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OPTIMIZING RISK STRUCTURE IN CONNECTION WITH THE CORPORATE LIFE CYCLE AND SECTOR CYCLICITY

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Abstract

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Entrepreneurial activities and thus also investments are connected with two kinds of risks, namely with the operational and financial risk. Both of them are dependent especially on the corporate life cycle and on the sector sensitivity to the economic cycle. The main aim of this article is to propose a methodology supporting managers and investors when estimating the shares of operational and financial risks in the entrepreneurial risk with taking into account the corporate life cycle and the sector sensitivity to the economic cycle. This methodology is subsequently applied in a selected company in the form of a case study and thus their results prove its practical applicability for both financial managers and potential investors as decision makers. This study relies on both secondary and primary data that were collected using databases and a semi-structured questionnaire. The data were processed by using descriptive statistical methods and a case study. The proposed methodology considers the actual phase of the corporate life cycle and the degree of sector sensitivity to the economic cycle. Determining the risk structure should simplify the risk management and subsequently raise the capital access. The methodology also contributes to investment decision-making, because the investors can assess investments with regard to their risk profile.

Keywords: monetary policy, business cycle, macroeconomics, microeconomics, management, corporate life cycle, financial risk, operational risk, investment decision-making, risk management

INTRODUCTION

External financing from different types of investors represents a significant item of capital in most enterprises. Although every investment is connected with additional expected revenues, the risk must be also considered, which is carried by investors. The factor of risk is essential for investments in both real and financial assets.

Furthermore, the actual theory distinguishes the risk and the uncertainty. As the risk, there is regarded not all type of uncertainty, but just this one, which is quantifiable. A very suitable tool for identifying and measuring risks is the fundamental analysis of financial statements, because both the managers and investors can get many important data just from these documents.

The entrepreneurial risks can be, according to Reiners (2004), divided into operational and financial risks. The operational risks follow from either macroeconomic or microeconomic environment, or they have their origin in the entrepreneurial activities themselves. The financial risks are related to using external capital, especially debt.

A very important factor influencing the degree of both kinds of the entrepreneurial risks is the corporate life cycle. In each phase capital providers carry another degree of the individual risks. There is necessary to emphasize, that every phase is connected with some specific risks. Similarly to the corporate life cycle, there is suitable to consider the relation between the market life cycle and the

economic cycle, because some sectors are more sensitive to the economic cycle, which determines a higher degree of risk, compared to other sectors.

The financial managers should be able to identify and measure operational and financial risks in every phase of the corporate life cycle. Thanks to this competence they can manage these risks more effectively and they can subsequently obtain new investors and keep the actual investors, because such investment would be more attractive for them. For the purposes of measuring operational and financial risk the input data should be easily accessible not only to managers, but also to investors, because the investors want to verify, which degree of operational and financial risks is carried by them. As there was written above, these input data can be found in financial statements that are set according to domestic or international accounting standards.

THEORETICAL BACKGROUND

First of all, there are recorded the most important characteristics of individual phases of the corporate life cycle. Subsequently, relations between the corporate life cycle and the degree of operational and financial risk are described. There is expected, that the corporate life cycle consists of four phases as mentioned by Reiners (2004), namely foundation, growth, stabilisation and decline. No previous paper has, to our knowledge, dealt with the issue of the risk structure related to the sector sensitivity to the economic cycle. There is just generally known, that doing business in neutral sectors is less risky compared to cyclical or anti-cyclical sectors.

Corporate Life Cycle

In the phase of foundation, the value of gross investments increases, according to Reiners (2004), a little faster than depreciation, thus the value of net investments is positive. In the phase of growth both gross investments and depreciation increase rapidly, the value of net investments increases not rapidly but just slowly, because depreciation increases more slowly than gross investments. In the phase of stabilisation depreciation is approximately equal to gross investments and so the net investments are at first constant and subsequently are getting to decrease mildly. In the phase of decline, depreciation exceeds the gross investments, and so the net investments are negative.

According to Reiners (2004) the capital need increases at first convexly, subsequently the increase has been slowed down and at the end of the phase of growth or at the beginning of the phase of stabilisation the capital need reaches its highest values. Afterwards, the need for capital decreases concavely.

At the beginning of the phase of foundation the entrepreneurial activity are financed almost exclusively by equity. Later the possibilities of getting debt increase thanks to growing perspective of the company. The highest share of debt is at the beginning of the phase of stabilisation. In the phase of decline the creditors are less willing to provide their sources and so there dominates the financing by equity again (Reiners, 2004). Bender and Ward (2009) came to similar conclusions; according to their study the companies in the phases of foundation and growth should be financed by equity, in the phase of stabilisation by debt and in the phase of decline they should reduce the indebtedness.

Nývltová and Režňáková (2007) record, that during the corporate life cycle the company has different possibilities to obtain funds from the financial market to conduct investments. In the phase of foundation the enterprising can be financed just by entrepreneurial deposits. During the phase of growth financial sources provided by business angels and leasing companies can be used. The phase of stabilisation is characterized by the best access to capital. There can be used various types of equity and debt like bank loans, venture capital or bond and share issues. There is expected, that in this phase the sale to a strategic partner or mergers and acquisitions can be implemented and so the company does not have to switch to the phase of decline.

A specific external financial source is venture capital. Is it available for a company almost in all phases of its life cycle, but most often in the growth- and stabilisation- stage, when the degree of entrepreneurial risk is not very high. E.g. Silvola (2008) mentions that the venture capital is mostly used in companies in the phase of stabilisation and in companies that expand after a crisis again.

Internal sources like depreciation, profit and long-term financial reserves can be used at any time, but their amount depends on the phase of the corporate life cycle. Damodaran (2004) records that in the phase of foundation the internal sources are very low or even negative because of a deep reached loss. That is also valid for an early growth, which is usually rapid and is connected with large investments. During a further growth are already internal sources generated, but their amount is relatively low considering the required amount of financial sources for further investments. The internal sources are almost sufficient to financing investments during the stabilisation and in the phase of decline their amount is higher than the need for financial sources because of a decreasing number of investments.

According to Pashley and Philippatos (1990) in the phase of stabilisation and especially decline companies keep a higher liquidity. This is related to the ability of paying out dividends.

Reiners (2004) points out that the highest probability of over indebtedness is reached at the beginning of the foundation phase and during the decline. On the contrary, the lowest probability is reached at the beginning of growth.

According to Reiners (2004) the sales are at the beginning of the phase of foundation equal to

zero, because the company still does not put its products on the market. In the phase of growth the sales are increasing convexly, at the end of growth slows down this increase and during the phase of stabilisation the sales reach their maximum and then they decrease concavely. Similar courses during the corporate life cycle also have, according to Kislingerová (2010), the operating profits and losses. The only difference is in the fact that in the phase of foundation and decline even negative values can be reached. Furthermore, authors Jenkins, Kane and Velury (2004) found out, that in the phase of growth the change of sales has a greater influence on the corporate value than the returns, whilst in the phase of stabilisation the influence of returns is greater and in the phase of decline the corporate value is more influenced by the returns than by the change of sales.

Reiners (2004) reports that in the phase of foundation the cash flows tend to be negative because companies conduct many investment projects. Next, the cash flows increase gradually, up to the phase of stabilisation, and in the phase of decline the cash flows decrease rapidly to the negative values, which means, that the expenditures are higher than incomes again. The volatility of cash flow is the highest at the beginning of the phase of foundation and then it decreases rapidly. During the phase of growth and stabilisation the cash flow reaches its lowest values. Therefore companies can during these phases set the cash flow plans with a relatively high exactness. On the contrary, in the phase of decline this is not possible, because the volatility of cash flow increases with an increasing degree of risks.

The market value of a company is at the beginning of the phase of foundation, according to Reiners (2004), equal to zero, and then it increases and reaches its maximum in the phase of growth. During the phase of stabilisation and decline the market value decreases and reaches its zero value again.

Companies should, according to Bender and Ward (2009), pay out no dividends in the phase of foundation. Dividends can be paid out in the phase of growth, but only in a minimal extent. Paying out dividends should increase considerably in the phase of stabilisation and their highest value is reached in the phase of decline.

Corporate life Cycle and the Operational and Financial Risk

The operational risk is related to implementing the enterpreneurial activities. The financial risk has its origin in financing these activities. Examples of both operational and financial risks are specified by Reiners (2004).

Bender and Ward (2009) point out that the operational risk reaches the highest value in the phase of foundation. However it decreases permanently during the following phases. The development of the financial risk is the opposite. Both operational and financial risks are moderate in the phase of stabilisation.

There are used some indicators for measuring both kinds of risk, mentioned e.g. by Yan, Yu and Huang (2005), Nielsson (2009) or Doff (2008). Measuring the operational and financial risk separately is possible by using the approach by Reiners (2004). This author measured the operational risk according to the cash flow volatility and the financial risk according to the rate of indebtedness. His findings point out the impact of the one-percent increase in the cash flow volatility or in the rate of indebtedness on risk rewards of owners and creditors during the corporate life cycle. There was found out, that one-percent increase in the cash flow volatility causes almost a five-percent increase of creditors' risk rewards at the beginning of the phase of foundation. This increase is less considerable in the next phases and in the phase of decline the creditors' risk rewards increased just by 2%. The owners' risk rewards react to one-percent increase in the cash flow volatility almost not at all in the phase of foundation. In the following phases of growth and stabilisation the risk rewards of owners decrease in a moderate way and in the phase of decline the risk rewards of owners decrease considerably (up to by 40%). This is a consequence of one-percent increase in the cash flow volatility. The risk rewards of owners react in a similar way during the corporate life cycle as a consequence of one-percent increase in the rate of indebtedness. The risk rewards of creditors increase, as a consequence of one-percent increase in the rate of indebtedness, just slightly during the phase of foundation. However, during the phase of growth, they increase considerably and the highest increase (up to 10%) is recorded during the phase of stabilisation. In the phase of decline the increase of creditors' risk rewards is less considerable because of one-percent increase in the rate of indebtedness.

Furthermore, Reiners (2004) addressed the issue if the owners compared to creditors include into their risk calculations more operational or financial risks during individual phases of the corporate life cycle. To find out this, there was used the indifference curve analysis. The axis x represents the rate of indebtedness (in %) and the axis y the cash flow volatility (in %). Subsequently, there was found, how many percentage points the cash flow volatility must decrease to keep the same risk reward for both the owners and creditors, if the rate of indebtedness increases by a certain number of percentage points. There was found out, that in the phase of growth the owners are, compared to the creditors, more sensitive to the financial risks, whilst the creditors are more sensitive to the operational risks. In the phase of stabilisation and decline this rule is also valid; moreover it is valid more and more distinctly. The phase of foundation is very specific, because in the case of owners the isoquants are growing, which means, that when the rate of indebtedness is increasing the cash flow muss increase as well to keep the risk rewards of owners on the same value.

The next specific characteristic is the fact, that the isoquants representing the preferences of owners and creditors do not have the classic shape of a line, which is usual for the remaining phases of the corporate life cycle; on the contrary they have the shape of a broken line.

OBJECTIVES

The main aim of this article is to propose a methodology supporting managers and investors when estimating the shares of operational and financial risks in the entrepreneurial risk with taking into account the corporate life cycle and the sector sensitivity to the economic cycle. This methodology is subsequently applied in a selected company in the form of a case study and thus their results prove its practical applicability for both financial managers and potential investors as decision makers. No previous paper has, to our knowledge, dealt with the issue of the risk structure related to the sector sensitivity to the economic cycle.

The proposed methodology consists in unification of three models, described in our previous studies. The motivation for unifying them into one methodology consists in considering the market (sector) data in each model. The model of the risk structure determination (Konečný and Zinecker, 2015a) enables, based on the quantification of the share of operational risk, considering the relation between the return on equity of an individual company and the return on equity on the market. The return on equity depends considerably on sales and it is influenced not only by the amount of profit or cash flow, but also by the value of equity. In the second model (Konečný and Zinecker, 2015b) the sales are considered as the main indicator serving for identification phases of the corporate life cycle. There are compared the values of sales in the company with the values of sales on the market. Furthermore, the sales on the market are influenced also by the rate of the sector sensitivity to the economic cycle and its quantification enables our third model (Konečný, 2013). The rate of sector sensitivity to the economic cycle is calculated by using the Spearman correlation coefficient because of its applicability for two quantities, that do not have a normal distribution, and simultaneously for two quantities, whose correlation is not linear. Thus the sector sensitivity is not determined according to the Pearson correlation coefficient, which is used, in a modified form, by Berman and Pfleeger (1997) and which was proposed in Konečný (2013).

The scheme representing the interconnection of partial models used in the methodology and areas for its application is illustrated in Fig. 1.

DATA SOURCES AND METHODS

This chapter is divided into two parts. The first part is dedicated to the data sources, the second part to the applied methods.

Sources of Data

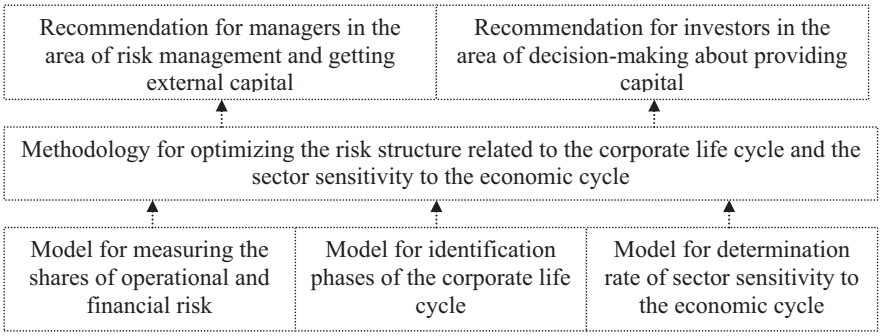
The following sources of secondary data are used to determine the phase of the corporate life cycle and the risk structure:

1. Unconsolidated financial statements, available at www.justice.cz.
2. Macroeconomic data published by the Czech Statistical Office at www.czso.cz.
3. Sectoral data published by the Czech Ministry of Industry and Trade at www.mpo.cz.

The motivation of using the secondary data consists in the practical applicability of the proposed methodology. All potential investors have a full access to publicly available data. However, the following preconditions have to be respected while using the secondary data:

1. There is ignored the fact that a part of companies' sales can have their origin in subsidiary activities or activities that belong to other sectors.
2. The data about market sales are available only on national levels.

Verifying the applicability of the proposed methodology under conditions of a real company required collecting financial data about the company and also primary data were used for identifying respondents' opinions and attitudes to the proposed methodology.



1: *The Methodology – Interconnection of partial models*
Source: own research

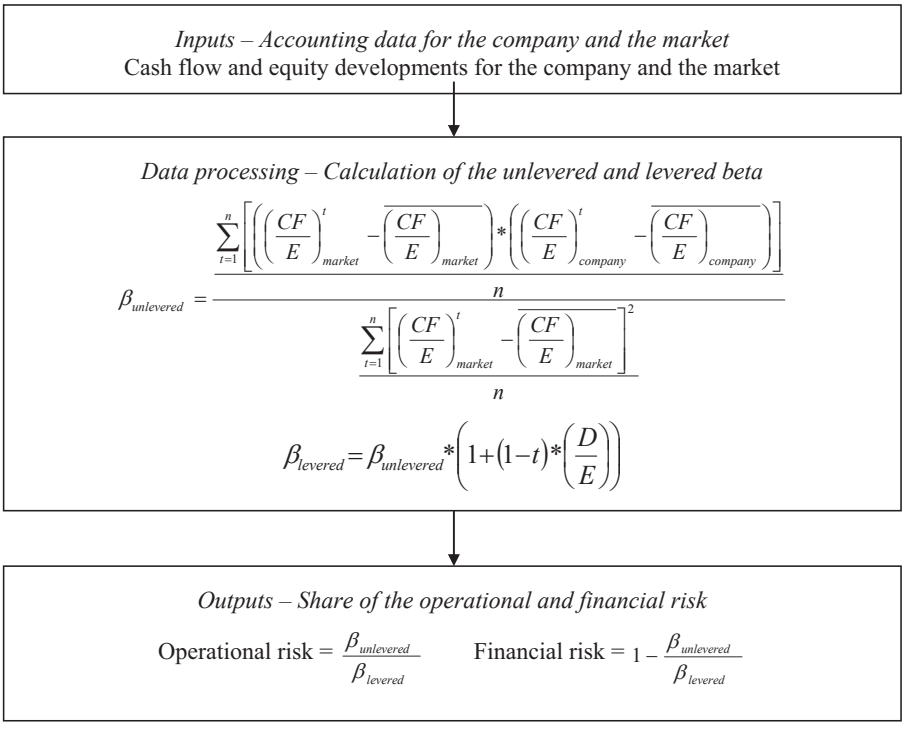
Used Methods

The research approach was developed after an extensive review of risk structure and corporate life cycle-oriented academic literature. The secondary data have been processed by using statistical methods, namely relative frequency to determine the phase of the corporate life cycle and weighted chronological mean to determine the risk structure. The methodology for optimizing the risk structure related to the corporate life cycle and the sector cyclicity has been proposed by using the methods based on a thought process. The main method is content analysis of existing documents.

The methodology supporting managers when estimating the shares of operational and financial risks in the entrepreneurial risk with taking into account the corporate life cycle and the sector sensitivity to the economic cycle was implemented in a manufacturing company operating in the Czech Republic. The main outputs are presented in the form of a case study including the company introduction, data sources, empirical findings and the discussion. The main motivation for using the case study as a research method is verifying the applicability of the proposed methodology under conditions of a real company. The case study relies on financial (secondary data) and further on primary data that were collected using a semi-structured questionnaire. The questionnaire was put into an electronic form and, in autumn 2014, sent by e-mail to the CFO with a request for completion. To increase the quality of information, the respondent was inquired by phone in the next stage. The content of the interview was focused on assessment the quantities used in partial models. The complementary information concern the risk profile of shareholders, accounting methods and differences between market and accounting value of the company and the quadrant of the Boston Matrix which is typical for key products of this company.

RESEARCH RESULTS

Firstly, there is proposed a methodology for optimizing the risk structure related to the corporate life cycle and the sector sensitivity to the economic cycle in the following chapter. The methodology consists of three partial models. In each model there are illustrated inputs, data processing and outputs. Next, a chapter is dedicated to a case study which aims to verify the applicability of the proposed methodology under conditions of a real company.



2: *Model for measuring the shares of operational and financial risk*
Explanatory notes:
$\beta_{unlevered}$...unlevered beta,
$\beta_{levered}$ .....levered beta,
CF.....cash flow,
E .....equity,
t.....effective tax rate,
D.....debt.
Source: own research

Methodology for Optimizing the Risk Structure Related to the Corporate Life Cycle and the Sector Sensitivity to the Economic Cycle

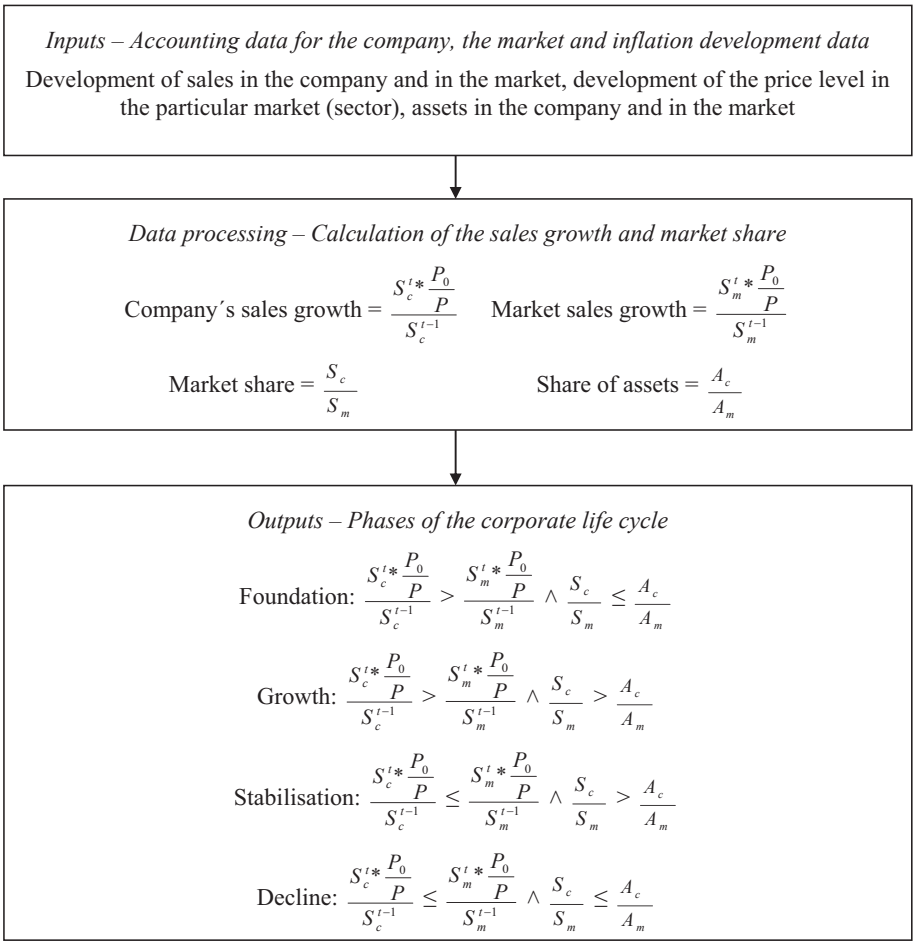
The proposed methodology consists of three partial models that are interconnected by using market (sector) data.

The model for determining the risk structure is described in Fig. 2. There are inputs in the first, the method of data processing in the second and outputs in the third window displayed.

The main advantage of this model is the possibility of measuring the operational and financial risk separately and thus to calculate shares of both kinds of risks. The practical contribution is evident for both managers and investors. The financial managers can manage the risks more effectively to get more external financial sources. According to the risk structure the managers can decide, whether they will acquire new owners or creditors.

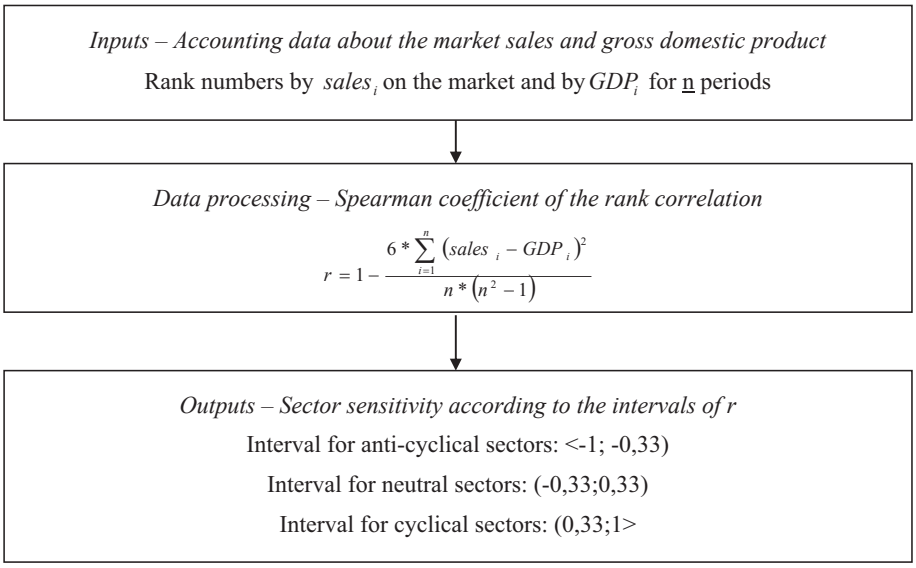
The model for identification phases of the corporate life cycle is described in Fig. 3. There are inputs in the first, the method of data processing in the second and outputs in the third window displayed.

The contribution of this model to the theory of the corporate life cycle consists in setting intervals for high and low sales growth and high and low market share. This enables to identify all the phases of the corporate life cycle regardless the values of inputs quantities. The model can be used in companies acting in any country, because of considering the rate of inflation. The managers should strive for switching the company into stabilisation, because this phase is the most favourable for investors.



3: *Model for identification phases of the corporate life cycle*

Explanatory notes:
S_c^t ..... sales in the company in the actual year,
S_c^{t-1} ..... sales in the company in the previous year,
S_m^t ..... sales on the market in the actual year,
S_m^{t-1} ..... sales on the market in the previous year,
P ..... price level in the sector (market) in the actual year,
P_0 ..... price level in the sector (market) in the previous year,
A_c ..... assets in the company,
A_m ..... assets on the market.
Source: own research



4: *Model for determination the rate of sector sensitivity to the economic cycle*
Explanatory notes:
r..... Spearman coefficient of the rank correlation
$sales_i$ ..... sales on the market, measured i-times
GDP_i.... gross domestic product, measured i-times
Source: own research

The model for determining the rate of sector sensitivity to the economic cycle is described in Fig. 4. There are inputs in the first, the method of data processing in the second and outputs in the third window displayed.

This model for considering sector sensitivity to the economic cycle enables to identify anti-cyclical, neutral and cyclical sectors for all values of the Spearman correlation coefficient. The model can be used as a complement by managing risks and also by considering the riskiness of investments.

Case Study

There was implemented the research method of a case study to prove the practical applicability of all the three models and thus the proposed methodology described in the previous chapter within a company. The case study consists of three essential parts – an introduction, research results, and a summarizing and concluding part.

Introduction

The company has been acting in the sector of fertilizers and nitrogen compounds manufacturing. It is a joint-stock company with the amount of assets round CZK 300 M, sales CZK 500 M and 75 employees.

Research Results – Applying the Methodology

There was calculated the Spearman coefficient of rank correlation, describing the relation between the gross domestic product and sales on the market. Its value is –0.0548; so the manufacture of fertilizers and nitrogen compounds is a neutral sector.

The application of the model for measuring the shares of operational and financial risk (see Fig. 2) and for identification phases of the corporate life cycle (see Fig. 3), company accounting data from the period between 2007 and 2012 were used. The company data were obtained from financial statements and the market data were collected from the analytical materials of the Czech Ministry of Industry and Trade.

By using the proposed models, the most frequent phase of the corporate life cycle in the selected company could be identified (see Tab. I) as well as the prevailing form of risk within the risk structure (see Tab. II). Furthermore, impacts of individual items of the balance sheet on the share of operational risk were calculated (see Tab. II).

Tab. I shows that the predominant phase of the corporate life cycle in the company was the growth (in three surveyed periods). Tab. II describes the process of calculation the shares of operational and financial risk. Furthermore, there are recorded the selected items of balance sheet and their impacts on shares of the operational risk. Thus there is compared the share of operational risk assuming all the items of the balance sheet change with the share of operational risk assuming just one item changes and other items are constant.

Concluding Remarks

All the items of assets have approximately the same impact on the cash flow volatility and thus on the share of operational risk in the selected company (see Tab. II). Any changes of each item, assuming constant values of other items, would cause a decrease in the share of operational risk from 70%

I: *Corporate life cycle phase identification – Partial calculations (in %)*

Characteristic	2008	2009	2010	2011	2012
Sales growth in the company	–8.18	7.33	11.96	33.64	4.46
Sales growth on the market	–29.61	–1.49	50.12	9.70	17.86
Market share	0.42	0.46	0.34	0.42	0.37
Share of assets	0.22	0.25	0.24	0.26	0.30
Relative sales growth	High	High	Low	High	Low
Relative market share	High	High	High	High	High
Quadrant of the Boston Matrix	Stars	Stars	Cash cows	Stars	Cash cows
Phase of the corporate life cycle	Growth	Growth	Stabilisation	Growth	Stabilisation

Source: own research

II: *Determination of the risk structure – Partial Calculations (in the index form)*

Characteristics	Value
Covariance with the market	0.0033
Variance of the market	0.0020
Unlevered beta	1.6287
Weighted chronological mean of indebtedness and effective tax rate	1.4516
Levered beta	2.3642
Share of operational risks	0.6889
Share of financial risks	0.3111
Influence of tangible and intangible fixed assets	–0.2
Influence of long-term financial assets	–0.2
Influence of inventory	–0.2
Influence of long-term and short-term receivables	–0.2
Influence of registered capital	Can't be quantified
Influence of profit/loss – current year	–0.1
Influence of profit/loss – previous years and capital funds	0
Influence of reserves	–0.2
Influence of long-term payables	–0.2
Influence of short-term payables	–0.1
Influence of bank loans and financial accomodations	–0.2

Source: own research

to 50%. The same impact is also valid for some items of liabilities, namely reserves, long-term payables and bank loans and financial accommodations. However, it is necessary to emphasize, that changes of these items influence not only the operational risk, but also the financial risk. Such changes would cause a different structure of liabilities and thus the rate of indebtedness. That is the main argument for the fact that no of these items has a positive impact on the share of operational risk. The changes in profit/loss of the current year and the short-term payables would cause a decrease in the share of operational risk up to 60%. The change of profit/loss of previous years and capital funds would not have any impact on the structure of entrepreneurial risks. The registered capital was the same in all the researched periods, which means, that the influence of this item cannot be quantified. The unlevered and levered beta would be equal to zero and so there would not be possible to determine the share of operational risk as a ratio of these two components of the beta coefficient.

Our respondent, who is the main accountant in the company, expressed her opinions towards the proposed methodology within a semi-structured interview. The acquired information was subsequently compared with the results of the financial analysis. Most products of the company are in the quadrant of cash cows (according to the Boston Matrix). This quadrant is typical for the phase of stabilisation. Therefore, incongruence between the corporate life cycle and the product life cycle could be identified (see Tab. I). The respondent rather disagrees with the deriving the corporate life cycle from the product life cycle. On the contrary, the respondent admits that there is rather difficult to determine the quadrant of the Boston matrix for individual products. The respondent's opinion is that the inflation has just a negligible impact on the rate of sales growth. On the contrary, using

a comparison of the values of the company with the values of the market was evaluated as a "suitable tool" while identifying the phase of the corporate life cycle. That means, that there is an understanding that the growth of sales on the market supports managers to determine a high or low rate of sales growth and that the amount of assets is a tool how to determine a high or a low market share. The respondent assumes that the value of the beta coefficient is more influenced by the operational risk than by the financial risk. This is a support given to our finding that the share of the operational risk is over 50%. Furthermore, the respondent quite agrees with the statement, that the cash flow volatility must be related to the amount of equity. According to the respondent, the accounting data are very different from the market data. However, the accounting data are not "too distorted by accounting methods".

DISCUSSION AND CONCLUSION

The main aim of this article is to propose a methodology supporting managers and investors when estimating the shares of operational and financial risks in the entrepreneurial risk with taking into account the corporate life cycle and the sector sensitivity to the economic cycle. This methodology is subsequently applied in a selected company in the form of a case study and thus their results prove its practical applicability for both financial managers and potential investors as decision makers. This study relies on both secondary and primary data that were collected using databases and a semi-structured questionnaire. The data were processed by using descriptive statistical methods and a case study.

One of the basic tasks of financial management is to minimize the entrepreneurial risk. The managers should know, whether the operational risk, which has its origin in entrepreneurial activities themselves, or the financial risk, related to using debt for financing these entrepreneurial activities, dominates. When there is proven, that the share of operational risk is higher than the share of financial risk, the financial managers should strive for decreasing the volatility of such items of assets or liabilities, that influence the cash flow volatility the most. When the share of financial risk is more than 50%, the financial managers should strive either for raising equity, or reduce the most significant items of debt. So the effort of financial managers should be aimed at reaching the balance of both kinds of risk, i.e. to the state, when the shares of operational and financial risk are approximately the same. In this case, managing operational risk, to its reducing, has approximately the same effect on the cost of equity as managing the financial risk. The next advantage of this situation is the fact, that managers can use either equity, or debt within external financial sources, which is derived from results by Reiners (2004). If the share of operational risk is higher than the share of financial risk, then the company has an easier access to equity, because the owners are not much afraid of operational risk and are more sensitive to financial risk. There would be a problem with acquiring debt, because the creditors are sensitive just to operational risk, whose share is more than one half, in this case. On the contrary, the company has an easier access to debt, when the share of financial risk is higher than the share of operational risk.

Furthermore, the company should be in the phase of stabilisation. Even in this phase there are reached high sales and also high profits and cash flow, because the company does not have to implement many large investments that are typical for the phase of growth. In the phase of stabilisation, there is recommended, that the value of investments should be approximately equal to the value of depreciation and so the company should implement just reproduction investments. In the phase of stabilisation cost of capital is minimized, too. From the results by Bender and Ward (2009), who record that the operational and financial risk is kept on the middle level, can be derived, that the share of operational and financial risk should be approximately the same in the phase of stabilisation. If the company should switch to the phase of stabilisation, there is needed to reach or keep a high market share and simultaneously to reach a low rate of sales growth. Neither the sales, nor the assets on the market can be influenced, and so the only one possibility for reaching this state is to arrange the sales growth higher than the growth of assets. But the sales of the company must increase more slowly than the sales on the market. From these findings some recommendations are derived. The financial managers should not raise the capital and implement additional investments, but they should focus on more effective using of available assets, which can be monitored by using the indicator of assets turnover.

The rate of sector sensitivity to the economic cycle cannot be influenced by the company, but the financial managers should know, whether the sector, where the company is acting on, is characterized as a cyclical or anti-cyclical, or whether the sector belongs to neutral sectors. This factor considerably influences the accessibility of external financial sources, which is in cyclical sector the highest, when the gross domestic product increases, in anti-cyclical sectors is it the highest, when the gross domestic product decreases, and in neutral sectors is approximately the same regardless the economic cycle. So if the company acts on a cyclical sector, then the financial managers have problems with obtaining external equity and debt, even though the operational and financial risks are held on the same level.

The same problem can arise during the expansion, when the company acts in an anti-cyclical sector. The sector sensitivity to the economic cycle influences not only the rate of indebtedness, which is the measuring indicator of financial risk, but also the cash flow volatility, serving for measuring operational risk. There can be, depending on the economic cycle, considerably changed sales of the company and other items, which are connected with sales like variable costs, current assets, short-term payables and the profit. Thus the rate of sector sensitivity to the economic cycle can be reflected in the corporate life cycle. If the company acts in a cyclical sector, then the financial managers should, in the case of growing gross domestic product and sales on the market, strive for increasing sales of the company for the purpose of holding a high market share and the corporate sales growth should be lower than the market sales growth. In the case of decreasing gross domestic product, and thus decreasing sales on the market, the company can hold a high market share more easily; nevertheless, the financial managers should arrange the increase of the corporate sales would not be very significant. These findings are valid analogously for companies acting on anti-cyclical sectors. There is only the difference that the sales on the market decrease, when the gross domestic product increases, and vice versa. There is also needed to emphasize, that financial managers in companies acting on neutral sectors should monitor the rate of sector sensitivity to the economic cycle, which can change in the course of time, and the neutral sector can become a cyclical, or anti-cyclical sector and so on.

The mentioned findings point out that the potential investors should know the structure of entrepreneurial risk. If the share of operational risk is more than 50%, rather new owners should be acquired. On the contrary, when financial risks dominate, such a company is more suitable for potential creditors. Both the potential owners and creditors can use the findings about the corporate life cycle and about the rate of sector sensitivity to the economic cycle, especially investors with risk aversion. When investing into companies the investors should prefer such entities which are in the phase of stabilisation and simultaneously act in a neutral sector. Another investment option is represented by companies operating either in cyclical or anti-cyclical sector, when the actual phase of the economic cycle is favourable for this sector.

Some essential recommendations can be derived from the proposed methodology for financial managers in the selected company. They should focus especially on reducing the volatility of their profit/loss of previous years and capital funds. This item is volatile in such an extent that in the case that all other items of the balance sheet are constant there is recorded no decreasing of the share of operational risk within entrepreneurial risks. The evidence presented in our case study shows that the company is operating in the phase of growth, which is characterized by a high growth of sales and simultaneously by a high market share. Therefore, the financial managers of this company should hold a high market share, which can be reached by an effective using of actual assets. There should be implemented only reproduction investments, which would cause an increase of profits and cash flows. A low growth of sales in the company would be recorded in comparison to the sales growth of the market. The company acts in a neutral sector and the fluctuations in the economic cycle should not have any significant impact neither on sales of the company, nor on the risk structure and the access to external capital. Nevertheless, we recommend financial managers to monitor the rate of sector sensitivity to the economic cycle continuously, because the neutral sector can become a cyclical sector and the switch of the national economy to the recession would signalize many problems. Investing in such a company is more suitable for potential equity providers, because of their financial risks sensitivity to and the low share of this kind of risk. On the contrary, we do not recommend creditors to invest in this company.

The summarized key conclusions of our study are:

1) The proposed methodology considers the actual phase of the corporate life cycle and the degree of sector sensitivity to the economic cycle. Determining the risk structure should simplify the risk management and subsequently raise the capital access. The methodology also contributes to investment decision-making, because the investors can assess investments with regard to their risk profile. No previous paper has, to our knowledge, dealt with the issue of the risk structure related to the sector sensitivity to the economic cycle.
2) The results of the case study confirm that the methodology is applicable in the entrepreneurial environment. The only significant disadvantage of the model, derived from the Boston Matrix, is a simplifying assumption that the corporate life cycle copies the product life cycle. Furthermore, there is evidence that significant difference between accounting and market data exist, which is a weakness of our model of measuring risks.

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