

MINISTRY OF PLANNING AND INVESTMENT MINISTRY OF EDUCATION AND TRAINING
CENTER INSTITUTE FOR ECONOMIC MANAGEMENT

HA THI THU THUY

**ASSESSMENT OF ENTERPRISES ' INVESTMENT
EFFICIENCY IN VIETNAM**

Major: Development economics

Code: 9.31.01.05

SUMMARY OF DOCTORAL THESIS

Ha Noi - 2022

The dissertation is accomplished in :
Center Institute for Economic Management

Scientific supervisor: 1. Dr. Nguyen Thi Tue Anh
 2. A/Prof.Dr. Nguyen Ngoc Thang

Reviewer 1: A/Prof.Dr. Pham Van Hung

Reviewer 2: A/Prof.Dr. Nguyen Viet Khoi

Reviewer 3: A/Prof.Dr. Vu Sy Cuong

The thesis was defended at Dissertation Evaluation Committee at Institute level to be held in Central Institute for Economic Management at on, 202..

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- Vietnam National Library, Hanoi

ABTRACT

1. Rationale

Since the renovation in the mid-1980s, Vietnam has increasingly integrated deeply and widely with the world economy, with high economic growth for a long time and improved people's living standards. In particular, in the period 2001-2007, Vietnam's growth rate was the second highest in Asia, after China. However, since 2008, Vietnam's economic growth has slowed down. There have been many studies show that the decrease in Vietnam's growth rate in recent years is due to the fact that country's growth is mainly based on the growth of investment capital, so when the growth rate of investment capital decreases, also lead to a decrease in the growth rate. So, how effective is Vietnam's investment? Which sector (public, private, foreign invested) of the economy has the best investment efficiency and which sector has the lowest investment efficiency?

The study of investment efficiency in Vietnam, in particular, the evaluation of investment efficiency of enterprises in Vietnam by type of ownership (state-owned enterprises, private enterprises and foreign-invested enterprises) by industry and by firm size will show which sectors of the economy are currently performing the best, and which sectors of capital investment are currently underutilized. The use of micro data, particularly enterprise survey data, through econometric models will provide concrete evidence of investment efficiency by type of ownership, location, and industry of enterprises in Vietnam and at the same time indicate which factors affect the investment efficiency of enterprises in Vietnam.

2. Findings

2.1. Science

The thesis has built a research framework on assessing the investment efficiency of enterprises from the perspective of evaluating the efficiency of investment capital of groups of enterprises by economic type and the factors affecting the investment efficiency of the enterprise. From the theoretical investment models, the thesis has also built a quantitative model to evaluate the investment efficiency of enterprises in Vietnam and a model to evaluate the factors affecting the investment efficiency of enterprises.

2.2. Practice

Based on the analysis and evaluation of investment efficiency of enterprises in Vietnam, including socio-economic efficiency and financial efficiency, the thesis has the following practical contributions:

(1) Over time, the socio-economic efficiency of firms' investment capital is increasing, especially in formal job creation; (2) Investment efficiency from the financial perspective of enterprises in Vietnam has not changed over time. It seems that the investment activities of SOEs do not come from the business results of enterprises. (3) Access to loans is currently a barrier to investment activities of private enterprises in Vietnam. (4) Enterprise size is proportional to the efficiency of investment capital. (5) The investment environment has not shown an apparent influence on the investment efficiency of enterprises in Vietnam.

3. Main content of the thesis

In addition to the introduction and conclusion, the thesis includes the following four chapters:

Chapter 1 presents an overview of studies on evaluating investment efficiency of enterprises, factors affecting investment efficiency and evaluation methods. This chapter also presents research gaps, new points of the Thesis and objectives, scope, and research methods of the thesis.

Chapter 2 presents the theoretical basis and methods of evaluating investment efficiency of enterprises, including concepts, investment theory, investment efficiency indicators and methods of evaluating investment efficiency of enterprises in Vietnam.

Chapter 3 presents the current situation of investment efficiency of enterprises in Vietnam, the policy framework related to investment activities of enterprises, research results on investment efficiency assessment and factors affecting investment performance of enterprises in Vietnam.

Chapter 4 presents the contents of the domestic and abroad macro context in the period of 2021-2025 affecting the investment efficiency of enterprises; propose viewpoints, development orientations and improve investment efficiency of enterprises, thereby giving some policy implications to improve investment efficiency of enterprises in Vietnam.

CHAPTER 1. OVERVIEW OF THESIS WORKS AND THE RESEARCH DIRECTION

1.1. Overview of scientific works published on investment efficiency of enterprises

1.1.1. Overview of research works related to investment efficiency of enterprises

Evaluating the investment efficiency of enterprises through comparing the investment efficiency of the state-owned enterprises and private enterprises: International studies on the investment efficiency of enterprises often focused on the effect of ownership type, especially state ownership and private ownership on firm performance (Shleifer 1998a, Ramamurti 1997, La Porta and Lopez-de-Silanes 1999). Many research in this area has focused on countries that are transitioning from a centrally planned model to a market economy (Frydman et al. 1999, Claessens, Djankov, and Pohl 1997, Claessens and Djankov 1999). With a particular focus on East Asian transition economies such as China and Vietnam, numerous studies have shown that despite the successes of capital-driven growth, investment performance in these countries is still very limited. Meanwhile, SOEs continue to play an important role in the economy despite showing weak corporate governance and inconsistencies between profit and policy goals (Dollar and Wei 2007, IMF 2013, VEPR 2012). A change in governance can lead to a change in objectives, and government uncertainty can lead to an investment plan based on maximizing firm size (aiming at scaling) not for profit (Megginson and Netter 2001, Chen et al. 2011). Poor investment allocation decisions can be exacerbated in transition economies where government intervention can raise debates about moral hazard. Chen et al. (2011) notes two possible reasons for poor capital allocation efficiency: 1) SOEs (in a priori studies) may miss investment opportunities for profit if there is conflict with political goals and 2) SOEs (forecast) may not cancel unprofitable investment projects if it serves the broader agenda. In many cases, the investment activities of SOEs are carried out to provide public services and not for profit. In addition, soft budget constraints and preferential access to credit for SOEs can lead to inefficient production and investment decisions but capital-supported (Berglof, Erik, and Roland 1998, Hersch et al. 1997, Megginson and Netter 2001, Schaffer 1998).

According to Nguyen (2014), World Bank (2012), VEPR (2012), SOEs are becoming a hindrance to Vietnam's economic growth. Comparing the investment performance of private enterprises and SOEs in Vietnam and considering the relationship between revenue and investment, O'Toole et al. (2015) have shown that the investment plans of the SOEs in

Vietnam do not have a relationship with revenue growth. While private enterprises show a strong relationship between investment and output growth, in SOEs this relationship is not statistically significant. Study by Tran Kim Hao, Nguyen Thi Nguyet (2012) and (O'Toole et al. 2015) also shows that the main reasons for the inefficiency of SOEs are the failure to optimize the efficiency of the state investment capital, the process of equitization of SOEs has not changed the quality of governance and management of SOEs.

Studies by Pham Duc Cuong (2013) and studies by O'Toole et al (2015) have evaluated the financial performance and investment efficiency of SOEs, which have shown that, fully privatized enterprises have better investment performance than state-owned enterprises.

Evaluation of investment efficiency of the foreign-invested enterprise sector

For FDI enterprises, efficiency studies are often associated with socio-economic efficiency rather than financial performance of enterprises. Specifically, studies often assess the spillover effects of the FDI sector to other business sectors in the economy as well as the impact on labor, the institutional environment or competitiveness. Some typical studies on spillover effects of FDI enterprises can be mentioned such as studies on spillover effects of FDI through simulation/imitation channel by Barrios and Strolb (2002), Borensztein et al. (1998); Sinani and Meyer (2001) assess spillover effects through labor mobility, Bloomsstrom and Kokko (1998), Aitken and Harrison (1999), Harrison (1994) record spillover effects through competitive channels. Besides, vertical spillover effects are also used by many authors such as Lin and Saggi (2004), Jože et al. (2008), Javorcik (2004), Schoolrs and Van de Tal (2002). In addition to horizontal and vertical spillovers, export is another channel through which the presence of FDI enterprises can benefit domestic enterprises (Aitken, Hanson, & Harrison, 1997). Several studies have shown evidence of positive spillover effects of the FDI sector on domestic industry and services (Pham Thien Hoang (2009), Nguyen Ngoc Anh (2008). But there are studies with opposite results such as the study of Tran Toan Thang (2011) showing the negative influence of FDI enterprises on domestic enterprises. Sajid Anwar, Nguyen Phi Lan (2009) also argue that Vietnamese manufacturing industries do not benefit much from the horizontal spillover effects of FDI. In the study of Ari Kokko and Tran Toan Thang (2012), the authors described how FDI affects the survival of domestic enterprises in the period 2001-2008. Using sound theoretical models to determine firm survival and empirical evidence on the link between FDI and domestic firms, using 8-

year panel data, the authors noted that FDI has an impact on the survival of Vietnamese domestic enterprises both vertically and horizontally.

Nguyen Thi Tue Anh et al. (2014), when studying the FDI's spillover effects on the survival of domestic private enterprises, proved that: FDI in the same industry increases the probability of closing domestic private enterprises.

Nguyen Thi Tue Anh et al (2014) studies the spillover effects of FDI on the survival of domestic private enterprises, proved that: FDI in the same industry increases the probability of closure of domestic private enterprises.

Evaluation of investment efficiency of joint-stock enterprises

In the study of the relationship between the use of financial leverage and the investment decisions of enterprises, Nguyen and Trang (2013) have shown that the use of financial leverage has a positive impact on the investment decision for all enterprises in the sample and for high growth enterprises in the sample. However, for low-growth firms, financial leverage has a negative effect on investment.

Evaluation of the investment efficiency of the enterprise through other indicators

Several studies have approached and evaluated the investment efficiency of enterprises through the business cycle (Nir Jaimovich 2008, Palazzo 2016, Ciriaci 2014). Productivity is an important factor for the survival of the business, maintaining high productivity will keep the business alive and vice versa, the operating business must also learn about the level of current competition and productivity of business to be able to develop and survive in the next stages. The labor productivity growth rate in Vietnam has outperformed all other ASEAN countries during the period 2000-2008. However, labor productivity in absolute terms is still low, even ranking second among ASEAN countries in 2008, so improving labor productivity has become "one of the biggest challenges of the market labor in Vietnam" (Nguyet, 2011). On the other hand, newly established enterprises are difficult to develop (Tran et al., 2008) and penetrate the market (GSO, 2009). Study on the survival of newly established enterprises (including SOEs and private enterprises) in the manufacturing industry in Vietnam in the period 2000-2007, Nguyen Thi Nguyet (2011, 2016) only found that: through market choice, labor productivity is the most important intrinsic factor supporting the survival of enterprises.

1.1.2. Overview of factors affecting the investment efficiency of enterprises

According to the Modigliani-Miller model (1958), the incentive to invest in firms is only affected by investment opportunities as measured by Tobin's Q (Tobin, 1969). Some other

studies point out factors affecting investment efficiency, including: external factors of the firm, characteristics of the firm and comparison of public ownership with private ownership (Mercedes et al. Joaquin, 2002). Due to limitations of capital markets, information asymmetry, financial status of enterprises, competition in product markets and internal problems of enterprises such as agency costs..., enterprises often tend to overinvest or underinvest (Lin, Fei, and Fengwei 2015); at the same time, factors such as industry, size, management experience, labor training program and business difficulties affect the investment efficiency of enterprises (Sun 2014). In addition, the corruption factor (informal expense) is also considered to have an impact on investment performance. Studies by Conor M. O'Toole and Finn Tarp, March 2012 shows that: bribery reduces investment efficiency is measured by return on investment in terms of absolute and relative value.

1.1.3. Overview of research related to methods to evaluate investment efficiency of enterprises

Using neoclassical investment model to evaluate investment efficiency

With panel data at the enterprise level, (Dong, Louis Putterman, and Unel 2006, Dollar and Wei 2007) used a neoclassical investment model, assessing investment performance by value added of profit and revenue, to evaluate the investment efficiency of enterprises in China, specifically the impact of state ownership on the investment performance of Chinese enterprises. Using a similar approach to enterprise data in Vietnam for the period 2001-2012, (O'Toole et al. 2015) compared the investment performance of private enterprises and SOEs and showed that, SOEs have lower posterior profit margins than private enterprises

Evaluate investment efficiency through investment– revenue growth elasticity (investment accelerator model)

(Wurgler 2000) estimated the elasticity of investment to value added in 65 non-converting economies and demonstrated that investment efficiency is directly proportional to the investment- revenue growth elasticity. Investment efficiency increases as the sensitivity of investment to output increases. Extending the model of Wurgle, O'Toole et al (2015) calculated the investment– revenue growth elasticity to compare the investment efficiency of private enterprises and SOEs in Vietnam (2001-2012 period). The results show that investment decisions of private enterprises have a strong relationship with revenue growth while in the SOE sector there is no such relationship

Evaluation of the investment efficiency of enterprises by Tobin 's Q structure model

Using the Q structure model of Tobin, Chen et al (2011, 2014), Bond and Soderbom (2013), Hennessy et al (2007) evaluated the influence of business ownership type on investment performance.

1.1.4. Gap of the study

Content:

It can be seen that the studies on investment efficiency of Vietnamese enterprises have mainly stopped on a small sample, or a sample of public enterprises (partly due to the availability of data), some studies have used data from the General Statistics Office's Enterprise Census, but in a short period of time. The research works on investment efficiency of enterprises mainly evaluate the investment efficiency of each type of enterprise separately (FDI enterprises, private enterprises, state enterprises, listed enterprises ...) without an overall comparison and assessment with the entire business sector. In addition, the available studies have not considered the influence of the business environment and the impact of macro factors on the investment efficiency of enterprises.

Methodology:

Domestic studies on investment efficiency of enterprises mainly use qualitative methods with data description and assessment based on experts' opinions.

Among the studies using quantitative methods, the authors only evaluate investment efficiency in single aspects such as the impact of FDI enterprises on domestic enterprises or investment efficiency of listed enterprises, investment efficiency of private enterprises without a study using quantitative to evaluate and compare investment efficiency and factors affecting investment efficiency of the whole enterprise in Vietnam.

The domestic studies using the new econometric model data before 2014, there are no new studies using the latest data of enterprises. At the same time, there has not been any research using a combination of econometric models to evaluate the investment efficiency of the entire business sector in Vietnam.

1.2. Research direction of the thesis

1.2.1. Research objectives, research questions and research content

Research objectives

The overall research objective of the thesis is to evaluate the investment efficiency and factors affecting the investment efficiency of enterprises in Vietnam from the perspective of

state management, thereby giving the main implications policies to improve the investment efficiency of enterprises in Vietnam.

The specific objectives of the thesis are: (1) Building a scientific basis for evaluating the investment efficiency of enterprises, including: defining a theoretical framework for evaluating the investment efficiency of enterprises; Determining factors affecting investment efficiency of enterprises; Overview of international experience in evaluating investment efficiency of enterprises. (2) Overview of policies affecting investment efficiency of enterprises from 2005 to present; Overview of investment results of enterprises in Vietnam from 2005 to 2019; 3. Evaluating the investment efficiency of enterprises in Vietnam in the period 2006-2020 (data collected in the period 2005-2019) by qualitative and quantitative methods; and determine the factors affecting the investment efficiency of enterprises in Vietnam. (4) Proposing policy implications to improve investment efficiency of enterprises in Vietnam.

Research questions

(i) *Theoretical*: Clarifying the concepts of investment efficiency of enterprises, including: What is the investment efficiency of enterprises? What criteria are used to evaluate the investment efficiency of enterprises? What factors affect the investment efficiency of enterprises?

(ii) *About the situation*: What is the status of investment activities of enterprises in Vietnam in recent years? What factors affect the investment efficiency of enterprises in Vietnam? What is the best investment-efficient business sector in the Vietnamese economy? Any solution to improve the investment efficiency of enterprises in Vietnam.

Research content:

1) An overview of studies on evaluating the investment efficiency of enterprises

Studies overview includes: domestic studies and foreign studies will focus on the following issues:

- Domestic studies: The issues of investment efficiency of enterprises in Vietnam have been studied, research stages, research methods
- Overseas research: International experiences in evaluating investment efficiency of enterprises include: assessment methods, evaluation criteria, determining factors affecting investment efficiency of enterprises

From the overview, the thesis will point out the research gaps and choose suitable methods to solve the research problem of the thesis.

2) Determine the theoretical framework to evaluate the investment efficiency of the enterprise

Through secondary literature, this content clarifies the following fundamental issues:

- Clarifying the concepts for research of the thesis: Investment concept and investment efficiency of enterprises...
- Determine the factors affecting the investment efficiency of the enterprise
- Identify methods to evaluate investment efficiency and factors affecting investment efficiency of enterprises in Vietnam.

3) Overview of investment policies of enterprises in Vietnam from 2000 to present

With this content, thesis will focus on studying and analyzing systematically investment policies related to investment activities of enterprises, including:

(1) Law on Enterprises; (2) Law on Investment; (3) Corporate Income Tax Law.

In each policy, the thesis will be analyzed for: (1) Background of policy; (2) Contents of the policy; (3) Policy implementation process.

4) Evaluation of investment efficiency of enterprises in Vietnam in terms of socio-economic

In this content, the thesis uses descriptive statistics method combined with document research to analyze the current status of investment performance of enterprises (classified by type of ownership, size, industry and location) including: socioeconomic efficiency and financial efficiency.

Indicators reflecting the investment results of the enterprise such as: revenue, profit, budget payment, income of employees will be used to evaluate the investment efficiency of the enterprise.

5) Evaluation of factors affecting the investment efficiency of enterprises in Vietnam

The thesis will analyze and evaluate investment efficiency and factors affecting investment efficiency of enterprises in Vietnam by econometric models identified in content 2.

6) Proposing policy implications to improve investment efficiency of enterprises in Vietnam
Based on the synthesis analysis from content (1) to content (5), the thesis will make evaluation conclusions about investment efficiency of enterprises in Vietnam. At the same time, based on analysis of domestic and international context in the coming time, the thesis will propose

viewpoints and policy implications to improve investment efficiency of enterprises in Vietnam in the coming time.

1.2.2. Research object and research scope

The object of the thesis is the investment efficiency of enterprises in Vietnam and the factors affecting the investment efficiency of enterprises in Vietnam..

Research scope

- (i) **About the content: evaluate investment efficiency on both aspects: macro and micro.**

The thesis focuses on evaluating the investment efficiency of enterprises from the perspective of physical capital without studying investment efficiency from the perspective of human capital and technology capital. Physical capital is formed from equity, and borrowed capital is invested in fixed assets every year. It can be supplemented when the business invests to increase the value of fixed assets. And, the total investment capital of the business is the accumulation of fixed asset capital, also known as accumulated capital. From a macro perspective, the investment efficiency of enterprises is assessed through the socio-economic efficiency of the business sectors (private enterprises, state-owned enterprises, and foreign-invested enterprises). At the micro-level, financial ratios compare investment performance across business sectors by size, ownership type, and industry.

(ii) **About the firm type:** Objects in the thesis research are enterprises with business registration operating under the Law on Enterprises according to ownership, including SOEs, private enterprises, and FDI enterprises. Accordingly, SOEs are enterprises with 100% state capital and joint-stock enterprises with 51% state capital; Private enterprises are private companies, partnerships, limited liability companies, joint-stock companies without state capital, and joint-stock companies with less than 51% state capital; FDI enterprises are enterprises with foreign investment capital.

(iii) **About sector:** The thesis focuses on evaluating the investment efficiency of enterprises in the mining industry, manufacturing industry, construction and real estate business, and other service industries (including the electricity, water, and waste services). Like previous studies, the thesis does not consider and evaluate the investment efficiency of enterprises engaged in public activities (operating with socio-economic efficiency as the main goal), enterprises in the agricultural sector, forestry, and fishery (because investment results are highly dependent on weather) and financial - banking businesses (due to differences in collected statistics).

- (iv) **About research period: from 2005 to 2019:**

+ With socio-economic efficiency indicators, the thesis evaluates the investment efficiency of enterprises in Vietnam from 2005-2019

+ With the econometric model, due to the limitation of collected data, the thesis uses enterprise survey data for the period 2005-2019.

1.2.3. Approach and analytical framework

The thesis uses multi-dimensional approach: macro and micro approach, system approach, effective approach.

The thesis's main analytical framework shows the relationships between investment efficiency indicators and the influencing factors from the literature review. Based on the analytical framework, the thesis will evaluate the investment efficiency of enterprises in Vietnam in two aspects: socio-economic efficiency and financial efficiency. Performance indicators are used for the whole business sector, classified by type of ownership, including State-owned enterprises, private enterprises, and foreign-invested enterprises.

Factors affecting the firm's investment efficiency are factors from the macro environment and factors from the characteristics of the enterprise.

1.2.4. Research methodology

The basic data analysis methods in economic research used in thesis include: literature review method, descriptive statistical method, quantitative analysis method of economic model. .

1.2.5. Main research hypotheses

Based on research approaches and to answer research questions, the thesis will quantitatively test the research hypotheses: H1: Investment efficiency of enterprises is positively related to ; H2: Private enterprises have better investment efficiency than SOEs; H3: The level of market competition has a positive impact on the investment efficiency of enterprises; H4: Small enterprises have lower investment efficiency than medium and large enterprises; H5: Investment activities of private enterprises are under pressure of debt.

CHAPTER 2. THEORETICAL BASIS AND METHODS OF EVALUATING INVESTMENT EFFICIENCY OF ENTERPRISES

2.1. Concept

2.1.1. Investment

An enterprise's investment is the use of capital (maybe money/fixed assets) by an enterprise to realize a business goal in order to earn profits in the future.

To evaluate the investment efficiency of enterprises, the thesis uses the concept "Investment capital of an enterprise is the accumulated money of the enterprise which is put into the production and business process".

2.1.2. Investment efficiency of enterprises

Investment efficiency is an economic category that expresses the comparative relationship between the achieved socio-economic results of investment activities with the costs to be spent to get those results in a given period

Within the research scope of the thesis, the investment efficiency of enterprises is the socio-economic efficiency and financial efficiency of the business sectors classified by type of ownership. Industry and geographical factors are also included in the analysis as factors affecting the investment efficiency of enterprises.

2.1.3. Evaluating investment efficiency of enterprises

Evaluating the investment efficiency of an enterprise is the consideration and comparison of investment performance criteria over time of an enterprise, comparison between enterprises in the same industry, the same size, or comparison between enterprises have different types of ownership to make judgments about the investment efficiency of each business block.

2.2. Efficiency investment indicators

Socio-economic performance indicators: Net added value, Employed labor index, The contribution to the budget increased in the research period of the enterprise compared to the effective investment capital in the research period of the enterprise, The increase in foreign currency savings compared to the effective investment capital comes into play in the research period of the enterprise, The level of income (or employee's salary) increases compared to effective investment capital promote the effect in the research period of the enterprise.

Finacial efficiency indicator: The increase in revenue compared to the effective investment capital comes into play in the research period of the enterprise, indicating that the increase in revenue calculated per unit of effective investment capital comes into play in the research period of the enterprise; Return on investment: This indicator is determined by comparing the additional profit in the research period of the enterprise with the total effective investment capital in the research period of the enterprise. This indicator shows how much additional profit a unit of effective investment capital in the research period of the enterprise has generated in the research period of the enterprise.

2.3. Influencing factors and evaluation model of factors affecting investment efficiency of enterprises

Investment environment

- Policy on investment and business
- Informal expenses
- Access to input resources : Access to the land, electricity, credit, technology

Factors from characteristic of enterprises

Types of ownership, operating location of enterprise, scale of enterprises, industry sector

2.4. Selection methods and models

Evaluate investment efficiency

With the indicators of socio-economic efficiency, the thesis uses qualitative research methods and descriptive statistics to analyze the change of indicators during the research period. At the same time, from the existing studies and the qualitative analysis, the thesis will deeply evaluate the investment efficiency of enterprises and the influencing factors from the perspective of socio-economic efficiency.

With financial performance indicators, the thesis uses both descriptive statistical methods and econometric models simultaneously. Accordingly, the evaluation of investment efficiency based on financial performance indicators of revenue and profit will be done through a descriptive statistics table and ANOVA test to evaluate the difference over time.

Model of evaluating factors affecting the investment efficiency of enterprises

Neoclassical investment model

To evaluating investment efficiency of enterprises, thesis uses following model in order to consider the influence of factors to marginal production of capital (used to measure investment efficiency) of enterprises.

$$ARPK_{it} = \alpha + \beta_1 X_{it-1} + \gamma Z_{it} + \varepsilon_{it} \quad (1)$$

In which $ARPK_{it}$ là average revenue/ capital of enterprises i in year t .

In practice, it is difficult to calculate marginal revenue (MRPK) and average revenue (ARPK) accurately. In the manner of (Dollar and Wei 2007) and (O'Toole, Morgenroth et al. 2015), the thesis uses two substitution variables for the average revenue of capital, namely revenue/capital accumulation and profit/ capital accumulation.

When estimating the factors affecting the marginal product of capital, the coefficient β_1 is used to compare investment efficiency across business sectors by industry, location, enterprise size, and ownership type.

Flexible investment accelerator theory

The thesis will evaluate the investment sensitivity of the entire business sector, enterprises by type of ownership and compare investment efficiency between different types of business ownership.

$$\Delta \ln(K_{it}) = \beta \Delta \ln S_{it-1} + \gamma K_{it-1} + \theta X_{it-1} + \gamma Z_{jt} + \varepsilon_{it} \quad (2)$$

In which: S is revenue of firm i at t-1 time, K is accumulated capital of firm i at t time.

The change in revenue is lagged to remove contemporaneous correlations and shows the company's investment activity in response to an increase in revenue in the previous period.

Tobin's Q ratio

Using the method of O'Toole et al (2016), Chen et al (2011), Ha Thi Thu Thuy (2017) to evaluate the investment efficiency of enterprises in Vietnam by Tobin's Q ratio, thesis compare the Q coefficient of different types of enterprises in relation to investment capital growth.

$$I/K_{it} = \alpha_0 + \beta_Q Q_{it} + \theta X_{it-1} + \beta_{own_i} + \sigma Q_{it} * own_i + \gamma Z_{jt} + e_{it} \quad (4)$$

Trong đó:

I/K_{it} : Rate of change in capital accumulation (investment capital) of enterprise i in year

t

Q_{it} : Empirical estimate of Tobin's Q of firm i at year t

σ : The coefficient vector shows the difference in Q between groups of firms. This coefficient shows the difference in investment efficiency of groups of enterprises

CHAPTER 3. THE SITUATION OF INVESTMENT EFFICIENCY OF BUSINESSES IN VIETNAM

3.1. Policy framework and business development situation in Vietnam in the period 2005-2019

3.1.1. Policy framework to support business development

Polycies on improving the business environment: The Government and ministries have issued decrees and circulars guiding the Laws promulgated by the National Assembly; Resolution No. 30c/NQ-CP of the Government on the State Administration Reform Master Program for the period 2011-2020; Resolution 19//NQ-CP of the Government on the main tasks and solutions to improve the business environment and enhance national competitiveness was issued from 2014-2018, and from 2019 is the Decree No. Decision 02/NQ-CP focuses on identifying and implementing key tasks and solutions to improve the business environment further, enhance national competitiveness, and accelerate administrative procedure reform, shorten the processing process, reduce implementation time, reduce administrative costs, ensure publicity, transparency and improve the responsibility of state administrative agencies.

In 2014-2019, the implementation of Resolutions 19 and 02 of the Government had contributed to removing many barriers and difficulties for businesses and people. Together with ministries, branches, and localities, the government has continued to deploy solutions synchronously to promote administrative procedure reform, develop information technology applications, create a favorable business environment, and create favorable conditions for business development..

Accessing resources:

Access to electricity: Access to electricity is one of the component indicators that assess each country's business environment and competitiveness. In 2019, Vietnam's electricity access index was in the group of 3 best-rated Vietnamese indexes and ranked in the top 4 in ASEAN, maintaining 27th position out of 190 countries and territories.

Access to land: Vietnam's real estate transparency index ranks 61/100, the highest in the "less transparent" group. Because information on land planning and auction of land use rights in Vietnam is not really transparent and fair, many enterprises have to rely on different sources of information (not official information of the state management agencies) to be able to access information and rely on personal relationships to access the land that they want.

Access to credit: mechanisms and policies on credit and loan support have been gradually improved to facilitate and remove difficulties for the business sector. Mechanisms to support credit access through the commercial banking system have also gradually improved to increase credit access for businesses. However, practice shows that the private sector still faces many difficulties and obstacles in accessing official credit capital.

3.1.2. Situation of business development in Vietnam in the period 2005-2019

Regarding the number of registered enterprises: the number of newly registered enterprises fluctuates from year to year but is still in an increasing trend. Most of the newly registered enterprises are private, small and medium sized enterprises.

Regarding the size of enterprises: enterprises in Vietnam tend to decrease in terms of labor size but increase in total assets under all three types of enterprises. On average, the average number of employees per enterprise decreased from 44 people in 2005 to 13 people in 2019; while the average capital increased from 11.9 billion VND to 26.6 billion VND. It can be seen that the scale of enterprises in Vietnam is still mainly small and micro.

Regarding the total social investment capital of 3 firm sectors: The data on social investment capital in the Statistical Yearbook only has information of the State sector (SOEs), the foreign-invested sector (FDI enterprises), and the private sector (including private enterprises and individual business households), so it is not appropriate to compare the three business sectors, but the data can provide an overview of the extent of change in the period 2005-2019.

It can be seen that in the period 2005-2019, Vietnam's total social investment increased continuously and increased in all three economic sectors. While the total social investment capital of the SOE sector still plays an important role in supplementing investment capital contributing to economic growth, the investment capital of the private sector has experienced remarkable growth, especially from 2016 to now.

3.2. Evaluation of investment efficiency of enterprises in Vietnam through socio-economic indicators

3.2.1. Contributing to the budget of enterprises in Vietnam

In general, in total budget revenue, revenue from the private business sector always accounts for a high proportion of total domestic revenue in particular and total state budget revenue in general. In the period 2005-2018, the private sector's contribution to the budget increased continuously, and from 2015 to 2018, the private business sector was the largest

contributor to the state budget. If in 2005, the private business sector only paid more than 22 trillion VND to the state budget, by 2018, this sector has paid more than 380 trillion VND to the state budget, an increase of more than 17 times compared to 2005. Although the number of SOEs decreased due to restructuring and equitization policies, the contribution of this sector to the state budget remained high, reaching 180 trillion VND in 2018, compared with VND 52 trillion VND in 2005.

3.2.2. Number of additional employees during the study period

In the period from 2005-2019, the total number of employees working in the enterprise sector has increased nearly 2.5 times. While employment in the SOE sector decreased due to its contraction, FDI enterprises and private enterprises created an increasing volume of employment over the entire study period.

3.2.3. Change in average income of employees in the enterprise

In the period 2005-2019, the average income of workers in enterprises in Vietnam increased continuously. At fixed prices in 2010, workers in FDI enterprises still have the highest income compared to the average income of workers in the SOEs and private enterprises.

3.2.4. Labor efficiency

Labor productivity of all three business blocks tended to increase in the period 2005-2019 but the increase was not high. This result is quite similar to many reports of Vietnam Chamber of Commerce and Industry (VCCI), Ministry of Planning and Investment (MPI), and ILO. Accordingly, in terms of speed, Vietnam's labor productivity has increased, but in terms of value, labor productivity in Vietnamese enterprises is still very low compared to the region and the world.

3.3. Evaluate the investment efficiency of the enterprise through financial indicators

3.3.1. Investment efficiency of enterprises through revenue-related indicators

Investment efficiency of enterprises in Vietnam fluctuated during the whole period, but the comparison between the beginning of the period (2005) and the end of the period (2019) had almost no change. Indicators related to revenue such as revenue/capital accumulation and revenue/total assets also tend to decrease during the whole research period. Performance indicators are not stable from year to year, and over the period, there is a downward trend.

3.3.1. Investment efficiency of enterprises through profit-related indicators

According to the calculation results from the GSO's enterprise survey data, the profitability ratios of all three business sectors tended to decrease in the period 2005-2019. This result is quite similar to the existing studies on investment efficiency in general in Vietnam. Accordingly, investment activities on the whole economy are inefficient, Vietnam's growth rate is mainly achieved by increasing investment capital ((IMF, 2013; OECD, 2013; VEPR, 2012)

The results of ANOVA testing of investment efficiency indicators show that there is no difference in investment efficiency over time of enterprises in Vietnam. In other words, in terms of the ratios of revenue and profit to total assets and accumulated capital, investment activities of enterprises in Vietnam are not efficient over time.

3.4. Evaluate factors affecting investment efficiency through financial indicators of enterprises

3.4.1. Evaluation model of factors affecting the investment efficiency of enterprises

From the theory of investment, the thesis uses three models to evaluate the factors affecting the firms' investment efficiency, including (1) The thesis implements 3 models: (1) Model 1: Investment efficiency according to the production function to estimate the factors affecting the marginal product of capital; (2) Model 2: Investment efficiency according to the elasticity of investment and revenue to estimate the elasticity of investment and revenue for the entire enterprise sector and by 3 business sectors: SOEs, private enterprises and FDI enterprises; (3) Model 3: Investment efficiency according to Tobin's Q ratio to examine whether the investment decisions of enterprises in Vietnam have a relationship with the Q ratio to conclude investment activities is effective or not?

3.4.2. Description of variables and data

Author uses the GSO's enterprise survey data set from 2006-2020 (collecting enterprise data in 2005-2019), and the provincial competitiveness index (PCI) dataset. The research sample does not include businesses operating in the financial-banking sector and enterprises operating in the agriculture-forestry-fishery industry. With the goal of evaluating the investment efficiency of businesses operating solely for profit, Author also does not include businesses operating in the field of public services (health, education, entertainment activities, other community service activities...) into the sample. PCI data is only available from 2006, so the thesis uses data for the period 2006-2019 to estimate the model.

3.4.3. Estimated results

Impact of investment environment

The investment environment has a positive impact on the investment efficiency of enterprises in Vietnam. When the investment environment is favorable, the ability to enter the market and access to resources is easy, and informal expense are reduced, investment efficiency of enterprises through the value of marginal revenue and profit is increase. Most of the indicators on investment climate do not have a statistically significant impact on the decision to increase investment capital of enterprises. Meanwhile, the policy index to support enterprises and the index of institutions also have a negative impact on the increase of investment capital of private enterprises. It seems that the more supportive policies the state implements, the more difficult it is for businesses to invest

Impact of firm size

In terms of firm size, medium and large sized firms have higher marginal product of investment than small sized firms. This difference is statistically significant at the 1% level with all 4 indicators. It can be seen that the larger the enterprise, the higher the return on investment.

Impact of business sector

In terms of industry, firms in the research industry did not show a statistically significant difference in the increase in investment capital of enterprises.

The industry concentration index (HHI) has a positive effect on the private sector but has a negative effect on the FDI and SOE sectors (the coefficient of SOEs is not statistically significant). It can be seen that, in competitive conditions, information will be more transparent and therefore, the information advantage of enterprises can be considered equal, then private enterprises tend to promote investment action. Meanwhile, for the other two areas of enterprises, the advantage of information in monopolistic industries (low competition) will be the driving force for enterprises to invest.

Impact of other indicators

The model estimation results show that the debt coefficient has no impact on investment of domestic enterprises but has a positive effect on investment of FDI enterprises. The estimated coefficient of financial leverage in the domestic business sector is not statistically significant, but a negative value may indicate that borrowing is a barrier to investment activities in private enterprises. and SOEs.

The estimation results of model (3) show that there is no relationship between Q and investment capital growth of enterprises in Vietnam in the period 2006 - 2019. In terms of ownership type, all 3 areas All enterprises did not show a relationship between the increase in investment capital and the Q statistic. It can be seen that, according to Tobin's Q ratio, enterprises in the sample have not shown efficiency when conducting investment action

3.5. Conclusions drawn from the actual situation of investment efficiency of enterprises in Vietnam in the period 2005-2019

3.5.1. Regarding the investment efficiency of enterprises

Over time, the investment efficiency of enterprises in Vietnam through socio-economic indicators has increased. By type of enterprise, the growth rate of socio-economic efficiency indicators in the group of private enterprises is higher than that of SOEs and FDI enterprises. However, there is no statistically significant difference in the financial performance of enterprises in the period 2005-2019. Investment efficiency through financial indicators also did not differ between groups of private enterprises, SOEs and FDI enterprises.

Thus, the hypothesis H1 and H2 are only true for socio-economic efficiency but not for financial performance.

3.5.2. Regarding the factors affecting the investment efficiency of enterprises

In terms of business sectors, except for model (1), which shows that enterprises operating in the manufacturing industry and enterprises in the construction industry have a higher marginal return on investment capital than in the mining industry, the remaining models do not see the impact of business differences on the investment efficiency of enterprises. Thus, there is not enough basis to accept hypothesis H3.

Firm size has a positive and statistically significant impact on the investment efficiency of the enterprise. In the period 2006-2019, small-scale enterprises have lower investment efficiency than large- and medium-sized enterprises in all performance indicators and in all three business sectors. This proves hypothesis H4 to be true.

Over time, the growth rate of investment capital of the private enterprise sector is decreasing. Debts are a burden and reduce the investment activity of private enterprises. This is consistent with hypothesis H5.

The estimation results of models (1), (2), (3) also show the influence of business investment environment on investment efficiency of enterprises in Vietnam. Accordingly, the estimated coefficients of the business environment representative indexes have a very small

impact on the investment efficiency of enterprises in Vietnam. It can be seen that the business environment has not yet well supported investment activities of enterprises.

CHAPTER 4: PROPOSED PERSPECTIVES, ORIENTATIONS AND SOME POLICY IMPLICATIONS TO IMPROVE THE INVESTMENT EFFICIENCY OF BUSINESS IN VIETNAM

4.1. The macroeconomic context affects investment activities of enterprises in Vietnam in the period of 2021-2025

4.1.1. World economic trends for the period of 2021-2015

In the period of 2021-2025, the world economy is forecasted to maintain a decent growth rate but slow down and unevenly across regions. The world context continues to be complicated, unpredictable and difficult to predict.

4.1.2. Vietnam's economic outlook for the period of 2021-2025

Some trends affecting Vietnam's economic growth in the period 2021-2025: (1) world economic growth, although forecasted to be low, is still at a good level; (2) Participation in the CPTPP and EVFTA Agreements is expected to be a new growth engine; (3) there is a faster shift to the private sector when the factors supporting this sector have been implemented and will be promoted more strongly; (4) the service and industry sectors, especially the manufacturing and wholesale industries, still play an important role in the economy. However, Vietnam's economy in the medium term will still face many difficulties from the international environment as well as the internal economy, affecting investment activities of enterprises.

4.2. Proposing perspectives and orientations development to improve the investment efficiency of enterprises in Vietnam in the period 2021-2025

4.2.1. Perspectives on business development

In recent years, the role of the business sector in economic development has been recognized and affirmed in the Resolutions and Documents of the Party and the State with enterprises being the most important subjects of the economy. Business development needs to focus on quality instead of quantity.

4.2.2. Orientations development to improve the investment efficiency of enterprises in Vietnam in the period 2021-2025

In the period 2021-2025, in the context that Vietnam is deeply affected by international issues, sustainable development becomes an inevitable trend to ensure maintaining a stable growth rate and improving national competition. Therefore, the orientation of business

development in Vietnam in the 2021-2025 period should focus on international practices and the country's economic development strategy.

4.3. Some policy implications to improve investment efficiency of enterprises

From the research results of the thesis, author proposes a number of recommendations to improve the investment efficiency of enterprises in Vietnam as follows:

4.2.1. Group of policies to improve the investment environment

4.2.1.1 Unify the implementation and deployment of the Law from central to local levels and among localities. Review and adjust to avoid overlapping in legal documents

4.2.1.2 Reform administrative procedures, improve the transparency of the investment environment, and facilitate business operations

4.2.1.3 Credit support for private enterprises

4.2.1.4 Developing high-quality human resources, improving labor productivity

4.2.2. Group of solutions to improve the investment efficiency of enterprises

From the analysis results in the thesis, the proposed solutions to improve the investment efficiency of enterprises in Vietnam in the mining, manufacturing, construction - real estate business, and the service sector are as follows:

Develop an appropriate management and supervision mechanism for SOEs, create favorable conditions for SOEs to actively carry out production and business activities and improve the competitiveness of SOEs.

Prioritize technical support for small businesses

To improve the investment efficiency of domestic enterprises, minimize negative impacts from international economic integration on their operations, the state needs to support enterprises to improve their competitiveness and expand their operations. to gradually expand the scale of the business.

Enhancing the competitiveness of Vietnamese enterprises in the context of FTAs being implemented.

CONCLUSIONS AND RECOMMENDATIONS

The thesis has supplemented the theoretical framework for evaluating the investment efficiency of enterprises in Vietnam from a macro perspective. Using both qualitative and quantitative methods to assess the investment efficiency of enterprises in Vietnam in the period 2005-2019, the thesis has answered the research questions raised.

From the research results, the thesis has proposed some policy implications to improve the investment efficiency of enterprises in Vietnam. The thesis is also a useful reference for policy makers and researchers.

Due to data limitations, thesis has not used quantitative methods to assess the socio-economic efficiency of enterprises in Vietnam. The thesis has not deeply assessed the impact of macro policies and the impact of international integration on the investment efficiency of enterprises in Vietnam in the period 2005-2019.

In the next research direction, author intends to deeply evaluate the investment efficiency of each business sector in the context of the industrial revolution 4.0 and sustainable development.

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