Business valuation used in practice

E. Kramná

Abstract — The importance of equity valuation in the current business environment is forced by recent trend of mergers and acquisitions. However, the business valuation can be done for a wide range of purposes. The main aim of this paper is to investigate the current valuation practice in the Czech Republic. On the basis of the expert's valuation reports, the paper allows overview of the purposes and methods that are used in nowadays practice. The results confirm that the change of business ownership is the most frequent reason for equity valuation in nowadays practice. For determination of company value were used mainly assets based models and discounted cash flow models in comparison with relative valuation that has only limited applicability in the Czech Republic. The analysis is focused furthermore on the inherence of financial, strategic and sensitivity analysis in business valuation process. However, from the survey it is evident that sensitive analysis does not appertain to the standard part of business valuation process and it occurs rather sporadic despite the fact that it should be routine operation.

Keywords—business valuation, analysis, equity, discounted cash flow model.

I. INTRODUCTION

THE purpose of corporate finance is in essence to maximize the shareholder wealth. The concept of wealth maximization inheres in condition that a company should only invest into the project that increases the market value of the company by a positive net present value [1, pp. 185-186]. To achieve the goal of wealth maximization is consistent only under two conditions: first, what investments company should undertake, and second, how the investment should be paid. It follows that investment and financing have significant impact on company's valuation, as pointed by Lopez [29].

In recent years, the literature for estimating the value of a company has been expanded dramatically. Determining of the business value typically comprehends forecasting future cash flows and afterward discounting those cash flows. Pioneers in modeling the free cash flow of the company were Copeland, Koller and Murrin [6]. Damodaran [8] introduced an equity valuation model based on discounting free cash flows equity at a required rate of return to shareholders. He followed up with his research and provided several approaches to estimate the value of a company for that there are no comparable companies, no operate earnings and a limited amount of cash flow data. Most attention of course has been look towards to the measurement of the risk that is necessary for estimating the discounted rates. An overview of the use and application of the weighted average cost of capital is available all above in Copeland, Koller and Murrin [6]; Brealey, Myers and Allen [3], and many others.

The essence of the correct valuation is the quality of the input information and the selection of appropriate methods corresponding to certain needs of the business. When choosing a method it should be taken into account the environment in which the business occurs. Economic and financial theories do not stay behind and adapt to changes in current practice. There are creating new methods and models in current practice that correspond to current needs and allow managers to better resolve questions regarding to financial decision making.

This research discusses many different company valuation models and from theoretical point of view takes the standard discounted cash flow model and its business valuation process as a starting point. The main aim of the research is to extend and contribute to the recent literature on the use of valuation models by valuation experts in the Czech Republic. The paper brings an overview of the mostly used valuation approaches in nowadays valuation practice. The research is further extended by monitoring business valuation process. The survey provides an evidence of the analysis (financial, strategic, sensitive analysis) that should be a part of the valuation process.

The paper proceeds as follows. In section 2, the brief review of the valuation techniques as well as business valuation process are provided. Afterward, the research purposes, objectives of the article and research questions are introduced. In section 4 gained data and methodology are described. In section 5, empirical results are presented. Finally, a conclusion is drawn.

II. VALUATION

The aim of valuation is usually to find the objective value which is usually in practice a combination of valuation techniques with different theoretical bases as pointed by Dluhosova [13]. Whether the goal of valuation will be accomplished relies on the choice of the correct method. Good valuation has to be technically correct, based on faithful assumptions that carry over the reality of the company and has to take into consideration the different activities of the company being evaluated.

The value of business depends on to whom it is processed: outside buyer, investor, employees, management, etc. [25].

A. Valuation reports

In general, business valuation is the process of determining equity value includes understanding the business, analyzing the industry, determining a methodology and generating a report.

Valuation reports have many users as pointed by Graham [22]. These include estate planners, small business administration, tax court, business lenders, mergers and

acquisition groups, employee, stock owners, current and potential shareholders, among others.

Valuation reports provide investors with relevant firm and industry information. Higher readability of these reports can decrease the time spent to understand the reports. As pointed by Franco Hope, Vyas and Zhou [15] more readable reports are issued by analysts who have more experience, issue more timely forecasts, revise forecasts more frequently, and more likely to issue consistent forecast and recommendation revisions.

Business valuation is a sophisticated discipline that requires a combination of knowledge from different areas. Business valuation process may in fact be linked to a number of problems whose solution requires extensive theoretical knowledge, practical experience, and intuition. Coonors and Mooney [5] state that a qualified valuation analyst needs to have adequate knowledge of business valuation, accounting, finance and other principles that are generally accepted in the expert practice.

The valuation analyst is required to asses a wide variety of topics when determining a business value. Graham [22] mentioned:

- the equity interest being valued,
- how the business entity derives its revenue,
- whether the primary assets of the business are tangible or intangible assets,
- calculation of the business value, given the fluctuations in the economic conditions in the industry or in its operating region.

As pointed by Graham [22] the analyst need a multitude of financial documents during the course of valuation. The sources to complete the valuation engagement are mainly:

- financial statement,
- internal accounting documents,
- fixed asset ledgers,
- intangible asset documentation.

B. Business valuation process

In generally, business valuation process includes five phases: data collection, strategy analysis, financial analysis, forecasting and calculation of value. The impact of changes of input variables to the company value should be examined by sensitivity analysis. Relation between all above mentioned phases is shown on the Fig. 1.

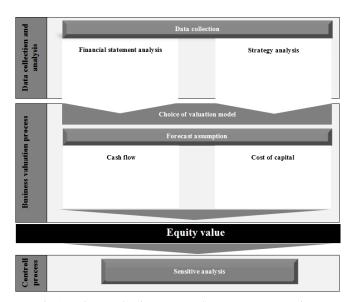


Fig.1 Business valuation process. Source: own processing.

The value of company is influenced by a lot of factors. It is possible to group them into internal and external. The external factors influence value of all companies and are related to features of the country, i.e. political stability, risk of investment, regional position, technological development, general economic situation, legal environment, etc. The valuation analyst has to estimate the influence of these factors to company value [7]. On the other site, there are internal factors that are specific and appropriate to the concrete company. The internal factors are able to divide into accounting and non-accounting according to the [7]. To nonaccounting internal factors belongs the loyalty of consumers and employees, organization factors and accounting internal factors contain depreciation, expenses related with acquisition, reorganization a restructure, taxes. With the accounting internal factors is connected accounting analysis. The starting point for business valuation covers financial reports like balance, income and cash flow statement [33]. European surveys presents that financial statements are very important to professional equity investors as pointed by Gassen and Schwedler [19]. The valuation analyst has to be critical when reading the financial reports and understand how they are established and the possibilities of company's management to influence them. Audit review simplifies confirmation of the financial reports credibility. These data are not the only one source when determining the company value. Valuation of the company is connected with a lot of problems and insecurities. [33]. Non-accounting information is important source for equity investors, namely to add meaning to more verifiable accounting data [23]. The notes to financial statements are another important source to equity investors [19]. However, various surveys show that analyst commentary and use of earnings information not always confirm a complete understanding of an accounting issues of recognition and measurement. Lachman, Wöhrmann and Wömpener [28] report that German investors are confused by fair value

accounting for liabilities. Cascino, Clatworthy, Osma, Gassen, Imam and Jeanjean [4] find a clear evidence that analyst use multiple information sources and that these information sources interact.

The second phase of business valuation process is strategy analysis that aims to identify company's value driver and understand how they influence the business value. Financial statement analysis is able to consider as third important part of business valuation. An expert's analysis is based on historical information provided by financial statements that is used to calculate ratio [33]. The financial analysis can be used for various purposes that determine not only the choice of data's source, but it is an appropriate method for deriving the analytical criteria [23].

Both, the assessment of financial wealth combined with the market outlook received from business analysis enables an valuation expert to forecast company's future economic performance that form the fourth phase of valuation process [33]. Most financial analyst concentrate on financial predictions from results obtained by financial statement analysis, however there is much evidence that a significant part of the business value can be attributed to growth potential. Performance based measures are intellectually attractive. The advantage is able to see in providing of better explanation of valuation as compared with theories that rely on accounting based measures of performance [32].

The inputs for the determination of the company value are established on all of the above mentioned phases. The final part of whole process is correct interpretation of calculating results. Because it exists large universe of valuation methods it is important to use more than one method for business valuation. It enables the comparison of values of each approach but primarily different assets of a company sometimes demand the use of more than one method of valuation, more appropriate for each situation [9]. As pointed by Sheeler [33] the business valuation is not average of the value conclusions. He follows up that unless the valuation expert has provided real support for giving equal weight for assets, income and market approaches, the conclusion might be suspect – especially in the case that the business value is going concern [33].

Sensitivity analysis tests the impact of changing one variable while assuming all other variables are constant to the company's value. The analysis thus tells us what consequence on the value of the company is, if there is a variation in a variable. It thereby supports management in determining the most crucial variables for the value of a company [34]. The advantage of sensitivity analysis can be found from the investor's perspective with support by further investigation and more closely monitoring of chosen inputs and with bounding the valuation range when there is uncertainty about the inputs as exemplified by Copeland, Koller and Murrin [6]. However, the sensitivity analysis is missing in business valuation despite of the fact that it should be an important part of the valuation process and be used for results analyzing with respect to input

data reliability and precision as mentioned by Dluhosova [14].

C. Equity valuation models

There are roughly three ways to estimate the value of a company: Discounted Cash Flow, Asset Based Valuation, Relative Valuation [5]. Damodaran completed that fourth way to equity valuation is Contigent claim models [9].

- Asset based valuation models the business is estimated as the value of its net assets or fair-market value of its total assets minus its total liabilities. It means that value of business is the sum of the values of the individual assets own by the firm. For companies with growth opportunities, asset based valuation determines lower values than valuation based on going concern principle [9].
- Relative valuation multiple or relative valuation models are based on the rationale that perfect substitutes should be sell for the same price. In other words, relative valuation is based on judgment how much an asset is worth by looking at market price of similar assets [9]. If the relative valuation model is correctly used the multiples can help a company to test its forecasted cash-flows, make possible the comparison of a company's performance with the performance of its competitors and can also identify the key factors to succeed in a specific industry as pointed by Goedhart, Koller and Wessels [21]. There are many multiples available to realize a relative valuation of a company. There are three mainly groups of multiples: multiplies based on the company's capitalization, multiplies based on the company's value, growth-referenced multiplies as noted by Fernandez [17]. If the market is correct, on average, discounted cash flow and relative valuation may converge. On the contrary, if the market systematically over pricing a group of assets or an entire sector, discounting cash flow valuations can deviate from relative valuation [9].
- Discounted cash flow models for non-traded companies a model of income based valuation is inevitable to assess their fair value [26]. Discounted Cash Flow models measure the intrinsic value of companies and are based on the principle that the current value of an asset is equal to the present value of all expected future cash flows. Application of discounted cash flow method is connected with two basic problems. The first one is correct determination of convenient cash flows and the second present calculation of interest rate for discounting these cash flows. There are many variations of discounted cash flow method in nowadays practice. However, valuation experts mostly apply DCF – entity and DCF - equity. DCF - entity is based on free cash flows to firm, it means free cash flows for owners and creditors as compared with DCF - equity that is determined only on the basis of free cash flow for

owners [13]. As pointed by Allman [1, pp. 185-187], the challenge of using a discounting cash flow methodology for companies is determining what constitutes cash flow, what the company is worth beyond the forecast period, and what discount rate to use to determine the present value. The fundamentals of the DCF models are to determine the present value of so-called free cash flows (FCF) that a company is expected to earn in the future. Relevant cash flow calculation can be confusing because there are many sources and uses of funds. It means that cash available for a debt holder is most likely different from that one of an equity holder. The number of periods of cash flows we count in the forecast is also of major concern as emphasis Allman [1, pp. 194-196]. Despite the existence of a variety of models to estimate the value of a company, Fernandez (16] demonstrated by analyzing ten different valuation methods that the estimated values give the exact same value for all the methods; the differences rely on the cash flows used in each method [16].

Contingent claim models - DCF method are based on a static view that ignores flexibility and variability, and therefore tent to underestimation of value. In contingent claim valuation the value of an asset depends on whether or not a certain event occurs. It means that the value of the asset is contingent on the presence of the certain event. These valuation models are often used in valuing real options. This approach uses option pricing models to measure the value of assets that share options characteristics. The value of the company can be assessed as the call option on company assets with the strike price equal to the nominal value of the debt. Options may have an effect on business value because they help complete markets and stimulate informed trades [31]. The case study on the application of the real options method is available for example in Kramna [27]. The article summarizes and confirms that ability of firm to change its investment opportunities has the significant contribution to the equity value [27].

D. Business valuation models used in practice

There are available a variety of business valuation techniques to use in determining a business's value. Theory suggests that all models should give identical valuations if they are properly constructed. However, the relative dominance of alternative valuation models is still unresolved task in theory and practice [24].

Earlier research shows the multiply valuation models (P/E ratio) is extensively applied by analyst, with discounted cash flow models (DCF) being less influential [30], [35].

However, more recent evidence presents the growing interest in application of discounting cash flow models [20], [23], [11].

Demirakos, Strong and Walker [10] provide an evidence of

analyst preferences of valuation models in UK. They show that analyst use both earnings based and cash flow based models. The study of these authors covers valuations reports of companies from the beverage sector, electronics and pharmaceuticals, which have been traded on the London Stock Exchange in 1997-2001. They concluded that in the every equity report was used P/E method. The discounted cash flow approach was used in 40% of the reports, mainly the discounted cash flow method. Real options method was applied only in the pharmaceutical industry that belongs to the sectors with high volatility and flexibility [10].

Similar effort to find out which valuation models are used by analyst had Asquith, Mikhail and Andrea [2]. They reveal that almost 99% of valuation reports use some kind of earnings multiplies (P/E, EBITDA multiplies, etc.). Surprisingly, only 12,8% use discounted cash flow model and 25% use asset multiplies.

Consistent with these findings, Imam, Barker and Clubb [23] show that analyst use both earnings multiplies (E/P) and discounted cash flow models. DCF model have become significantly more important than prior survey evidence suggests, although the importance of valuation multiplies, notably P/E, continues [23].

Francis at al [2000] compares accuracy of discounted cash flow model, dividend discount model and residual income model. He found out that residual income model superior to the other two models. The absolute prediction error of residual income model is 30% compare with 41% of discounted cash flow model and 69% of dividend discount model.

Glaum and Friedrich [20] investigate the choices of European telecommunication analysts and found that the popularity of DCF models increased considerably after the end of the 1990s. Similar findings provide Demirakos, Strong and Walker [11] that continued in his research and provided an evidence that earnings multiples more accurate firm estimates than DCF models. His results shows that analysts use DCF more frequently than PE models to value small companies, high-risk companies, loss-making companies and companies with limited number of industry peers.

Deng, Easton, Yeo [12] reveal that asset multiples generally yields better estimates than sales multiples and earnings multiples namely for financial companies but also for non-financial companies.

Extended research of valuation models used by investment analysts in five European countries provided Imam, Chan and Shah [24]. They conclude that earnings multiples and the discounted cash flow models are the two most popular valuation models by European analyst. They show that book value and return on equity based models generally generate more precise estimates than earnings multiples and even multiperiod models (i.e. DCF).

III. RESEARCH OBJECTIVES

The paper is based on both theoretical and practical perspective of business valuation. The purpose of this study is

from theoretical point of view to analyze whole business valuation process with a detailed insight into the valuation of discounted cash flow models and from practical point of view to examine the use of valuation models in current valuation practice and purposes that lead analyst to processed valuation reports. The analyzed part is aimed especially at discounted cash flow approach as well as the presence of sensitivity analysis in the valuation report.

A. Research questions

The paper attempts to provide a practical insight into the business valuation and answer the questions concerns current analyst valuation practice in the Czech Republic:

- Q1: The expert's valuation reports are more often processed by expert's institution than valuation expert.
- Q2: Sale is the most frequent purpose for business valuation.
- Q3: The use of discounted cash flow models is higher than the other business valuation models.
- Q4: Sensitive analysis is an integral part of expert's report.

The paper summarizes the mostly frequent valuation purpose and identifies the current theoretical models that are being used to value companies. The following research objective is focused particularly on approach based on the discounted cash flow with its parts of valuation process.

IV. DATA AND METHODOLOGY

The primary sources of data employed in the article were equity reports. The expert's opinions were gathered from Commercial Register. The § 38i paragraph 1, letter g) of Commercial code entails duty to store the expert's opinions of nonmonetary investment for the establishment of the limited company or joint stock company or for increasing their stock, expert's opinion of the valuation of business assets for transformation of trading company and cooperatives, expert's opinion of valuation business assets according to the § 196 a paragraph. 3. The information that the mentioned valuation reports into the Commercial Register were stored have to be made public according to the § 27 paragraph. 4 Commercial Code.

The access to the registry of the Commercial Register on the Ministry of Justice website is free for all. However, the list of expert's opinions is not available in the Commercial Register. Consequently, the necessary step to obtain a expert's opinions is to find information that competent company stored expert's opinion into Commercial Register in 2012. Keyword for searching was "valuation report". The list of obtain identification number, the unique number of every company, helped to find the concrete expert's opinion from Commercial Register. All of these documents were downloading into the database and then analyzed. Reading the content of these reports identifies the entity that accomplished the valuation report and of course the subject and purpose of the valuation. Expert's opinions with the subject "company" or "part of company" were analyzed with the tendency to characterize which method was chosen as the dominate one to determine the value.

The number of obtained expert's reports is linked with the potential limitations. Database does not include expert's opinions that may not have been store into Commercial Register. The first limitation relates to the nonobligatory of the companies to store the document if there is another purpose of valuation than is explained in the above mentioned paragraphs. The second limitation is caused by poor disclosure discipline of the companies in the Czech Republic. A lot of companies do not store the required documents to Commercial Register although there are legally specify sanctions for companies not complying with the disclosure requirements.

V. RESULTS

The research involved comparative analysis of methods that have been used by expert and expert's institute in current business valuation practice. The analysis has been completed on the basis of a sample of 482 reports concerned business valuation that were stored into the Commercial Register during the year 2012.

The first research question Q1 states that the expert's valuation reports are more often processed by expert's institutions than valuation experts. The database was examined in light of proportion of determining of expert's opinions made out by valuation expert and expert's institute as illustrated in Fig. 2. Reports that have been constructed together by several experts were included into the section "expert".

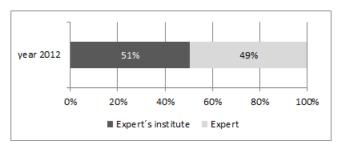


Fig.2 Business valuation processed by expert or expert's institute. Source: own source.

The findings indicate that the proportion of reports made by valuation experts or valuation expert's institute was similar. More specifically, valuation expert processed 49 % of business valuation reports as compared with 51% made out by expert's institutes. Thus the first research question Q1 has been confirmed.

The second research question Q2 compares the most frequent purposes for business valuation. There are various contexts in which the valuation practice may require to determined business value. Valuation is necessary for purchase or sale of company, for entry of new shareholders into the company. It is commonplace to use it during mergers and company transformation. The Table 1 presents the most frequent purposes of business valuation. Due to a large number of impulses the results were divided into two parts. The first one is connected with the valuation concerning the changes of business ownership (splitting, sales, mergers,

transfer, etc.) and second one is related to another (denoted "other") reason for business valuation.

Table 1 Purposes of business valuation. Source: own source.

Purpose of business valuation	Number of expert's opinion	Proportion 2012 in %
Splitting	177	37%
Change of legal form of business	83	17%
Transfer of business assets	86	18%
Nonmonetary investment	65	13%
Mergers	42	9%
Sales	15	3%
Others	9	2%
Transfer according to § 196a	5	1%
Total	482	100%

As Table 1 above indicates recent trends in business valuation appears to determine the value mainly because of change of business ownership, concretely in 82 % of cases. From the results of the Table 1 it is evident that more than one third of valuation's reports were prepared for splitting. The other frequently reported purposes were change of legal form of business (17 %), transfer of business assets (18%) and nonmonetary investment (13%). It is worth to mention the mergers that shared 6 % from total. Nowadays, mergers and acquisitions belong to very often purposes of valuation. The other valuation purpose, namely sales and transfer according to § 196a Commercial Code, accounted only negligible part of database. Valuation reports which had been prepared so-called voluntary were named "others". This category included for example valuation for internal client without further specification. The results are not in line with the research question Q2. The research question Q2 was thus rejected.

Third research question Q3 states that use of discounted cash flow models is higher than the other business valuation models. Since previous studies show that multiply valuation models and discounted cash flow models are the most applied valuation models by analyst in European countries, the expectation of this research is that Czech analyst have similar preferences. It was analyzed the expert's valuation model preferences in the Czech Republic. Generally, the business value is synthesis of using more valuation methods. Principally, there are three areas of valuation methods or their combination in nowadays practice. Table 2 presents the frequency of the valuation models mentioned by valuation analyst in the equity research reports.

Table 2 Business valuation approaches applied in expert's opinions in 2012 in Czech Republic. Source: own source.

Valuation approach	Report processed by expert's institute	Report processed by expert	Total
Asset based approaches	134	143	287
Discounted cash flow approaches	99	82	171
Market approaches	8	8	16
Combination of the approaches	3	5	8
Total	244	238	482

Asset based approaches were used in nearly 60 % of the reports. Discounted cash flow model is the most frequently used valuation model after asset based models. There were applied in almost 36 %. Methods that are based on market analysis occupied only trivial proportion. This is contrary to the prediction that a cash flow based model is the preferred valuation model. Thus the research question Q3 is rejected.

Consistent with mentioned studies it was found out that discounted cash flow models belongs to the mostly used valuation approaches in the Czech Republic. However, multiply valuation models are not used in many cases because of the limited applicability in the Czech markets.

The most important argument for using accounting (asset) based valuation models over discounted cash flow models is that forecasted cash flows are not certain, and thus the valuation has a larger chance to be inaccurate. For that reason, valuation models that are based on book values could be preferred as remarked by Imam, Barker and Clubb [23]. These methods are indicated by analysts less important due to facts that earnings can be easily inflated in the short term and accounting profits are subjective. The perspective of accounting based model is static, since anything what is not incorporated on the balance sheet is not considered in the business valuation and the result could be undervaluation of growth companies [18]. In these cases is appropriate to use discounted cash flow valuations.

Despite the existence of a variety of models to estimate the value of a company, Fernandez [16] demonstrated by analyzing ten different valuation methods that the estimates values give the exact same value for all the methods; the differences rely on the cash flows used in each method [16].

Multiple or relative valuation models is based on judgment how much an asset is worth by looking at market price of similar assets. The condition for application these models is small differences between assets. If this requirement is not fulfilled problems arise. Find fully comparable company whose price would be available is in Czech Republic almost impossible. The results shows the fact that Czech capital market is not sufficient large and transparent for using multiple or relative valuation.

The proportion of author, valuation expert or valuation expert's institute, who created the valuation result, is almost identical. From the author of valuation result perspective, the expert's institute dominated in using discounted cash flow method in comparison with asset based methods. The reason seems to be the fact that the preparation of company valuation requires more knowledge and experiences because it is a complex task and clients are often willing to pay much more for the expert opinion especially with regard to the higher level of risk if subject of the transaction is entire company.

Table 3 Discounted cash flow valuation approaches applied in expert's opinions in 2012 in Czech Republic. Source: own source.

Discounted cash flow valuation model	Number of expert's opinion	Proportion 2012 in %
Discounted cash flow - Entity	104	61%
Income capitalization - Analytic	34	20%
Discounted cash flow - Equity	16	9%
Average of yield methods	13	8%
Economic value added	3	2%
Income capitalization - Overall	1	1%
Total	171	100%

For the results of the most frequently used discounted cash flow valuation methods see Table 3. Recent trend in business valuation presents the discounted cash flow methods (DCF) as results indicate. Valuation analyst or expert's institute chose discounted cash flow method for business valuation in 70 % cases. DCF is often principal bases for value determination of prosperous companies. Less frequently was applied capitalized net income method. This method is suitable in cases of enterprise where is not able to plan cash flow in long term. An uncontentious advantage of capitalized net income method is less demand on the input data and not required composition of financial plan as mentioned above. Final business value as average of each income method was calculated in 8 % of total results. However, it should be used average of determined values only if the differences between them are not so far. The last method that was exercised for business valuation was economic value added. Application in only 2 % of cases could be based on assumption that correct used of all variants of DCF or EVA methods should provide the same result. Their simultaneous exercises may have therefore consequence as numerical and methodical control.

Table 4 Inherence of strategic and financial analysis in business valuation process. Source: own source.

Financial analysis	Strategic analysis		Total
•	NO	YES	
NO	32	10	42
YES	19	110	129
Total	51	120	171

An integral part of every business valuation is strategic analysis. Financial analysis should also be done every time, however, it should be slightly modified. It means that business valuation based on market approach should have greater emphasis on comparable analysis of similar companies as compared with discounted cash flow methods. When using only asset based approaches the financial analysis should have rather lower stress. The other research area is therefore the inherence of mentioned analysis in the valuation reports especially in these where the discounted cash flow methods were used. The table 4 gives an overview of the inherence of strategic and financial analysis in valuation reports created by using discounted cash flow methods. The overall results show that implementation of the strategic and financial analysis has not been obviously in Czech practice yet. The inherence of strategic analysis was found in about 70% of the valuation reports. For financial analysis, the situation was slightly better, with around 75%. An interesting view can be also provided by investigation combination of inherence of analyses with the applied income methods. In case of application of DCF valuation method was the inherence of strategic and financial analysis higher than the overall average. Strategic analysis was founded in almost 80% and financial analysis in 84% of cases. On the contrary, the situation of using income capitalization method was opposite. Strategic analysis was founded by 45% of valuation's reports and financial analysis was accomplished by 54% of forms. These results were able to expect since in the case of the DCF method is necessary to establish and justify them in parameters of the financial plan. For these purpose, the financial and strategic analyses is processed. On the other hand, the income capitalization method is required to confirm or refute the assumption of going concern and financial stability. Failure of strategic and financial analysis can be described as an incompetence of valuation's report in both cases.

The research question Q4 states that sensitive analysis is an integral part of expert's report. The following Table 5 interprets the inherence of sensitive analysis in reports where were applied models based on the discounted cash flow.

Table 5 Sensitivity analyses applied in expert's opinions in 2012 in Czech Republic. Source: own source.

Sensitivity analysis	Number of expert's opinions	Proportion 2012 in %
NO	167	98%
YES	4	2%
Total	171	100%

Every equity valuation process demands a sensitivity analysis. It helps to verify how the price of the company might differ from the evaluation if the surroundings where the company operates change. However, from the whole investigated sample is apparent that sensitive analysis does not appertain to the standard part of business valuation process. The result of two percentage usage confirmed that it occurs rather sporadic despite the fact that it should be routine operation. Thus the research question Q4 has been rejected.

VI. CONCLUSION

Business valuation becomes essential requisite of anyone involved in field of corporate finance. The reason is not only an increase number of mergers and acquisitions but of course identifying the sources of economic value creation. The paper provided an insight into the different company valuation models that are used in nowadays practice. This survey was done in an attempt to answer the main research questions of this paper. The article provided evidence that there is demand for the business valuation in Czech Republic. Database included all business valuation reports that were stored into the Commercial register in 2012.

On the bases of the results is evident that the authors of

business valuation reports were valuation expert and valuation expert's institute in the nearly same proportion. The first research question Q1 confirmed that the expert's valuation reports are more often processed by expert's institutions than valuation experts.

The results of the analyses demonstrated that there exist a lot of different purposes that led analyst to determine the company's value. Recent trends confirmed that valuation practice may require to determined business value mainly because of the change of business ownership. More than one third of valuation reports were prepared for splitting exactly. The expectation of this research that most frequent purpose for business valuation is sale was not fulfilled. The research question Q2 was thus rejected.

Generally, there are three areas of valuation methods or their combination in current practice. Valuation methods that determine the value of the assets with a forecast of future incomes of the company and recalculate it to the present value (DCF) and asset based valuation are commonly used in Czech valuation practice compare with market approaches that have only limited applicability. Most existing studies of equity analyst have found out that multiply valuation models and discounted cash flow models are the most applied valuation models by analyst in European countries. The results are contrary to the expectation that a cash flow based model is the preferred valuation model in the Czech Republic. The results showed that asset based approaches were used in nearly 60 % of the cases. The income approaches were applied almost in 36 %. The findings indicated that the most frequently used valuation model based on discounted cash flow was Discounted Cash Flow-Entity. Discounted cash flow model is often principal bases for value determination of prosperous companies. Less frequently was applied capitalized net income method. The advantage of this method is propriety for the companies where is not able to plan cash flow in long term.

The last point of the analysis investigated demands of sensitivity analysis in business valuation process. However, the analysis has shown that sensitive analysis did not appertain to the standard part of business valuation process and it occurred rather sporadic despite the fact that it should be routine operation

ACKNOWLEDGMENT

The authors are thankful to the Operational Programme Education for Competitiveness co-funded by the European Social Fund (ESF) and national budget of the Czech Republic for the grant No. CZ.1.07/2.3.00/20.0147 - "Human Resources Development in the field of Measurement and Management of Companies, Clusters and Regions Performance", which provided financial support for this research.

REFERENCES

[1] K.A. Allman, Corporate valuation modeling: A step by step guide, New Jersey: John Wiley & Sons, 2010, pp. 185-207.

- [2] P.Asquith, B. M. Mikhail and S. Andrea, Information Content of Equity analyst reports, *Journal of Financial Economics*, vol. 75, no. 2, pp. 245– 282, 2005.
- [3] R. Brealey, S. Myers and F. Allen, Principle of corporate finance, Irwin: McGraw-Hill, 2014.
- [4] S. Cascino, M. Clatworthy, B. G. Osma, J. Gassen, S. Imam and T. Jeanjean, Who uses financial reports and for what purpose: Evidence from capital providers, *Accounting in Europe*, vol. 11, no. 2, pp. 185-209, 2014.
- [5] M. Connors and R. P. K. Mooney, Business valuation application to economics damages for lost profits, *Utah Bar Journal*, vol. 24, no. 1, pp. 25-27, 2011.
- [6] T. Copeland, T. Koller and J. Murrin, Valuation and managing the value of companies, New York: John Willey&Sons, 2010.
- [7] L. Dagiliene, R. Kovaliov, J. Mačerinska and, Ž Simanavičiene, The application of financial valuation methods in investment decision, *Management*, vol. 11, no. 2, pp. 28-33, 2006.
- [8] A. Damodaran, Investment valuation: tools and techniques for determining the value of any assets, New York: Wiley, 2002.
- [9] A. Damodaran, Valuation approaches and metrics: A survey of the theory and evidence. Hanover: Publishers, 2005.
- [10] E.G.Demirakos, N.C. Strong and M.Walker, What valuation models do analyst use? *Accounting Horizons*, vol. 18, no. 1, pp. 221-240, 2004.
- [11] E.G.Demirakos, N.C. Strong and M.Walker, Does valuation model choice affect target price accurancy? *European Accounting Review*, vol. 19, no. 1, pp. 35-72, 2010.
- [12] M. Deng, P. Easton and J.Yeo (2012). Another look at equity and enterprise valuation based multiples [Online]. Available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1462794.
- [13] D. Dluhosova, Application possibilities of real option methodology to company value, ECON'05, vol. 12, no. 1, pp 51-59, 2005.
- [14] D. Dluhosova, Sensitivity approaches in company valuation, in *Proc. Of International Conference on Finance, Accounting and Auditing*, Zlín: Tomas Bata University in Zlin, 2012, pp. 116-121.
- [15] G. Franco, O.K.Hope, D.Vyas and Y. Zhou, Analyst report readability, Contemporary Accounting Research, vol. 32, no. 1, pp. 76-104, 2015.
- [16] P. Fernandes, Valuing companies by cash flow discounting: ten methods and nine theories, *Managerial Finance*, vol. 33, no. 11, pp. 853-876, 2007.
- [17] P. Fernandez. (2013). Valuation using multiples. How do analysts reach their conclusions [Online]. Available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=274972.
- [18] P. Fernandez. (2002). *Valuation using multiples*. Company valuation methods: the most common errors in valuation [Online]. Available: http://www.iese.edu/research/pdfs/di-0449-e.pdf.
- [19] J. Gasse and K. Schwedler, The decision usefulness of financial accounting measurement concepts: Evidence from an online survey of professional investors and their advisors, *European Accounting Review*, vol. 19, no. 3, pp. 495 – 509, 2010.
- [20] M. Glaum and N.Friedrich, After the bubble: valuation of telecommunications companies by financial analysts, *Journal of International Financial Management & Accounting*, no. 17, pp. 160-174, 2006.
- [21] M. Goedhart, T. Koller and D. Wessels, The right role for multiples in valuation, *The McKinsey on Finance*, vol. 15, no. 1, pp. 7-11, 2005.
- [22] J. A. Graham, Understanding the business valuation process, New Hampshire Business Review, vol. 34, no. 13, pp. 21, 2012.
- [23] R. Imam, R. Barker and C. Clubb, The use of valuation models by UK investment analyst, *European Review*, vol. 17, no. 3, 503-535, 2008.
- [24] S. Imam, J. Chan and Z. Shah, 'Equity valuation models and target price accuracy in Europe: Evidence from equity reports', *International Review of Financial Analysis*, vol. 1, pp. 9-19, 2013.
- [25] K. Kennedy, Location vs. Valuation, *Snips*, vol. 83, no. 9, pp. 10-14,
- [26] B. Knapová, T. Krabec and J. Roubíčková, EBIT criterion: Financial analysis issues, *International Journal of Mathematical Models and* Methods in Applied Sciences, vol. 5, no. 3, pp. 499-507.
- [27] E. Kramná, Flexibility consideration in equity valuation, *International Journal of Mathematical Models and Methods in Applied Sciences*, vol. 6, no. 8, pp. 934-942, 2012.

- [28] M. Lachmann, A. Wöhrmann and A. Wömpener, Acquisiton and integration of fair value information on liabilities into investors'judgments, *Review of Accounting and Finance*, vol. 10, no. 4, pp. 385-410, 2011.
- [29] F.J. Lopez, Valuation of small business: An alternative point of view, *Journal of Business valuation and Economics loss analysis*, vol. 3, no. 1, pp. 1-6, 2008.
- [30] R. Pike, J. Meerjanssen and L. Chadwick, Appraisal of ordinary shares by investment analysts in the UK and Germany, Accounting and Business Research, vol. 23, no. 92, pp.489-499, 1993.
- [31] J. Rogers, *Strategy, value and risk*, Hamsphire: Palgrave Macmillan, 2009, pp. 62-67.
- [32] R, Soffer and L. Soffer, Financial statement analysis a valuation approach. New Jersey: Pearson Education, 2003.
- [33] C.L. Sheeler, Sham business valuation results destroy advisor credibility, *Journal of Business Valuation*, vol. 7, no. 5, pp. 41-44, 2004.
- [34] J. Torrez, A. J. Mohamamad and H. J. Ahmad, Corporate valuation: a literature review, *Inter Metro Business Journal* vol. 2, no. 2, pp. 39-58, 2006.
- [35] R.G. Vergoossen, The use and perceived importance of annual reports by investment analysts in the Netherlands, *European Accounting Review*, vol. 2, no. 2, pp. 219-244, 1993.