Introducing the Financial Brand Impact Adjustor in the VIM Model for Appraising the Brand of an Unlisted Company

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Abstract: The paper focuses on valuing brands with a positive or negative financial brand impact by using the proprietary VIM model. First the basic methodological approaches of brand valuation for determining fair value in the sense of IFRS 13 are defined. Then we elaborate the importance of the financial brand impact which we use to reflect the positive or negative financial impact of the quality of the brand to be valued. Furthermore we provide the theoretical implications of the financial brand impact for adjusting the WACC of the firm and WACC attributable to the brand to be valued, respectively. Here we go beyond the available brand relevance methods and metrics which just take the buying behavior into account by not bridging the gap into the financial impact. In the end we present an illustrative case study showing the basic application and principles of using the VIM model in both applications by valuing a brand creating additional equity value of the firm and a brand having a negative impact on the equity value of a firm. We finalize the article by summarizing the main upsides and downsides of the VIM brand value modeling approach.

Key-Words: Brand Value, Brand Valuation, Brand Impact, VIM model

1 Introduction

The issue of appraising intangible assets, and specifically trademarks, is discussed extensively in specialised literature ([1], [1], [7], [8], [9], [10], [11], [13]); among other things, this is because intangible assets are becoming more and more important within intensifying competition in hypercompetitive, more and more saturated, product markets.

In appraising intangible assets of unlisted companies operating in developing markets, appraisers have to face the problem of the lack of empirical data, or their low quality. This makes the application of standard methodology used for appraising identifiable intangible assets disputable. Within this paper, a possible approach to appraising the trademark of an unlisted (private) company will be suggested. Our ambition is to solve these methodological issues in a way that will have a sufficiently informative value that will enable that the resulting valuation may be seen as a valuation of the selected and/or assigned category of the value of the particular assets. For many reasons (see [12]), the valuation of identifiable intangible assets is even more difficult than the valuation of a business as whole.

The value and appraisal of a trademark is based on its economic benefit to its owner or the business that owns the trademark. Products and services produced by a business with a successful trademark are sold at premium prices. The business owning the trademark receives this bonus because it can sell at higher prices than its rivals who are either without a trademark or with a weaker trademark, or because it sells and produces more, and thus it has saved more fixed costs per production unit.

2 The Fair Value Category for Appraising the Trademark of an Unlisted Company

All methods of appraising the fair value of a brand in the sense of IFRS 13 are based on three approaches (see [2], [6], [11], [12], [16]):

- Comparability approach – this approach is based on the balance principle = competitive intangible asset markets are able to create balanced prices of intangible assets with a comparable utility. This approach serves as the basis for the "market multiples method".

- Cost approach – based on the principle of economic substitution = a prospect is not willing to pay more for the relevant assets than he would spend on their creation. In this case, we consider two types of costs: reproduction costs and substitution costs.

- Income approach – based on the expectation principle = a prospect is not willing to pay more for the relevant assets than the present amount of expected income from the use of the assets.

3 VIM Model for Appraising the Trademark of an Unlisted Company

In applying the aforesaid basic or somehow modified valuation methods, appraisers usually obtain results which differ significantly. This is usually caused by the subjectivity of parameterisation of relevant valuation models, and mainly by the lack and/or high scatter of market data. Therefore, we suggest the following combined application of competitive and income based methods so that the results obtained from independent, mutually confirming calculations can be verified.

We have suggested a phase VIM model (Verifiable Interdependent Model), where the calculation procedure includes steps in the following order:

3.1 Calculation of the enterprise value of the whole company

All other calculation steps are based on the valuation of a real value of the capital invested in the business enterprise. In our opinion, this interim step is inevitable primarily for two reasons:

- Deriving of a real capital structure and/or real amount of WACC, the value of which is used in the calculation of brand value by income based valuation methods (step 3),

- Estimation of hypothetical market capitalization of equity and/or Enterprise Value, in relation to which the benchmarking of values of intangible assets can be carried out according to parameters obtained from comparison to listed companies operating in the same industry.

With regard to the VIM model structure, the sequence of steps in the whole procedure and the requested information inputs, it is appropriate to use one of the income based methods for the calculation, preferably the economic value added (EVA) method.

Interim step: partial analysis of financial brand impact and its evaluation

Financial brand impact can be evaluated by using the results of the strategic and financial analysis. As described in the section dealing with the method of discounted cash flow attributable to the brand, brand impact should be reflected in the WACC value by "financial brand impact adjustor" (brand WACC = enterprise WACC / brand impact adjustor) which results in a discount rate necessary for the income based valuation of the brand (step 3). The reagent function for computing the financial brand impact adjustor (BIA) has the following form:

$$BIA = WACC_t / (EVA_t * BI/BV_t + g) \qquad (1)$$

where

BI	brand impact
$WACC_t$	weighted average cost of capital in t
EVA_t	economic value added in the year t
BV_t	brand value in the year t
g	annual growth rate

At this moment, the economic lifetime of the brand can be justified and, in reasonable cases, arguments can be provided to support the assumption of a going concern. As mentioned above, an analysis of the lifecycle of a product related to the brand can be a useful benchmark here.

3.2 Application of the Benchmarking Valuation Method

The benchmarking approach is based on the application of multipliers resulting from the share of a price of comparable intangible assets on the selected economic characteristics related to those assets. It is evident that the existence and availability of market prices of intangible assets and ensuring their sufficient similarity will be difficult on this level. However, as for the accuracy and informative value of VIM model results and their mutual comparability, it turns out that it is more than appropriate to apply this interim step. The values of various multipliers can be found in many empirical surveys, e.g. the long-term quantity

research of the Corporate Branding Index® by the CoreBrand company, which works with the contribution of the brand value to the market capitalisation of the business.

3.3 Application of Income Based Valuation Methods

Within the calculation of the enterprise value of a whole company in step 1, parameters and assumptions of the income based value of the business were derived and justified. We first determine the brand value based on the estimated increase in sales of branded business, compared with sales of "benchmark" and increased operating margin of the branded business compared to "benchmark". We start therefore from the total change in profit that was initiated by the branding of the production, mainly due to volume and price premiums, which the company acquires through the brand that, in comparison with the competition without a brand or a less established brand can afford to sell at a higher price (or simultaneously) achieves higher sales volumes (see also [3], [4]). A benchmark here means a hypothetical company that achieves results at the level of sector-percentile values. Specific percentile is yet determined depending on the structure and branding of the production in the industry in which the company operates.

In the first interim step following after the calculation of the enterprise value of a whole company, a corporate discount rate was transformed into a discount rate corresponding to the brand-specific risk on the basis of the evaluation of brand impact. In order to determine the income based value by methods of discounted cash flow attributable to the brand, brand impact level is used to identify the portion of economic profit (EVA) attributable to the brand. The cash flow attributable to the brand is discounted at a discount rate adjusted by the brand impact. The following steps follow the common practice in determining the value of a business by the economic value added method.

The calculated income based value of the brand by these two methods (EVA attributable to the brand and "premium attitude") is an important information input for the calculation of an implicit royalty rate. The procedure is similar to the valuation of a business by the method of discounted cash flow, the operating profit being replaced with the total income and implicit royalty rate. Such "profit" is subject to an effective income tax rate. Then, investment that is necessary in order to ensure and maintain the brand value driving, is deducted. This determines free cash flow on the FCFF level.

The real nature of the calculated implicit royalty rate must be evaluated in the context of available information about market transactions. There are many commercial databases and empirical surveys. In this context, solutions of [11], who talks about relatively high constancy of royalty rates in terms of time, which is, however, connected with their high variance, are positive.

3.4 Calibration and Reconciliation of Results

The last step involves a detailed study of differences in results, if any, detailed economically and methodologically justified calibration of model parameters of income based valuation and further specification of empirical methods according to step 2.

4 Financial Brand Impact Adjustor

In the VIM model the brand impact (BI) is used in two ways: first by using the reagence function by forming the financial brand impact adjustor (brand WACC = enterprise WACC / BIA) which affects the brand associated WACC which is needed for deriving the present value of the brand relevant cash flows and, second, the BI determines the factual level of the brand relevant cash flow in the particular year (EVA attributable to the brand = EVA on the enterprise level * BI).

The brand impact (BI) itself can reach from -100 % up to + 100 %. The derivation of the BI is based on the examination of stability, extent, and growth of the brand using the comparative list of competitive brands and other empirical benchmarking methods, verifiably providing key indicators of brand performance. All brands in the market are evaluated on the basis of mutual measuring, which leads to relevant scoring classification for the appraised brand. The total score can range from 0 to 100.

5 Case Studies

Let us consider two holding companies YYY and ZZZ, whose financial results in 2013 are comparable. The volume of the capital invested on January 1, 2013 is 105 million EUR, of which EUR 40 thousand accounts for debt. The unlevered equity cost amounts to 13% p.a., debt interest rate is 7% p.a.

The income based value of equity of both holdings was calculated by the standard methods described in literature (e.g. [14], [15]). The valuation was

performed by the DCF entity income based method and the economic value added method; in both cases, we used the same parameters. The conducted analysis proved that the conditions of a going concern have been met. In the case studies we presumed immediate stabilization of parametres of infinite time series of cash flow. In particular, it is an expected rate of growth of free cash flow (g) and return on net investment (r_I) calculated as a ratio of the total increment of the operating profit after taxes and increment of the invested capital in the previous year. From the long-term point of view, the g/r_I ratio corresponds to the investment rate (m_I), which is a share of profits devoted to net investments. Brand impact of the brand YYY is 20%, resulting in sales volume premium of 28 % compared to the benchmark. The growth rate of total company sales, investments and operating profit is estimated at 8%. The brand impact of the brand ZZZ is -40%, resulting in a sales volume discount of -20% compared to the benchmark. The growth rate of total company sales, investments and operating profit is only 5%, which is 3% lower than in the case of holding YYY.

5.1 Valuation of the YYY Brand Owned by YYY Holding

The income based value of the holding YYY equity amounts to 3,302.4 thousand EUR as of 1 January 2013 EUR. Brand value at the same date was set at 871.45 thousand EUR by using both the premium method and the brand impact formula. This corresponds to an implicit royalty rate of 13.2 % and the results are also in the line with the empirically grounded Knoppe formula (share of the royalty rate in EBIT having the expected range about 25%).

(thousand EUR)	2013	2014	2015 and following
Revenues	408,1	440,8	476,1
Operating costs excluding depreciation	163,3	176,3	190,4
Depreciation	27,2	29,4	31,8
Marketing fixed costs	1,4	1,5	1,6
EBIT	216,3	233,6	252,3
Invested capital	154,3	166,6	180,0
NOPAT	175,2	189,2	204,4
Plus depreciation	27,2	29,4	31,8
Minus investments	38,7	41,7	45,1
= netto investments	11,4	12,3	13,3

(thousand EUR)	2013	2014	2015 and following
FCFF	163,8	176,9	191,0
WACC	12,96%	12,96%	12,96%
Enterprise value as of 1.1.	**3302,4**	**3566,6**	**3851,9**
EVA	156,7	169,2	182,8
Enterprise value as of 1.1.	**3302,4**	**3566,6**	**3851,9**

Table 1: Calculation of the ZZZ enterprise value by the DCF and EVA entity methods

Premium method	2013	2014	2015 and following
Operating leverage	1,178	1,178	1,178
Variator	81,52%	81,52%	81,52%
Profit differential in %	33,18%	33,18%	33,18%
Profit differential in EUR	53,893	58,204	62,860
Corporate Income Tax	10,2	11,1	11,9
Earnings after taxes	43,653	47,145	50,917
Investments	0,4	0,5	0,5
FCFF	43,2	46,7	50,4
WACC	12,96%	12,96%	12,96%
Brand value as of 1.1.	**871,45**	**941,16**	**1016,46**

Table 2: Valuation of the ZZZ Brand by the Method of Discounted Cash Flow Attributable to the Brand

Method based on Brand Impact	2013	2014	2015 and following
Brand Impact	20%	20%	20%
EVA of the business enterprise	156,7	169,2	182,8
Brand Impact Adjuster	1,11755	1,11755	1,11755
WACC enterprise	12,96%	12,96%	12,96%
WACC brand	11,60%	11,60%	11,60%
WACC differential	-1,363%	-1,363%	-1,363%
EVA of the brand	31,3	33,8	36,6
Brand value as of 1.1.	**871,45**	**941,16**	**1016,46**

Table 3: Valuation of the ZZZ Brand by using the brand impact evaluation

Implied royalty rate	2013	2014	2015 and following
Revenues	408,1	440,8	476,1
EBIT margin	53,0%	53,0%	53,0%

Implied royalty rate	2013	2014	2015 and following
Knoppe formula	24,92%	24,92%	24,92%
Royalty rate	13,2%	13,2%	13,2%
Revenues * Royalty rate	53,89	58,20	62,86
Corporate income tax	10,24	11,06	11,94
EBIT	43,65	47,15	50,92
Investments	0,44	0,47	0,51
FCFF	43,2	46,7	50,4
WACC	12,96%	12,96%	12,96%
Brand value as of 1.1.	**871,45**	**941,16**	**1016,46**

Table 4: Calculation of a royalty rate – RfR method

5.2 Valuation of the ZZZ Brand Owned by ZZZ Holding

The income based value of equity at the holding YYY as of 1 January 2013 is estimated at 1 901.4 thousand EUR. Brand value at the same date was then set at -558.86 thousand EUR by using both the premium method and the brand impact based method. The calculation of implied royalty rates loses its meaning in a case of negative brand impact.

(thousand EUR)	2013	2014	2015 and following
Revenues	364,7	382,9	402,0
Operating costs excluding depreciation	145,9	153,2	160,8
Depreciation	23,6	24,8	26,1
Marketing fixed costs	1,2	1,3	1,3
EBIT	193,9	203,6	213,8
Invested capital	134,0	140,7	147,7
NOPAT	157,1	164,9	173,2
Plus depreciation	23,6	24,8	26,1
Minus investments	30,0	31,5	33,1
= netto investments	6,4	6,7	7,0
FCFF	150,7	158,2	166,1
WACC	12,93%	12,93%	12,93%
Enterprise value as of 1.1.	**1901,4**	**1996,6**	**2096,4**
EVA	140,6	147,6	155,0
Enterprise value as of 1.1.	**1901,4**	**1996,6**	**2096,4**

Table 5: Calculation of the ZZZ enterprise value by the DCF and EVA entity methods

Premium method	2013	2014	2015 and following
Operating leverage	1,101	1,101	1,101
Variator	87,87%	87,87%	87,87%
Profit differential in %	-21,90%	-21,90%	-21,90%
Profit differential in EUR	-54,383	-57,102	-59,957
Corporate income tax	-10,3	-10,8	-11,4
EBIT	-44,050	-46,253	-48,566
Investments	0,2	0,3	0,3
FCFF	-44,3	-46,5	-48,8
WACC	12,93%	12,93%	12,93%
Brand value as of 1.1.	**-558,86**	**-586,83**	**-616,18**

Table 6: Valuation of the ZZZ Brand by the Method of Discounted Cash Flow Attributable to the Brand

Method based on Brand Impact	2013	2014	2015 and following
Brand Impact	-40%	-40%	-40%
EVA of the business enterprise	140,6	147,6	155,0
Brand Impact Adjustor	0,85842	0,85829	0,85815
WACC enterprise	12,93%	12,93%	12,93%
WACC brand	15,07%	15,06%	15,06%
WACC differential	2,137%	2,137%	2,136%
EVA of the brand	-56,2	-59,0	-62,0
Brand value as of 1.1.	**-558,86**	**-586,82**	**-616,18**

Table 7: Valuation of the ZZZ Brand using Brand Impact

4 Conclusion

As we have shown theoretically and by using the two case studies, the current version of the modified VIM model for valuing brands of unlisted companies enables measuring the value of both value creating and value destroying brands. Value destroying brands are primarily associated with high incremental investments into brand building which have not shown its financial effect yet or they are linked with highly negative consumer´s perceptions. The major theoretical challenge lies in the evaluation of the risk exposure of these assets and, subsequently, in the determination of the

appropriate discount rate for deriving the present value of the relevant cash flows associated with the brand. Therefore, we introduced within the VIM framework a new metrics which we named BI (brand impact) and BIA (financial brand impact adjustor). By thoroughly analyzing the firm within the strategic and financial analysis and by conducting evaluation of the brand building strategy and all costs associated with this strategy, we can make grounded judgments about the risk exposure of the brand relative to the average risk of the whole firm. The VIM model finds two mutual interdependent applications of the brand impact– in the derivation of the brand associated cash flow and in the adjustment necessary for deriving the brand specific WACC via BIA.

By linking the financial brand impact adjustor with the determination of the incremental risk premium added to the corporate WACC we can observe that the relationship is a complex one with no directly observable causalities. On one hand the risk premium added to the corporate WACC might be positive by having a negative brand impact, and vice versa. This will be the case if the brand associated WACC grow since the investor expects increasing returns on the marginal capital invested into brand building which is becoming riskier as the brand has achieved already a positive fair value. On the other hand if the financial brand impact is negative and the brand fair value is negative too, the WACC related to the brand will expectedly be lower to the corporate WACC. This is because the investments into a turnaround of the brand or re-branding will be very efficient and will have a high pay off since the initial growth will be easier to achieve than the incremental growth of a very strong brand. The actual size of the premium or discount to the corporate WACC might be derived by using the standard reagence functions presented in this paper.

In order to evaluate the impact of the financial brand impact adjustment correctly, we will not only need to know the fair value of the brand upfront but also we will need to evaluate all the behavioral aspects of the brand und consumer´s buying behavior associated with the brand apart from the financial modeling of the brand value.

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