Firm as a Bundle of Core Competencies: A Valuation Approach Using the Dresdner Reference Model

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Abstract: - Strategy analysis together with financial planning account for the inevitable parts of any income based equity valuation analysis. By using generic discounted cash flow models, an analyst has to cope with identifying the principal factors driving and sustaining the firm’s competitiveness. By knowing and staying focused on their core competencies companies have the only real chance for existence and value creation. In the following analysis we identify the success factors of medium-sized industrial companies located in the region of Dresden, Germany and draw implications for correctly applying the well established discounted cash flows models.

Key-Words: Success factors, business valuation, reference models

1 Introduction

The valuation of Small and Medium Sized Enterprises (SMEs) belongs to major assignments for consultants in Europe. This occurs primarily for the purpose of change in the equity ownership and for the purpose of managing the business by focusing on value creation. Since these companies are almost never public, a model of income based valuation is inevitable to assess the real (fair) value of the enterprise and its equity (terms firm, enterprise and company shall be interpreted equal).

Both IFRS (in the Framework) and U.S. GAAP (in SFAC 1) have identical objectives focused on the providers of capital. Financial accounting, however, cannot provide its users with anticipative forward-looking data used by valuers for the purpose of income based valuations [1, 4].

As we will present below the SMEs located in the region of Central and Eastern Europe face some additional specific issues arising from the transition from a central planned economy towards a free market system [7]. This happens additionally to the fierce global competition from internationally active companies. Thus, the complexity of the environment in which the manufacturing SMEs in the Saxony region are operating is slightly different and asking for in-depth research of factors driving the success of these companies. The major part of the field research and its evaluation and summarization has recently been undertaken and presented in [2]. By identifying the major success factors of the industrial manufacturing companies in the region of Dresden we can apply the findings in the form of a reference model for the sake of financial planning and deriving of specific basis of value.

Therefore, we decided to further extend the application and use of the Dresdner reference model as originally introduced in [2] and put it into connection with modeling the value of a company. This article defines the use of the Dresdner reference model and identifies possible additional extensions the empirical data and information gathered by the field research may have in the area of business valuation and subsequently financial reporting (particularly in terms of IFRS 3 and allocation of goodwill).
2 Research Methodology and Design
Success factors and early warning systems are assigned to the strategic management and controlling and date back to Igor Ansoff’s work of the 1970s and the development of the "concept of weak signals." For the mid and long term strategic management of a company it is crucial to be aware of its strengths and weaknesses as well as the business environment (potential opportunities and threats). The formulation of the business strategy might be based on a set of information, the so-called success potentials (see [2] p.28). The decision about the future business strategy will initiate substantial implications on the financial situation, financial needs, the capital structure, redistributable free cash flows and in the end the equity value of the company.

By valuing SMEs in the region of Central and Eastern Europe such a reference model has been missed and the prognosis, and to the prognosis related financial plans, had to be crafted according to the company internal data. The problem is that the valuer had only a limited possibility to prove whether these statements have or could have some relevance or whether they are for various reasons over optimistic or over pessimistic.

The research conducted in the Dresden region provides a wide data set of factors which proved important for achieving and sustaining success and, most importantly, uncovered their relative importance from the point of view of the top executives of the companies. These data and the quality of such data have not been accessible to business valuers yet. As it will be shown below, the practical relevance is immense since the connection of the Dresdner reference model with the generally applied discounted cash flows models for equity valuation can help us fine-tune the parameterization of the models (free cash flow, time scale of the planning phases) but also can us help choose the appropriate planning method by identifying the business model of the evaluated company and relating the business model with the financial and operational parameters of its direct competitors.

2.2 Research Development and Scope
The early warning system project was developed in five phases (in detail see [2]). In the first phase, the scientific basis (literature review) was reviewed and analyzed. Then there followed an inquiry from the perspective of professionals from the corporate environment (expert interviews). The opinions and experiences of the affected contractor / spillways (entrepreneur interviews) were gathered and summarized. The obtained results were subsequently discussed with experts and entrepreneurs from the analyzed industry in a workshop. The aim was to evaluate the previous project results and to simultaneously create a basis for the subsequent written survey of the data gathered. This served as a basis for creation of the models of behavior and managerial attitude. Finally, the theoretical models and empirical findings were merged into an overall reference model (in more detail see [2]).

2.1 The Company as Vital Living Organisms
(Amoeba Model)
The basic research outline has been inspired by the concept of fractal organization of Warnecke [8]. To take advantage of the interaction of the leading operational and financial indicators for industrial practice, a company can be viewed as a living organism in the form of an amoeba [2]. Like any living organism (amoeba) a company must distinguish the relevance of inputs on the basis of a certain self-knowledge, which is advantageous for self-development and avoidance of unnecessary dangers. Only in this way an organism can grow in the ever-changing environment and secure its sustainable existence.

A company moves accordingly as a "multidimensional" living organism in a complex and dynamic environment consisting of different markets. This is the "sleeve" to the outside world, the strategic management (outer shell amoebas), which should register - when a relevant change in the environment (opportunities and risks) occurs – "sense" in the form of an early warning. The "sense", however, has to be simultaneously directed inwards, since also local changes (strengths / weaknesses) can lead to new opportunities or threats.

In this context, findings and requirements for an action by formulating a business strategy can be derived by understanding the "protective skin" to the core operational elements of the company (internal amoeba nucleus). By causing changes in the company itself there is a chance, these actions will lead to growth and risks avoidance and better corporate control. This requires an active ongoing evaluation of the company and direct implementation of the appropriate adaptation and mitigation policies.
As part of the literature, 75 sources (books, magazines, Internet, etc.) were examined for viability factors. From this initial phase, the first preliminary reference model was created.

In the two subsequent stages of the project, interviews with 17 experts and 20 entrepreneurs were carried out in the form of structured interviews. In selecting the experts, the main focus was put on the qualitative design of the group of executives and their duties and insight into many areas of business. The emphasis was on the selection of contractors / entrepreneurs in the area of manufacturing industry in mechanical engineering. The goal of both rounds of the structured interviews was to identify the "success factors" in terms of doing business in the current environment. In order to make a close examination of the experience of the executives within the sample group possible and in order to gain an insight into the coping and coping strategies of the respondents, the well established and recognized research methods based on the concepts of "narrative interview" ([6], p. 283ff.) and "Critical Incident Method" ([3], p. 327) were used. To evaluate the content the interviewers were repeatedly listening to the conversations and transferred the information gained into the core statements of the success factors of the companies.

2.3 Research Results – The 10-D Model

The viability of a company consists of a variety of influences, which were summarized in this model concept into several dimensions. The results of the studies conducted led to a redesign of the original model derived from the literature review (in detail see [2]). This newly created 10-D model incorporates ten interrelated dimensions as shown in Fig. 2. Among these factors there are other influencing levels (success factors), which in sum are linked to each other hierarchically.

Figure 1. Project Schedule
Figure 2. The 10-D Model

The Final Dresdner Reference Model

By consolidating all the information a model composed of 10 dimensions and 52 factors, which are described by some 350 criteria was derived.

Figure 3. Dresdner Reference Model

Source: [2]
As can be seen from Fig. 3, the successful mid-sized industrial companies are characterized primarily by focusing on the following features:

- Operational Background and Identity,
- Goals & Strategies,
- Personality of the Entrepreneur,
- Company Structure,
- Resources,
- Employee Behavior,
- Business Processes,
- Processes of Change,
- Market,
- Environment.

The basis of success is a strong sensitivity in the field goals & strategies, strong resource base, which exerts a great influence, customer-focused attitude, followed by structures and processes. A lower weighting given the dimensions, entrepreneur, operational background, change processes and employee behavior. In sum it can be concluded that there are no major gaps (except operational environment with a very low relevance) between the different pillars of the company's success.

3 The Business Valuation Perspective

The implementation of a successful business strategy directly affects the value of a company. Here there are two basic perspectives to view the composition of the value of a company:

- the perspective based on measurable fundamental value drivers (sales and its dynamics, operating profit margin, CAPEX, free cash flow, discount rate, duration of the company),
- the mathematical, or computational, perspective affecting the composition and parameterization of the valuation model.

As we can observe, the identification of the major factors making a manufacturing business successful can be used as a reference and compared with the strategic perspective of a comparable company (in terms of the business model and industry).

3.1 Discounted Cash Flows (DCF) Models

Let us briefly summarize the generic DCF valuation models widely used for valuing manufacturing companies (in detail with an extended overview of the related literature see [5]).

1. Simple perpetuity

\[
Continuing \ Value = \frac{FCF_{T+1}}{i_k} \quad (1)
\]

where:

- \( FCF_{T+1} \) free cash flow in the first year of the second phase
- \( i_k \) discount rate

2. Gordon Formula (constantly growing perpetuity)

\[
Continuing \ Value = \frac{FCF_{T+1}}{i_k - g} \quad (2)
\]

where:

- \( FCF_{T+1} \) free cash flow in the first year of the second phase
- \( i_k \) discount rate
- \( g \) growth rate

3. Parametric Formula

\[
Continuing \ Value = \frac{KPV_{T+1} \left(1 - \frac{g}{r_i}\right)}{i_k - g} \quad (3)
\]

where:

- \( KPV_{T+1} \) net operating profit corrected for non-current items in the in the first year of financial prognosis
- \( r_i \) return on net investments
- \( i_k \) discount rate
- \( g \) growth rate

These models are based on the assumption that a company evolves in a standardized manner over time. The standard situation encompasses four market phases starting with the introduction and going until the stagnation of the company (in detail with an extended overview of the related literature see [5]).

According to the evaluation of the industry competitive dynamics, a valuer has to first derive the prognosis of sales, its dynamics and the related investment needs, financing needs and the appropriate discount rate. A very important, yet arbitrary, decision must be taken in terms of identifying the future growth (or decline) phases of the evolution of the company to be valued. Two and three phase’s models are generally applied:

\[
H = \sum_{t=1}^{T} FCF_t (1 + i_k)^{-1} + \frac{PH}{(1 + i_k)^T} \quad (4)
\]

where:

- \( T \) first phase length in years
- \( PH \) continuing value
- \( i_k \) discount rate
- \( FCF \) free cash flow
- \( H \) company value (entity or equity)
The three phase DCF model:

\[ H = \sum_{t=1}^{T_1} FCF_t (1 + i_k)^{-t} + \sum_{t=T_1+1}^{T_2} FCF_t (1 + i_k)^{-t} + FCF_{T_2+1} (1 + i_k)^{-T_2} \]  

where:
- \( T_1 \) length of the first planning phase in years
- \( T_2 \) sum of the lengths of the first and second phase in years
- \( i_k \) discount rate
- \( FCF \) free cash flow
- \( H \) company value (entity or equity)

4 Conclusions
Companies are forced to recognize early systematic changes with a corresponding advance in order to gain adequate scope for developing appropriate strategies. The time factor has therefore primary importance. The relevance of the Dresdner model for the purpose of income based business valuation can be seen primarily in the following areas:
- Better understanding and better evaluation of the currently applied business model of the company being valued,
- Helping the valuer assess better the strengths and weaknesses of the firm in order to decide about the fulfillment of the going-concern principle of the company and to choose the appropriate basis (standard) of value,
- Helping the valuer decide about the lengths of the first (or explicit) planning phase of the financial plan (as shown in the generic model above),
- Choosing the appropriated data sets and methods for undertaking the strategic analysis and prognosis of sales serving as a starting point for crafting a financial plan from which free cash flows distributable to the company owners will be derived,
- Helping the valuer better estimate the predicted growth rate in the second and third phase of the financial plan having a major impact on the final numerical result of the income based valuation, particularly by using the Gordon discount model or simple perpetuity for the second phase,
- Picking the appropriate peer group of comparable publicly traded companies in order to compare the income based value with the value of companies already valued on the public capital market.

There are further overlappings which should be considered in subsequent research, e.g. construction of a probabilistic model incorporating the 10 dimensions of the Dresdner reference model and its empirically determined relevance into a framework for financial business planning and evaluation of the anticipated success of the expansive business strategies being undertaken.

References: