Using Explore Factor Analysis (EFA) Method to Assess the Effects Impact on Mobilization of Investment Capital for Socio-economic Structure Development in Thai Nguyen Province, Vietnam

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Abstract:
Socio-economic infrastructure plays a very important role for socio-economic development. There are many factors influencing the mobilization of investment capital for socio-economic development. This article uses the exploratory factor analysis (EFA) method to evaluate the factors affecting the mobilization of investment capital sources for socio-economic infrastructure development in Thai Nguyen province, Vietnam.

Keywords: Explore factor analysis, mobilization, socio-economic structure development, Thai Nguyen province

1. Study on Evaluating the Factors Affect to the Mobilization of Investment Capital for Socio-Economic Development

Currently, there are many domestic and foreign research projects related to the topic of assessing the factors affecting the mobilization of investment capital for socio-economic development. Qualitative research projects using methods such as interviewing experts - to analyze. Quantitative studies use conventional regression models or probabilistic regression models to assess the correlation between factors affecting capital mobilization for socio-economic development. Specifically in the following studies:

1.1. Qualitative Research

According to Dunning (1977), an enterprise only implements foreign direct investment (FDI) when it meets all three conditions: (1) an enterprise must possess some advantages compared to other enterprises such as: technology, network marketing, access to low-interest capital or unique intangible assets; (2) localization: it is more beneficial to use these advantages within the company than to sell or lease to other firms; (3) lower cost of production in the host country and then export. Location advantage can be gained from natural resources, labor, trade barriers, investment incentive policies, and the external effects the location can have on business while operating.

The theory of investment behavior by Romer (1986) and Lucas (1988) shows that the factors affecting investment behavior are: (1) the change in demand; (2) interest rate; (3) the level of development of the financial system; (4) public investment; (5) the ability of human resources; (6) other investment projects in the same industry or in linked industries; (7) technology development, the ability to absorb and apply technology; (8) level of stability in the investment environment: including macroeconomic environment, law; (9) procedural regulations and (10) sufficiency of information, including information about markets, laws, procedures, and technological advances. The local market theory has shown that the factors affecting investor satisfaction can be divided into three main groups, namely (1) investment infrastructure; (2) investment regimes and policies; (3) working and living environment.

1.2. Quantitative Research

Kangning Xu (2010) has researched on attracting foreign direct investment capital to developing countries: a case study of Mozambique. The author used a multivariate regression model for analysis. The author said that, in order to attract investors to invest in a developing country like Mozambique, the factors that affect the attraction of investment capital include: (1) Geographical location and investment level; (2) Size of the market; (3) National export policy; (4) National natural resources; (5) Satisfying labor resources; (6) The risk to the economic and political environment of a country.

Dinh Phi Ho showed that factors affecting investment attraction in industrial zones, Quantitative research method and practical research in development economy - agriculture. The author believed that the investor's decision is affected
by 08 factors: (i) investment infrastructure; (ii) investment policy regime; (iii) living and working environment; (iv) investment industry advantages; (v) quality of public service; (vi) local brand name; (vii) human resources; (viii) competitive input costs.

Ha Nam Khanh Giao et al. (2013) studied the factors affecting investment attraction in Quang Tri province, by surveying 109 existing investors and investors planning to invest in the province. The author used Cronbach’s Alpha reliability analysis method, exploratory factor analysis (EFA). The results show that there are 9 groups of factors affecting the attraction of investment capital into Quang Tri province: (1) Decision making process related to investment procedures; (2) Policy support from management agencies related to investors; (3) Technical infrastructure; (4) Resources; (5) Infrastructure of industrial parks and economic zones; (6) Social infrastructure; (7) Market potential; (8) Cost advantage; (9) Productivity and labor discipline.

Nguyen Thi Thu Ha (2016) has researched on investor satisfaction in BacNinh province. Based on the exploratory analysis model (EFA) for analysis, according to the author, there were 8 factors affecting to attract investors to BacNinh province, including: (1) Infrastructure; (2) Investment policy; (3) Habitat; (4) Investment advantages; (5) Quality of public service; (6) Local brands (7) Human resources and (8) Input cost competition.

Ngo Van Thien (2017) reported on studying the factors affecting the situation of attracting investment capital for the socio-economic development of PhuQuoc Island, thereby proposing solutions to increase investment capital collection in the coming time. The model of discovery analysis (EFA) was used and surveyed 230 samples collected from domestic and foreign enterprises operating in PhuQuoc. The research results show that there are 6 factors affecting to attract investment capital for socio-economic development of PhuQuoc island, including: (1) Infrastructure and geographical location; (2) Investment policy; (3) The quality of human resources; (4) Habitat conditions; (5) Quality of public service; (6) Local trade promotion and marketing.

2. Propose Models and Assumptions about Factors Affecting the Mobilization of Investment Capital for Socio-Economic Infrastructure Development

There have been a number of works using qualitative analysis methods and quantitative analysis methods to determine the factors affecting the mobilization of investment capital for socio-economic development in some countries or localities. However, there is no research on qualitative and quantitative assessment of the factors affecting the mobilization of investment capital for the development of SEI (socio-economic infrastructure).

On the basis of inheriting the authors’ research and empirical theory on assessment of factors affecting to mobilize investment capital for socio-economic development. Through the process of expert group discussions and initial survey of some enterprises related to the SEI investment field, the author has removed a number of factors that do not affect or have little effect to include the according to the suggestions of experts. Thereby, the dependent variable in the study is the mobilization of investment capital sources for the development of SEDP. The independent variables in the study included:

| Factors | Variable Observed and Study Author | Signs |
|---------|-----------------------------------|-------|
| Ability to mobilize investment capital sources for socio-economic infrastructure development | 1. The scale of capital mobilization is increasingly expanding | HDNV1 |
| | 2. Stable investment capital mobilization growth | HDNV2 |
| | 3. Structure of mobilizing investment capital is increasingly diversified | HDNV3 |
| | 4. The level of completion of the plan to mobilize investment capital has not met the set requirements | HDNV4 |
| Natural conditions | 1. The central position of the Northern Midlands and Mountains | DKTN1 |
| | 2. Favorable topographic conditions for investment in the construction of infrastructure projects | DKTN2 |
| | 3. Fresh climate, less polluted environment | DKTN3 |
| | 4. Beautiful natural landscape | DKTN4 |
| Market size | 1. Thai Nguyen province’s economy develops stably | QMTT1 |
| | 2. Large population size | QMTT2 |
| | 3. High income per capita (GRDP) | QMTT3 |
| | 4. The level of competition in the market and international economic integration | QMTT4 |
| Investment policy | 1. A comprehensive, consistent, and consistent investment related legal system with the market mechanism | CSDT1 |
| | 2. Favorable compensation, site clearance and resettlement | CSDT2 |
| | 3. Good land lease incentives | CSDT3 |
| | 4. Good tax incentives | CSDT4 |
Investigated subject: Leaders of businesses operating on January 1, 2019 in Thai Nguyen province.

Sample selection method:
The authors use a random sampling survey method. Among the commonly used random sampling methods, the author chooses a simple stratified and random sampling method. Including the following steps:

- Step 1: Collecting documents on the number of businesses involved in infrastructure development and investment in Thai Nguyen province in 2018.
- Step 2: Divide the businesses into groups according to the criteria of the SEDP domain. For stratified sampling, the number of units selected in each group follows the proportion of the number of units that the group occupies in the population.
- Step 3: In each group, simply select randomly to select sample units.

Sample size:
In the EFA, sample size is usually determined based on (1) the minimum size and (2) the number of measurement variables included in the analysis. Hair et al. (2006) suggested that to use EFA, the minimum sample size should be 50, and preferably 100 and the observations / items ratio is 5:1, meaning 1 The measurement variable should be at least 5 observations. Thus, the minimum number of samples for the author's research is 165 samples.

- The number of survey samples is calculated based on the Slovin formula:

\[
n = \frac{N}{1 + N \times e^2}
\]

Therein:
- \(n\): Number of samples to be investigated
- \(N\): Number of overall units
- \(e\): Acceptable error is 5%

Thus, the number of research samples

\[
n = \frac{640}{1 + 640 \times 0,05^2} = 246 \text{ (enterprises)}
\]
| No | Fields and Trades                                           | Number of Enterprises | Percentage above Total Enterprises | Number of Samples in Each Group (n) |
|----|------------------------------------------------------------|-----------------------|------------------------------------|-------------------------------------|
| 1  | Producing and distributing electricity                     | 27                    | 4,2                                | 10                                  |
| 2  | Water supply, waste management and treatment activities, wastewater | 20                    | 3,1                                | 8                                   |
| 3  | Build                                                      | 503                   | 78,6                               | 193                                 |
| 4  | Information and communication                              | 10                    | 1,6                                | 4                                   |
| 5  | Financial operations, banking                              | 6                     | 0,9                                | 2                                   |
| 6  | Real estate business                                       | 23                    | 3,6                                | 9                                   |
| 7  | Education and training                                    | 22                    | 3,4                                | 8                                   |
| 8  | Health and social assistance activities                    | 11                    | 1,7                                | 4                                   |
| 9  | Art, entertainment, entertainment                          | 6                     | 0,9                                | 2                                   |
| 10 | Other activities                                           | 12                    | 1,9                                | 5                                   |
|    | Total                                                     | 640                   | 100                                | 246                                 |

Table 2: Number of Enterprises Involved in Structural Development Investment
Socio-Economic Infrastructure in Thai Nguyen Province in 2018
Source: Thai Nguyen Statistical Yearbook 2018

2.1. Scale Questionnaire
The author uses the 5-level Likert scale to conduct the research: The rating from 1 to 5 is sorted by the degree of increasing influence of factors affecting the mobilization of investment capital for socio-economic infrastructure development in Thai Nguyen province.

| Scale | Rating Level | Range of Rating |
|-------|--------------|-----------------|
| 5     | Very good    | 4.21 – 5.0      |
| 4     | Good         | 3.41 - 4.20     |
| 3     | medium       | 2.61 – 3.40     |
| 2     | Least        | 1.81 – 2.60     |
| 1     | Very poor    | 1.00 – 1.80     |

Table 3: Scale Questionnaire

2.2. Questionnaire Design Process
- Step 1: The author inherits the studies of previous authors when considering the factors affecting the mobilization of investment capital sources for socio-economic infrastructure development in Thai Nguyen province.
- Step 2: Consult experts, including 05 managers, scientists at the Department of Finance, Department of Planning and Investment, Thai Nguyen University of Economics and Business Administration, Academy of Finance, Dai National Economics. The authors use expert interviewing methods with this group of subjects. The author proceeds to collect data by going directly to the offices of the units to collect data and interviewing experts in about 30 minutes to 60 minutes.
- Step 3: The author used the questionnaire built to test 5 enterprises, including: Yen Binh Investment and Development Joint Stock Company, Thai Nguyen Clean Water Joint Stock Company, Thai Nguyen Telecommunication Company, Thang Long Mineral Joint Stock Company, Picenza Joint Stock Company. Based on the test results, the author adjusted unreasonable details to formulate a formal questionnaire and collect all data.
- Step 4: After completing step 3, the author edits and completes the content of the questionnaire accordingly and conducts the official survey. The content of the questionnaire includes 2 main parts: business information and interview questions about factors affecting the mobilization of investment capital sources for socio-economic infrastructure development of Thai Nguyen province.

During the process of survey, questionnaires were sent hard copies by post to all 246 enterprises.

2.3. Implementation Time

| Research Form | Methods             | Duration       | Objects      |
|---------------|---------------------|----------------|--------------|
| Preliminary   | Interview           | 5/2019–7/2019  | Expert       |
|               | Direct investigation| 07/2019        | Enterprise   |
| Official      | Submit survey form  | 8/2019–9/2019  | Enterprise   |

Table 4: Implementation Time
2.4. Descriptive Statistical Results

| Statistic | N | Minimum | Maximum | Mean | Std. Error | Std. Deviation |
|-----------|---|---------|---------|------|------------|---------------|
| HDNV1     | 230| 1       | 5       | 2.88 | .049       | .747          |
| HDNV2     | 230| 1       | 5       | 2.89 | .048       | .721          |
| HDNV3     | 230| 1       | 5       | 2.82 | .048       | .729          |
| HDNV4     | 230| 1       | 5       | 2.84 | .045       | .677          |
| DKTN1     | 230| 1       | 5       | 3.26 | .058       | .876          |
| DKTN2     | 230| 1       | 5       | 3.22 | .063       | .951          |
| DKTN3     | 230| 1       | 5       | 3.35 | .062       | .945          |
| DKTN4     | 230| 1       | 5       | 3.40 | .062       | .933          |
| QMTT1     | 230| 1       | 5       | 2.70 | .057       | .862          |
| QMTT2     | 230| 1       | 5       | 2.69 | .054       | .823          |
| QMTT3     | 230| 1       | 5       | 2.61 | .053       | .801          |
| QMTT4     | 230| 1       | 5       | 2.61 | .050       | .761          |
| CSDT1     | 230| 1       | 5       | 3.00 | .063       | .958          |
| CSDT2     | 230| 1       | 5       | 3.03 | .064       | .975          |
| CSDT3     | 230| 1       | 5       | 3.01 | .061       | .923          |
| CSDT4     | 230| 1       | 5       | 3.04 | .064       | .973          |
| TTTC1     | 230| 1       | 5       | 2.74 | .061       | .926          |
| TTTC2     | 230| 1       | 5       | 2.80 | .058       | .885          |
| TTTC3     | 230| 1       | 5       | 2.72 | .056       | .852          |
| TTTC4     | 230| 1       | 5       | 2.82 | .062       | .945          |
| TTTC5     | 230| 1       | 5       | 2.84 | .056       | .849          |
| TNTN1     | 230| 1       | 5       | 2.90 | .060       | .908          |
| TNTN2     | 230| 1       | 5       | 2.93 | .059       | .901          |
| TNTN3     | 230| 1       | 5       | 2.87 | .056       | .857          |
| NNL1      | 230| 1       | 5       | 2.89 | .071       | 1.084         |
| NNL2      | 230| 1       | 5       | 2.91 | .071       | 1.076         |
| NNL3      | 230| 1       | 5       | 2.73 | .065       | .991          |
| NNL4      | 230| 1       | 5       | 2.78 | .063       | .956          |
| DVC1      | 230| 1       | 5       | 3.27 | .054       | .813          |
| DVC2      | 230| 1       | 5       | 3.17 | .052       | .789          |
| DVC3      | 230| 1       | 5       | 3.15 | .053       | .808          |
| DVC4      | 230| 1       | 5       | 3.25 | .052       | .791          |
| Valid N (listwise) | 230 | |

Table 5: Descriptive Statistical Results
Source: SPSS Analysis Results

2.5. Verify the Reliability of Survey Data

2.5.1. Test the Reliability of the Dependent Variable

| Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach’s Alpha if Item Deleted |
|----------------------------|-------------------------------|---------------------------------|---------------------------------|
| HDNV1                      | 8.55                          | 2.616                           | .693                            | .634                            |
| HDNV2                      | 8.54                          | 2.930                           | .567                            | .707                            |
| HDNV3                      | 8.61                          | 3.078                           | .485                            | .751                            |
| HDNV4                      | 8.59                          | 3.142                           | .520                            | .732                            |

Table 6: Test the Reliability of the Dependent Variable
Source: SPSS Analysis Results

The results of testing the dependent variable show that the reliability of the scale is 0.765, and the correlation coefficients of the total variable are greater than 0.4 and the Cronbach’s Alpha value if the variable is less than 0.765, this shows that the Correlation of the variables observed in the model is quite good. Therefore, all 4 variables are consistent with the total variable.
2.5.2. Test the reliability of the Independent Variable

| Natural conditions: Cronbach's Alpha = .886 | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|--------------------------------------------|-----------------------------|--------------------------------|---------------------------------|---------------------------------|
| DKTN1                                      | 9.97                        | 6.148                          | .767                            | .849                            |
| DKTN2                                      | 10.01                       | 6.074                          | .697                            | .875                            |
| DKTN3                                      | 9.88                        | 5.810                          | .778                            | .843                            |
| DKTN4                                      | 9.83                        | 5.900                          | .767                            | .848                            |

| Market size: Cronbach's Alpha = .854       |                             |                                |                                 |                                 |
| QMTT1                                     | 7.91                        | 3.970                          | .767                            | .783                            |
| QMTT2                                     | 7.92                        | 4.163                          | .747                            | .792                            |
| QMTT3                                     | 8.00                        | 4.638                          | .600                            | .853                            |
| QMTT4                                     | 8.00                        | 4.568                          | .676                            | .823                            |

| Investment policy: Cronbach's Alpha = .838 |                             |                                |                                 |                                 |
| CSDT1                                     | 9.08                        | 5.810                          | .679                            | .790                            |
| CSDT2                                     | 9.05                        | 5.858                          | .647                            | .805                            |
| CSDT3                                     | 9.07                        | 5.974                          | .673                            | .793                            |
| CSDT4                                     | 9.04                        | 5.750                          | .679                            | .790                            |

| Financial market: Cronbach's Alpha = .903  |                             |                                |                                 |                                 |
| TTTC1                                     | 11.17                       | 9.201                          | .759                            | .881                            |
| TTTC2                                     | 11.12                       | 9.563                          | .727                            | .888                            |
| TTTC3                                     | 11.19                       | 9.535                          | .772                            | .878                            |
| TTTC4                                     | 11.10                       | 9.109                          | .758                            | .881                            |
| TTTC5                                     | 11.07                       | 9.545                          | .774                            | .878                            |

| Natural resources: Cronbach's Alpha = .802 |                             |                                |                                 |                                 |
| TNTN1                                     | 5.80                        | 2.446                          | .641                            | .736                            |
| TNTN2                                     | 5.77                        | 2.388                          | .679                            | .695                            |
| TNTN3                                     | 5.83                        | 2.628                          | .623                            | .755                            |

| Human Resources: Cronbach's Alpha = .860   |                             |                                |                                 |                                 |
| NNL1                                      | 8.43                        | 6.752                          | .709                            | .822                            |
| NNL2                                      | 8.40                        | 7.098                          | .639                            | .851                            |
| NNL3                                      | 8.58                        | 7.101                          | .727                            | .814                            |
| NNL4                                      | 8.53                        | 7.115                          | .763                            | .801                            |

| Public service: Cronbach's Alpha = .880    |                             |                                |                                 |                                 |
| DVC1                                      | 9.57                        | 4.350                          | .745                            | .844                            |
| DVC2                                      | 9.67                        | 4.378                          | .769                            | .835                            |
| DVC3                                      | 9.69                        | 4.302                          | .770                            | .835                            |
| DVC4                                      | 9.59                        | 4.610                          | .678                            | .870                            |

Table 7: Test the reliability of the Independent Variable

The results of testing the independent variables show that all variables have Cronbach's Alpha coefficients of factors greater than 0.8. The total variable correlation coefficient of the observed variables in each factor are greater than 0.6; At the same time, all values of observed variables have Cronbach's Alpha coefficients if the variable type is smaller than Cronbach's Alpha's value of the total variable. This shows that the correlation between the observed variables with the factors themselves they represent is quite high. Thus, the Observations in each independent variable included in the survey completely guarantee the reliability and will be used for analysis for the next steps.

3. Factor Analysis

In order to evaluate the results from the survey opinions of people related to the ability to mobilize investment capital sources for socio-economic infrastructure development in Thai Nguyen province, in this study, the author advanced 7-factor test practice as mentioned above. The inspection results are shown in the following tables:
Factor analysis results show that: KMO coefficient 0.786 > 0.6 shows that the results of factor analysis are completely appropriate. Bartlett's test is 3403.530 with statistical significance sig = 0.000 < 0.05, showing that the observations included in the study are correlated with each other in the population and factor analysis completely ensures the statistical significance.
The results from the above data table show that the total value of variance extracted = 72.481% > 0.5 and the value of Eigenvalues = 1.621 > 1 ensures statistical requirements. Thus, this shows the appropriateness of the hypotheses from the theoretical research model mentioned earlier.

| Independent variables | Observed Variables | Components |
|-----------------------|-------------------|------------|
|                       |                   | 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| The development of the financial market | TTTC5 .859 |   |   |   |   |   |   |   |
|                       | TTTC3 .852 |   |   |   |   |   |   |   |
|                       | TTTC1 .838 |   |   |   |   |   |   |   |
|                       | TTTC4 .835 |   |   |   |   |   |   |   |
|                       | TTTC2 .830 |   |   |   |   |   |   |   |
| Natural condition     | DKTN3 .879 |   |   |   |   |   |   |   |
|                       | DKTN4 .875 |   |   |   |   |   |   |   |
|                       | DKTN1 .873 |   |   |   |   |   |   |   |
|                       | DKTN2 .820 |   |   |   |   |   |   |   |
| Public service        | DVC2 .874 |   |   |   |   |   |   |   |
|                       | DVC3 .872 |   |   |   |   |   |   |   |
|                       | DVC1 .865 |   |   |   |   |   |   |   |
|                       | DVC4 .811 |   |   |   |   |   |   |   |
| Human Resources       | NNL3 .843 |   |   |   |   |   |   |   |
|                       | NNL4 .838 |   |   |   |   |   |   |   |
|                       | NNL1 .828 |   |   |   |   |   |   |   |
|                       | NNL2 .768 |   |   |   |   |   |   |   |
| Market size           | QMTT1 .870 |   |   |   |   |   |   |   |
|                       | QMTT2 .846 |   |   |   |   |   |   |   |
|                       | QMTT4 .817 |   |   |   |   |   |   |   |
|                       | QMTT3 .769 |   |   |   |   |   |   |   |
| Investment policy     | CSDT4 .845 |   |   |   |   |   |   |   |
|                       | CSDT1 .824 |   |   |   |   |   |   |   |
|                       | CSDT3 .771 |   |   |   |   |   |   |   |
|                       | CSDT2 .721 |   |   |   |   |   |   |   |
| Natural resources     | TNTN2 .866 |   |   |   |   |   |   |   |
|                       | TNTN1 .826 |   |   |   |   |   |   |   |
|                       | TNTN3 .817 |   |   |   |   |   |   |   |

*Table 10: Rotation Matrix When Factor Analysis*

*Source: SPSS Analysis Results*

The results from the SPSS software show that the factor load coefficients of the observed variables in each given factor have a high value (greater than 0.7), which again confirms the observed variables. All have a great influence on the factor they represent.

The rotation matrix table when analyzing the factors shows that all 7 independent variables are given from the analysis, which affects the ability to mobilize investment capital for socio-economic infrastructure development in Thai Nguyen province.

Stemming from the tests performed above, to assess the significance as well as the influence of groups of factors on the ability to mobilize investment capital for socio-economic infrastructure development. In Thai Nguyen province, the author conducts regression analysis with the dependent variable being the ability to mobilize investment capital for socio-economic infrastructure development in Thai Nguyen province and the independent variables, including: 1) Natural conditions; 2) Market size; 3) Investment policy; 4) The development of the financial market; 5) Quality of public service; 6) Human resources; 7) Natural Resources.

4. Regression Analysis

From the assessment of the influence of each factor on the ability to mobilize investment capital for socio-economic infrastructure development in Thai Nguyen province. In addition, there are more grounds to contribute to proposing appropriate solutions to improve the ability to mobilize investment capital for socio-economic infrastructure development in Thai Nguyen province during the period. Next time, the author conducts regression based on the following theoretical model:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \epsilon_i \]

Therein: \( Y \) is the dependent variable
X₁, X₂, X₃, X₄, X₅, X₆, X₇ are independent variables
β: Regression parameters (with i=1, 2, 3, 4, 5, 6, 7)

### Model Summaryb

| Model | R   | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-----|----------|-------------------|----------------------------|---------------|
| 1     | .789a | .623     | .611              | .34316                     | 1.809         |

*a. Predictors: (Constant), DVC, QMTT, TTTC, DKTN, NNL, TNTN, CSDT  
b. Dependent Variable: HDNV  
Source: SPSS Analysis Results*

The regression results in the above table show that the multiple correlation coefficient R = 0.789 shows that there is a quite close correlation between the independent variables and the dependent variable, the adjusted R coefficient is 0.611, which means that the variation of The independent variables included in the study in this model explain 61.1% of the change in the dependent variable. The Durbin-Watson coefficient in the analysis is 1.809 (du = 1.735 <1.809 <4-du = 2.265), which shows that there is no autocorrelation between the independent variables included in the research model.

### ANOVAa

| Model | Sum of Squares | df | Mean Square | F     | Sig. |
|-------|----------------|----|-------------|-------|------|
| 1     | Regression     | 7  | 6.180       | 52.477| .000b|
|       | Residual       | 222| .118        |       |      |
| 1     | Total          | 229|             |       |      |

*a. Dependent Variable: HDNV  
b. Predictors: (Constant), DVC, QMTT, TTTC, DKTN, NNL, TNTN, CSDT  
Source: SPSS Analysis Results*

The value Sig = 0.000 in ANOVA analysis shows that the regression analysis ensures the statistical significance; The VIF values of the factors all accept relatively small values (less than 2), so no multicollinearity phenomenon occurs.

### Coefficientsa

| Model | Unstandardized Coefficients | Standardized Coefficients | t      | Sig. | Collinearity Statistics |
|-------|-----------------------------|---------------------------|--------|------|-------------------------|
| 1     | (Constant)                  |                           |        |      |                         |
|       | B                            | Std. Error                | Beta   |      | Tolerance | VIF     |
| DKTN  | .121                        | .029                      | .176   | 4.249| .000       | .987    | 1.013   |
| QMTT  | .523                        | .035                      | .644   | 15.027| .000      | .923    | 1.083   |
| CSDT  | .152                        | .032                      | .216   | 4.696| .000      | .799    | 1.251   |
| TTTC  | .090                        | .031                      | .123   | 2.890| .004      | .935    | 1.069   |
| TNTN  | -.027                       | .031                      | -.037  | -.860| .391      | .934    | 1.070   |
| NNL   | .092                        | .029                      | .144   | 3.164| .002      | .815    | 1.228   |
| DVC   | .069                        | .033                      | .085   | 2.060| .041      | .986    | 1.014   |

*a. Dependent Variable: HDNV  
Source: SPSS analysis results*

The regression results from the Coefficients table above show the significance of the natural resource factor is 0.391> 0.05, so this factor does not guarantee statistical significance and is removed from the model. Meanwhile, all other independent variables included in the analysis have a significance level (sig) less than 0.05, so these independent variables are significant for the dependent variable.

Thus, from the above regression results, the standardized regression equation is expressed as follows:

Ability to mobilize investment capital for socio-economic infrastructure development = 0.176 * Natural conditions + 0.644 * Market size + 0.216 * Investment policy + 0.123 * Financial market + 0.14 * Human resources + 0.085 * Public service quality.

From the above regression equation can be seen in the groups of factors affecting the ability to mobilize investment capital for socio-economic infrastructure development in Thai Nguyen province, the group of factors of market size have the biggest influence on the ability to mobilize this capital, followed in turn are the factors of Investment Policy; Natural conditions; Human Resources. Meanwhile, two factors, the quality of public services and the financial market, have the least impact on mobilizing investment capital for socio-economic infrastructure development in Thai Nguyen province.
From the above regression results show that in order to contribute to improving the capacity to mobilize investment capital for socio-economic infrastructure development in Thai Nguyen province in the coming time, first of all, Thai Nguyen province needs to practice to ensure and continue to develop more market size, followed by the investment policy improvement. In addition to focusing on these two factors, Thai Nguyen province also needs to make good use of the advantages of the natural conditions, and continue to focus on the development of the quality of human resources in the province. Besides, the province also needs to continue research to evaluate the financial market as well as the quality of public services of the province in the coming years.

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