

A STUDY ON EXTERNAL FACTORS AFFECTING INVESTMENT DECISIONS OF NON-STATE ENTERPRISES IN THAI NGUYEN PROVINCE

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ABSTRACT

Investment decisions of non-state-owned enterprises in Thai Nguyen province are influenced by external factors which may have an influence on the direction of promoting or discouraging their investment decisions. The study determines the factors affecting the ID of an enterprise in Thai Nguyen province by using a multi regression model and a sample of 335 NSOEs surveyed in 9 areas of Thai Nguyen province. The results serve as a basis for proposing solutions to promote investment of NSOEs in the upcoming time.

Keywords: investment, investment decision, external factors, non-stated enterprises

I. Introduction

Investment is the core activity that determines the establishment, existence and development of an enterprise. When doing business, any enterprise must invest in its construction or repair, replacement or supplementation of facilities and techniques such as headquarters, workshop, machinery and equipment to serve their production and business activities. Therefore, the increase of capital and the appropriate use of investment capital will contribute to improving the efficiency of production and business, helping enterprises to grow rapidly and sustainably, thereby fostering the national economy (Nickell, 1996; Fagerberg and Srholec, 2008).

Up to 2019, Thai Nguyen province has founded 3529 non-state-owned enterprises in total of which 91.3% are categorized as being small and medium-sized, and reluctant to capital investment for enterprise development [2]. However, the total investment capital of the NSOEs sector merely accounts for 32%. Low capital scale will lead to limitation of technology innovation, business opportunities and competitiveness of enterprises in the context of an increasingly fierce competition environment and strong integration into the world economy. So, what factors affect investment decisions of NSOEs? To address this question, this study is carried out to examine external factors affecting investment decisions of NSOEs, from which practical solutions are proposed in order to promote investment of NSOEs in the near future.

Previous researches including eclectic theory, institutional theory, local marketing theory and many experimental studies have clarified many influential aspects of external factors on investment decisions. Stern (2002) stated that external environmental factors are divided into three major categories: (i) Political economy; (ii) The effectiveness of administrative management system; (iii) Infrastructure. In an attempt to comprehensively identify the influence of external environmental factors, Lu et al. (2006), Jose et al (2007) considered the ability of enterprises to make choices and investment decisions clarified the presence of some other factors. Domestic researches on how external factors affect investment decisions such as Nguyen Thi Canh (2004), Le Thi Lan (2017), Nguyen Manh Cuong (2019) applied Probit methods, Multi regression model in their studies. By employing different approaches and methods, the previous studies have provided a lot of fundamental evidences on external factors that may influence enterprises' investment decisions.

2. Literature Review

2.1. Investment

In the field of economics, investment is defined as the act of spending or using resources (a cost) in a particular way to increase output, develop production capacity and earn profits in the future as expected. In the Dictionary of Economic Analysis of Guerrier (2007), investment is determined as: "Action of a business or a country to increase the capital of production for future production". Mankiw (2007) shared the same ideas of investment by stating: "Investments and goods purchased by individuals or businesses to increase their capital".

Investments can be investments in fixed assets (FAs) or financial assets. Investing in fixed assets will increase production capacity, create more goods while as financial assets are just valuable papers which cannot increase the future production capacity of enterprises. Therefore, this study just analyzes the factors affecting the investments that increase the production capacity of enterprises such as investment in factories, machinery, equipment, and assets directly contributing to the production process.

2.2. Theory of external factors influencing investment decisions

The investment environment theory by Jose et al (2006) showed that 5 factors affect the investment decision of enterprises including Politics, Law, Infrastructure, Cost, Market, Culture – Society. Dunning's OLI theory (1997), local marketing theory of Kotler (2002) or the institutional theory ... are the theoretical foundations for recent studies in Vietnam such as Le Thi Lan (2017), Nguyen Manh Cuong (2019). Therefore, the author decided to examine external factors that can affect the investment decisions of NSOEs. Details as shown below:

- Infrastructure: Infrastructure system includes transportation system (road, waterway, air), power supply, water supply, communication, airport, port.... The development of infrastructure reflects the development status of a country or a region. Previous researches by Durning (1997), Kotler et al (2002), Gilmore (2003), Lu et al (2006), Das (2012) and countless domestic empirical studies by Nguyen Dinh Tho (2008), Le Hoang Ba Huyen (2012) pointed out that infrastructure has great influence on the efficiency of production of enterprises.
- Incentive policies: Incentive policies are policies promulgated by the government or local authorities in order to support enterprises such as tax, land rent or service support. The research by Jensen (2003) and Chen (2007) stated that incentive policies might have a positive effect in increasing the size and investment orientation of the business. However, S.Ayele (2006) noted that investment incentives are considered as policy instruments with weak influence thus developing countries need to be cautious before issuing these documents.
- Cost: For all businesses, cost always plays a crucial part before and during the investment decision process. It includes the costs of accessing and using labour and other inputs such as land, taxes, energy, transportation, raw materials (Mebratu Seyoum & Jihong Lin, 2015).
- Market: According to previous studies by Lu et al. (2006), Bialowolski & Weziak-Bialowolska (2013), market factors such as market size, growth potentialities, strong or weak competition and economic growth where investment plays a positive role in attracting investment resources.
- Human resources: is the inner resource of individuals including physical and mental resource. Human resource is considered as one of the most important factors of the investment environment (Dunning, 1997). This factor is also confirmed to have an important influence shown in the research by Pham Van Nam et al (2010) or the study by Nguyen Dinh Tho & Nguyen Thi Mai Trang (2009).
- Local institutions: The theory of institutional and investment environment states that institutions include formal and informal institutions. The experimental study by Kaufmann et al (2008) claim that

institutional factors directly affect the establishment and maintenance of a stable legal system and thus have a positive impact on investment decisions of enterprises.

- Legal institution: Regarding the law, according to Seyoum & Lin (2015); Khadarool & Seetana (2010), Jose (2007), Dollar et al (2005) and other researchers, a strong legal system will foster property security and rights, thus will be a stimulus for investment decision-making process of businesses. The issue of an investment decision must comply with a legal system that includes compulsory, coercive and highly effective legal documents.
- Communication: Communication includes tools and investment promotion activities. Communication is an important tool (Kotler, 2002), and the research by Dinh Phi Ho (2012) also demonstrated that these factors have a positive influence on investment decisions.

3. Research Methodology

3.1. Research sample

To ensure the reliability of the study, the minimum sample using EFA and multiple regression is: (1) $N = 5 * m$ ((Hair, Anderson, Tatham and Black (1998)); (2) $N = 50 + 8 * m$ (Tabachnick and Fidell, 1996), in which N is the sample size; m is the observed variable. In order to ensure residual sample, the study surveyed 335 questionnaires.

3.2. Research Methods

The study used quantitative analysis method and multiple regression to examine the influence of external factors on enterprises' investment decisions.

- Multiple regression equation for research model:

$$QD = \beta_0 + \beta_1 HT + \beta_2 TTR + \beta_3 CS + \beta_4 CP + \beta_5 NL + \beta_6 TC + \beta_7 PL + \beta_8 TT. + e_i$$

In which:

Y is the dependent variable reflecting the enterprise's investment decision;

β_0 is the intercept;

$\beta_1, \beta_2, \dots, \beta_8$ are regression parameters that need to be estimated to measure the influential factors on investment decisions;

8 independent variables: HT (Infrastructure); TTR (market); CS (Incentive policy); CP (Input); NL (Human Resources); TC (local institutions); PL (Legal institutions); TT (Communication);

e_i : random error

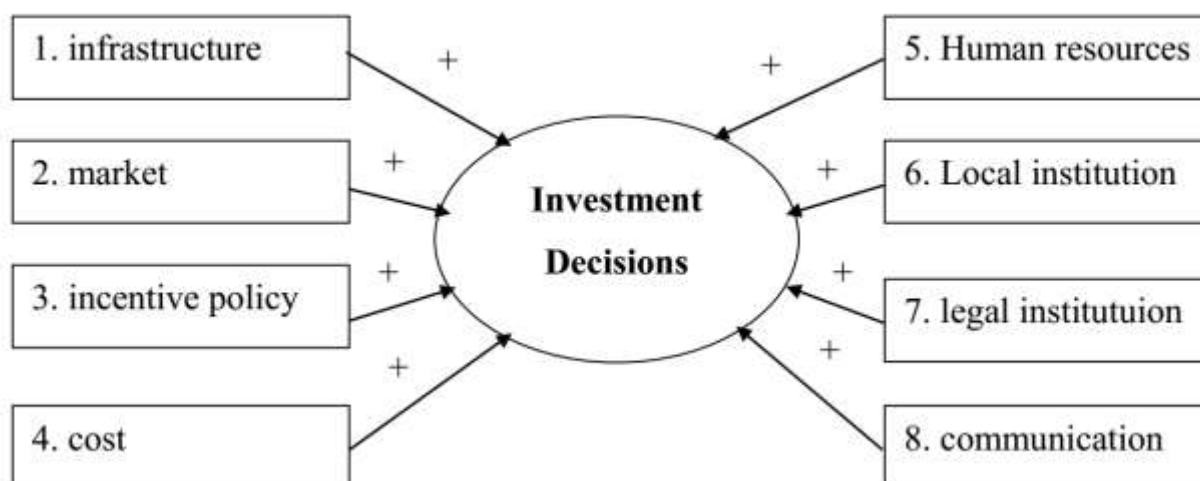


Figure 1. Research model and research hypothesis

4. Findings and Discussions

4.1. Characteristics of research samples

a. General features of enterprises: Of all NSOEs surveyed, enterprises with more than 5 years of operation are 189 (accounting for 56.4%), enterprises with less than 5 years of operation are 146 (accounting for 43.6%). Besides, regarding the business type, limited liability companies are 197 enterprises (accounting for 58.8%) while joint-stock companies are 76 enterprises (accounting for 22.7%).

The samples distributed by sector include 157 enterprises (accounting for 46.8%) being categorized as industry and construction sectors followed by 108 companies belong to the service sector (accounting for 32.2%); 70 enterprises are categorized as agriculture, forestry, fisheries sector accounting for 20.9%.

Regarding size, 160/335 enterprises (accounting for 47.8%) are medium enterprises (from 50-200 billion VND), 120/335 enterprises (accounting for 35.8%) are small enterprises (from 5-50 billion VND), the rest of 16.4% is large and micro businesses.

According to the number of employees, the enterprises with a total number of employees ranging from 50 to 200 are 150 enterprises (accounting for 44.8%). The businesses with more than 200 people are 105 enterprises (accounting for 31.3%); the rest is 80 companies with the business size of less than 50 people.

b. Features of business owners

The proportion of male managers interviewed is 245 people (accounting for 73.1%) while female managers are 90 people (accounting for 26.9%). In terms of age, the number of managers under 45 is relatively low, mainly from 46 or older (accounting for 62.1%). In addition, the managers who possess undergraduate, graduate or postgraduate degrees account for 80%, the rate of managers with below bachelor's degree is only 20%.

4.2. Findings and Discussion

The results of hypothesis tests showed that the tests of linear relationship, constant error variance, autocorrelation and multicollinearity phenomenon were not violated.

As can be seen from the results of the regression model test, the adjusted R² was 0.693, indicating that 8 independent variables affect 69.3% to the change of the dependent variable. The Sig value of the F-test was 0.000 < 0.05, meaning the linear regression model is formed in accordance with the overall. The Sig value of the t-test of each independent variable was below 0.05, which means that 8 independent variables were significant

in the model. On the other hand, the coefficient VIF <2, showing that no multicollinearity occurs. Significance level (Sig) of each variable was below 0.05. Thus, 8 research hypotheses can be accepted.

The quantitative research results showed that the factors affecting investment decisions of NSOEs are orderly listed as follows: (i) Legal institutions; (ii) market; (iii) costs; (iv) incentive policy; (v) local institutions; (vi) infrastructure; (vii) human resources; (viii) communication. Each factor has a different level of influence.

Table 01: Estimation results of external factors affecting investment decisions of NSOEs

Variable	Coefficient β	Significance level (Sig)	VIF value
(Constant)	.418	.116	
HT	.092	.002	1.474
TTR	.159	.000	1.196
CS	.211	.000	1.178
CP	-.156	.000	1.414
NL	.125	.001	1.209
TC	.132	.000	1.187
PL	.269	.000	1.813
TT	.048	.048	1.053
Observations			335
Coefficient R2			0,693
F-value			95,025
Significance level (Sig)			0,00

- Infrastructure is the factor which has a positive effect on the investment decisions of NSOEs in Thai Nguyen. It is implied that NSOEs prioritize the investment on business development in a particular city/province if they are satisfied with the infrastructure conditions as compared to other localities. The results also infer that the NSOEs are willing to look for localities of infrastructure advantages which have the potentiality to increase benefits for enterprises. This is consistent with the theory of Dunning (1980, 1988, 1993), Kotler et al. (2002), Gilmore (2003), Lu et al (2006), Dollar et al. (2005), Ching-Chiao Yang (2006), Das (2012) and many domestic empirical studies by Nguyen Dinh Tho (2008) and Le Hoang Ba Huyen (2012).
- Incentive policy is also the factor which positively affects the investment decisions of NSOEs. This result is similar to the research by S.Ayele (2006), Jensen (2003) and Chen (2007) who stated that incentive policies can positively affect the increase in the scale and industry-oriented investment of the business.
- Cost: According to the results, cost is also a factor that NSOEs pay much attention to and have a great influence on investment decision ($\beta = -0.139$). Theoretically, Dunning argued that businesses are generally interested in receiving low-cost input resources before they make investment decisions. Wu & Strange (2000), Oum & Park (2004), Newell and Seabrook (2006) shared the same ideas in their previous studies. Thus, if low-cost resources are not allocated to local NSOEs, it will be a barrier to enterprises' investment decision.
- Market factor: The hypothesis of a positive relationship between market factors and investment decisions of NSOEs is accepted. Oum and Park (2004), Lu et al (2006) made the same conclusions. Thai Nguyen province has a wide range of consumers, market size and potential market. Therefore, NSOEs investing in

Thai Nguyen attach importance to market factor and consider it as a factor that significantly affects to investment decisions.

- Human resources: The results of quantitative and qualitative research indicated that the human resource factor has a positive influence on the investment decision of NSOEs in Thai Nguyen province. This factor was also confirmed to have an important influence in the research by Pham Van Nam et al (2010) or Nguyen Dinh Tho and Nguyen Thi Mai Trang (2009).
- Local institutions: The results of quantitative and qualitative research all showed that local institutions have a positive influence on investment decisions of NSOEs. If local institutions are effective, NSOEs are encouraged to make more investments. This was also affirmed by the research of Kaufmann et al. (2008) and Schneider & Frey (1985).
- Legal institutions: According to the results, legal factors have the strongest influence on investment decisions of NSOEs. In Vietnam, localities currently share similarities in the political system, law, tax as well as land policies. The main difference lies in the investment incentive policies such as the mechanism of providing information, investment consultations, and minimizing time for administrative procedures.
- Communication: The results of quantitative and qualitative research in this study pointed out that communication factors have a positive influence on the investment decisions of NSOEs. This result is consistent with the practice of communication in the province. For the past few years, the communication has been promoted and obtained significant results in promoting investment of the province.

5. Conclusion

As mentioned above, the research aimed to examine the external factors affecting investment decisions of NSOEs by using multiple regression method to estimate. The quantitative research results pointed out that factors affecting investment decisions of NSOEs are ordered as follows: (i) legal institutions; (ii) market; (iii) costs; (iv) incentive policy; (v) local institutions; (vi) infrastructure; (vii) human resources and (viii) communication. This result also showed that the NSOEs in Thai Nguyen are affected by a lot of factors before they make investment decisions. Each factor has a different level of influence.

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