UDC 338.74

BUSINESS VALUATION METHODS: THEORETICAL ASPECTS AND COMPARATIVE ANALYSIS

AGNĖ JUŠKEVIČIŪTĖ, GERDA VENCKEVIČIŪTĖ
Vilnius University, Lithuania

The paper analyses tree main traditional business valuation methods: the market approach, the income approach and the asset approach. All methods will be describe and comment by theoretical aspects. The author presents the main advantages and disadvantages of business valuation methods and performs comparative analysis.

Introduction. Businesses need to be valued for a number of reasons. There are five main reasons for valuing a business: 1) it helps seller or buyer to buy or sell a business; 2) understanding how business are valued, it will help to improve the business real or perceived value; 4) negotiate a better price – as a buyer or seller; 5) complete a purchase more quickly.

Off course value should not be confused with price, which is the quantity agreed between the seller and the buyer in the sale of a business. This difference in a specific business value may be due to a multitude of reasons. Since business value is at the centre of company finance, finding a value for a company is not easy. First, different companies should be valued differently (for example, public company vs. private company, company in distress, etc.). Second, company value depends on the aim of the valuation as well (one company can have several values, depending on the method).

The seller and the buyer perspective of business valuation looks different. From the buyer's viewpoint, the basic aim is to determine the maximum value it should be prepared to pay for what the company it wishes to buy is able to contribute. From the seller's viewpoint, the aim is to ascertain what should be the minimum value at which it should accept the operation.

The tasks of the research are as follows:

– to overview the traditional business valuation methods;
– to describe the main advantages and disadvantages of valuation methods;
– to compare business valuation methods.

1. Business valuation methods theoretical aspects. Different authors distinguish various aims of the valuation and classification of valuation methods. For example, Irina Berzkalne (2013) identified six business valuation methods: balance sheet, income statement, mixed (goodwill), cash flow discounting, value creation and options. Other authors – Laro, D., Pratt, P.S. (2005) point out four situations when it is necessary to value a business: income approach, market approach, asset – based approach and entity – level discounts. J. Žaptoriusir G. Garbanovas (2006) in article „Influence of financing policy to company's value "separate income approach methods and provides discounting free cash flow accounting methodology. Traditional business valuation methods are based on balance sheet, income statement or cash flow statement. Figure 1 shows tree different business valuation methods.

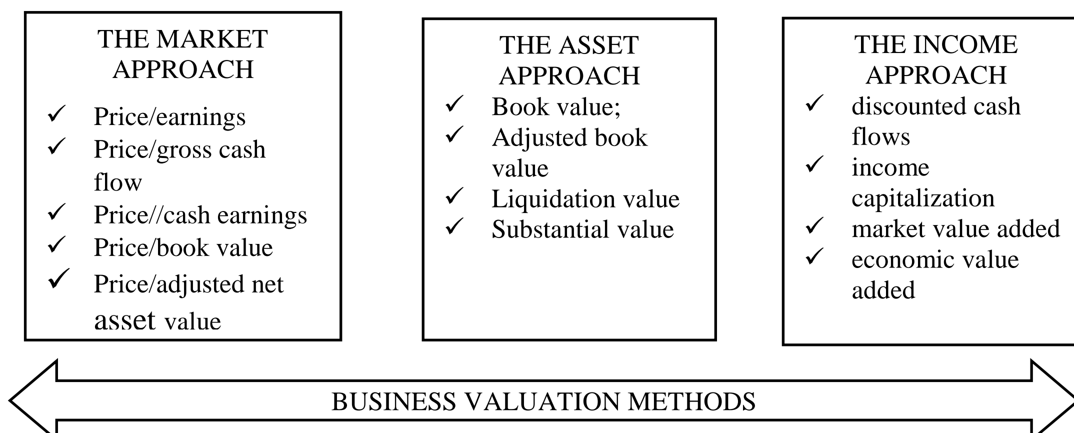

Fig. 1. Business main valuation methods

Source: P. Fernandez (2007), Laro, D., Pratt, P.S. (2005) and Republic of Lithuania Law on the bases of property and business valuation (2016).

The market approach to business valuation is a pragmatic way to value businesses, essentially by comparison to the prices at which other similar businesses or business interests changed hands in arm's-length transactions. It is widely used by buyers, sellers, investment bankers, brokers, and business appraisers. The market approach to business valuation has its roots in real estate appraisal, where it is known as the comparable sales method.

The fundamental idea is to identify the prices at which other similar properties changed hands in order to provide guidance in valuing the property that is the subject of the appraisal. Of course, business appraisal is much more complicated than real estate appraisal because there are many more variables to deal with. Also, each business is unique, so it is more challenging to locate companies with characteristics similar to those of the subject business, and more analysis must be performed to assess comparability and to make appropriate adjustments for differences between the guideline businesses and the subject being valued. Different variables are relatively more important in appraising businesses in some industries than in others, and the analyst must know which variables tend to drive the values in the different industries. These variables are found on (or developed from) the financial statements of the companies, mostly on the income statements and balance sheets. There are also qualitative variables to assess, such as quality of management.

By Laro, D., Pratt, P.S. (2005) the market approach methods could be described:

– The price-earnings ratio (P/E Ratio) is the ratio for valuing a company that measures its currentshareprice relative to its per-share earnings.

– The price-to-cash-flow ratio is the ratio of a stock's price to its cash flow per share. The price-to-cash-flow ratio is an indicator of a stock's valuation.

– The price/book value ratio, often expressed simply as "price-to-book", provides investors a way to compare the market value, or what they are paying for each share, to a conservative measure of the value of the company.

– The Price/adjusted net asset value a business valuation procedure used in acquisition accounting that changes the stated values of a company's assets and liabilities to reflect its current fair market values. This accounting technique adjusts asset and liability values either up or down, so they reflect the true values on either an ongoing concern, forced liquidation or orderly liquidation basis.

The asset approach methods seek to determine the business value by estimating the value of its assets. These are traditionally used methods that consider that business value lies basically in its balance sheet. They determine the value from a static viewpoint, which, therefore, does not take into account the business possible future evolution or money's temporary value. Neither do they take into account other factors that also affect the value such as: the industry's current situation, human resources or organizational problems, contracts, etc. that do not appear in the accounting statement. (P. Fernandez 2007). These methods could be used then if company has a stable, asset rich business. The biggest disadvantage of this method is that it does not take account of future earnings. This value suffers from the shortcoming of its own definition criterion: accounting criteria are subject to a certain degree of subjectivity and differ from market criteria, with the result that the book value almost never matches the market value.

By P. Fernandez (2007) and G. Kancerevyčius (2006) the asset approach methods divided:

– A book value method is the value at which the asset is carried on a balance sheet and calculated by taking the cost of an asset minus the accumulated depreciation. Book value is also the net asset value of a company, calculated as total assets minus intangible assets (patents, goodwill) and liabilities. For the initial outlay of an investment, book value may be net or gross of expenses such as trading costs, sales taxes and service charges.

– Adjusted book value method seeks to overcome the shortcomings that appear when purely accounting criteria are applied in the valuation. When the values of assets and liabilities match their market value, the adjusted net worth is obtained.

– Liquidation value is the business value when it is liquidated, that is, its assets are sold and its debts are paid off. This value is calculated by deducting the business's liquidation expenses (redundancy payments to employees, tax expenses and other typical liquidation expenses) from the adjusted net worth.

– The substantial value presents the investment that must be made to form a company having identical conditions as those of the company being valued. I could also be defined as the assets replacement value, assuming the company continues to operate, as opposed to their liquidation value. Normally, the substantial value does not include those assets that are not used for the company's operations (unused land, holdings in other companies) (P. Fernandez 2007)

The income approach methods seek to determine a business value by estimating the cash flows it will generate in the future and then discounting them at a discount rate matched to the flows risk. This method is generally used because it is the only one conceptually correct valuation method. In these methods, the company is viewed as a cash flow generator and a business value is obtained by calculating these flows present value using a suitable discount rate. Cash flow discounting methods are more used because business value is based on

the detailed, careful forecast, for each period, of each of the financial items related with the generation of the cash flows using historical data of company and market situation and data. By G. Kancerevyčius (2006) and V. Aleknavičienė (2009) the income approach methods described as:

– *Discounted cash flow method* is an income-based approach to valuation that is based upon the theory that the value of a business is equal to the present value of its projected future benefits (including the present value of its terminal value). The terminal value does not assume the actual termination or liquidation of the business, but rather represents the point in time when the projected cash flows level off or flatten (which is assumed to continue into perpetuity). The amounts for the projected cash flows and the terminal value are discounted to the valuation date using an appropriate discount rate, which encompasses the risks specific to investing in the specific company being valued. Inherent in this method is the incorporation or development of projections of the future operating results of the company being valued.

– Income capitalization method is used to determine the value of an income generating property by deriving a value indication by conversion of expected benefits like cash flows and reversion into value of property. This approach is applicable for those properties that generate income like the rental properties which includes non-owner occupied building, houses and duplex, apartment building, etc. The income from rent that an owner expects from a property is also a part of the value of that property. This approach is not suitable for purely residential properties that do not generate any income. The value of any income producing property like office building, cell tower rental and storage facility can be determined by the income capitalization approach.

– Market value added is a calculation that shows the difference between the market of a company and the capital contributed by investors, both bondholders and shareholders. In other words, it is the sum of all capital claims held against the company plus the market value of debt and equity.

– Economic value added is a measure of a company's financial performance based on the residual wealth calculated by deducting its cost of capital from its operating profit, adjusted for taxes on a cash basis. Method could also be referred to as economic profit, and it attempts to capture the true economic profit of a company.

Each business valuation methods are selected depending on the purpose of assessment and asset type. Different methods of value results could be compared with each other for more accurate business valuation.

2. Business valuation methods comparative analysis. Each business valuation methods have different criteria which are specially selected for different companies. Business valuation methods are decomposing by different objects and criteria in table 1.

Table 1 – Business valuation methods criteria

METHODS	**CRITERIA**							
	Decision-making	*Investment*	*Valuation object*			Company sphere	Time	
			Small company	Liquidation	Profit generating asset		Current data	Past, current, future data
I. THE MARKET APPROACH								
1) price/earnings	-	+	+	-	+	+	+	-
2) price/gross cash flow	-	+	+	-	+	+	+	-
3) price/cash earnings	-	+	+	-	+	+	+	-
4) price/book value	+	-	+	-	+	+	+	-
5) price/adjusted net asset value	-	+	+	-	+	+	+	-
II. THE ASSET APPROACH								
1) book value	+	+	-	+	-	+	+	-
2) adjusted book value	+	+	-	+	-	+	+	-
3) liquidation value	+	-	-	+	-	+	+	-
4) substantial value	+	+	-	+	-	+	+	-
III. THE INCOME APPROACH								
1) discounted cash flows	+	+	-	-	+	-	-	+
2) income capitalization	-	+	-	-	+	-	-	+
3) market value added	-	+	-	-	+	-	-	+
5) economic value added	+	-	-	-	+	-	-	+

Source: L. Dagiliene (2007), V. Aleknavičienė (2009), G. Kancerevyčius (2006).

According to the information provided in the table, separated by the evaluation criteria are as follows:

– Decision-making – this is the criteria, which is the ultimate goal of decision on the company's future performance or results.

– Investment – that's the assessment criteria, which depend on the sentiment and the final result indicates continuing company.

– Valuation object which is divided into a few objects as small company, liquidation and profit-generating assets.

– Company sphere – this sector of activity, which indicates where the industry activities of the company.

– Time – is the data analysis, which depends on the period: past, present and future.

Not all the specified criteria could be applied to all methods. For example, the market approach methods depend on: industrial, economic and commercial buildings, structures and installations; small businesses and liquidation. Also, there should be the same business sphere, activities with other companies, if want to compare business valuation prices and reduce the risk. Advantages: good data since it is based upon arm's length transactions; pricing is often done based on comparable; there is a large pool of data. Disadvantages: the concluded value may be imprecise since comparable are not actually or truly comparable.

The analysis of the asset approach methods, it could be seen that the main criteria for this group is the decision-making, the company decided to calculate the value based on the book values of the balance, rather than market prices. In most cases, this method applies to companies under liquidation. Also, this method is inappropriate to evaluate companies, which for the most part of the property consists intangible assets because it would not reflect the true value. Advantages: data required to perform the valuation are usually easily available; allows for adjustments (up and down) in estimating; suitable for companies with heavy tangible investments (e.g. equipment, land); helpful when the company future is in question or where the company has a brief or volatile earnings record. Disadvantages: could understate the value of intangible assets such as copyrights or goodwill; does not take into account future changes (up or down) in sales or income; balance sheet may not accurately reflect all assets.

In income approach methods values important object – the profit-generating assets. Used for commercial, residential or productive profits officer to assess the property in accordance with its capacity to generate revenues. Then, when assessing the need to align income and expenses, income method is often used to check the results. The income methods involve evaluating to what extent the market is able to generate revenues from the property. The method is based on future cash flow forecasts and their present value. This method is suitable for investment and decision-making criteria and important activity. Also, this method is time to assess the impact of cash flows. Advantages: the value of the business is based on projected future results, rather than assets; it could be used with either net earnings or net cash flow; it useful when future results are expected to be different (up or down) from recent history. Disadvantages: it could be understate the value of balance sheet assets; discounts the valuation based on the level of risk; a business perceived as riskier typically receives a lower valuation than a more stable business; projections are not guarantees; unforeseen future events could cause income or earnings projections to be completely invalid.

Conclusions. There are many different methods for valuing a business, with some better suited to a specific type of business than others. A key task of the valuation specialist is to select the most appropriate method for valuing a particular business. The method chosen should provide a reasonable estimate of value, be suitable for the intended purpose and be able to face legal challenges. The most important criteria for the methods are: business structure (dominant material or intangible assets), company size and age, the industry in which the company operates, and other factors. Choosing the business valuation method takes the availability of the necessary background information (minimal time and monetary costs) as a business valuation based on inadequate, outdated or unreliable information, the conditions obtaining false results. The assessment takes into account the business in a competitive environment, companies of similar financial indicators, the user needs analysis, and identifies the main aims and objects.

The main theory about market approach methods is that valuation measures of similar companies that have been sold in arms-length transactions should represent a good proxy for the specific company being valued. However, it is difficult to find information and compare similar business because other company's do not like to public their selling information and details.

The asset approach methods could be used for business liquidation because the result of the book value almost never matches with the market value. Therefore the value of business is not reliable.

The most perspective and appropriate methods of business valuations are the income approach methods. This method includes not only business data but also is based on market situation and data. Using discounting cash flows and other income approach methods value is based on the detailed, careful forecast, for each period, of each of the financial items related with the generation of the cash flows. This method calculates future earnings and there for it is useful for investors and shareholders.

REFERENCES

1. Aleknevičienė, V. Company financial management / V. Aleknevičienė. – Kaunas : Spalvųkraitė, 2009.
2. Atom Content Marketing Ltd, CityPoint, Temple Gate, Bristol, BS1 6PL. [Electronic resource]. – Mode of access: http://www.icaew.com/~/media/corporate/files/library/collections/online%20resources/briefings/directors%20briefings/cf1val.ashx. – Date of access: 25.02.2017.
3. Berzkalne, I. Application of Innovative Company Valuation Methods in Latvia: Analysis and Possibilities for Improvement [Electronic resource] / I. Berzkalne. – Mode of access: http://vddb.library.lt/fedora/get/LT-eLABa-0001:J.04~2013~ISSN_2335-8750.N_66.PG_19-36/DS.002.1.01.ARTIC. – Date of access: 26.02.2017.
4. Kancerevyčius, G. Finance and Investment / G. Kancerevyčius. – second ed. – Kaunas. psl., 2006. – P. 244–269.
5. Laro, D. Business Valuation and Taxes [Electronic resource] / D. Laro, P.S. Pratt. – Hoboken, NJ : John Wiley & Sons, Inc, 2005. – Mode of access: http://legalportal.am/download/library/p16v8qo3i01bkpii7ms57ds1fbl3.pdf. – Date of access: 25.02.2017.
6. Fernandez, P. Companies valuation methods. The most common errors in valuation [Electronic resource] / P. Fernandez. – Mode of access: http://www.iese.edu/research/pdfs/di-0449-e.pdf. – Date of access: 26.02.2017.
7. Žaptorius, J. Influence of financing policy to company's value [Electronic resource] / J. Žaptorius, G. Garbanovas. – Mode of access: http://vddb.library.lt/fedora/get/LT-eLABa-0001:J.04~2006~ISSN_13923137.N_2_35.PG_118/DS.002.0.02.ARTIC. – Date of access: 26.02.2017.