vietnam. The study measures the impact level of each factor affecting the performance of listed real estate enterprises in Vietnam. The research proposes recommendations to improve the efficiency of listed real estate enterprises in Vietnam.

3. Materials and method

3.1 Materials and Hypotheses Development

Literature review

Samuel et al. (2016) found that firm performance is positively related to firm size. The reason is that large companies have more resources and also benefit from economies of scale, thus being better positioned to compete in the market. Nugraha et al. (2020) used data from 41 companies listed on the Indonesia Stock

Exchange. The research results show that financial leverage has a negative effect on the performance of the business. Along with that, liquidity shows a negative effect on financial performance as well as on performance. The factors of financial leverage and liquidity continue to be found with the results to have an effect on performance in the study of Matsoma et al. (2022), the study showed that the factors found leverage finance, short-term liquidity, and revenue growth have a positive influence on the performance of enterprises.

Ado et al. (2020) have researched the factors affecting the profitability of listed businesses in Nigeria. The author used data from 84 companies listed on the stock exchange with 756 observations over the financial period from 2010-2018. The results also indicate that firms engaging in earnings management's financial determinants are more profitable. At the same time, there is a significant positive relationship between income capacity and profitability. On the contrary, financial structure factors have a negative impact on ROA. Tran (2021) reported his finding that the factors of firm size, asset turnover, and profit margin have a positive impact on business performance. In contrast, the revenue growth factor and fixed asset investment negatively impact the business's performance. At the same time, the results show that the asset turnover factor has the strongest influence on ROA.

In recent times, many research projects have been conducted to test the influence of factors on business performance. However, the results of the conducted studies are inconsistent; influencing factors are often associated with companies listed on each country's stock market. Each research paper takes a different approach to measuring business performance. At the same time, the relatively small sample size is also a limitation in domestic and international studies. To fill the above gap, the research focuses on real estate enterprises and conducts research on all real estate enterprises, which are 77 enterprises listed on the HNX and HOSE from 2018 - 2022. This research ensures the up-to-dateness of the research gap regarding the actual situation of these businesses.

Theoretical foundations

***Capital Structure Theory*:** The theory of capital structure by Modigliani and Miller is one of the prominent theories and is used in many studies around the world to talk about the relationship between corporate performance and capital structure. Accordingly, the more debt companies use, the more their business value will increase. In other words, how capital is selected and used will have an impact on the performance of the business. According to the theory of Modigliani and Miller, when a business begins to borrow, that business will take advantage of the tax shield. Low debt costs along with the tax shield advantage will cause the weighted average cost of capital of businesses to decrease as debt increases. When a company increases debt, using borrowed capital effectively will increase the operating efficiency of the business. In other words, a company's capital structure will have an impact on its performance. Many studies have also applied the capital structure theory of Modigliani and Miller. Almajali et al. (2012) studied the relationship between capital structure and business performance. Research results show that capital structure has a positive impact on business performance.

Pecking Order Theory: The pecking order theory explains corporate financing decisions based on asymmetric information that exists between managers and investors (Baker & Martin, 2011). Asymmetric information affects the choice between internal and external financing and between new issuance of debt securities and equity securities. Investment plans will be funded first by internal capital, mainly reinvested profits, then by issuing new debt, and finally by issuing new equity. The pecking order theory shows that financial leverage helps businesses improve the market's perception of value, thereby increasing the value of the business (Abdullah & Tursoy, 2019). In addition, Chen et al. (2011) also point out that due to information asymmetry between the desires of the company and investors, companies will choose internal capital over debt, short-term debt over long-term debt, and debt to equity. Accordingly, increased debt is a solid sign that the company's future is progressing positively. Since financial leverage is one of the independent variables in the present study, this theory is considered applicable.

Economies of Scale Theory: The theory of economies of scale is rooted in the desire to achieve greater production profits through the division of labor. Accordingly, businesses can achieve economies of scale by increasing production and reducing costs. Based on this theory, the size of the business will have a huge impact based on economies of scale. The larger the business, the more costs it will save. Large-scale businesses will often have the advantage of new, modern machinery with high output levels, which helps machinery depreciation costs to be divided equally over a large number of products. With that production

technique, many products can be produced, reducing the average cost. Large-scale enterprises have financial advantages because large-scale enterprises can easily mobilize diverse financial sources with lower capital costs than small enterprises. Based on this theory, Tran (2021) researched the factors affecting the performance of businesses in the Vietnamese real estate industry. Research results have shown that the larger the firm size, the higher the business performance, which is consistent with the theory of "Economic advantages due to scale". Large firm sizes are better able to effectively utilize their assets, thereby increasing the profit ratio on total assets. In addition, Vo (2015) researched the factors affecting the business performance of listed construction enterprises based on research data from 107 listed construction enterprises listing also gave similar results.

Hypotheses development

Firm Size: According to Al-Homaidi et al. (2021), large-scale companies will have higher business performance than small-scale companies. The larger the scale, the stronger the financial potential, the easier it is to build a reputation, and the more competitive advantages (Samuel et al., 2016) and firm size influence on accounting information quality (Binh et al. 2020). The reason is that these enterprises have an organizational structure, a high level of labor specialization, the opportunity to access a higher level of technology, and good management ability to easily exploit advantages in accordance with the scale rules to minimize input costs and increase output efficiency. At the same time, Awawdeh et al. (2020) point out that the firm size factor is considered an indicator of information. Large-scale businesses are willing to disclose more information to differentiate themselves from competitors and enhance their value. Furthermore, one of the characteristics of the real estate industry is that it requires a large amount of investment capital, so large-scale real estate businesses will have more business advantages and have many opportunities to seek profits to improve business efficiency (Quan and Ly, 2014). Thus, we propose the following hypothesis:

H1: Firm size has a positive impact on business performance.

Operating Time: Business performance is said to be strongly influenced by the length of time the business has been in operation. According to Gatsi et al. (2013), the longer businesses have been operating, the more experience they will have and the capital they will accumulate, thereby resulting in higher business performance. Ngo and Nguyen (2020) also point out that building the reputation of a business's brand requires a lot of time and effort. The longer a business has been in operation, the more reputable it proves to be. These businesses will maintain their position with shareholders, building trust and confidence in investors and customers. At the same time, it also creates extensive social relationships with other businesses and commercial banks. Therefore, these businesses can easily access capital sources as well as information related to their business operations, and their operating efficiency is also higher (Nguyen and Mai, 2011). This is also proven in the research of Abor (2008), Dang and Nguyen (2017). Therefore, the following hypothesis is proposed:

H2: Operating time has a positive impact on business performance.

Financial Leverage: According to Matsoma et al. (2022), financial leverage has a positive effect on business performance. When a business has a high financial leverage ratio, it means that the business is using loan capital to enjoy the benefits of tax shields and making good use of loan cash flow to operate business activities to bring economic efficiency. Thus, businesses will gain the bank's credit reputation, save costs, and increase their loan limit (Tran, 2021). The research by Ngo and Nguyen (2020) also concluded that the financial leverage ratio of real estate enterprises is high because the operations of enterprises in this industry depend heavily on loans, especially long-term credit. Taking advantage of debt capital will help real estate businesses be more proactive in business opportunities, thereby amplifying business profits. This is also proven in the study of Minnema and Andersson (2018). Therefore, the hypothesis is built as follows:

H3: Financial leverage has a positive impact on business performance.

Revenue Growth Rate: To stand firm against competition in the market, businesses need to accelerate their development further. Revenue growth rate is one of the basic factors that help businesses achieve their goals. According to research by Le (2012), a high growth rate will be a good indicator to predict the future success of a business. Revenue growth helps businesses accumulate capital, expand investment, and create trust with customers and suppliers, thereby improving the business efficiency of their businesses (Atta Ullah et al., 2020). According to Nguyen and Ngo (2020), businesses with high revenue growth will help businesses expand production and business activities, achieve efficiency of scale, and increase revenue,

and assets, thereby increasing the profitability of the business. This is also proven in the research of Alarussi and Alhaderi (2018), and Matsoma et al. (2022). Therefore, we propose the following hypothesis:

H4: Revenue growth rate has a positive impact on business performance.

Fixed Asset Investment: Fixed asset investment is one of the factors that impact business performance. According to Al-Najjar (2011), the tangibility of an asset is one of the main factors determining a company's performance. A business with many tangible fixed assets can borrow more because banks often require collateral (Pouraghajan, 2012). A high fixed-asset ratio means that the business can use high financial leverage. This will help businesses be more profitable during economic growth periods. Investing in fixed assets also helps protect the interests of shareholders and creditors from risks when companies are at risk of bankruptcy (Onaolapo & Kajola, 2010). Therefore, the following hypothesis is proposed:

H5: Fixed asset investment has a positive impact on business performance.

Short-term Solvency: Short-term liquidity shows how a business uses short-term assets to pay for its short-term debts. According to Nugraha et al. (2020), the higher the short-term ratio, the more likely it is that a business can repay all its debts and that the business is performing well. Matsoma et al. (2022) concluded that the short-term solvency factor has a positive impact on business performance. In addition, Ho et al. (2020) point out that businesses with good liquidity ratios or short-term solvency will not be under pressure to pay short-term debts. Therefore, businesses will not need to borrow loans with too high-interest rates that increase costs and reduce business performance. This is also proven in the studies of Almajali et al. (2012), Dang and Nguyen (2018). Thus, the hypothesis built is as follows:

H6: Short-term Solvency has a positive impact on business performance.

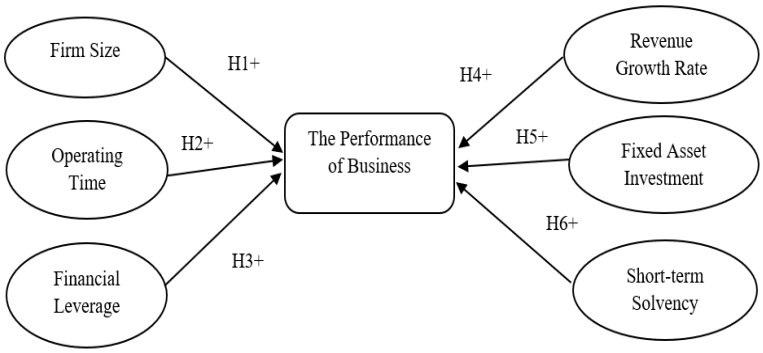

Figure 1 Proposed research model

3.2. Research method

To examine the factors affecting the performance of listed real estate companies, we use the following model:

$$\mathbf{ROA} = \beta_0 + \beta_1 * \log(\mathbf{SIZE}) + \beta_2 * \mathbf{AGE} + \beta_3 * \mathbf{LEV} + \beta_4 * \mathbf{REV} + \beta_5 * \mathbf{AST} + \beta_6 * \mathbf{CRO} + \varepsilon$$

In this model, ROA is the dependent variable, capturing the performance of companies. Business performance is reflected by indicators such as return on assets (ROA), and return on equity (ROE). In this study, the author chose ROA to measure business performance based on previous studies such as Ado et al. (2020), Nugraha et al. (2020), and Matsoma et al. (2022). This measures the efficiency of using a business's assets calculated based on pre-tax profits and average total assets. This index helps consultants clearly determine the performance of the business, thereby making better investment decisions.

Table 1 Variables description in the research model

Dependent variables			
Return on Asset	The ratio of Net profit to Total assets	ROA	Ado et al. (2020), Nugraha et al. (2020), Matsoma et al. (2022)
Independent variables			
Firm size	The size of the company for total assets	SIZE	Samuel et al. (2016), Awawdeh et al. (2020)
Operating time	The difference between the Year of research and the Year of establishment of the business	AGE	Gatsi et al. (2013), Ngo and Nguyen (2020)
Financial leverage	The ratio of Total liabilities to Total assets	LEV	Al-Homaidi et al. (2021)
Revenue growth rate	{(Current period net sales – Previous period net sales) / Previous period net sales}* 100	REV	Atta Ullah et al. (2020), Matsoma et al. (2022)
Fixed asset investment	The ratio of Fixed assets to Total assets	AST	Dada & Ghazali (2016), Tran (2021)
Short-term solvency	The ratio of Short-term assets to Short-term liabilities	CRO	Nugraha et al. (2020), Dang and Nguyen (2018)

The data utilized in this research are collected from the Vietnamese exchange market. The sample of the research consists of 77 companies from the real estate sectors of the Vietnam Stock Exchange. This study used quantitative research methods to test the model through secondary data collected from the main financial statements examined by 77 companies in the real estate industry group listed in Vietnam from 2018 to 2022. First, the collected data will be processed and screened using appropriate calculations and financial ratio formulas to obtain the values of variables through the Microsoft Excel 2019 tool. Then, we removed the multicollinearity phenomenon between independent variables by conducting correlation and descriptive statistical analyses. We test heteroscedasticity, multicollinearity, and auto-correlation and solve these phenomena using the GLS44 (General Least Squares) method to have a reliable model. Next, we build a regression model for panel data using the estimation method, including choosing between three models OLS, FEM, and REM through STATA 15 software.

4. Results and Discussion

4.1 Results

With a data set of 77 businesses in 5 years from 2018 - 2022 at listed companies in the Vietnamese real estate industry on HOSE and HNX. The total number of observations is 385, with the dependent variable being the firm's performance measured through return on assets (ROA). Descriptive statistics for the independent variables yield the following results:

Table 2 Descriptive statistics of the dependent variables

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	385	.0487473	.058525	-.2786	.2991
SIZE	385	12.56608	.6928833	11.06911	14.93239
AGE	385	19.61039	8.334098	3	44
LEV	385	.4746953	.1973402	.0059	.8635
REV	385	.4780473	2.37547	-2.6573	25.8797
AST	385	.0541158	.0865186	.0001	.6286
CRO	385	2.303065	1.6054343	.23	10.63

Table 2 shows descriptive statistics of the research variables. The table presents a detailed statistical description of the variables used, including the number of observations, the mean value, the standard deviation, and the minimum and maximum values of the variables. Table 2 shows that the difference in return

on assets (ROA) between businesses is at a relative level, the lowest is -0.2786, and the highest is 0.2991. This shows that there is little difference in profitability between listed companies. An average value of 0.0487 shows that most listed businesses' profitability is quite low. The ROA ratio is generally relatively low for real estate businesses during this period because the real estate market in 2018 - 2022 faced many difficulties, especially during the Covid-19 epidemic; the market has just recovered in recent years.

The average size of the listed enterprises studied on the two stock exchanges is 12.566, showing that the listed enterprises in the study are both medium and large-sized. Meanwhile, the financial leverage of listed businesses has an average value of 0.4746963, showing that real estate businesses use a fairly high debt ratio to maintain their production and business activities. For revenue growth rate, the average value of revenue growth rate is 0.4780473, showing a relatively average number for real estate firms. This may be due to the impact of the Covid-19 epidemic, causing real estate businesses to face many difficulties in doing business.

Next, the study will conduct a correlation test in the model to ensure the reliability of the regression results and the results of other estimates. The results of the correlation analysis between 6 independent variables and the dependent variable (ROA) are shown as follows:

Table 3 Correlation matrixtable

	ROA	SIZE	AGE	LEV	REV	AST	CRO
ROA	1000						
SIZE	0.2440	1000					
AGE	-0.0909	-0.0484	1000				
LEV	-0.0061	0.1948	0.0278	1000			
REV	0.0608	0.0036	-0.0503	0.0299	1000		
AST	0.0497	0.0832	0.0795	-0.0270	-0.0006	1000	
CRO	0.2041	-0.614	0.0123	-0.3399	-0.0606	-0.0744	1000

Table 3 shows that the correlation coefficient between the variables is not high; none of the coefficients exceeds 0.8 (the highest is 0.2440). This reflects that the level of linear correlation in many variables is low, making it less likely that multicollinearity appears in the research model. To increase the reliability of the model, the author will continue to check the multicollinearity phenomenon using the VIF model magnification factor.

Table 4 VIF multicollinearity defect inspection table

Variable	VIF	1/VIF
LEV	1.18	0.847403
CRO	1.14	0.874077
SIZE	1.05	0.950112
AST	1.03	0.975511
AGE	1.01	0.985406
REV	1.01	0.993586
Mean VIF	1.07	

We see that the average value of VIF is < 2, thus concluding that there is no multicollinearity phenomenon between the independent variables.

By using Stata 15 quantitative software to regress the data set with the dependent variable ROA and 6 independent variables, the author provides the following table of regression results:

Table 5 Table of regression results of factors affecting business performance according to 3 models OLS, FEM, REM

	(1)	(2)	(3)
	ROA	ROA	ROA
VARIABLES	OLS	FEM	REM
SIZE	0.0207***	0.0398***	0.0299***
	(4.95)	(7.13)	(6.11)
AGE	-0.000587***	-0.0105***	-0.00154***
	(-1.72)	(-7.42)	(-2.82)
LEV	0.00858	-0.0746**	-0.0203
	(0.55)	(-2.47)	(-0.96)
REV	0.00175	0.000894	0.00167*
	(1.47)	(0.97)	(1.72)
AST	0.0369	0.139***	0.0919***
	(1.12)	(3.09)	(2.35)
CRO	0.00843***	-0.00165	0.00250
	(4.63)	(-0.86)	(1.36)
_cons	-0.266***	-0.215***	-0.299***
	(-4.29)	(-2.84)	(-4.78)

From Table 5, we can see that the statistical significance of the variables affecting business performance is different for all three models: OLS, FEM, REM. To determine which model is suitable between the FEM and REM models for the study, the author uses Hausman. The test results show that Prob > chi2 = 0.000 < 0.05. Therefore, the fixed estimation model (FEM) is most suitable.

Table 6 Results of the FEM regression model on the impact of factors on business performance

ROA	Coef	Std. Err	z	P> |z|	[95% Conf.	Interval]
SIZE	.0397871	.0055821	7.13	0.000	0.288023	.0507719
AGE	-.0104546	0.0014087	-7.42	0.000	-.0132268	-.0076924
LEV	-.0745899	.0301444	-2.47	0.014	-1.339097	-.0153702
REV	.0008941	.0009225	0.97	0.333	-.0009212	.0027095
AST	.1393935	.0019149	-0.86	0.389	-.0054192	.0021173
CRO	-.0016509	.0019149	-0.86	0.389	-.0054192	.0021173
_cons	-.2149635	.0756631	-2.84	0.005	-.3638572	-.0660698
sigma_u	09685082	(fraction of variance due to u_i				
sigma_e	.03867878					
rho	.86244663					
F test that all u_i = 0: F (76, 302) = 6.17				Prob > F = 0.000		

After running the model, the author tested the model's defects to increase the model's reliability and suitability. Using Stata 15 software, the author tested the error of heteroskedasticity with the xttest3 command and the autocorrelation phenomenon with the xtserial command.

```
. xtserial ROA SIZE AGE LEV REV AST CRO

Wooldridge test for autocorrelation in panel data
H0: no first-order autocorrelation
    F(  1,      76) =      0.780
           Prob > F =      0.3800
```

Figure 2 Results of testing Autocorrelation

The test results show that P - value = 0.3800 > 0.05, so there is no correlation in the model.

```
. xttest3

Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

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

chi2 (77)  =    54298.98
Prob>chi2 =        0.0000
```

Figure 3 Results of testing heteroskedasticity

The test results show that Prob > chi2 = 0.000 < 0.005, the model has heteroscedasticity. Thus, realizing that the model had heteroscedasticity errors, the author overcame this phenomenon by the generalization method using the Xtgls command on Stata 15 software and received the following results:

Table 7 Research model results after overcoming autocorrelation defects

ROA	Coef	Std. Err	z	P> |z|	[95% Conf.	Interval]
SIZE	.0218	.0030359	7.18	0.000	.0158497	.0277504
AGE	-.0004583	.0002633	-1.74	0.082	-.0009744	.0000578
LEV	-0.0189423	.0083565	-2.27	0.023	-.0353207	-.0025638
REV	.0014563	.0004806	3.03	0.002	.0005144	.0023983
AST	.039886	.0169928	2.35	0.019	.0065808	.0731913
CRO	0.0026083	.0010283	2.54	0.011	.0005929	.0046237
_cons	-.2231991	.0381378	-5.85	0.000	-.2979478	-.1484504

Based on the analysis of results from STATA software, the general regression equation with the estimated ROA variable is as follows:

ROA = -0.2232 + 0.0218 * SIZE - 0.0005 * AGE - 0.0189 * LEV + 0.0015 * REV + 0.0399 * AST + 0.0026 * CRO

4.2. Discussion

Research results show that five factors affect the performance of real estate businesses. These are firm size, revenue growth rate, fixed asset investment, and short-term ratio with positive effects. Financial leverage has a negative impact on the performance of listed real estate enterprises in Vietnam. The firm size factor of the real estate business has a positive impact on the performance with the coefficient = 0.0218. This result coincides with the study of Al-Homaidi et al. (2021), and Awawdeh et al. (2020). With the real estate industry having a relatively large total asset, when total assets increase, the business attracts many investors, which means that the scale of the business is expanded.

Moreover, large-scale enterprises often have a brand and reputation in the market, so it is easier to access capital from outside as well as conduct business activities. The financial leverage factor has a negative impact on corporate performance with a coefficient = - 0.0189. This result is completely similar to the results of Alarussi et al. (2018). In fact, the ratio of corporate debt to banks is at a very high level. As of June 2022, in the group of listed real estate businesses, 8% of businesses are unable to pay loan interest and 18% of businesses show signs of difficulty in paying loan interest. Such a situation causes business profits to decrease and negatively affects business performance.

Research results show that revenue growth rate positively impacts the enterprise's business performance with a regression coefficient = 0.0015. This research result is completely consistent with the study of Matsoma et al. (2022). Businesses with high revenue growth rates will attract more investors to contribute higher equity capital, while creating trust with customers and suppliers. From there, higher solvency will help meet due debts, and business performance will also be improved. The fixed asset investment factor has a positive impact on business performance with a coefficient = 0.0399. This result coincides with the studies of Dang and Nguyen (2018), and Dada and Ghazali (2016). Real estate businesses invest in fixed assets such as new equipment and facilities, which will help increase the operational efficiency

of the business. By effectively managing and using assets, businesses can create economic value, thereby helping to increase the efficiency of their own business operations.

Finally, the research results show that the short-term solvency of the enterprise has a positive impact on the performance of the enterprise with the impact coefficient = 0.0026. The research results are also similar to the research results by Nugraha et al. (2020), Matsoma et al. (2022), and Ho et al. (2020). A high short-term ratio indicates that businesses are in a healthy financial position. This will increase the confidence of stakeholders and partners to help real estate businesses attract more capital, thereby improving profits and increasing profitability.

5. Conclusion

The study examined the influence of factors on the performance of Vietnamese listed real estate companies in the 5-year period from 2018-2022, thereby offering solutions to help real estate businesses. Vietnamese products improve business efficiency. Through quantitative research using data analysis software STATA 15. The research results show that the performance of listed real estate companies in the period 2018-2022 with an average value of 0.0487 shows that the profitability of most listed companies is quite low. This shows that the business activities of real estate enterprises in the period of 2018-2022 have not yet achieved high efficiency. The reason is that the real estate market was strongly affected after the Covid-19 pandemic, causing sales transactions to plummet. Along with that, the new real estate market is in a cycle of recovery and development in recent years. The factor of firm size has a positive impact on the performance of businesses. The larger the enterprise scale, the greater the total assets of the enterprise, thereby attracting more investors. At the same time, large scale helps businesses build brand and reputation in the market. Revenue growth is a factor that has a positive impact on the performance of businesses. A high revenue growth rate will help businesses accumulate capital, expand investment, and create trust with customers and suppliers, thereby helping to improve business efficiency. This conclusion is consistent with short-term practice and needs. The research results also show that the fixed asset investment factor has a positive impact on the performance of Vietnamese-listed real estate enterprises. The efficient use of fixed assets by a business will help the business increase its operating efficiency. In addition, fixed asset investment will help protect the interests of shareholders and creditors from risks when companies are at risk of bankruptcy. Enterprises with high short-term solvency will have higher operating efficiency. High short-term solvency will help businesses not be under pressure to pay short-term debts, while minimizing the need to borrow loans with high interest rates, which increases the business's financial costs, so efficiency increases. Operational efficiency is also improved. From the above conclusions, the study offers solutions to help Vietnamese real estate businesses improve business efficiency:

First, businesses need to pay attention to expanding and taking advantage of firm size. With the characteristics of the real estate industry, during the investment and construction phase of real estate projects, businesses will have no real estate revenue. During this time, businesses need to make good use of available resources to increase revenue outside of real estate. Specifically, businesses need to increase revenue from rental activities, apartment management services, apartment management services, and advertising services at places where investment real estate is located by implementing house rent reduction policies, discount policies, etc. to increase the operational efficiency of real estate businesses.

Firms need to actively update information and foster professional expertise to improve knowledge and grasp market developments so that they can adjust their business plans accordingly. At the same time, businesses need to arrange reasonable plans to ensure that departments always achieve the most optimal work efficiency, proactively seek partners to link businesses, and create opportunities for conferences on modern technology and exchange of business management experience.

Second, firms need to improve their short-term solvency. Real estate businesses need to focus on maintaining appropriate quick payment ability and should not let customer receivables be too low compared to short-term debt. To effectively manage receivables, businesses need to have a plan to review and collect overdue receivables, as well as debts that are older than the payment schedule. For bad debts such as bad debts, enterprises can take measures such as selling receivables to debt trading companies and stopping providing services for new orders.

Third, the financial leverage factor has a negative impact on corporate performance, so businesses need to build a reasonable capital structure. Real estate businesses need to restructure the loan ratio, reducing

this ratio to a reasonable level, because the higher the loan/total debt ratio will increase the business's debt repayment pressure and pose a risk. chance of bankruptcy. Businesses need to devise specific strategies for using financial leverage to increase profitability. Specifically, businesses need to develop flexible policies in the process of using debt, limiting the use of debt to finance short-term assets when their efficiency has not been fully exploited. Next, be flexible in using capital funding sources, especially during periods of unstable market lending interest rates.

Fourth, businesses need sustainable revenue growth. The results show that businesses have good business performance when they have high revenue growth rates. Revenues are actual revenues, not recorded on the books. To improve revenue growth, businesses need to pay attention in addition to improving the efficiency of marketing and market research. At the same time, implement a reasonable sales strategy to increase the revenue of the business such as: subleasing real estate, considering investing in building and selling houses for customer segments that really need houses. housing, thereby increasing investment efficiency and solving social security problems. However, for businesses with high growth opportunities, managers need to pay attention to balancing the interests of owners and creditors when making investment decisions to avoid reducing the company's performance.

Finally, businesses need to invest effectively in fixed assets. The results show that business performance and fixed assets ratio have a positive relationship. Therefore, companies need to pay attention to building a ratio between fixed assets accounting for total assets and a capital financing ratio for fixed assets to suit the business situation. Real estate businesses need to adjust and arrange to increase the ratio of capital for investment in fixed assets at a reasonable level.

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