



## **FACTORS AFFECTING THE SATISFACTION OF NON-STATE ENTERPRISES WHEN INVESTING IN THAI NGUYEN PROVINCE**

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### **Abstract**

The objective of the study is to find out factors that affect investment and based on that, proposing some solutions to improve the efficiency of attracting investment from non-state enterprises in Thai Nguyen province. Data sources for the study were taken from random interviews of 250 non-state enterprises to invest in Thai Nguyen province. The methods used to analyze data are descriptive statistics, numerical analysis, factor analysis and cross-analysis.

**Keywords:** Investment, Non-state enterprises, Thai Nguyen city, Thai Nguyen province

### **1. Introduction**

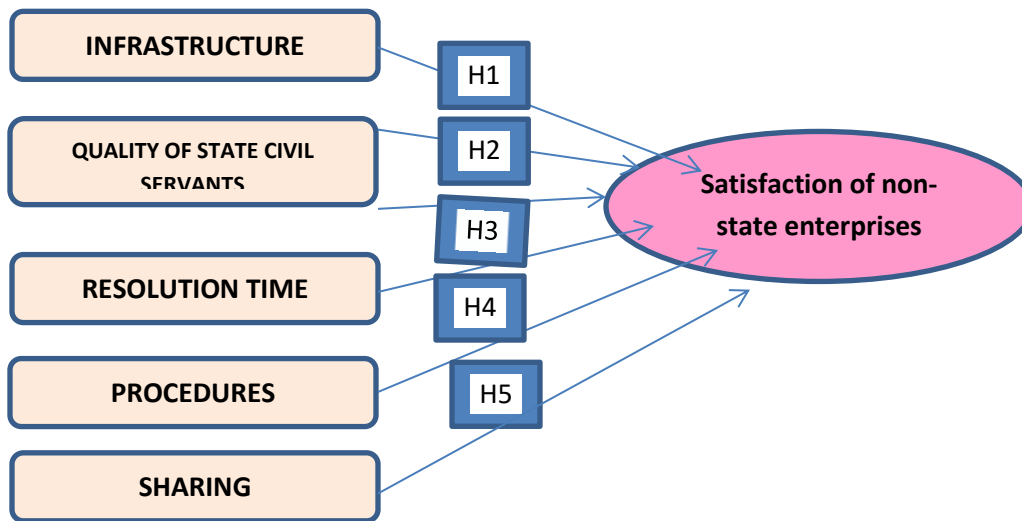
With potential as an important position, Thai Nguyen has been recognized by the Government as a class I urban and identify as the growth pole of the key economic region in the northern mountainous provinces. Resolution No. 37-NQ / TW dated July 1, 2004 of the Politburo orientate on socio-economic development and ensuring national defense and security in the Northern midland and mountainous region by 2020 (Resolution number 37). Developing Thai Nguyen in Industrialization period to 2020 has confirmed: "Developing and expanding e-government, improving the quality of operational efficiency of government agencies, serving people and enterprises is getting better and better. Execute the exchange, text transactions between government agencies by

electronic texts with digital signatures reached over 85% before 2021. Continuing strives to the end of 2020, reducing at least 40% of the time compared to the regulations and concurrently implementing administrative procedures related to investment and business. By the end of 2019, providing at least 30% of online public services under jurisdiction at level 4 (according to Decree No. 43/2011 / ND-CP dated 13 June 2011 of the Government). On average, there are over 800 enterprises registered each year and by the end of 2025, the province has over 12,000 enterprises operating. Provincial People's Committee; District People's Committee; departments and agencies organize dialogues with enterprises and residents on a monthly when required to grasp and solve difficulties and problems for organizations and individuals and investment projects in the province". Thai Nguyen has a lot of potentials and advantages in attracting investment capital, becoming an attractive destination for domestic and international investors.

In the period 2004 - 2018, Thai Nguyen is one of the provinces with the highest growth rate in the Northern mountainous provinces (MNPB) with an annual average GDP growth rate is 12.8% per year compared to the region's average is 10.45%. In 2018, GRDP per capita increased from 5.9 million VND (2004) to 77.7 million VND (2018), 13 times, equivalent to 3,370 USD / person per year. The high economic growth rate of the province is attributable to the important contribution of non-state enterprises (DNNNN) that currently accounting for nearly 80% of the provincial GDP. In recent years, the province has many guidelines and policies to encourage economic sectors to invest in promoting economic growth. Private economy has a good growth. However, the development of this component is not commensurate with the available potential. The quantity and scale of the private economy is still very limited. Up to 95% of non-state enterprises are small and medium scale (Registered capital is less than VND 30 billion). This article has overall objectives is identifying factors affecting investment decisions of non-state enterprises in Thai Nguyen to provide solutions to encourage investment of these enterprises. To achieve that goal, we identify the specific objectives of the topic: i) Describe the situation of non-state enterprises in Thai Nguyen; ii) Analysis the factors affecting investment by non-state enterprises in Thai Nguyen; and iii) Providing solutions to encourage investment for these enterprises. To achieve this goal, the analysis is mainly based on primary data collected from 250 non-state enterprises in districts / towns of Thai Nguyen. These data are put on in a regression model that helps review the the degree of influence of factors on investment decisions of non-state enterprises. Besides, the topic also uses secondary data from many sources such as the General Statistics Office, the Provincial Statistical Office, the Department of Planning and Investment, etc.

## 2. Theoretical foundations and research hypotheses

Parasuraman et al (1985, 1988) built a model and SERVQUAL scale on service quality, this model highlights the key requirements to ensure service expectations. Cronin and Tailor (1992) adjusted the SERVQUAL scale to SERVPERF scale. This scale retains the components and observed variables of SERVQUAL but omits the assessment of customer expectations. Accordingly, the quality of service is the actual perception of customers about the services they receive from suppliers. Le Dan (2011), Le Van Hoa (2010), Nguyen Thanh Truc (2015), Nguyen Huu Hai & Le Van Hoa (2010), Nguyen Dinh Tho et al (2005), Ha Minh Trung (2010), Nguyen Quoc Bao (2012) ... in this studies used models and scales of Parasuraman, Cronin and Tailor to measure customer satisfaction about the service. The research model is determined based on the model and scale of Parasuraman, Cronin and Tailor to measure the impact of the components of service to the satisfaction of non-state enterprises in Thai Nguyen province. Accordingly, 5 factors of tangible, reliability, responsiveness, assurance, empathy are the deciding factors to attract investment, thereby affecting the satisfaction of non-state enterprises.



**Figure 1: Proposed research model**

Hypothesis H1, H2, H3, H4, H5 are set out as the facilities, quality of civil servants, processing time, procedures and costs when implementing investment procedures in Thai Nguyen have a positive relationship with the satisfaction level of the enterprises.

Based on the theory of five-component model of satisfaction of non-state enterprises, SERVPERF, this study identifies 5 factors affecting the satisfaction of enterprises with the service quality of Thai Nguyen province with the following scales:

**Table 1: Scale table of factors affecting the satisfaction of non-state enterprises**

No	EXPLAIN	ENCODE
INFRASTRUCTURE-VC		
1	Having favorable geographical locations	VC1
2	Having clean space for investors	VC2
3	Modern communication system	VC3
4	Stable water supply	VC4
5	Stable electricity	VC5
6	Sewerage system	VC6
7	Convenient transportation	VC7
8	Dormitories for labourers	VC8
THE LEVEL OF RESPONSIVENESS - DU		
1	Local government perform their commitments	DU1
2	Civil servants always give clear and accurate instructions	DU2
3	Civil servants always answer on time	DU3
4	Simple procedures	DU4
5	Apply technology in solving administrative procedures	DU5
6	Security and order in the province	DU6
7	Abundant labors to meet the needs of enterprises	DU7
8	Financial and banking services	DU8
9	Health services, health care for labourers	DU9
10	Auxiliary services sector development	DU10
RESOLUTION TIME - TG		
1	Time to wait for the procedure	TG1
2	Number of travel and submission of administrative files	TG2
3	Time to receive inspection and inspection teams of authorities	TG3
PROCEDURE PROCESS - TT		
1	The steps to perform have clear instructions	TT1
2	The administrative procedures are public and transparent	TT2
3	The legal provisions on administrative procedures are appropriate	TT3
4	Records returned to residents and enterprises are not missing or errors	TT4
SHARING - CS		
1	Difficulties and problems of enterprises are listened and shared by local leaders	CS1
2	Leaders are interested in solving enterprises's requirements	CS2
3	Local leaders regularly organize conferences and meetings with enterprises	CS3
4	Enterprises easily meet to exchanges and discuss with local leaders	CS4
ENTERPRISE SATISFACTION - HL		
1	Local leaders have met the expectations of enterprises	HL1
2	Enterprises feel satisfied when investing in the province	HL2
3	Enterprises will invest in long-term in the province	HL3

\* Collecting secondary data: Specialized journals, reports at city tax department, reports at Department of Industry and Trade, Department of Planning and Investment, Provincial People's Committee report ...

Collection and analysis of relevant studies has been published. This method helps the authors to find the gap in both theory and research practice that can be supplemented and contributed. This approach also provides access to achievements, results and ways to solve problems. The method that researchers have successfully used can save time, effort and go straight to the problem that the research process is most effective.

\* Collecting primary data: Surveying the actual data at the facility in the study area by survey questionnaires and interviewing directly with 250 forms has 205 forms reached

+ Determining sample size of survey form/ survey:

There are many different ways to identify the sample size, however, in this study to identify the number of observations, the author used a survey formula to determine the sample size according to Tabachnick & Fidell (1996) believe that the sample size need to ensure according to the formula:

$$n \geq 8m + 50$$

Which: n: sample size; m: Number of independent variables of the model

Thus, based on the initial variable of the research model is 5 independent variables, the sample size is satisfactory for factor analysis and expected regression is about 80 samples. In addition, according to Hai & ctg (1998) for exploratory factor analysis (EFA), there must be at least five variables on an observation. The research model consists of 29 observed variables, so the required sample size is 145. Therefore, excluding the error forms and errors of the authors, the number of samples issued was 250 forms.

The questionnaire used by the author is designed based on the survey form of the survey questionnaire with the inheritance and adjustment suitable to the object of survey and research of the author from 11/2017 to 5/2018.

+ Designing votes by scale is measured by 5-point Likert scale, data is cleaned, cleaning the questionnaires that do not meet the requirements such as lack of information of the questionnaire. Details of the questionnaire: Appendix 1. The content of the survey has the inheritance and adjustment in accordance with the object of survey and research of the authors.

+ Synthesis method: Tool to synthesize survey data, survey is excels spreadsheet, eview. Research using statistical classification method to synthesize data and use statistical tables, statistical graphs to present data aggregation results.

+ Data analysis methods: The authors use SPSS 20.0 software to support the analysis of data in their research.

Descriptive statistics method: Statistics is a system of methods used to collect and analyze the numbers (quantity) of large digital phenomena to understand their inherent nature and rules (substrate) in specific time and place

conditions. Descriptive statistics are used to describe the basic characteristics of the data collected from experimental study in different ways.

Some quantities used: Sample mean (mean); Median number (median); Standard deviation, or deviation. Selecting research contents: The factors affecting the satisfaction of customers when investing in Thai Nguyen have many factors such as factor group: facilities; the level of Responsiveness; Processing time; Procedures; Sharing. In this article, the authors only focus on 03 main groups affecting the satisfaction of non-state enterprises, specifically: Physical facilities; Responsiveness level and Sharing.

### **3. Research findings and discuss**

#### ***3.1. Testing the scales***

Results of scale test shows that the Alpha coefficient of the scale is greater than 0.6 so no scale is excluded (Table 2). Scale of satisfaction of non-state enterprises: Alpha coefficient of the scale "The satisfaction of non-state enterprises" is 0.508, satisfy condition  $0.5 < \text{Alpha} < 1$ , so this scale is good. The Alpha coefficient of the Non-state Enterprise Satisfaction scale, 0.508, satisfies the condition of  $0.5 < \text{Alpha} < 1$ , so this scale is good. In addition, Coefficient of correlation of total variables (Corected Item - Total Corelatio) of all variables is 0.3 and the coefficient Alpha when the variable (Alpha if Item deleted) is less than the Alpha coefficient of the scale, so there are no variables removed. Thus, the three variables HL1, HL2, HL3, of the scale of satisfaction of non-state enterprises will be analyzed separately to determine the value of the dependent variable.

**Table 2: Descriptive statistics the satisfaction scale of non-state enterprises**

#### **Descriptive Statistics**

	<b>Mean</b>	<b>Std. Deviation</b>	<b>N</b>
HL1: Local leaders have met the expectations of enterprises	3.81	.793	205
HL2: Enterprises feel satisfied when investing in the province	3.76	.864	205
HL3: Local leaders have met the expectations of enterprises	3.47	.947	205

*Source: Authors group calculated from the questionnaire, 2017 with the help of SPSS20.0*

#### ***3.2. Scale of factors affecting satisfaction***

##### ***3.2.1. Infrastructure***

According to the evaluation of non-state enterprises, the factor that is rated by the non-state enterprises is the highest score is Having clean ground for investors (VC6 = 3.87 points) and the lowest score is the Leaders are interested in solving enterprises's requirements (CS2 = 3.24 points). This is the province's competitive advantage

because of the availability of premises for enterprises, but still has not gained trust of most non-state enterprises, the score reached 3.56 points.

Based on the rotation matrix of these factors, the equation is drawn as follows:

**Table 3: Descriptive statistics factors affecting the satisfaction of non-state enterprises**

	N	Mean	Std. Deviation	Variance
VC1: Having favorable geographical location	205	3.85	.862	.743
VC2: Having a clean ground for investors	205	3.87	.904	.818
VC3: Modern communication system	205	3.38	.924	.853
VC4: Stable water supply	205	3.34	.949	.901
VC5: Stable electricity	205	3.70	.937	.879
VC6: Sewerage system	205	3.85	.865	.749
VC7: Convenient transportation	205	3.42	.940	.883
VC8: Dormitory for labourers	205	3.77	.730	.533
DU1: Local government perform their commitments	205	3.80	.815	.664
DU2: Civil servants always give clear and accurate instructions	205	3.62	.875	.765
DU3: Civil servants always answer on time	205	3.67	.770	.594
DU4: Simple procedure	205	3.72	.815	.665
DU5: Applying technology in solving administrative procedures	205	3.59	.857	.734
DU6: Security and order in the province	205	3.55	.848	.719
DU7: Abundant labors meet the needs of enterprises	205	3.60	.825	.681
DU8: Financial and banking services	205	3.67	.803	.644
DU9: Health service, labourers health care	205	3.52	.783	.613
DU10: Auxiliary services sector development	205	3.41	.851	.724
CS1: Difficulties and problems of enterprises listened and shared by local leaders	205	3.27	.841	.707
CS2: Leaders are interested in solving the requirements of enterprises	205	3.24	.760	.577
CS3: Local leaders regularly organize conferences and meetings with enterprises	205	3.50	.676	.457
CS4: Enterprises easily meet to exchanges and discuss with local leaders	205	3.33	.772	.595
Valid N (listwise)	205	3.56		

*Source: Authors group calculated from the questionnaire, 2018 with the help of SPSS*

The first group of factors (F1) including five component factors, which the most influential factor is highly appreciated by non-state enterprises, is having a favorable position for investors with influence score of 0.796 and the factor with the lowest influential score is Dormitory for laborers with an impact score of 0.603

The first group of factors (F2) including three components factors, which the most influential factor is highly appreciated by non-state enterprises: having clean ground for investors with an influential score is 0.772 and the factor with the lowest influential is Wastewater system with an impact score is 0.365

### ***3.2.2. The level of responsiveness***

Non-state enterprises have different assessments on the criteria in the group of responsiveness levels in Thai Nguyen provincial government with average scores ranging from 3.41 to 3.80 points on a 5-point scale. Which, the lowest average assessment score of non-state enterprises DU10 targets: Auxiliary services sector (3.41 points) and DU1: Local government perform right commitment (3.80 points).

Non-state enterprises rated this criterion "Sometimes good, partly correct". Is that such a low point is due to the quality of services such as medical, security is not guaranteed, civil servants do not yet committed to work with allocated ... On the other hand, labor quality has not met the requirements of enterprises, especially foreign-invested enterprises.

The results of the analysis and calculation of the author show the relevance to the actual conditions of Thai Nguyen province. The author group used factor analysis to assess the indicators of non-state enterprises on the satisfaction level of non-state enterprises when investing in Vietnam. To perform factor analysis, the authors check the conformity to the dataset with the expected model,

### ***3.2.3. Factors group of Sharing***

The most common group of factors (F1) consists of three components factors: the difficulties and problems of enterprises listened and shared by local leaders (CS1) with influence scores (0.841); Leaders interested in resolving enterprises's requirements (CS2) have an influence score (0.760) and enterprises easily meet to exchange and discuss with local leaders (CS4) with a score (0.772)

The second factor group (F2) including one factor is that local leaders regularly organize conferences and dialogues with enterprises (CS3) with an influence score (0.676).



#### 4. Analysis of variance (regression)

In the above results, if sig, <0.05 is equivalent to 95% confidence and  $|t| > 1$ , that factor is accepted, means it has an impact on the satisfaction of non-state enterprises. The regression results show that there are 10 factors that satisfy the conditions: Having a clean ground for investors; Sewerage system; Convenient transportation; Dormitory for labourers; Local government perform right commitment; Civil servants always answer on time; apply technology in solving administrative procedures; Health services, health care for labourers; Auxiliary services sector development; Difficulties and problems of enterprises are listened and shared by local leaders; Local leaders regularly organize conferences and meetings with enterprises.

**Table 4: Regression coefficients using the Enter method**

	Model	Unstandardized regression coefficients		Standardized Coefficients	t	Sig.	multicollinearity statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.236	1.014		-.232	.816	-2.238	1.767
	VC2: Having a clean ground for investors	.117	.079	.100	1.479	.141	-.039	.274
	VC6: Sewerage system	.000	.085	.000	-.003	.997	-.168	.168
	VC7: Convenient transportation	-.357	.160	-.287	-2.227	.027	-.674	-.041
	VC8: Ký túc xá cho người lao động	.502	.193	.396	2.602	.010	.121	.883
	DU1: Local government perform their commitments	.332	.151	.249	2.199	.029	.034	.631
	DU3: Civil servants always answer on time	-.057	.149	-.048	-.382	.703	-.352	.238
	DU5: Applying technology in solving administrative procedures	.356	.144	.300	2.466	.015	.071	.640
	DU9: Health service, labourers health care	.139	.135	.112	1.030	.304	-.128	.406
	DU10: Developmental of Auxiliary services sector	-.224	.126	-.156	-1.776	.078	-.473	.025
	CS1: The difficulties and problems of enterprises are listened and shared by local leaders	.018	.114	.016	.161	.872	-.207	.243
	CS3: Local leaders regularly organize conferences and meetings with enterprises	.082	.143	.065	.574	.567	-.200	.364

*Source: Authors group calculated from the questionnaire, 2018 with the help of SPSS*

From above results analysis will be the basis for the authors to give implications and recommendations for leaders in Thai Nguyen province.

## **5. Conclusion**

Research on the satisfaction of non-state enterprises investing in Thai Nguyen province helps local government leaders assess the satisfaction of enterprises: helping local management boards, Industrial parks understand that the factors: Facilities; The level of response; the sharing of leaders ... has the greatest impact on the satisfaction of enterprises in general and non-state enterprises in particular when investing in Thai Nguyen province. This will contribute to creating a basis for planning construction programs, promoting and positioning brand in the market more effectively to increase competitiveness, attracting many enterprises as well as improving the satisfaction of enterprises.

The research also helps advertising and researching market, get the role of these factors. From that, these enterprises can implement market research projects and how to build market advertising, stable development, and takes advantage of local advantages thanks to the support of facilitating of local governments.

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