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**COMPLETING THE SYSTEM OF FINANCIAL  
ANALYSIS INDICATORS IN VIETNAM'S ROAD AND  
BRIDGE CONSTRUCTION ENTERPRISES**

**SUMMARY OF ECONOMIC DOCTORAL THESIS**

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## **PREAMBLE**

### **1. The urgency of the subject**

Bridge construction plays a supporting role in the growth economy. However, the reality of the industry shows that there are many shortcomings in the process of bidding and execution of works. Bidding is sometimes open and transparent. Unqualified bidders, find ways to get contractors even if their financial capacity is weak. Financial information of contractors is sometimes intentionally or unintentionally falsified, inaccurate or incomplete, leading to incorrect assessment of the contractor's financial capacity. Since then, the construction work is slow progress, poor quality of construction, waste of construction costs, seeking to raise the price of the works to be compensated.... All of the financial causes of the bridge construction business encounter from the failure to accurately assess the financial situation of enterprises. The financial indicator system is a tool used by enterprises to assess corporate financial situation and forecast financial needs of enterprises are not complete yet, showing the peculiarity of the enterprise, as well as not really highlighted its true financial capacity bid. This is due to the fact that the users of financial information themselves are not really interested in the system of financial analysis of enterprises and it is unclear whether the role of the financial indicator system is one of the most effective tools for corporate finance management or if it is inadequate.

Theoretically, the literature, curriculum or research works on the indicator system of corporate finance analysis are relatively many, but in fact there are no documents available to enterprises to build roads and bridges a complete financial analysis system, specific to the field, so that they can refer to and apply to their business.

Derived from the urgency of finalizing the system of financial analysis indicators for the bridge construction enterprises in Vietnam, the author chose the topic: ***“Completing the system of financial analysis indicators in Vietnam's road and bridge construction enterprises”***.

### **2. Aims of the thesis**

Proposed solutions to perfect financial indicator system for financial analysis in the bridge construction enterprises in Vietnam.

### **3. Object and the scope of the study**

- *Research subjects*: Financial indicator system for financial analysis in Vietnam road and bridge construction enterprises

- *Research scope*: In terms of content, thesis on theoretical and practical research on enterprise financial indicator systems aimed at serving corporate financial management. In terms of space, the limit at the bridge construction enterprises in Vietnam is divided into 3 groups: listed companies, state-owned companies and using state capital, other companies (According to the Vietnam Yellow Pages Directory 2015, all over the country, there are 494 enterprises building roads and bridges in Vietnam). In terms of time, research data and financial information from 2007 to 2015.

#### **4. Research methodology**

Survey, survey, statistics, disaggregation .... with the secondary data source in the data period from 2007 to 2015 and the primary data source is the data collected from the survey method. The number of enterprises selected by the author is 56/494 road construction enterprises across the country with criteria : *Location of survey enterprise; Composition of turnover of business; Capital size; Competitiveness and competitiveness in the market*

The "questionnaire" is mailed or mailed to the audience: Chairman of the Managing Board, Chairman of the Members' Council, chief accountant, manager, control chief, head of the economic department - planning and construction team leaders of the bridge construction enterprises are subjects corporate financial management. Survey results were used by the author using the statistical method, categorized according to each question in the questionnaire in order to serve the assessment of actual use and improvement of the system of financial analysis indicators for bridge construction enterprises of Vietnam.

#### **5. New contributions of the thesis**

*About reasoning:* Research the theory system of enterprise financial indicators and develop a system of financial analysis indicators towards enterprise business financial management. In particular, the system of analysis indicators is studied in relation to the business conditions of each field, focusing on the construction field.

*About the reality:* Detailed study of management model, form of capital management, production and business characteristics of Vietnam road and bridge construction enterprises and impacts on the financial analysis system. To study the situation and propose solutions to perfect the system of financial analysis indicators for Vietnam road and bridge construction enterprises according to each group of financial analysis criteria, including : Completing and supplementing indicators that have been developed but not yet applied by enterprises; Completing and supplementing specific financial analysis criteria for the construction of roads and bridges, including financial analysis indicators reflecting the parent-child financial relationship and selection of Financial analysis criteria for medium-sized enterprises in Vietnam.

#### **6. Structure of the thesis**

**Chapter 1: Overview of the research on the system of financial indicators.**

**Chapter 2: The rationale for the indicator system for corporate financial analysis.**

**Chapter 3: Results of the research on the status of financial analysis indicator system in Vietnam's road and bridge construction enterprises.**

**Chapter 4: Solution to completing the system of financial analysis indicators in Vietnam's road and bridge construction enterprises.**

# Chapter 1

## OVERVIEW OF THE RESEARCH ON THE SYSTEM OF THE FINANCIAL INDICATORS

### 1.1. Studies related to the thesis

#### 1.1.1. Studies on corporate financial analysis and enterprise financial indicator systems

Studies on corporate financial analysis and corporate financial indicator systems include domestic and overseas groupings of works.

For works in the country, Ngo The Chi, Doan Xuan Tien, Vuong Dinh Hue author (1995), with works “Accounting, auditing and analysis of corporate finance”. Nguyen Trong Co (1999) studied thesis with topic: “Complete the system of financial analysis indicators in non-financial shareholding enterprises in Vietnam”. Nguyen Van Cong author et al. (Nguyen Nang Phuc, Tran Quy Lien) (2002) with works: “Prepare, read and analyze financial statements”. Nghiem Van Loi author (2003) with the project “Complete the financial reporting system to provide information for the analysis of corporate finance in Vietnam”. Nguyen Nang Phuc author et al. (2003), with works “Analysis of financial statements”. Nguyen Nang Phuc et al. (Nghiem Van Loi, Nguyen Ngoc Quang) (2006) continue to study the work “Financial analysis of joint stock companies”. Ngo The Chi and Nguyen Trong Co author (2008) with works “Business financial analysis”. Le Thi Xuan author et al (Nguyen Xuan Quang, Nguyen Tien Vinh, Nguyen Thi Dao) (2010) with works “Business financial analysis”. Nguyen Trong Co and Nghiem Thi Tha author (2010) with works “Corporate finance analysis for non-specialized classes”. Nguyen Van Cong and Nguyen Thi Quyen author (2016) with the work "Analysis of Corporate Finance Report".

For foreign works, I. Altman and E. Dward author (1968) with the article “*Financial ratios, discriminant analysis and the prediction of corporate bankruptcy*”. Saburo Ishida, Kazuo Hiramatsu, Noriaki Yamaji authors (1990) with works “*研究論文>主成分分析法による企業評価システム: 結決算データを用いて*”. William L. Meggison (USA), Robert C. Nash (USA) và Mathias van Randenborgh (Germany) (1994) authors, with the work: “*The Financial and Operating performance of Newly Privatized firms: an International empirical analysis*” same idea with the group of authors: KL Dewenter, PH Malatesta (2001), with the work: “*State-owned and privately owned firms: An empirical analysis of profitability, leverage, and labor intensity*”. David F. Hawkins author (1998) with the work: “*Corporate Financial reporting and analysis*”. Doron Nissim, Stephen H. Penman authors (1999) in the article: “*Ratio analysis and equity valuation*”. Jacques Richard author (2000) with the work: “*Financial accounting-analysis-Valuation*”. The group of authors: Veslez-Pareza, Ricardo Davila (2000) in the documentation for teaching: “*Financial analysis and control financial ratio analysis*”. Peter Walton author (2000) with the work: “*Financial statement analysis*”. The group of authors: Laurence Revsine, Daniel W. Collins, W. Bruce Johnson (2002), with the work “*Financial reporting and analysis*”. Charles H. Gibson author

(2001) with the work *“Financial reporting and analysis”*. The group of authors: Clyde P. Stickney, Paul R. Brown, James M. Wahlen (2004) with the work *“Financial reporting and statement analysis”*. The group of authors: James M. Wahlen, Stephen P. Baginski, Mark Bradshaw (2010) with the work *“Financial reporting, Finance statement analysis and valuation: a Strategic perspective”* same idea presented the ability to analyze financial statements. David A. Guenther author (2004) with the work *“Financial reporting and analysis”*. Josette Peyrard author (2005) with the work *“Business financial analysis”* (translation). Laurence Revsine author (2004) with the work *“Financial reporting and analysis”*.

### **1.1.2. Studies on financial analysis and financial indicator system applied in specific sectors**

Researches on financial analysis and financial analysis indicators for each field of activity including domestic and foreign projects.. For domestic projects mainly in four areas:

*Aviation field:* Tran Thi Minh Huong author (2008), PhD thesis on " Completing the Financial Analysis Indicators System at Vietnam Airlines Corporation".

*Commercial field:* Charles H. Gibson author (2000) with the work *“Financial reporting analysis”*. Nguyen Van Hau author (2009) study PhD thesis with subject: “Finalizing the system of financial analysis indicators in commercial enterprises for business administration”.

*Finance and banking field:* Nguyen Thi Quyen author (2012) studied PhD thesis on the topic: “Finalizing the system of financial analysis criteria in joint stock companies listed on Vietnam's securities market”. Ho Thi Thu Huong author (2012), PhD thesis research subject: “Finalization of financial analysis indicators in financial companies in Vietnam”. Nghiem Thi Tha and the authors (2014) have successfully researched the grassroots level “Finalizing the financial analysis indicators for commercial banks. ”

*Building field.:* Nguyen Ngoc Quang author (2002), PhD thesis research topic “Finalizing the system of financial analysis indicators in construction enterprises of Vietnam”. Pham Xuan Kien (2011) with subject: “Financial analysis of road traffic enterprises in Vietnam”. Most recently, Mai Khanh Van (2016) successfully defended his thesis on the topic: “Finalizing the system of financial analysis criteria for construction companies listed on the Vietnam stock market”.

For works abroad, in Nigeria, JL Burati Jr, JJ Farrington author (1992), with the work *“Causes of Quality Deviations in Design and Construction”* (English version), with "Total project cost". In Saudi Arabia, Ibrahim Mahamid author (Hail University, Kingdom of Saudi Arabia) (1999), with the work : *“Common Risks Affecting Time Overrun in Road Construction Projects in Palestine: Contractors’ Perspective”* (English version). Herbert S. Robinson and the Collective authors (2002), with the article *“Linking knowledge management strategy to business performance in construction organizations*. In the US, by R Prud'Homme (2004), with the subject *“Infrastructure and development”*. In the UK, the group of authors: HA Bassioni, ADF Price, TM Hassan (2004) with the work: *“Performance Measurement in*

*Construction*". In China, X Zhang (2005), with the work "*Critical Success Factors for Public–Private Partnerships in Infrastructure Development*" (English version). In Zambia, the group of authors: Chabota Kaliba, Mundia Muya, Kanyuka Mumba (2009), with the work: "*Cost escalation and schedule delays in road construction projects in Zambia*" (English version).

## **1.2. Conclusions of published works and research problem formulation**

### **1.2.1. Conclusion of published works**

- *About research methods*: From 2010 and earlier, research works mainly use direct observation, reasoning. The method of survey and actual survey is carried out in post-2010 works.

- *About the content of research*:

The research was divided into two groups. The first group deals with financial analysis and financial analysis; The second group studied the financial analysis and business analytical criteria of the activity field. Each team solved the following problems:

+ *The first group*: The system of general analytical indicators can be used to analyze the financial situation of all sectors of industry, which is not specific to any industry. If using the system of financial analysis criteria, information users can hardly distinguish how as different as the financial characteristics of manufacturing, trade, tourism, hotel, construction ....

+ *Second group*: Researching and finalizing the content of enterprise financial analysis or corporate financial indicator system in some basic industries such as aviation, commerce, finance, banking and construction. Therefore, the subject approach and the development of the indicator system will be specific to different sectors.

- *Considering the construction sector*: This is the field that the author chooses to study. The research has solved a number of problems: research objectives, research subjects, research scope, approach....

### **1.2.2. Research problem formulation**

From the synthesis of the content has been studied on the analysis of corporate finance and financial analysis indicators, the author finds that knowledge gaps need to be researched for their topic as follows:

**Firstly**, in terms of research objectives, there have been no studies to complete and supplement new financial analysis criteria specific to the construction of roads and bridges into the system of indicators have been scientists. At the same time, finalizing the system of financial analysis indicators reflecting the mother-child financial relationship for corporations (parent companies) to build bridges and roads in Vietnam operating under the mother-child model and system Financial analysis criteria for medium-sized enterprises in Vietnam. In particular, the financial analysis indicators serve both the financial analysis of enterprises and the analysis of each particular project, due to the particularity of the road construction business to account profit and loss for each project.

**Secondly**, in terms of research subjects, research works on financial analysis of bridge construction enterprises only researched a specific financial content, none of which went into a comprehensive study, covering the whole financial issues of financial analysis indicators for the construction of roads and bridges, in particular the construction of roads and bridges in Vietnam.

**Thirdly**, in terms of scope of research, there are no works to choose the spatial study of space with narrow sub-sectors in the field of construction of roads and bridges in Vietnam.

**Fourthly**, on the approach, there is not yet any research on the indicator system for financial analysis of enterprises building roads and bridges approaching from the theory of corporate finance and financial analysis of generally enterprise to build a system of financial analysis indicators in relation to the characteristics of production and business in basic industries, attaching importance to the construction field.

## CONCLUSION OF CHAPTER 1

Overview of Chapter 1 is the research, synthesis and evaluation of published scientific works related to the subject that the author selected for study. From the research objectives of the thesis, the author has reviewed the researches on corporate financial analysis and the system of financial analysis of domestic and foreign enterprises, in which separate works general research for enterprises and works in the specific field of activity. The research on corporate financial analysis and the corporate financial analysis system for enterprises has solved the fundamental problems for the research question of the author. However, the use of a financial analysis indicator system for all sectors of the profession reduces the apparent competitiveness of enterprises financially, as they do not distinguish sectoral characteristics of each industry. For studies on corporate financial analysis and corporate financial indicator systems by sector of activity, the authors study mainly in the fields of aviation, finance and banking. Foreign studies on the indicator system for financial analysis of enterprises in road and bridge construction mainly focus on one of the main issues, but not cover all financial issues of this field. From the results have been studied of works related to the thesis, the author found a space for the topic.



## **Chapter 2**

### **THE RATIONABLE FOR THE INDICATOR SYSTEM FOR CORPORATE FINANCIAL ANALYSIS**

#### **2.1. Corporate Finance and Corporate Financial Analysis**

##### **2.1.1. *Corporate Finance***

There are many concepts of corporate finance that are offered by researchers. From the concept of integrated corporate finance to more specific concepts, it is divided into two groups of viewpoint systems: The first view goes into the nature of corporate finance. In this view, economic relations are indispensable for any business that wishes to pursue its objectives in order to conduct normal production and business activities. The second viewpoint system is formal. In terms of the two systems of view, in essence, corporate finance is the relationship of the distribution of value, monetary expressed by the economic relationship between enterprises and other actors in the economy. In terms of form, corporate finance is expressed in the form of flows of value movement, movement of financial resources.

In the view of the author, to limit the abstraction of the above definitions, corporate finance is understood as the capital movement of the business through the financial relations of enterprises with the subject other in the economy, to serve the business activities of business enterprises. Starting from this perspective, corporate finance demonstrates roles: Ensure sufficient capital for business operation and development; Mobilize capital at the lowest cost; Effectively use funding sources. In particular, corporate finance must basically perform its most important role is to mobilize and use capital most effectively for production and business objectives of the business.

Study the role of corporate finance as the basis for the study of corporate financial analysis, as a tool to meet corporate financial management objectives. To express their role, corporate finance must ensure the functions: To ensure capital demand for production and business activities of enterprises; Organizing the implementation, inspection, control and evaluation of production and business activities of the enterprise; Ensure effective use of capital; Distribution of profits achieved.

##### **2.1.2. *Corporate Financial Analysis***

There are many views on corporate financial analysis. According to the author, it is possible to understand corporate financial analysis as the use of a system of financial analysis indicators reflecting the characteristics of the business sector to carry out analysis and evaluation of corporate finance through analytical methods, to serve the purpose of each user of the information.

Corporate finance data is targeted at a wide range of stakeholders such as managers, investors, lenders, ... Each object is interested in different angles. Therefore, to satisfy the requirements of the objects, corporate financial analysis must be aimed at the purpose: Accurately assess the current state of the financial situation of enterprises in all respects in order to provide information to all those who are

interested in the operation of enterprises; Orientation helps the decision maker fit the reality of the business; Helps analysts predict risks and potential of the business through financial data and financial analysis over the past years ; Inspecting and controlling the results of production and business activities of the enterprise so that there are feasible measures affecting the results of production and business activities of the enterprise.

In order to achieve the above objectives, a complete analytical system is required and financial analysis indicators are determined by financial analysis. There are different views on the content of corporate financial analysis. From the author's point of view, the content of financial analysis must first meet the purpose of information use of corporate finance managers and must be developed and evolved according to the flow of thinking of the corporate executives business when managing corporate finance : General evaluation of corporate financial situation -> Analysis of corporate financial situation -> Analysis of corporate financial risk -> Forecasting the demand for corporate finance.

## **2.2. The nature, requirements and principles for developing and classifying the system of financial analysis of enterprises**

### **2.2.1. Nature, requirements, construction principles**

Studying the nature of financial analysis criteria must be based on the nature of the economic indicator. The author argues that the criterion of enterprise financial analysis is part of the economic and financial indicators, reflecting the financial results of enterprises in a period or at a given time. The form of financial analysis is usually in the form of ratios, ratios or indicators in the financial statements. The value of the corporate finance indicator is quantified in terms of specific figures to reflect the financial condition of the business. The contents of financial analysis criteria are based on the content of financial analysis. When developing financial analysis criteria, enterprises must meet the requirements: Reflect the corporate financial function; Demonstrate the specificity of the field of activity in the reflected content of each indicator; Meet corporate governance goals; Ensure the level of generalization of the indicator according to management requirements

In order to meet the above requirements, financial analysis criteria for construction must comply with principles of financial management: comprehensive, material, easy to understand, suitable and comparable..

### **2.2.2. Classify**

▪ *Based on the purpose of using the information of the user:* There are 4 modules:

*The sub-system of indicators to assess the overall financial situation of enterprises, including indicators:* Total Funding, Self-Funding Coefficients, Generic Liquidity Ratio, Asset Returns.

*The indicator module analyzes the financial status of enterprises, including target groups:* Group of indicators analyzing asset structure, capital of enterprises; Group of indicators to analyze the performance of enterprises; Group of indicators analyze the structure and cost-effectiveness of enterprises; Group indicators analyze the situation and solvency of the business; Group indicators to analyze the profitability of the business; Group of indicators of cash flow analysis of enterprises.

*The indicator module for analyzing corporate financial risk, including indicators:* Debt ratio, Debt to equity ratio, Coefficient of repayment of debt due to maturity, Coefficient of interest payment.

*The indicator module predicts the demand for corporate finance, including indicators:* Revenues, assets, short-term assets, long-term assets, receivables, inventories, unfinished production costs, fixed assets, capital, liabilities, equity

- *Based on the level of generalization of the indicator:* General indicators - Detailed indicators.

- *Based on the legal status of the indicator:* Legal norms - Internal indicators of enterprises

- *Based on the nature of financial analysis criteria:* Quantitative criteria - Quality criteria.

## **2.3. System of corporate financial indicators**

### **2.3.1. Sub-criteria indicators assess the overall financial situation**

In order to assess the capital mobilization capability of an enterprise in the period, the analyst usually studies the changes of the total capital source at the end of the period compared to the beginning of the period or compared to the series of adjacent periods. The size of the capital is large or small depending on the business sector.

The financial autonomy of enterprises is expressed by the norm: "Coefficient of self-financing" show the degree of financial independence of the enterprise, which reflects the self-financing capacity of the business. "Coefficient of self-financing" should also be based on sector average data as each sector has different characteristics. When evaluating the general solvency of an enterprise, analysts often use the criterion "General solvency coefficient". This criterion reflects the ability of enterprises to repay their debt by assets. Normally, this indicator is guaranteed for all fields of activity, if  $> 1$  and vice versa.

Return on Assets (ROA) is an indicator of the overall profitability of a business. This indicator said, how many gross margins (profit before tax, pre-tax profit and interest, after-tax profit) are generated for each average asset used in production and business. Through this criterion, it reflects the ability to manage and use the assets of the enterprise. Assets invested in different sectors.

### **2.3.2. Sub-criteria indicators analyze financial situation**

- *Group of indicators to analyze the structure of assets, capital:*

To analyze the structure of assets, the analyst determines the indicator: “The weight of each asset component of total assets”, to assess the use of capital of enterprises. For detailed analysis of mobilized funds, the analyst uses the indicator: “The share of each component in total capital” of the business. This will determine which capital sources are mobilized most.

- *Group performance indicators:*

Operational capacity of the enterprise is the financial ability of the business achieved in production and business activities. Operational capacity of a business usually includes basic indicators such as: “Number of rounds of property”, “Number of inventory turns”, “Days on an inventory rotation” and “Performance of using fixed assets”. However, expanding with each sector of the industry, the operational capacity of the business can be determined by specific criteria.

- *Group of indicators to analyze the structure and cost-effectiveness*

Cost structure analysis is the determination of the weight of each type of expense over the total cost over the period to assess the enterprise's use of costs. Depending on the sector of the industry, the proportion of the cost categories are important different. Analyze the efficiency of enterprise input costs, including indicators: “The ratio of cost of goods sold to net sales”, “The ratio of management expense to net sales”. In addition to these two basic indicators applicable to all sectors of industry, when analyzing the cost-effectiveness of each sector of activity, it is possible to use additional indicators.

- *Group of indicators to analyze the situation and solvency*

The situation of payment of receivable debts of enterprises is shown through the following basic criteria: Number of accounts receivable turnover, Cash collection. These indicators are very different value for each field, industry.

The pace of payment of corporate debt is reflected in the indicators: Number of payables rolls, pay period, Rate of payables on receivables.

The solvency of the business includes short-term payment ability and long-term payment capacity. The basic indicators to assess the ability to repay short-term debt, including: Coefficient of solvency of short-term debt, Ability to pay quickly, Instantaneous solvency coefficient, Coefficient of affordability. The long-term viability of the business is reflected in the indicator: Coefficient of solvency long term.

- *Group indicators to analyze profitability*

Profitability of net revenue (ROS): The "Net revenue" indicator in the denominator of this formula when applied to the field of activity as: production, trade, services, tourism, hotels ... have the same content and nature.

Profitability of equity (ROE): This indicator is particularly relevant for private enterprises, small and micro limited liability companies in the fields of production, trade, tourism and services.

- *Group of indicators of cash flow analysis*

Cash flow analysis is the analysis of cash inflows, cash outflows of the business. This group of indicators includes: Net cash flow from operating activities, Net cash flow on total assets, Net cash flow on net sales, Net cash flow ratio on equity, Net cash flow ratio on net operating profit. This indicator is important for all areas of the industry, helping analysts accurately assess the profitability of the business.

### ***2.3.3. Sub-criteria indicators for financial risk analysis***

In view of the authors, the indicators reflect the highest level of financial risk ever associated with a loan. The financial risk indicators sub-index includes indicators: Debt ratio on total assets, Debt ratio on equity (Financial leverage), is the target of all areas of the profession, with different scales are concerned; Coefficient of repayment of due debt repayment. This indicator is suitable for financial risk analysis in all fields of production and business. Coefficient of interest payment on loans: applicable to sectors and use of data from the report on business results.

### ***2.3.4. Sub-criteria indicators to forecast financial needs***

To forecast financial needs, analysts need to select the key indicators that are considered to be related to net sales as: Assets, money, receivables, inventories, fixed assets, unfinished business costs, capital, owners' equity, payables ... After selecting the items related to net sales, determine the percentage of these items at the end of the year with total net revenue for the year, on an increase in revenue. The financial needs of the business include short-term and long-term financial needs, depending on the characteristics of the business.

## **2.4. A system of financial analysis indicators in some countries in the world and applications in Vietnam**

### ***2.4.1. World experience***

Traditionally developed countries in the world, such as the United States, United Kingdom, Australia, etc., financial analysis in listed companies are considered mandatory in accordance with the law to publicize the indicators, which specified in the Annual Report. In addition, the corporate financial indicator system has been studied in many countries around the world with different perspectives. In the United States, according to Doron Nissim and Stephen H. Penman, the financial indicator system consists of 12 indicators; According to I. Altman and Edward, the system of financial indicators includes nine basic indicators; According to David F. Hawkins, corporate financial indicators consist of 10 groups of indicators. In Colombia, the financial indicator system applied to enterprises includes 4 groups of indicators. In Japan, the corporate financial indicator system is divided into 5 groups.

### ***2.4.2. Applications in Vietnam***

From the characteristics of the financial analysis of enterprises in some countries in the world, some lessons can be learned for Vietnam as follows : *Firstly*, the system of financial analysis of Vietnamese enterprises must be appropriate with the size and

characteristics of enterprises and socio-economic conditions in Vietnam. *Secondly*, a complete set of financial analysis indicators should be developed that can be applied to all sectors of production and business. However, in each indicator content takes into account the specificity of the field of activity. *Thirdly*, the system of analytical targets should cover the whole of the financial aspects and must be directed towards the financial management of the business. *Fourthly*, financial analysis indicators should be developed for different business scales. *Fifth*, the financial analysis indicators system is appropriate, accurate and meet international standards. To build a system of financial analysis of enterprises that meet the above requirements, requires: Data sources should be unified for identifying corporate financial analysis. Unified uniformity, agencies and departments promulgated legal documents on finance and accounting and encourage enterprises to be aware of the important role of financial analysis indicators. The financial analysis criteria must be clear, open, transparent and detailed, especially for those who participate in the stock market.

## **CONCLUSION OF CHAPTER 2**

Recognizing, the argument about the system of indicators of corporate financial analysis of the industry in general, the field of road construction in particular has the common characteristics, The author has studied the theoretical basis of the system of financial analysis of enterprises based on the study of the common characteristics of each sector in each criterion. In particular, the system of financial analysis indicators is built on the basis of serving the objectives of corporate finance management of the executives. The system of financial analysis indicators is also classified according to content reflected and built on the basis of the analysis of corporate finance, according to the flow of thinking of the corporate executives. From the general assessment of corporate finance, to the analysis of corporate finance, then the risk analysis and forecasting of corporate finance needs. The content of the indicators studied in relation to each sector of the industry: construction, trade, construction, tourism, services ... indicate the specific characteristics of each industry, which is rescue to appropriate use. This theoretical problem contributes to the author to study the current situation of the financial indicator system of the Vietnam road and bridge construction enterprises in Chapter 3.

## **Chapter 3**

# **RESULTS OF THE RESEARCH ON THE STATUS OF FINANCIAL ANALYSIS INDICATORS SYSTEM IN VIETNAM'S ROAD AND BRIDGE CONSTRUCTION ENTERPRISES**

### **3.1. Overview of the bridge construction enterprises in Vietnam**

#### ***3.1.1. History of formation and development***

Up to now, enterprises in the transportation industry in general, construction of roads and bridges in particular has over 70 years of formation and development through the six stages : The period 1945 - 1954; The period 1954 - 1964; The period 1964 – 1975; The period 1975 – 1985; The period 1986 - 1995; From 1996 to present

#### ***3.1.2. Characteristics of the organizational structure of the operational management apparatus and the decentralization of capital management***

At present, the management model of enterprises is not only the independent SOEs as before but has formed a series of corporations under the Ministry of Transport. The Ministry of Transportation is one of the pioneers in the equitization of SOEs, therefore, as of 31/12/2015, these corporations are joint stock corporations operating in the form of mother-child. Roads under the Ministry of Defense operate in the form of one-member limited liability companies, except for corporations 36 which are listed companies. Truong Son Corporation and Lung Lo Corporation are in the process of equitisation of enterprises, listing on the stock market. The subsidiaries of these corporations are also mostly joint-stock companies.

In addition to the corporations formed from the member units, there are independent bridge construction enterprises. Independent cost-accounting bridge construction is also a joint-stock company or a limited liability company.

It can be said that the management model and ownership form of bridge construction enterprises in Vietnam basically have many similarities with other fields of business. However, due to the peculiarity of the capital of this sector, the decentralization of capital management in the road and bridge construction business has its own characteristics.

First of all, road and bridge construction is a large scale production sector. The capital of the contractor is mobilized from the investor upon receiving the construction work. Bidders who want to construct the works need to cover their own funds. In order to manage the construction capital mobilized, the road and bridge construction enterprises usually implement the contracting form. Forms of contracting can be contracting all works or project items, or contracting materials and labor. The form of contracting is characteristic of the construction industry in general, bridges and roads in particular, having the advantage of creating the initiative in construction work for the construction team, increasing the responsibility of the teams with their jobs. However, it also brings many disadvantages affecting the financial data of enterprises, thus affecting not significantly the results of financial analysis of enterprises.

### ***3.1.3. Characteristics of business activities of the bridge construction enterprises in Vietnam influencing the system of financial analysis indicators***

The business and production characteristics of Vietnamese road and bridge construction enterprises depend primarily on the ownership of enterprises. Corporations under the Ministry of Defense often operate less efficiently than joint stock corporations under the Ministry of Transport because of more difficult business conditions.

In addition, due to product characteristics, production and business activities of the bridge construction enterprises in Vietnam are crystallized mainly in two factors: Input factors and the process of road and bridge construction.

*Firstly*, the input of a bridge and road construction project consists of three main elements: material cost, labor cost and construction machine cost. To study the realities of inputs of Vietnam's road and bridge construction works to clearly see the limitations in gathering production costs, calculating the production costs of construction works and unfinished expenses, which greatly affecting the target group of input costs of enterprises, is the basis for the thesis to complete the criteria in the group of production costs of works.

*Second*, the road and bridge construction process consists of the following stages: Design, Bidding, Construction and Handover. Studying the characteristics of the construction process of Vietnamese road and bridge construction enterprises is the basis for supplementing and finalizing criteria for analyzing the operational capability of enterprises.

## **3.2. Status of financial indicator system for financial analysis in Vietnam road and bridge construction enterprises**

### ***3.2.1. Sub-criteria indicators assess the overall financial situation***

The indicator system reviews the overall financial situation of enterprises including 4 indicators: Total Funding, Self-Funding Coefficients, Generic Liquidity Ratio and Asset Returns. The current research on this indicator module in Vietnamese bridges is selected as follows: 47/56 enterprises surveyed used the criteria "Total capital" to evaluate the enterprise's capital mobilization policy. 56/56 surveyed enterprises surveyed did not use the financial analysis criteria to assess the level of financial independence of enterprises, but only the general assessment of their financial independence. For the general solvency of enterprises, the criterion "General solvency coefficient" is a very important analytical indicator, however, the survey results show that 47/56 surveyed enterprises do not use this indicator. The profitability of the enterprise's assets are the criteria that businesses are interested in building roads. All 47/56 surveyed enterprises use this indicator system to assess the overall profitability of their assets.

### ***3.2.2. Sub-criteria indicators analysis financial situation***



- *Group of indicators analyzing asset structure, capital source*

In sum, 46/56 enterprises used financial analysis criteria to analyze the structure of assets and capital of enterprises. However, only 10/46 enterprises use the detailed analysis of each type of assets and capital, 36/46 enterprises only use aggregate indicators.

- *Group performance indicators*

In aggregate, 47/56 Vietnamese road and bridge construction enterprises use the criteria to analyze the operational capacity of enterprises through 2 indicators: Inventory Turnaround and Net Revenue per Total Asset (Asset Revolutions).

- *Group of indicators analysis structure and cost-effectiveness*

The results of the survey, the use of the system of structural analysis and the cost-effectiveness of the input costs of the enterprises, were only conducted in 15/56 enterprises participating in the stock market securities disclosure prospectus on the stock market.

- *Group of indicators analyze the situation and solvency*

Summary of survey results show that only 10/56 survey enterprises use the "Turnover receivables turnover" criteria to analyze the situation of payment of receivables of enterprises. For the speed of payment of the payables, 56/56 surveyed enterprises did not use financial analysis criteria to evaluate.

When analyzing the short-term solvency of enterprises, the results of the survey showed that 47/56 enterprises in Vietnam construction and bridging analysis of short-term solvency through two indicators: Short-term solvency coefficient and quick coefficient of solvency.

- *Group indicators to analyze profitability*

Summary of survey results show that there are 47/56 enterprises using the following indicators: Coefficient of revenue turnover, Equity ratio to analyze the profitability of the business.

In addition to the indicators reflecting the overall profitability of enterprises, the survey results show that 47 out of 56 enterprises use indicators: " Management fee on compact project item ". This indicator is calculated separately for each project. Project management fee is actually the rate of profit earned by the enterprise when contracting the project to the construction team on the basis of the construction conditions of the project.

- *Group of indicators for cash flow analysis*

If profitability has been paid by the construction of bridges and roads in Vietnam, the cash flow of Vietnamese road and bridge construction enterprises is not analyzed by enterprises. Survey results show that all 56/56 enterprises surveyed did not use the system of cash flow analysis of enterprises.

### **3.2.3. Sub-criteria indicators for financial risk analysis**

The index of financial risk analysis includes 4 indicators: debt ratio, debt to equity ratio, coefficient of solvency of debt repayment, coefficient of ability to pay loan interest. The survey results show that 47/56 Vietnamese road and bridge construction enterprises use only 2 financial risk analysis indicators including: Debt Ratio / Total Assets and Debt / Equity Ratio.

#### ***3.2.4. Sub-criteria indicators to forecast financial needs***

The enterprise financial demand forecasting module usually includes basic indicators on financial statements such as: Revenues, assets, short-term assets, long-term assets, receivables, inventories, unfinished production costs, fixed assets, capital, liabilities, equity..... The results of the survey show that 47 out of 56 enterprises only set financial indicators: " Revenue "to forecast financial need for next year in the planning report for fiscal year 2016.

### **3.3. Assess the current status of the financial indicator system at Vietnamese road and bridge construction enterprises**

#### ***3.3.1. Advantages***

Based on the research on the status of the financial indicator system in Vietnam's road and bridge construction enterprises, the author finds that the system of financial analysis indicators in Vietnam road and bridge construction enterprises have achieved some advantages: scope of use, content of information, data source, accuracy of indicator.

#### ***3.3.2. Limited and causes***

Apart from the advantages, the current situation of financial indicator system in Vietnam road and bridge construction enterprises still has the following limitations:

- ***Regarding the quantity and contents of financial indicator system***

*Firstly*, the summary table of the survey results and the current situation study show that the quantity and content of the system of analysis indicators used by surveyed and road-building enterprises are very simple, poor, incomplete. Many businesses instead of using the financial analysis system, only give a general comment. The results of financial analysis are not really interested. Users of financial analysis indicators sometimes do not grasp the source of data, do not fully understand the meaning of the analytical criteria leading to wrong identification.

*Secondly*, the system of financial analysis indicators that construction firms do not really reflect the "financial picture" typical of Vietnam road and bridge construction enterprise, because financial indicators are mainly indicators that can be applied to all sectors of the industry. Only the "Management fee on construction items" category is unique.

It can be seen that the number of indicators used in the analysis of enterprises is sketchy, incomplete, not reflect the characteristics of the construction of roads and

bridges. For listed companies, the analysis of corporate finance is conducted in accordance with the law, mainly through the prospectus when entering the stock market or annual report, according to Circular 155 in 2015 of Ministry of Finance dated 6 October 2015 of the Ministry of Finance. For State Corporations, the analysis of corporate finance is mainly through financial monitoring reports and performance appraisals of enterprises in accordance with Circular 158 in 2013 of Ministry of Finance dated 13 November in 2013 of the Ministry of Finance (applied from 2013 to 2015) to submit to the Ministry of Finance every 6 months or annually. The system of financial analysis indicators serving the internal management of enterprises according to Article 4 of the Accounting Law of 2015 is not respected by enterprises. 46/56 belong to another group of enterprises which are not required to set up financial analysis in accordance with enterprise law nor develop a system of indicators serving internal management of enterprises.

- ***Regarding the system of financial analysis indicators for Vietnam's bridge and bridge construction enterprises operating under the mother-child model***

The analysis of the corporate finance of the parent company to the subsidiary is very sketchy, not really reflect the comprehensive financial position of the subsidiary. The number of analysis indicators is inconsistent when using the data source of the subsidiary and the data source from the consolidated report for analysis . The inconsistency in the quantity and content of financial analysis indicators led to the fact that managers did not compare the general financial status with the situation of each subsidiary. In addition, the content of equity and debt management of parent companies in subsidiaries is a top priority for parent companies in parent-child financial relationships of corporations (parent company) but no financial analysis indicators are used to reflect that relationship.

The downside is that parent companies are not aware of the importance of analyzing corporate finance in their subsidiaries. The parent company determines whether its subsidiaries are independent, financially self-financed, the financial analysis of its subsidiaries is primarily carried out by its subsidiaries. The parent company only looks formal. Moreover, there are two ways to provide information to the parent company financial analysis for the subsidiary. Firstly, the subsidiary itself has analyzed and only forwarded to the parent company to gather and report. In this form, the advantage is the accurate and subjective financial information analyzed by the informants themselves, but the downside is that the information is often slow and inconsistent among the subsidiaries. Secondly, the parent company relies on the individual financial statements of each subsidiary for analysis as in the case of CIENCO 1 and the Corporation for Investment and Construction 3. This form of information has the advantage of fast and compact information unification, but the

parent company often does not fully use the analytical index system or is not able to analyze it in case there are too many subsidiaries.

▪ ***Regarding the system of indicators for financial analysis of medium and large construction enterprises***

The current situation shows that the number of medium and large construction enterprises in Vietnam using financial analysis criteria is not high. Of the 56 surveyed enterprises, 10/56 medium-sized enterprises used the financial analysis system, 9/56 unused companies, most of them independent enterprises. The number of financial indicators used in these enterprises is sketchy and does not reflect the basic financial characteristics of medium enterprises. The downside is mainly due to enterprises are not really interested in the analysis of corporate finance. Analysis of procedural features, form. Moreover, because there are not many guidance documents on financial analysis criteria for medium-sized bridge construction enterprises so that enterprises can refer and apply.

### **CONCLUSION OF CHAPTER 3**

Based on the results of the research on the system of indicators for financial analysis of Vietnamese enterprises for construction of roads and bridges, the authors find that the system of financial analysis of enterprises is generally applied in construction enterprises of bridges and roads in Vietnam. However, the scope of application is limited to listed companies and companies using state capital. Companies with unusual ownership form do not use the analytical system but only carry out the annual financial statements. The analytical cycle of the companies is usually years, as these companies have to make annual reports to the general meeting of shareholders, or the annual financial supervision report. The indicator system used for analyzing these companies is often sketchy, incomplete or inaccurate.

The content of chapter 3 has solved the problem of researching the status of the system of financial analysis indicators in Vietnam's road and bridge construction enterprises on the basis of theory of financial indicator system of chapter 2. In particular, the objective is to study the current situation towards corporate finance management. From that research, the author has evaluated the advantages and disadvantages of the status of the system of financial analysis indicators in Vietnam's road and bridge construction enterprises. The study and assessment of the situation in enterprises is the basis for the author to further improve the system of financial analysis indicators in the bridge construction enterprises in Vietnam. Through that, contributing to improve the efficiency of production and business, to help businesses clearly see the advantages and disadvantages of their financial policies from which to have a feasible solution for the development of enterprises.

## Chapter 4

### COMPLETING THE SYSTEM OF FINANCIAL ANALYSIS INDICATORS IN VIETNAM'S ROAD AND BRIDGE CONSTRUCTION ENTERPRISES

#### 4.1. Development orientation and viewpoints of improving the system of financial analysis indicators applied in Vietnam road and bridge construction enterprises

##### 4.1.1. *Orientations toward the development of the Vietnam Road and Bridge Industry*

The Ministry of Transport's report on Vietnam's road and bridge development strategy can be summarized in three aspects: the size and quality of bridges and roads, the structure of the sector, and the orientation of mobilization and utilization use capital.

##### 4.1.2. *The view to accomplish financial indicator system*

The financial indicator system is finalized with the following views:

*First, the number of financial analysis indicators has been developed but not yet applied*

Many indicators are very important, reflecting the basic content of corporate financial situation but not used by enterprises. The thesis argues that the completion must first supplement the analytical norms that have been developed but have not been used by Vietnam's road and bridge construction enterprises.

*Second, the criteria for financial analysis are specific to bridge construction enterprises*

In the view of the author, if only financial analysis indicators are applied to all sectors of the industry for Vietnamese road and bridge construction enterprises, information users can not distinguish where are the manufacturing enterprises, commercial enterprises, tourism enterprises, services ... when looking at the results of financial analysis, which can be applied massively for all sectors. Therefore, the authors find that, in order to clearly reflect the specific characteristics of the construction of bridges and roads, it is necessary to add new specific criteria, not to be confused with other sectors.

*Third, the combination of aggregation and detail of analytical criteria*

Bridge and road construction enterprises shall account for profit and loss for each project. The value of construction is very large, the construction time is long, there are many changes. Corporate executives or construction teams often do not only care about the general financial situation of the business but also pay attention to details of each project they are implementing. Therefore, in the view of the author, perfecting the system of financial analysis criteria must meet the requirements: It also ensures the aggregation of the whole financial situation of the enterprise, as detailed by each project.

*Fourth, the system of financial analysis indicators for GCs (parent companies) operating under the model of mother and child*

It can be said that the parent-child model is a relatively common model for the construction of roads and bridges. Therefore, in addition to the complete financial

analysis system for corporations (parent companies) and independent subsidiaries, the financial analysis indicator system should reflect the financial relationship between Corporations (parent companies) and subsidiaries.

*Fifth, the financial indicator system for financial analysis of medium enterprises*

The financial indicator system for medium-sized bridges and bridges does not have to be as comprehensive as the financial indicator system of large-scale bridge operators but must ensure reflects the basic financial characteristics . Some indicators are not mandatory, can be encouraged to use.

*Sixth, finalizing the system of financial analysis indicators in line with the development orientation of Vietnam's road and bridge construction industry*

When finalizing the system of financial analysis indicators in line with the development orientation of the industry, it is based on the standards promulgated by the Ministry of Planning and Investment on the current financial capacity of the contractor.

## **4.2. Solution to improving the system of financial analysis indicators applied in the construction enterprises of roads and bridges in Vietnam**

### **4.2.1. Complete the indicators of financial situation**

Enterprises need to complete the improvement of the indicators not used: Co-financing coefficient, coefficient of solvency general. For the "Profitability of assets " indicator, when the Corporation (parent company) used to analyze by the data source in the subsidiary should take into account the ratio of direct benefits. The percentage of interest is determined on the basis of the ownership ratio of the corporation (parent company) in the net assets of the subsidiary.

### **4.2.2. Completing the financial analysis indicators module**

#### **▪ *Group of indicators analyze the structure of assets, capital***

The thesis argues that enterprises need to supplement the criterion "proportion of long-term business costs in terms of total assets". The purpose of using this additional indicator is to show the level of completion of the facility during the period of the business, due to the characteristics of bridge and road construction enterprises, there is a large amount of long-term incomplete work items left at the end of the period, which have not yet been accepted by the investors.

#### **▪ *Group performance indicators***

Enterprises need to add the following criteria: "Number of days per inventory turn", "Efficiency of fixed asset use". For the "Total Asset Turnover", a study of the situation shows that some firms determine the wrong formula that results in incorrect indexes, which need to be corrected correctly.

In addition to the operational capacity of the assets mentioned above, it is necessary to supplement the indicators showing the specificity of the capacity of the bridge and bridge construction enterprises in Vietnam: *The winning rate of the works, Capacity building contractor capacity, Percentage guaranteed to cover litigation*

*costs, Construction contract progress rate, Time coefficient of stagnation of works in the period, Percentage of the value of works not completed in the period.*

▪ *Group indicators analysis structure and cost-effectiveness*

When analyzing the structure and cost-effectiveness, the bridge and road construction enterprises in Vietnam used the following criteria: "The proportion of cost categories" and "The ratio of cost of goods sold to net sales". It is necessary to add the indicator "The ratio of the cost of enterprise management to net revenue". The input costs of the road and bridge construction enterprises are also expressed in terms of depreciation of machinery for the project, interest expense in and after the project, cost of site clearance, costs incurred in relation to cost estimates, procurement costs... These are the expenses that are required by the enterprise to achieve the product. Therefore, the thesis argues that the structure and efficiency of using input costs of the bridge construction enterprises in addition to the above indicators are also expressed through the following specific criteria: *Rate of depreciation cost of machinery and equipment produced on each project, The interest rate of interest on the total cost of the project, The ratio of the cost of site clearance to the total cost of the project, The coefficient of warranty capability on the value of the work, the ratio of expenses incurred due to temporary work stoppage, Rate of costs due to rising prices, Rate of costs incurred due to design changes, Percentage of bidding costs*

▪ *Group indicators analyze the situation and solvency*

To analyze the situation and solvency, the situation shows that the bridge construction enterprises mainly use three indicators: "Turnover receivables turnover", "Short-term solvency coefficient", "Quick ratio". It is necessary to add the following criteria: Cash collection, Payroll turnover (Pay according to the progress of the construction contract), Turnaround time for payables, Rate of payables on receivables, Instantaneous solvency coefficient, Coefficient of affordability, Long-term debt payment ratio

In addition to the above criteria, the situation and solvency of the road and bridge construction enterprises is also characterized by the payback period of the project from the investor or the toll fee for the BOT projects and the relationship of mutual capital between corporations (parent companies) and subsidiaries during. Specifically, the thesis considers that the following specific criteria should be added to this group of indicators: *Coefficient of payback period, Number of receivables turnover of parent company with subsidiary, Contracts for the construction of the general contractor, Number of payables of parent companies to subsidiaries, Period for payment of general contractor works.*

▪ *Group indicators to analyze profitability*

Profitability is an indicator that businesses are interested in. The "Profitability on Sales" indicator reflects the profitability of the sales revenue to generate gross profit (profit before tax, profit before tax and interest, profit after tax). This indicator can be calculated as general or individual for each project. However, when detailed for each building should use the "gross profit" criteria to more accurately reflect the profitability, due to the fact that the allocation of the cost of enterprise management for each project is

sometimes inaccurate. This indicator can be detailed as follows: Profitability on the value of the main contractor, Profitability on the value of the subcontractor, Profitability on the value of the difficult project, Profitability on the price treatment of favorable geographical areas. For the indicator "profitability of equity" should be associated with the financial relationship between the Corporation (the parent company) and the subsidiaries through the indicator: *Profitability of equity of parent company in subsidiary*

Apart from the investment capital contribution, during the course of construction, the Corporation (parent company) also has contractual relations when the Corporation (the parent company), subcontracting to subsidiaries and management fees. In this relationship, the analytical target that the financial manager at the corporation (parent company) is interested in: "*Management fee on the value of works (work items) General contractors*".

- *Group of indicators of cash flow analysis*

The current situation shows that the construction of bridges and roads in Vietnam does not pay attention and use the group of indicators of cash flow analysis of enterprises. The following indicators need to be added: Cash flow to business operations, Net cash flow to total assets, Net cash flow to net sales ratio, Net cash flow to equity ratio, Net cash flow ratio on net operating profit. In addition, for a parent-child model, when investing capital in a subsidiary, the corporation (parent company) must also consider the possibility of making money from the equity of the subsidiary through: "*Net cash flow on equity of parent company in subsidiaries*."

#### **4.2.3. Complete the financial risk analysis indicators module**

Financial risk is a matter that has been the concern of the construction enterprises in Vietnam. However, businesses mainly use two indicators: "Debt ratio" and "Debt to equity ratio". The use of these two indicators has assessed the level of financial leverage of the business. However, due to the specificity of road and bridge construction enterprises, capital requirements are high. The capital of the business depends on the bank a lot. Road and bridge construction companies often have a debt burden to cover the long-term construction process. In order to adequately analyze the risk, road and bridge construction firms need to add indicators: "The coefficient of solvency for repayment of debt "and" coefficient of ability to pay interest ". In this, the indicator "Interest coverage ratio" can be detailed in and after construction.

#### **4.2.4. Completing the financial demand forecasting module**

The items to be used are as follows: Cash, receivables, inventories, unfinished production costs, fixed assets, total assets, owners' equity, payables.

### **4.3. Conditions to accomplish the system of financial analysis criteria to be applied in Vietnam road and bridge construction enterprises**

#### **4.3.1. For the State and Line Agency**

*First*, stabilize the political and social economy, attract investment capital for the bridge construction. *Secondly*, the completion of legal documents, solving the



problems for the bridge construction industry. *Third*, continue to improve the reporting system and documents related to the bridge construction industry. *Fourth*, the Ministry of Finance should add references to corporate financial analysis by sector, open training courses, training courses, introducing indicators and financial analysis skills for enterprises in each industry, raising the level of awareness and importance of enterprise financial analysis for businesses, from there, we will expand the scope of application of the Financial Analysis Indicator System for Vietnamese road and bridge construction enterprises.

#### **4.3.2. For the bridge construction business**

Enterprises are the subjects directly using the financial analysis criteria of enterprises, so they are the contributors to improve the system of financial analysis of the bridge construction enterprises of Vietnam. For enterprises, it is necessary to have solutions to apply financial analysis criteria system for corporate finance management.

### **CONCLUSION OF CHAPTER 4**

Content Chapter 4 has studied the basic conditions and requirements in improving the system of financial analysis of the bridge construction enterprises in Vietnam, thereby providing the perfect solution and conditions for implementation of such solutions. It can be seen that the indicator system of financial analysis of Vietnamese enterprises for construction of bridges and roads is not only suitable to the system of financial analysis indicators of enterprises of all branches and occupations but also specific characteristics own there this field. The system of financial analysis of enterprises to build roads and bridges must be both comprehensive and detailed, as the road and bridge construction enterprises usually account profit and loss for each project. Works usually have separate revenues and costs, as well as separate financial fluctuations, so the financial indicator system for enterprise construction of roads and bridges must meet the general information needs of Enterprises, both meet the need to use detailed information of each project. In addition, the analytical system of the Vietnamese road and bridge construction enterprises must reflect the mother-child relationship between the corporations (parent companies) and the subsidiaries and cover the content financial analysis for both large and medium scale enterprises. With the perfect point of view, the author has developed solutions to perfect the system of financial analysis indicators for bridge construction business direction to serve corporate financial management. In order to implement such solutions, it is required that relevant agencies and enterprises pay attention to and have practical impacts in order to ensure the use of a comprehensive corporate financial indicator system in Vietnamese road and bridge construction enterprises.

## OVERALL CONCLUSION

In the momentum of economic development and international integration, the transportation industry in general, the bridge and road construction sector in particular, is considered one of the key industries supporting other economic sectors to development. To keep that role, Vietnam's bridge and road construction companies have a short-term requirement of having sufficient financial strength to compete with their peers. A public, transparent, complete financial "picture" is an urgent need of current road and bridge construction enterprises in Vietnam, meeting the publicity and transparency requirements in selecting the most capable contractors. A complete indicator system for financial analysis is a tool for bridge builders to build a financial "picture" of their business. Derived from the above, the thesis has studied and contributed the following contents:

### *About reasoning:*

The dissertation has studied a lot of research works in and outside the country on the system of financial analysis of enterprises in general and the field of road construction in particular. In particular, quite a number of foreign works on the indicator system for financial analysis of bridges and roads were studied.

At the same time, from the recognition of the systematic reasoning system of enterprise financial analysis in general and bridge construction enterprises in particular have many things in common, the thesis has researched and developed a system of financial analysis indicators aimed at enterprise financial management. In particular, the system of analysis indicators is studied in relation to the business conditions of each field, focusing on the construction field.

### *About the fact:*

The dissertation is a very detailed study of the model of management, decentralization of management of capital management and business characteristics of Vietnam's road and bridge construction enterprises, which is the basis for proposing solutions improved financial indicator system for financial analysis of Vietnam road and bridge construction enterprises.

### *Proposed Solutions:*

*First*, from theoretical and practical studies, the thesis builds on specific financial analysis criteria in the field of road and bridge construction, not confused with other fields.

*Second*, from the study of the management model of road and bridge construction enterprises, the thesis on finalizing financial analysis indicators for corporations (parent companies) in the financial relationship between mother and child subsidiaries.

*Third*, the thesis selects criteria for financial analysis for medium-sized enterprises in Vietnam.

Thus, the dissertation is a scientific work based on theoretical and practical aspects of the bridge construction industry in Vietnam, as well as practical experiences of the author in my years at the Public Works in Thang Long Construction Joint Stock Company No 4 - Thang Long Construction Corporation. However, inevitably the defects will inevitably. The author is looking forward to the comments of scientists, teachers, readers interested in the thesis.

## LIST OF RESEARCH WORKS OF THE AUTHOR

1. Nguyen Thi Lan Anh (2012), "*The discussion on improving tourism business efficiency*", Journal of Tourism, pp 19, No.06/2012.
2. Nguyen Thi Lan Anh (2013), "*Analysis of Financial Statements for Corporate Control Activities*", Journal of Economics and Forecasting, pp 62, No.01/2013.
3. Nguyen Thi Lan Anh (2016), "*Corporate Finance for Bridge and Road Construction in Vietnam and Its Impact on Financial Analysis*", Asia Pacific Economic Journal, pp 30, No.03/2016.
4. Nguyen Thi Lan Anh (2016), "*Using the system of financial analysis indicators in Vietnam's road and bridge construction enterprises*", Journal of Economics and Forecasting, pp 15, No. 06/2016.