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**COMPLETING THE DISCOUNTED CASH FLOW METHOD
OF BUSINESS VALUATION
IN VIETNAM**

Major : Banking - Finance

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DOCTORAL THESIS SUMMARY

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**Thesis can be found at the National Library
and the Library of the Academy of Finance**

INTRODUCTION

1. The urgency of the subject

Along with the development of the economy, the demand for business valuation is increasing. All activities of the economy need information about business valuation, which can be mentioned as activities of purchasing, sale, acquisition, merger, or division of businesses; business and financial decisions of enterprises 'managers, investors; the equitization of state-owned enterprises; in macroeconomic management activities;... In recent years, it can be seen that business valuation has been and is contributing significantly to the development of the financial market in particular and the economy in general. However, it is not easy to quantify this type of asset, because business is still considered a "special commodity".

Currently, there are many different ways to value a business; but in general, we can classify based on the following three basic approaches: the market approach, cost approach and income approach. In which, the income approach with the methods of discounted cash flow method is increasingly used widely and reliably in the world. Theoretically, valuation based on discounted cash flow method overcomes the limitations of other approaches; based on universal and strategic analysis, logical and scientific; it can quantify the "non-material" factors that other methods cannot solve... Therefore, the results based on this method are more convincing provided that the input information for the calculation can achieve the necessary level of confidence.

However, in reality in Vietnam, there are only two commonly used methods: the asset method and the discounted cash flow method. In which, the asset method is much more popular, while the discounted cash flow method is rarely used or if used, it also faces many difficulties and problems. From 2018 onwards, with the changes in legal regulations in the equitization and divestment of the state, especially the introduction of valuation standard No. 12, the discounted cash flow method has been used more. However, in the implementation process, there are still many

shortcomings, which can be mentioned as (1) incomplete and synchronous legal system: lack of specific and consistent guidelines ; (2) calculation means and techniques have not been methodically and scientifically applied; (3) lack of reliable input; (4) the team of assessors is inexperienced in terms of expertise... so the final results are only for reference, not to mention there are many cases of deliberately falsifying the results with personal purpose.

Besides, related researches on discounted cash flow method in Vietnam is still very limited. The review, evaluation, and learning from the actual activities of business valuation in recent years have not been done regularly and promptly. Therefore, for the discounted cash flow method to be increasingly used more and more widely to meet the requirements of business valuation in particular and contribute to the development of Vietnam's economy in general, it is very necessary to have synchronous solutions as well as necessary conditions. Stemming from the above reasons, I have chosen the subject: "*Completing the discounted cash flow method of business valuation in Vietnam*" as a research topic for my thesis.

2. Literature review of related topic

This thesis has studied scientific works, doctoral dissertations, domestic and foreign articles related to the discounted cash flow method in business valuation. Since then, the thesis has pointed out the gaps that needed to be research and the next research directions.

a. Research gap

- ***Firstly***: The researches on business valuation in general and business valuation according to the discounted cash flow method around the world have laid the theoretical foundation as well as provide quantitative evidence on related issues. Most of these studies were done in developed countries where the legal framework is complete, the market operates clearly and transparently, the rights of the owners are guaranteed. Research on business valuation in developing economies in general and in Vietnam, in particular, is still relatively rare. The empirical studies on discounted cash flow method

in some countries around the world have been done for quite some time. Therefore, these studies have huge differences in both space and time. However, these studies still have scientific value and are valuable documents for reference and learning experiences in applying the discounted cash flow method in Vietnam.

- **Secondly:** With a market in transition like Vietnam, it is very necessary to study clarifying the contents of business valuation in general and business valuation according to the discounted cash flow method in particular as the basis for policymakers as well as businesses with the price appraisal function to apply flexibly in practice, meeting the increasing requirements of the market.

- **Thirdly:** In Vietnam, up to the present time, there has not been any project that has directly researched the discounted cash flow method in business valuation as well as reflecting the current situation of applying this method in our country. The studies in the country just stop on one side, a certain aspect related to the method of discounted cash flow. This is still a very new area, needs to be further clarified in both theory and practice, as the basis for policymaking of state agencies, which is the concern of many state units which have the function of business valuation and related entities...

Therefore, the research topic ensures urgency and does not overlap with any previous research.

b. Research direction of the thesis:

Stemming from the research gap as mentioned above, the thesis goes into direct research on the discounted cash flow method of business valuation in Vietnam. For countries in the world in general and Vietnam in particular, the business valuation must comply with relevant legal regulations as well as the national valuation standard system. Therefore, this thesis research on the discounted cash flow method in business valuation is issued in legal documents, Vietnamese valuation standards as well as the application of this method in enterprises that have valuation function to get real, complete reviews on both legal and practical perspectives. Thereby,

the thesis proposes synchronous, feasible, and appropriate solutions to fulfill the application of discounted cash flow method in Vietnam in the coming time.

3. Research purposes

Based on theoretical and practical research, the thesis proposes solutions to complete the discounted cash flow method of business valuation in Vietnam in the coming time.

To achieve the above purpose, the thesis has the following tasks:

- *Firstly*, synthesize, systematize and clarify the theoretical basis of business and business valuation, especially business valuation according to discounted cash flow method; analyzing the factors affecting the business value as well as the factors affecting the application of the discounted cash flow method; consider selectively the experience of using discounted cash flow method in some countries of the world to draw lessons in Vietnam;

- *Secondly*, analyze and evaluate the current situation of applying the discounted cash flow method of business valuation in Vietnam and point out the advantages and disadvantages of applying this method in modern market economic conditions and global integration as today; At the same time, point out the causes of these limitations as a basis for proposing solutions.

- *Thirdly*, proposing solutions to complete the discounted cash flow method of business valuation in Vietnam in the coming time.

4. Object and scope of the study

- *Research object*: The research object of the thesis is the theoretical and practical issues applying the discounted cash flow method of business valuation in Vietnam.

- Research scope

+ *About content*: Research thesis on discounted cash flow method of business valuation issued according to Vietnamese valuation standards as well as relevant legal documents and the application of discounted cash flow method of business valuation with valuation function.

+ *In terms of space*: The thesis focuses on the application of discounted cash flow method of business valuation at the enterprises having the typical valuation function across the territory of Vietnam.

- *In terms of time*: the thesis limits the scope of research in the period from 2005 to 2020 and recommends solutions between 2021 and 2030.

5. Theoretical and practical meaning

- *Theoretically*: Systematize and further clarify the theoretical issues related to business valuation and the content of the discounted cash flow method. In particular, the thesis analyzes the factors that affect the application of this method in practice as well as learn the experiences of some developed countries in the world and the region. From there, it serves as a basis for the process of analyzing and discussing practical activities in Vietnam as well as proposing future solutions.

- *In practical terms*: The thesis analyzes the current situation of the discounted cash flow method specified in the legal documents as well as the application of the discounted cash flow method at the enterprises with the valuation function in Vietnam. Thereby, assessing the success and limitations of this activity; clarify the cause of the limitations; to propose and recommend orientations and solutions to complete the discounted cash flow method in Vietnam in the coming time.

6. Approach and research method

From the perspective of an independent scientific researcher, the thesis uses the methodology of dialectical materialism and historical materialism. In particular, the specific research methods such as statistical methods, comparison methods, analysis, and synthesis methods... In particular, the author has combined to use modern research methods for investigating, surveying, and using SPSS 20.0 statistical software to analyze and evaluate data...

7. New contributions of the thesis

- *Firstly*: The thesis has clarified the objective and subjective factors affecting the application of discounted cash flow method in business valuation. In particular, the thesis has studied the experience of the

regulation as well as the application of the discounted cash flow method in five countries around the world, thereby drawing four lessons for Vietnam, specifically: business valuation practices; collect information; estimate parameters and qualifications and ethics of appraisers in business valuation.

- *Secondly*: The thesis has made independent assessments on the current situation of applying the discounted cash flow method in business valuation in Vietnam from 2005 to 2020 through three basic contents: (1) Building the process of business valuation according to the discounted cash flow method; (2) Information collection, processing, and analysis; (3) Regarding the application and estimation of the parameters in the business valuation models according to the discounted cash flow method on two angles: the research on the current legal documents related to the practice and application of the discounted cash flow method at the enterprises with business valuation function in Vietnam today. In addition to the assessment based on the secondary data, the author also conducts a survey on the appraiser's opinion for a more objective and comprehensive view.

- *Thirdly*: on the basis of considering the socio-economic context and the operational orientation of the valuation industry in the coming time, the thesis has given the point of completing the discounted cash flow method in business valuation in Vietnam; at the same time proposing a system of solutions towards the enterprises with valuation function as well as towards the competent state agencies.

8. The structure of the thesis

In addition to the introduction, conclusion, references and appendices, the thesis includes three chapters:

Chapter 1: General theory of the discounted cash flow method of business valuation

Chapter 2: Current status of the discounted cash flow method of business valuation in Vietnam

Chapter 3: Solutions to complete the discounted cash flow method of business valuation in Vietnam

Chapter 1

GENERAL THEORY OF THE DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION

1.1. OVERVIEW OF BUSINESS VALUATION

This part of the thesis analyzes the concepts of business, business valuation, clarifies the factors affecting business valuation; at the same time, researching overview of business valuation includes concepts, purposes, value bases, and the business valuation methods used today. In general, valuation in general and business valuation, in particular, are built on the following three approaches:

- Cost approach (Shown is a group of asset analysis methods)
- Income approach (Shown as a group of discounted cash flow methods)
- Market approach (Shown is the Ratio Analysis to Compare Different Companies method)

1.2. DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION

1.2.1. The concept of discounted cash flow method

The discounted cash flow method in business valuation is the conversion of future net income streams to present values at an appropriate discounted cash flow ratio.

1.2.2. The basis of discounted cash flow method

The discounted cash flow methods are based on the view that the benefits gained from the use of assets that the enterprise brings in the future (different from the asset approach which is based on the value of assets that the enterprise having now).

1.2.3. The content of discounted cash flow method in business valuation

1.2.3.1. Develop a procedure of business valuation according to the discounted cash flow method

In general, the business valuation process is similar to the valuation process of other assets, but the specific content of the steps needs to be adjusted in accordance with business valuation. The business valuation process according to the discounted cash flow method consists of 6 steps:

- 1/ Identify the problem
- 2/ Make a plan of valuation
- 3/ Survey and collect documents about businesses that need valuation
- 4/ Analyze the collected information
- 5/ Estimate the value of the business that need valuation
- 6/ Prepare and make valuation reports and certificate of value

1.2.3.2. Information collection, processing and analysis

About collecting information

Information collection is the process of determining information needs, finding information sources, implementing information gathering as required to meet predetermined objectives.

As for processing information

Information processing is the arrangement and analysis of the obtained data according to specific scientific, accurate and objective requirements and criteria in order to provide the basis for considering and solving a problem.

In terms of analysing information

On the basis of the collected information, the appraiser needs to conduct a thorough analysis for a reasonable and reliable estimation of business valuation; specifically: Analysis of the external and internal environment; Analysis of the financial statements of the business.

1.2.3.3. Business valuation models according to the discounted cash flow method and how to estimate the parameters in the model

1/ The dividend discount model (DDM)

a. The basis of the model:

The real value of a security must be assessed by the magnitude of the income that an investor will inevitably receive from the enterprise itself, not the income obtained from stock speculation. Accordingly, the business value will be equal to the total value of the securities issued by the business.

b. Determining method:

The general formula for determining the real value of securities is as follows:

$$P_0 = \frac{d_1}{(1+r)} + \frac{d_2}{(1+r)^2} + \dots + \frac{d_n}{(1+r)^n} = \sum_{t=1}^n \frac{d_t}{(1+r)^t}$$

In which:

- P_0 : real value of the stock;
- d_t : stock dividends at the year t ;
- r : the required rate of return of the investor (discount rates);
- n : the number of years to receive the dividend.

Thus, there are 2 issues to consider here that is: discount rates- r and the dividend stream of the business.

➤ ***Firstly: How to estimate the discount rate - r***

Discount rate here is the cost of equity or the required rate of return of shareholders for ordinary shares. Currently, there are many different models to determine the required rate of return of the owner. Some typical models can be mentioned such as: Capital Asset Pricing Model (CAPM), Three Factor Fama-French Model, Difference Business Model (APM), The capital asset pricing model (CAPM) and Capital Structure Theory - Modigliani and Miller (MM) Approach.

➤ ***Secondly: how to estimate dividend flows***

Since dividends cannot be forecast indefinitely, different models of discounting the dividend flow are developed as follows: Non-constant growth model; Gordon growth model (GGM); the Two-Stage Dividend Discount Model; Model H; The Three-Stage Dividend Discount Model.

c. Advantages and disadvantages of the dividend discount model

2/ Discounted net profit model

a. The basis of the model:

Business valuation is measured by the magnitude of the net profits that an enterprise can bring to the owner during its existence.

b. Determining method:

• **Determination of net profit (NI)**

- *Use net profit data of business in the past:*
- *Make adjustments to the net profit of the business in the past.*
- *Estimated future net profit of business*

• **How to determine discount rate:**

In practice, the weighted average cost of capital (WACC) or the government bond interest rate can be used to calculate.

• **Apply formulas for calculations:**

We have the following formula to determine the value of business:

$$V_0 = \frac{NI_1}{(1+r)} + \frac{NI_2}{(1+r)^2} + \dots + \frac{NI_n}{(1+r)^n} = \sum_{t=1}^n \frac{NI_t}{(1+r)^t}$$

In which:

- V_0 is the business value to the Equity
- NI_t is the net profit of the year t .
- r is the currentization rate, also known as the discount rate.

For simplicity in the calculation process, three basic assumptions have been built: net profit is equal over years, net profit increases steadily over the years and annual net profit increases unequally to the year n , from year $n + 1$ onwards, increases at a steady rate of $g\%$.

c. Advantages and limitations of the model

3/ Discounted net cash flow model.

a. The basis of the model:

Most investors invest their capital in business with certain purposes and strategies. That is, when they invest in a certain business, they are trying to acquire control of that business. At that time, their perception of business valuation is different from other methods.

b. Determining method:

- **Discounted free cash flow for firm (FCFF)**

+ Determination of Discounted free cash flow for firm (FCFF):

Discounted free cash flow for the firm (FCFF) are the total income flows of all stakeholders in the enterprise, includes creditors and owners (bondholders, common shareholders, preference shareholders).

+ How to determine FCFF:

□ Method 1: Add up the cash flows of all parties that have an interest in the assets of business. Whereby:

FCFF = Free Cash Flow to Equity + Interest expenses (1- corporate income tax rate) + Principal payment - New loans + Preferred dividends.

□ Method 2: Estimate the cash flow before payment to the beneficiaries of the property, in this way deriving from the earnings before interest and taxes—EBIT as the basis of the calculation. Whereby:

FCFF = EBIT (1- corporate income tax rate)- Investment in fixed assets + Depreciation - Change in Working Capital needs

= Net profit + Interest expenses (1- corporate income tax rate) + Depreciation - Investment in fixed assets - Change in Working Capital needs

+ ***How to determine the discount rate***

The discount rate used is the Weighted Average Cost of Capital (WACC), calculated by the weighted average method between the cost of debt (after tax) and the cost of equity.

+ ***Apply the formula for the calculation***

Business value is calculated using the formula:

$$V_0 = \frac{FCFF_1}{(1+r)} + \frac{FCFF_2}{(1+r)^2} + \dots + \frac{FCFF_n}{(1+r)^n} = \sum_{t=1}^n \frac{FCFF_t}{(1+r)^t}$$

Therein: V_0 : Total business value

$FCFF_t$: Net cash flow in year t

n : Years bring cash flow

r : discount rate is determined by WACC.

To facilitate the calculation, the calculator often makes assumptions to make it easier in the implementation of determining business value. There are three basic and common assumptions, they are: Net cash flow is equal over the years; Net cash flow has steadily increased annually at the rate of $g\%$; Annual net cash flow increases unevenly to year n , from year $n + 1$ onwards FCFE is expected under two scenarios: *Situation 1*: increasing steadily at the rate of $g\%$ / year, *Situation 2*: annually stable.

- **Free Cash Flow to Equity (FCFE)**

+ ***Definition of Free Cash Flow to Equity (FCFE):***

The Free Cash Flow to Equity is the cash flow that belongs to the owner after deducting the following: operating expenses (including taxes), capital investments needed to maintain assets output of the enterprise, the cash flow belongs to the creditors.

+ ***How to determine FCFE:***

In the most general way, this cash flow is determined as follows:

$$\text{FCFE} = \text{Owners Cash Inflow} - \text{Owners Cash Outflow}$$

So:

$$\text{FCFE} = [\text{EBIT}(1 - \text{corporate income tax rate}) - \text{Interest} + \text{Depreciation of fixed assets} + \text{New loans}] - [\text{Investment in fixed assets} + \text{Change in Working Capital needs} + \text{Principal payment}]$$

+ *How to determine the discount rate:*

Since the cash flow used in this method is the net cash flow brought to the owner, the appropriate discount rate here is the cost of equity - r_e .

+ *Apply the formula for the calculation:*

Business value is calculated using the formula: V

$$V_0 = \frac{FCFE_1}{(1+r_e)} + \frac{FCFE_2}{(1+r_e)^2} + \dots + \frac{FCFE_n}{(1+r_e)^n} = \sum_{t=1}^n \frac{FCFE_t}{(1+r_e)^t}$$

Whereby: V_0 : business value to the owner

$FCFE_t$: Net cash flow equity in the year t

n : Years bring cash flow

r : Discount rate which is determined by the cost of equity - r_e

In order to make it easier to develop formulas to determine the business value, models are introduced. Basically, these models do not differ much from the traditional DDM model. There are three basic and common models that are: Free Cashflow to Equity (FCFE) Single Stage Model, the two stage FCFE model and Three-Stage Free Cash Flow to Equity (FCFE) Discount Model.

c. Advantages and limitations of the model

4/ Adjusted Present Value (APV)

a. Theoretical basis of the model:

The idea of the APV approach begins with the value of a firm without debt. When adding debt, the net effect of debt on the value of the debt is checked by considering both the benefits gained and the cost of borrowing. Accordingly, the value of the firm according to the APV method is determined through three parameters: Value of the firm without financial leverage, value of the tax shield benefit, and the expected bankruptcy cost.

b. Steps to be taken:

- ✓ Step 1: Estimate the value of the company that does not use debt
- ✓ Step 2: Estimate the present value of tax savings received from borrowing
- ✓ Step 3: Estimate bankruptcy costs
- ✓ Step 4: Apply the formula used to estimate business value

c. Advantages of the APV model

5/ Economic Value Added (EVA)

a. The basis of the model:

Business value is estimated by taking the invested capital plus the economic value added of the total invested capital in the enterprise.

b. Determination steps:

- ✓ Step 1: Determine the total investment capital of the enterprise - TC
- ✓ Step 2: Determine the economic added value EVA
- ✓ Step 3: Apply the formula used to calculate

$$V_0 = TC + EVA$$

Trong đó:

V_0 : giá trị DOANH NGHIỆP (đối với cả CHỦ SỞ HỮU và chủ nợ)

TC (total capital): tổng vốn đầu tư

EVA: giá trị kinh tế gia tăng

c. Advantages of the EVA model

1.3. FACTORS AFFECTING THE USE OF THE DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION

1.3.1. Group of subjective factors

Including factors such as: Qualifications, experience and ethics of the appraiser; appraisal organizations; Confidence of information, documents collected for valuation; Applying science and technology to valuation.

1.3.2. Group of objective factors

Including factors such as: The consistency, rationality and transparency of the legal environment; Stability and development of the economic environment; Competition between businesses in the field of valuation.

1.4. INTERNATIONAL EXPERIENCE RELATED TO DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION AND WITHDRAWAL LESSONS FOR VIETNAM

1.4.1. International experience related to the discounted cash flow method in business valuation

The thesis has studied the experiences of five countries: UK, USA, Canada, Malaysia, and Thailand related to the discounted cash flow method

such as legal regulations, information to be collected, for estimating parameters, on actual applied cost of capital methods, regulations on education level as well as reliability of data used...

1.4.2. Lessons learned for Vietnam

On the basis of researching the experiences of the five countries mentioned above, the thesis has drawn four lessons that can be applied to Vietnam as follows:

- *Firstly*, the State does not directly manage the practice in valuation but empowers professional associations

- *Secondly*, in terms of information to collect: it is necessary to analyze the collected information to see which information is appropriate and usable, and which information needs to be verified. In addition to information provided by the enterprise, the appraiser may have to obtain information from other sources or seek expert advice in this area.

- *Thirdly*, about estimating parameters: in the discounted cash flow method, the estimation of parameters such as future cash flows and discount rate is the most important thing.

- *Finally*, in terms of qualifications and ethics of appraiser: in order to conduct business valuation in general and business valuation according to the discounted cash flow method in particular, it is required that appraiser must have very solid knowledge and expertise as well as comply with the professional ethics codes promulgated by associations.

Chapter 2

THE CURRENT STATUS OF DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION IN VIETNAM

2.1. OVERVIEW OF BUSINESS VALUATION ACTIVITIES AND THE LEGAL FRAMEWORK OF BUSINESS VALUATION ACTIVITIES UNDER THE DISCOUNTED CASH FLOW METHOD IN VIETNAM

In this part, the thesis has presented an overview of business valuation in Vietnam over the past time: about the number of enterprises licensed to operate valuation, valuation human resources, the number of certificate of value, and the main approach used in organization licensed to operate valuation; at the same time, systematized the legal framework of business valuation according to discounted cash flow method in two phases: before and after 2018.

2.2. THE CURRENT SITUATION OF APPLICATION OF THE DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION IN VIETNAM

2.2.1. The situation of building the business valuation process according to the discounted cash flow method

2.2.1.1. The business valuation process under the discounted cash flow method is issued under the Vietnamese valuation standard system

Currently, in Vietnam, the process for valuation in general and business valuation has not been issued in particular, but still applying valuation standard 5 issued together with according to *Decision 77 / QD-BTC dated November 1, 2005* (for the period from 2005-2015) and valuation standard No. 5 issued together with *Circular No. 28/2015 / TT-BTC dated May 6, 2015* (for the period from 2015 to present)

2.2.1.2. Situation of building and applying business valuation process by discounted cash flow method at valuation enterprises in Vietnam

- Firstly: about the general business valuation process

Researchs have shown that valuation enterprises build and publish their business valuation process all comply with the general asset valuation process standard No. 05. Accordingly, the business valuation process consists of six steps.

- Secondly : about the business valuation process according to the discounted cash flow method in particular

Researchs show that most of the enterprises do not build separate processes for business valuation according to the discounted cash flow method but still apply the general process in business valuation.

2.2.2. The current status of collection, processing and analysis of information

In this part, the dissertation analyzes the current situation of information to be collected as well as information sources serving the enterprise valuation by discounted cash flow method; the status of the processing of collected information; Information processing situation: analyzing the external and internal environment, analyzing the financial situation of the enterprise based on a number of major financial indicators. The thesis also gives an illustrative example of the collection, processing and analysis of information in a specific enterprise.

2.2.3. Current situation of applying and estimating parameters in business valuation models according to the discounted cash flow method

2.2.3.1. Situation of the application and estimation of parameters in the dividend discount model

The thesis has analyzed the current situation of applying and estimated parameters in the dividend discount model (DDM) in two phases: the period before 2018 and the period from 2018 to now to see changes in the legal regulations as well as the application to estimate the parameters in practice.

2.2.3.2. The status of the application and estimation of the parameters in the discounted free cash flow for firm model

The steps are as follows:

- Step 1: Forecast of free cash flow (net cash flow) of the enterprises which need valuation.
- Step 2: Estimate the weighted average cost of capital required by enterprises to value
- Step 3: Estimate value at the end of the forecast period.
- Step 4: Estimate the enterprise value that needs to evaluate.

In each step, the thesis clarifies how the estimation is specified in the Vietnamese Valuation Standards No. 12 as well as the estimation of the parameters carried by the appraiser in practice.

2.2.3.3. The status of the application and estimation of the parameters in the discounted free cash flow to equity model

The steps are as follows:

- Step 1: Forecast net cash flow equity of enterprise needs valuation.
- Step 2: Estimating the cost of using equity of the enterprise needs valuation
- Step 3: Estimate value of equity at the end of the forecast period.
- Step 4: Estimate the value of the enterprise's equity that needs valuation.

In each step, the thesis clarifies the estimation method specified in the Vietnamese Valuation Standard No. 12 as well as the estimation of the parameters carried by the appraiser in practice.

2.2.4. Case study of application of discounted cash flow method of Vietnam Valuation and Financial Consultancy Company (VVFC) at Hanoi Liquor Joint Stock Company - HALICO

Reason for choosing: Vietnam Valuation and Financial Consultancy company VVFC (formerly Vietnam valuation center - Ministry of Finance) is the oldest institution with the highest prestige of Vietnam.

Over 21 performing years, VVFC has strongly developed in both quality and quantity as the leading one in Vietnamese Appraisal. In the field of appraisal, VVFC is always trusted and selected by customers with a team of appraisers leading the country (36 appraisers as of December 2019).

The thesis has given a specific example of the application of discounted cash flow method in the valuation of Hanoi Liquor Joint Stock Company - HALICO formerly known as French Fontaine Liquor Factory was built in 1898.

2.3. GENERAL ASSESSMENT OF THE CURRENT APPLICATION OF THE DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION IN VIETNAM TODAY

2.3.1. The attainable sides

- **Firstly**, business valuation in general and business valuation according to the discounted cash flow method in particular, has been increasingly applied in practice and has contributed significantly to the development of the Vietnamese economy in the past.

- **Secondly**, legal framework system related to business valuation in general is getting more and more complete, contributing to meet the practical needs of the market in matters of mergers, acquisitions and divestments....

- **Thirdly**, business valuation process generally ensures the order as Vietnamese Valuation Standard 05.

- **Fourthly**, appraiser has flexibility in applying the discounted cash flow method of business valuation.

- **Finally**, this discounted cash flow method is used more and more widely.

2.3.2. Limitations

2.3.2.1. Limitations on construction process of business valuation under the discounted cash flow method

🚧 **First**, about the business valuation process specified in Vietnamese Valuation Standards:

- There has not been a separate process for business.
- The quality control stage in the business valuation process has not been focused and fully mentioned

🚧 **Second**, on the establishment and application of the business valuation process at the enterprise having valuation function:

Through researching the process of a number of valuation organizations, most of the process building is only superficial, not mandatory. Therefore, when conducting business valuation, it is mainly done according to the experience of each appraiser. Some valuation enterprises almost copy the steps taken in the law to be coping, some use the general process of assessment without a separate process of business valuation.

2.3.2.2. Limitations of information collection, processing and analysis

- **Firstly**, the collected information is still sketchy and the sources of information are not diverse.
- **Second**, information processing has not been focused and rarely applied IT in the processing process.
- **Third**, information analysis is still sketchy, ignoring many important steps.

2.3.2.3. Limitations on the application and estimation of parameters in the business valuation models according to the discounted cash flow method

🚧 **Firstly**: regarding the provisions in the Vietnam Valuation Standard No. 12 for the estimation of parameters in the business valuation models according to the discounted cash flow method.

In this part, the thesis evaluates the limitations in the regulations on the use of financial statements in business valuation, provisions on discounted cash flow methods including: the period of forecasting, forecasting cash flow, estimating the discount rate, estimating growth.

🚧 **Secondly**: on the application of the estimated parameters in the business valuation model according to the discounted cash flow method in appraisal organizations.

Through the actual survey, it shows that the estimation of the parameters among the properties has a huge difference not only in terms of numbers but also in the thinking of how to do it. There is a great confusion in estimating the parameters, such as: estimating the forecast period, forecasting cash flow, determining the weighting in the WACC formula, using the corporate income tax rate, estimated reinvestment rate, estimated growth rate.

2.3.3. The cause of the limitations

2.3.3.1. Subjective reasons

- *First*, the professional training and education of valuation in general and business valuation in particular is still weak.
- *Second*, because the valuation enterprises themselves are not fully and properly aware of the importance of business valuation.
- *Third*, due to pressure of valuation time and cost.
- *Fourth*, not building a database system on prices.

2.3.3.2. Objective reasons

- *Firstly*, Vietnam is in the process of international economic integration, the macroeconomic environment is not really stable.
- *Secondly*, legal documents related to business valuation are not really complete, many regulations still have shortcomings.
- *Thirdly*, reference sources of information for valuation education in Vietnam are almost not available.
- *Finally*, competition between enterprises in the field of valuation.

Chapter 3

SOLUTIONS TO COMPLETE THE DISCOUNTED CAST FLOW METHOD OF BUSINESS VALUATION IN VIETNAM

3.1. ORIENTATION AND GOALS OF DEVELOPING BUSINESS VALUATION ACTIVITIES IN VIETNAM IN THE FUTURE

3.2. VIEWPOINTS OF COMPLETING DISCOUNTED CAST FLOW METHOD OF BUSINESS VALUATION

- *Firstly*, completion of the discounted cash flow method of business valuation must be consistent with the law on valuation and other relevant laws, and at the same time in accordance with international practices and standards on appraisal valuation in the integration process.

- *Secondly*, completing the discounted cash flow method of business valuation must ensure the science and practicality, ensure applicability, ease of training and transfer; step by step improve the quality of business valuation, overcome errors in valuation process.

- *Thirdly*, complete the discounted cash flow method of business valuation on the basis of synchronous coordination between State management agencies, enterprises with valuation function and associations.

3.3. SOLUTIONS TO COMPLETE THE DISCOUNTED CASH FLOW METHOD OF BUSINESS VALUATION IN VIETNAM

3.3.1. Solutions on building the business valuation process according to the discounted cash flow method

Enterprises need to build a process of business valuation in general and specific guidance on business valuation according to the discounted cash flow method method in particular. Specifically:

- *Firstly*: develop a separate process for business valuation. This process ensures compliance with the steps according to Valuation Standard No. 05 and suitable with the actual working conditions and the object is "business".

- *Secondly*: For the discounted cash flow method, enterprises need to have more specific guidance on implementation steps.

3.3.2. Solutions for information collection, processing and analysis

3.3.2.1. Solutions for collecting and processing information

- Building an information database system for business valuation activities.
- Processing financial statements before conducting business valuation.

3.3.2.2. Solutions for information analysis

- Analysis of business's bankruptcy probabilities need valuation.
- Business strategy analysis and business' competitive advantage that need valuation.

3.3.3. Solutions for selecting and estimating parameters in the business valuation models according to the discounted cash flow method

3.3.3.1. Solution on choosing the model of business valuation according to the appropriate discounted cash flow method

When value a particular business, the appraiser needs to determine which discounted cash flow method is appropriate. The choice of method is

of great importance, decisive to the collection of related documents, statistics and data. The thesis gives suggestions in the selection of the appropriate discounted cash flow method and model to use for calculation.

3.3.3.2. Solution for estimating the parameters in the business valuation models according to the discounted cash flow method

In this part, the thesis offers specific solutions in estimating the forecast period, growth rate, forecasting future cash flows, estimating the discount rate, selecting the corporate income tax rate of businesses estimated. Calculate the value at the end of the forecast period (Terminal Value), the reinvestment rate.

3.3.4. Supportive solutions

The thesis has given supportive solutions such as:

- Completing the quality control system in business valuation activities at enterprises having valuation function.
- Actively training and fostering to improve the qualifications of the team of appraisers at the enterprise having valuation function, and at the same time having appropriate remuneration for the staff to serve business valuation.

3.4. RECOMMENDATIONS FOR STATE MANAGEMENT AGENCIES ON CONDITIONS FOR SOLUTION IMPLEMENTATION

3.4.1. Developing and issuing a separate process for business valuation

In the coming time, it is necessary to build a separate valuation process for business as well as have specific instructions to business valuation. Basically, the business valuation process will also follow the steps as in Valuation Standard No. 5 including 6 steps, but this thesis proposes adding the step “*Prepare draft appraisal report and quality control*”. In addition, the content of each step should be concretized so that the appraiser can easily apply in practice.

3.4.2. Completing Vietnamese Valuation Standard No. 12 on business valuation

- Standardize, supplement and clarify a number of terms in Vietnamese Valuation Standard No. 12.

- Additional provisions on other discounted cash flow method in Vietnamese Valuation Standard No. 12.

- Add another formula to estimate the cost of equity - R_e .

3.4.3. Building a national information database system serving business valuation activities

3.4.4. Developing human resources working in the field of appraisal

3.4.5. Some other recommendations

The thesis gives a number of other recommendations for the Price Management Department, the Department of Accounting and Auditing Regulations, and the Vietnamese Valuation Association (VVA).

CONCLUSION

Stemming from the role and importance of the discounted cash flow method of business valuation as well as the shortcomings that exist in the practice of applying this method in our country, it is necessary to have solutions to complete the discounted cash flow method of business valuation in Vietnam in the coming time.

To achieve the above purposes, within its research scope, the thesis has implemented the following contents:

Firstly: Theoretically, the thesis has researched comprehensively and systematically the issues related to business valuation and discounted cash flow method in business valuation. In which, the thesis has focused on clarifying the steps as well as how to estimate the parameters in each specific discounted cash flow method: DDM, NI, FCFF, FCFE, APV, EVA methods; At the same time, it shows the advantages, disadvantages and conditions of each method. In particular, the thesis also analyzes clearly the factors that affect the application of the discounted cash flow method in practice, including both objective and subjective factors.

Secondly: The thesis has researched the experience of applying the discounted cash flow method of business valuation of five countries - these are countries with very developed valuation activities in the world and in the region. Since then, the thesis has drawn four lessons that can be applied to Vietnam: on management of business valuation practice; collect information; estimate parameters and qualifications and ethics of the appraisers in business valuation.

Thirdly: The thesis has systematic, honestly and objectively reflected the current situation of the discounted cash flow method as specified in the legal documents as well as the practical application at the enterprises with the function of valuation period from 2005 to 2019. Thereby, the thesis has important assessments on success as well as the shortcomings, reflected in the main points: (1) On building the process of business valuation according to the; discounted cash flow method (2) Information collection, processing and analysis; (3) Regarding the application and estimation of parameters in the business valuation models according to the discounted cash flow method. In particular, the thesis has analyzed the causes leading to the above limitations. This is the basis for offering a system of solutions to perfect the method of discounted cash flow method in Vietnam in the coming time.

Fourthly, the thesis has conducted interviews and necessary investigations for experts and appraisers practicing in enterprises with valuation function on the contents related to the application of the discounted cash flow method at the agencies as well as the appraisers' point of view on the solutions given to have an objective and scientific view for the evaluation as well as proposing solutions.

Finally, on the basis of the views on the completion of the discounted cash flow method associated with the orientation and goals of developing business valuation activities in Vietnam in the coming time, the thesis proposes a system of related solutions. These solutions are built in a grounded way, based on international theory and practice and associated

with socio-economic conditions in Vietnam. For each solution, the thesis provides analysis and explanations for each specific proposed content, from which it can be easily deployed in practice.

The thesis is an independent scientific research of the author. With the achieved research results, the author wishes to contribute and add to the research on the discounted cash flow method of business valuation, especially this is about the discounted cash flow method in Vietnam. However, because the research content is an intensive, complex issue, time and research conditions are limited, the thesis does not avoid certain limitations such as: the research sample only stops at organizations with valuation function, but not expanded further other subjects: securities companies, investment funds, foreign financial consulting companies...; Besides the determination methods of discounted cash flow method mentioned in the thesis, there may be other discounted cash flow methods... The limitations in the thesis will be a good basis for suggestions for the next researchs./.

LIST OF AUTHOR'S PUBLISHED WORKS

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