Problém výběru přístupu k oceňování podniku pro účely fúzí a akvizic v oblasti malých firem The Problem of Choosing an Approach to Business Valuation in the Process of Small Businesses Merger or Takeover

R. I. Shevchenko-Perepyolkina

Abstrakt: Článek je věnován inovativnímu tématu oceňování podniků pro účely fúzí a akvizic v oblasti malých podniků. Autor analyzuje různé přístupy k oceňování podniku, ukazuje na jejich výhody či nevýhody a zmiňuje zvláštnosti použití metod v případě fúzí a akvizic. Autor dále sleduje specifika malých podniků. Praktická část výzkumu umožňuje autorovi stanovit optimální hodnotu sjednocením všech tří přístupů.

Klíčová slova: Oceňování podniku, malé podniky, důchodový přístup, majetkový přístup, tržní přístup, váhové koeficienty

Abstract: This article touches upon an innovative topic of business valuation in order to make a contract for mergers and takeovers in the sphere of small businesses. The author analyses different approaches to business valuation pointing out their advantages and disadvantages, and peculiarities of use in order to draw up contracts of merger and takeover. She also studies specifics of small businesses. The practical part of the research makes it possible for the author to single out the optimal value by uniting all three main approaches.

Keywords: Business valuation, small business, income approach, asset approach, market approaches, weighting coefficients.

JEL Classification: G12, G30, G34

Introduction

Business valuation is an important element of a merger or takeover. Both an entrepreneur and an appraiser often make various mistakes at this particular stage. It results in paying unnecessarily large bonuses or not taking into account all expenses for the takeover, which leads to groundless price increases of the contract. That is why the optimal method of business valuation is a topical trend in practical and theoretical research.

1 Objectives of the study

This study aims to use theoretical research and practical groundwork in order to find the most optimal method of small business valuation in order to make a contract for mergers and takeovers.

2 Review of literature

Though the methods of valuation and their application are theoretically well-explored, which is testified by a great number of works by both domestic and foreign authors (T. Copeland [4], Ya. Marcus [6], G. Sychyova [8], and others), only some of the authors discover the peculiarities of appraisal during the process of merger and takeover transaction (D. Tikhomirov [9]). Even less attention is paid to separate aspects and problems of small business valuation (G. Desmond, R. Kelly [1], T. Kasyanenko [3]).

3 Report of (on) base material

In the theory of appraisal there are three different valuation approaches which are based on corresponding concepts: income, asset, and market.

The asset approach includes a body of methods of appraisal of the cost of a target company. These methods are founded on the cost estimation of necessary renovation or substitution of the takeover target, except demolition [9, p. 49].

The income approach assigns primary importance to the concept of profit that defines quantity of value. It reflects the point of view of the buyer and is based on the principle of expectation (profitability) and other principles. The comparison of profits and expenses is done subject to time and risk factors [3, p. 28].

The market approach is the general way of determining the appraisal value of the enterprise and/or its equity capital. Within the scope of this approach one or more methods are used that are based on the comparison of the selling price of the given enterprise and similar capital investments [7, p. 59].

However the agreements of merger and takeover have their peculiar features. That is why while choosing the approach and specific methods of appraisal, this aim is to be taken into consideration, as such valuation tools differ from those applied to appraisal with the aim of insurance, closing down, separation or granting deed of gift of property, appraisal of management, and work-out of corporate development plans.

The asset approach is a valuation method based on calculating the value of assets of the company. This method is not the most probative one in case of appraisal of merger and takeover contracts due to many reasons, the main of which are disregarding the risks, synergetic effect, and motivation of the investor.

The income approach is more often used to evaluate the agreements of merger and takeover, because it can more accurately appraise the synergy and expenses for integration. It is based on the premise of anticipation: the assets which are gained will cost as much as the future profits received from them taking into account the time factor. Within the scope of this approach to the appraisal of merger and takeover agreements, the model of discounted cash flow is most widely used. The cost of the target company is defined by way of forecasting, modeling, and leading to the current value-accounting of the anticipated cash flow of the target company. The cash flow and every source of synergy are appraised.

The market approach uses the methods of comparables: the appraisal value of an asset is based on the selling price of similar items. This approach is not relatively labour-intensive. But it can be applied to merger and takeover agreements only in a limited number of cases because it is rather difficult to find similar properties for some economic sectors and enterprises (it is necessary to take into account not only the cost of the target firm but the advantage of buying it by the merger company, the possibility of their cooperation). The application of average coefficients leads to inaccurate calculations, this approach does not make it possible to discover and appraise all the potential sources of synergy.

In the process of small businesses valuation there are some distinctive features (peculiarities) that are connected with the specific character of individual firm management by its owner and cost accounting at such enterprises.

The asset approach is relatively objective as to the values, because the accounting is registered in the value of goodwill only after the purchase of the business. An enterprise of this type often represents the lifestyle of its owner. The goodwill of such a firm is inseparably connected with the personality of the owner-manager and can be dramatically reduced during the transaction.

The difficulty of using the income approach lies in the lack of full value financial reporting. Moreover, the owners, who directly manage the business, for the most part identify the income of the firm with their salary, which does not contribute to adequate business valuation.

The market approach uses three main methods—the method of similar assets, the bargaining method (agreement method), and the method of sector coefficients—based on aims, type of the property, and specific conditions of appraisal. However, the lack of reliable information as to transactions of similar businesses creates problems in utilizing the first two methods.

The sectoral factor method (method of correlation, formulas) is also not reliable. Sectoral coefficients for small businesses valuation were developed and introduced by US analysts (G.M. Desmond, P.E. Kelly [1]). Conditions of small business development, state policy, and business specifics differ greatly in our country (Ukraine) and the USA, which sometimes makes the use of foreign methodology impossible. Unfortunately we still do not have our own works on coefficient provision of small businesses valuation.

While doing small businesses valuation (as well as any other ones), it is practical to take into account all advantages and disadvantages of the given approaches and their methodology. To visualize the efficiency of different approaches of appraisal in merger and takeover agreements we shall summarize their main advantages and disadvantages in Table 1.

Table 1 Advantages and disadvantages of utilizing small businesses valuation approaches

Approach	Advantages	Disadvantages
Asset approach	• reflects actual assets; • possibility to take into account the wear and economic ageing, • considers recurring debts and long-term indebtedness; • lets count salvage value; • is effective for appraisal of new and non-profit bodies.	• disregards the market conditions and risks • leaves out goodwill; • disregards synergistic effect; • static, no expectation of future benefits, • does not reflect motivation of the investor; • greatly depends on discount policy of the enterprise (which has especially adverse effect in case of small businesses valuation)
Income approach	• a uniform approach taking into account future income; • takes into consideration the time factor; • takes into consideration sectoral risks, risks connected with the enterprise, inflation, etc. • takes into consideration the synergy effect and integration costs; • considers the investor's interests	• is characterized by work content of forecasting and calculations • stochastic nature (probabilistic nature) of appraisal (several norms of profitability are possible) • disregards the market trend
Market approach	• shows actual supply-and-demand correlation as for the merger and takeover properties • is the most reliable market indicator	• requires active market to choose from several similar transactions • uses indices of the previous periods, which means that this approach disregards the future prospects of the corporate development plan • there may be shortage or lack of information from similar enterprises • need for high level of appraiser competence who must adequately amend as a result of appraisal • quick ageing of data

The routine of small businesses economic players demonstrates that in merger and takeover transactions the core approach is income, even if the economic players are not in full measure informed about the specifics of estimating activity. For example, in the sphere of cable network merger it is not realized on the principle of how much was spent on building the network, but on how many actual customers they have – that is, the merger is done on anticipated yield.

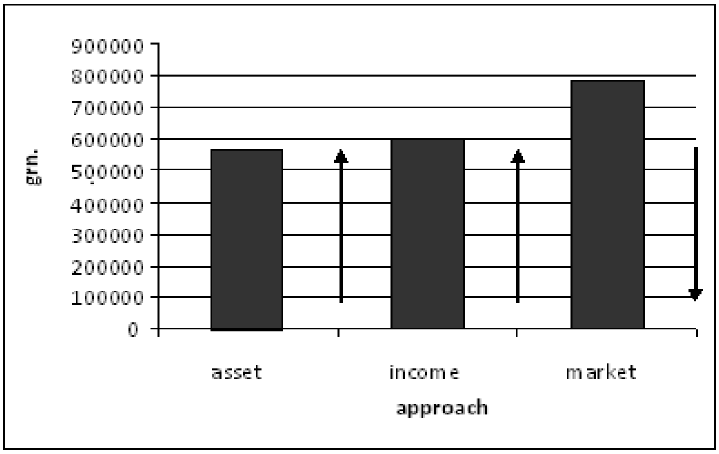
Nonetheless our scientific research and analysis of small business merger and takeover agreements, and personal appraisal practice prompted the conclusion that it is necessary to apply all three approaches simultaneously.

In the case of ideal market, all tree approaches might have resulted in the same quantity of value. But most of markets are far from being perfect, prospective customers may be misinformed, and manufactures may be inefficient. That is why in practical work all the approaches yield different quantities of value.

Thus estimating a flour mill we got such results:

- Applying the asset approach and the method of net book value we estimated the cost of the flour mill at the rate of 579 712 grn.
- Applying the income approach with the discount rate of 23%, we estimated it at the rate of 601908 grn.
- Correlating with the comparable similar property the market approach resulted in the sum of 783168 grn.
- Thus the appraisal according to different approaches gave different results (fig.1)

Fig. 1 Results of appraisal according to different approaches



To calculate the residual value of business, theorists and professionals in the sphere of appraisal suggest using the formula of weighting coefficient:

$$V = \sum_{i=1}^{n} V_i \times Z_i \quad , (1)$$

where Vi is assessed business value by i-m method; i =1, …, n – infinity of used in this case appraisal methods; Zi – a weighting coefficient of method No i.

It is evident that in such cases defining the coefficients Zi is one of the main evidences of good qualification of the appraiser.

The results of probability of our appraisal may be summarized in the following theoretical propositions:

- the asset approach somewhat underestimated the appraisal, as the specific character of small businesses under home economy conditions may have its impact on accounting financial results;
- The income approach also reduces the appraisal because the calculation takes into account the actual income instead of anticipated revenue. If the marketing policy is competent, at least 80% of the capacity of the complex is used, and the maximum discount rate is chosen, it will yield a much higher return.
- The estimate according to the comparables approach may turn out to be inflated because the offer prices are taken into consideration and unilateral methods are used to compare the production complexes.

The general theoretical conclusion is: the optimal price for both parties to the contract will be about 650000-700000 grn.

Our consideration of the approaches is summarized in the table:

Table 2 Summary of weight of each of the valuation approaches to the flour-mill

№	Name of the criterion	Weight of the factor	Asset approach	Income approach	Market approach
1	Adequacy of the approach of the appraisal aim	20 %	6,30%	30,40%	70%
2	Availability of necessary and reliable information	20 %	50,00%	58,40%	20%
3	Consideration of the market conditions	20 %	5,10%	50,00%	50%
4	Real increase of income from the predicted value	20 %	40,00%	70,10%	24%
5	Consideration of risks	20 %	5,50%	77,20%	25%
			0,18	0,48	0,33

To sum up, according to the formula (1) the residual value of the flour-milling plant taking into account the weighing coefficients will be 657 771,2 grn, which corresponds to theoretical expectation and concretizes the sum of the agreement.

Conclusion

The simultaneous use of different approaches to appraisal is appropriate and motivated because the use of alternative approaches in business evaluation makes it possible to consider the enterprise from different angles, to analyse the available information from different points of view in the light of different conceptions, and in the end to get a balanced, well-grounded and highly reliable result. Such a conclusion was confirmed by our practice of appraisal of the flour mill.

References

[1] Desmon G.M. Handbook of Small Business Valuation: [Text] / G.M. Desmond, R. E. Kelly. – M.: POO Academia otsenki, 1996. – 264 p.

[2] Kasiyanenko T.G. Transforming of financial accounting of the enterprise for business valuation: [Tutorial] / T.G. Kasiyanenko. – St.Pb: Publisher SPbGUEF, 2011. – 167 p.

[3] Kasiyanenko T.G. Modern theoretical problems of business valuation: [Text] / T.G. Kasiyanenko. – St.Pb: Publisher SPbGUEF, 2012. – 353 p.

[4] Copeland T. Valuation: Measuring and Managing the Value of Companies: [Text] / Transl. from Eng./ T. Copeland, T. Koller, J. Murrin. – M.: ZAO "Olymp-Business", 2007. – 576 p.

[5] Kucherenko V.R. Valuation of business and real state: [Tutorial] / V.R. Kucherenko, Ya. P. Kvach, N.V. Smentina, etc. – K.: Centre of study literature, 2009. – 200 p.

[6] Markus Ya. I. Manual in business valuation in Ukraine: [Tutorial] / Ya. I. Markus – K.: Millennium, 2002. – 320 p.

[7] Popkov V.P. Business valuation: Charts and tables: [Tutorial] / V.P. Popkov, E. V. Estafiyeva – StPb.: Peter, 2007. – 240 p.

[8] Sychova G.I. Valuation of company (business): [Tutorial for professional appraisers] / Sychova G.I., Sychova E.B., Kolbachyov V.A. – Rostov-on-the Don: Phoenix, 2004. – 384 p.

[9] Tykhomirov D.V. Measuring the value of companies during merger and takeover: [Tutorial] / D.V. Tykhomirov – StPb.: Publisher SPbGUEF, 2009.– 132 p.

R.I. Shevchenko-Perepyolkina, Odessa National Economic University