

P roposal and Simulation of Dynamic Financial Strategy Model

Received: 20/03/2018

Approved: 23/07/2018

¹ Veronika Svatošová

Abstract

The financial strategy and managing the finance is understood as a fundamental part of successful business. Nevertheless, the studying theory and practice shows that this part is marginalized. Therefore, this paper deals with financial strategy and its importance in current business field. The objective of this paper is to propose the dynamic financial strategy model that could enable to simplify the financial decision-making process and solve the dilemma in setting a concrete financial strategy. The basic research method to fulfil this objective is modelling in Vensim program and further simulation the possible changes. The main purpose of this model is to find theoretical and practical comprehensive insight on setting up a concrete financial strategy and impact of possible financial changes on overall financial strategy. Afterwards, the method of simulation is used, which is a process of creating a real system implementation and experiment with this model in order to achieve a better understanding of the behaviour of the system and to assess various options of its activities. The other research methods are financial analysis of selected variables and studying of documents and relevant resources for building up the dynamic financial strategy model. The main benefits of this model are based on simulation of possible financial decision-makings and changes of the selected variables and new theoretical approach to financial strategy. Finally, the various situations in model are simulated and observed their results. The paper shows the proposed model could be used in business practice.

Keywords: Financial strategy. Financial management. Dynamic financial strategy model. Financial analysis. Vensim program.

¹Mendel University in Brno, Faculty of Regional Economics and International Studies, (Czech Republic), E-mail: veronika.svatosova@mendelu.cz Orcid id: <https://orcid.org/0000-0002-5308-8822>



Introduction

This paper summarizes the current theoretical knowledge about the strategic management, definition and implementation of strategy and the importance of financial strategy. The empirical part is based on modelling the dynamic financial strategy that enables to decide to a certain strategy based on the concrete data from the financial statements. The main purpose is based on focusing the contemporary theoretical knowledge on financial strategy and managing the finance and looking for the optimal decision-making process for financial strategy. This model is created in Vensim program that can provide the changes of variables during the time. Therefore, this model enables to show the changes of certain variables and its impact on overall financial strategy. Finally, this model can enable to strengthen the financial and strategic position of any company in the business market.

Bibliography

Theoretical background is based on defining the importance of strategy in business and then the financial strategy. However, it is surprising that only little space in monographies and articles is dedicated to the financial strategy. The sources describe the selected parts of *corporate financing, investments, short-term and long-term financial decision-makings, but almost no source provides the comprehensive insight on financial strategy and decisions on concrete financial strategy that involves short-term and long-term forms of managing the finance*. Sadler and Craig (2003) define a strategy as a vision and mission, strengths and weaknesses, key factors of a success, sustainable competitive advantage and key decision-makings. Karlöf and Lövingson (2006) stated that strategic work of companies is often infested by the insufficiency of continuity. In some cases, it could be happened that the work is becoming stereotyped and filling in the data is coming more important than the strategic thinking. According to Jakubíková (2008), the strategy of the company is divided into following parts: **Corporate strategy** – *It is implementing in accordance with the direct competitors that operate in the immediate vicinity of the company and that can directly threaten action in the market*. **Business strategy** – *It is focusing on the possibility of the company to the sector or the overall market*. **Functional strategy** – *It is an indispensable form of building successful market position and the necessary support for the optimization of business and corporate strategy*.

According to Kislingerová (2007), the functional level strategy assumes that competitive advantage is obtained by values are transmitted to customers. This value is formed in the whole spectrum of functional areas, which together form the whole business. The basis of any strategy of the company is the well-formed strategic plan. Key elements of strategic planning are following (Bhalla, 2004): **Element 1** – *Identification problems and opportunities that exist*. **Element 2** – *Setting goals (objectives)*. *Goal setting is not*

independent of the identifying the opportunities. **Element 3** – Having a procedure for providing, possible solutions, or "paths", the company can follow to find a solution. **Element 4** – Choosing the best solution, given possible solutions and objectives. **Element 5** – Having some type of review procedures to check how the best solution has been performed. The main objective of strategic planning can be derived from the main objective that is based on maximization of long-term profit, resp. Concept Shareholder Value. Other objectives can be: *ensuring the existence, more opportunities, fewer risks, a stronger competitive position, securing the existing and creating new opportunities to achieve success* (Wöhe & Kislingerová 2007).

Importance of Financial Strategy

"Finance, traditionally, has been at the periphery of the strategic planning and innovative processes, gatekeepers of financial data as opposed to integral members of the process. With changes occurring in the finance and accounting professions, this categorization is shifting, and with the integration of strategy and a more comprehensive view of financial performance, there is an emerging trend toward a more integrated corporate finance function" (Smith, 2014, p. 20). The role of finance in operating decisions is primarily one of valuation and monitoring. Finance helps managers evaluate the operational alternatives available to them and helps them monitor the decisions that are implemented (Narayanan & Nanda, 2004). The increasing importance of strategic management of all business activities, new challenges for manager is coming. The financial strategy needs to be understood in comprehensive insight and as a key element of successful financial strategy. Financial management can be defined as a subjective economic activity engaged in obtaining a needed quantity of funds from various sources of funding, allocation of funds to various forms of non-monetary assets and the distribution of profit in order to maximize the market value of the company (Valach et al., 1999). Nývltová and Marinič (2010), financial management is understood as the selection optimal variant of obtaining the external resources and consequently the internal resources of financing and using with regard of the elementary financial objectives and taking into account the different restricting conditions.

The main financial objectives are usually based on maximizing of market value, optimizing of the capital risk, maintaining the financial stability including the liquidity, profitability or cash flow (Kalouda, 2009; Valach, 2006).

According to Kalouda (2009), financial management is a subset of corporate finance, which is used as a critical tool of corporate finance.

According to Nývltová and Marinič (2010), financial management involves the following principles: principle of respecting the time factor, principle of cash flows, principle of net present value, principle of consideration of risk or principle of optimizing the capital

structure. Růčková and Roubíčková (2012) report that one of the fundamental problems of financial management is to set the total optimal amount of capital as well as choosing the right mix of financing its activities, i.e. capital structure. Modern financial management assumes to meet the main objectives of the company. The basic pillars of financial management are following (Synek et al., 1999): *active use of financial resources and opportunities, defining financial strategies, high autonomy of decision-making at lower levels, application of financial management at all level of corporate management, creating plans and budgets in a close cooperation of all departments, conducting high quality analyses and implementation of the necessary measures.* The main stages of financial management are following (Calandro & Flynn, 2007): 1) strategy formulation, or the determination of how to satisfy customer preferences in unique ways, 2) resource allocation, or the process of funding and staffing strategic initiatives that are tied to delivering customer satisfaction, 3) performance measurement, or an assessment of the relative success or failure of business activities. The practical applications of financial management can be distinguished into three main groups of decision-makings (Ogilvie, 2009) – investment decisions, financing decisions and dividend decisions – which reflect the responsibilities of acquiring financial resources and managing those resources.

The financial strategy is defined as a relatively coherent and interconnected set of strategic financial objectives, criteria and rules that underlie such planning (Landa & Polák, 2008). According to Bender and Ward (2012), financial strategy has two components – (1) *the raising of funds needed by an organization in the most appropriate manner and (2) managing the employment of those funds within the organization, including the decision to reinvest or distribute any subsequent generated.* The main purpose of setting up the financial strategy is to find the balance among controlling mechanisms, high company performance and minimizing the cost of financial operation to reach the effective management of all three mentioned financial areas (Irwin, 2005). Financial strategy is understood as a form of functional strategy that meets to main corporate and business strategy of the company and is derived from the long-term period and closely relates to the investment activities. Financial strategy is then necessary to edit, update and manage based on changes in the external financial environment and significantly affect the financial stability of the company and contribute to the growth and efficiency of the enterprise and maximization of its market value (Grasseová et al., 2010). Tools of financial strategy are following – *financial analysis, planning, optimizing the financial structure, financial criteria to evaluate the effectiveness of managerial decision-making, cash-flow management, management of receivables and liabilities, budgeting, controlling. Financial strategy, is a separate branch and one type of functional strategy, is an integral part of corporate and business strategy.*

The general financial components of the financial strategy are the main types of financial policies: Investment policy focusing on the promotion of economic efficiency of investment projects; Policy of financing (external and internal) business activities; Policy of managing the assets and liabilities (credit policy); Policy of inventory management; Policy of cash flow and liquidity management; Policy of operating result management; Policy of cost control and profit. Three steps to set up a successful financial strategy are following (Mallete, 2006) – **Step 1** – Establish appropriate financial capital structure, following which a determination would be made of the magnitude of its cash surplus; **Step 2** – Understand whether a company is undervalued or overvalued in the market, by examining investors' expectations from growth, margins, investments and other financial measures; **Step 3** – Develop a financial strategy, to be proposed to the Board for approval, ensuring the company's operations are sufficiently funded, that financial balance is achieved, and that its growing cash reserve is deployed appropriately.

According net working capital, three basic financing strategies are then distinguished to (Režňáková, 2012, p. 107-108) – **Aggressive financial strategy** – In case of aggressive financial strategy, net working capital was is negative. The part of long-term assets is financed by short-term resources. These situations occur in a period of rapid business growth, extensive investment or withhold payments to suppliers. **Conservative financial strategy** – A firm that applies this financial strategy also uses the long-term sources of financing to finance seasonal fluctuations in current assets. Here, it is typical lax approach to inventory management and collection of its receivables or prompt payment of liabilities to suppliers. This may result in reducing the return on invested capital. **Balanced financial strategy** – In this case, consistency between the maturity of financial sources with a lifetime of assets in the company is ensured. Along with short-term operations, they make up the content of corporate financial management (Živělová, 2014). The long-term strategic investment financing should follow three basic objectives (Hrdý & Šimek, 2012) – *provide economically justified budgeted capital at the anticipated investment, complying with the required rate of return, to achieve the lowest possible cost, not to disrupt financial stability.* The selection of an appropriate investment strategy is based on specific conditions, in which the company is located, and specific corporate and business objectives.

The main impacts on the financial strategy could be observed in internal and external constraints (Ogilvie, 2009). The main argument is the issue of optimizing capital structure, in which a certain level of indebtedness creates the effect of tax shield and leverage. Against this statement is the fact that the increasing level of indebtedness causes higher risk of financial instability. Traditional theories declare that can be planned and managed to maximize of value of the company. On the other hand, the Miller-Modigliani model has proved that the capital structure is for a company marginal, because it is determined mainly by real assets and investments decision-makings. Financial managers have to

formulate a policy that balances the effect of these opposing features (external and internal constraints), (Ogilvie, 2009). The external constraints are – *government influence, regulatory bodies, major economic influences, accounting concepts, sources of finance and their cost when determining capital structure policy*. Internal constraints on financial strategy include – *limited access to source of finance, the need to maintain good investor relations and provide a satisfactory return on investment, a shortage of key skills, limited production capacity*.

1.1. FINANCIAL PLANNING AND DECISION-MAKING

The basis tool of financial strategy is strategic financial plan. Strategic (long-term) financial plan (Landa & Polák, 2008) is the tool that predicts all elements of the business strategy to anticipate a common denominator (financial value) and verify if these different elements are consistent and feasible. The starting point for the formation of a strategic financial plan is a set of analyses focused on: *analysis of macroeconomic environment, analysis of the industry environment, analysis of the company portfolio, financial analysis of the company*. Strategic financial plan, as well as all the plans, is elaborated on partial plans at the level of tactical and operational management. The theory and practice show that 93 % of Czech companies consider the area of finance as a crucial part for assessing the business performance (Stříteská & Svoboda, 2012). The short-term and long-term financial planning and financial plan is served as the basis for financial decision-making process. Financial decision-making is the process of selecting the optimal alternative of raising money and capital and their use for essential financial business goals with regard to the various restrictive conditions (Tetřetová, 2006). Financial decisions can be specified as a process consisting of considering the most appropriate options from choosing the optimal variant and control of the implementation of received proposals (Paták, 2006).

Decision-making is the basis for financial management and is understood as a choice of optimal variant of getting money, capital and their use from the perspective of the company basic financial objectives and regarding the limited conditions (Valach, 1999). Decision-making on capital (financial) structure means to decide whether to use internal or external sources (Fabozzi et al., 2011). The optimal capital structure is a mix of long-term funds, which minimize the overall cost of capital (Jindřichovská, 2001). According to Jindřichovská (2013), the large companies indicate that the optimum ratio of debt to assets is somewhere between 21 and 50 %. The most important factors in determining the target capital structures are – maintaining a high level of financial flexibility, paying a fixed financial cost, maintaining a credit rating of bonds (and company in general), no violating the restrictive clauses, maximizing the shareholder value. According Kislingerová (2007), the debt financing may be more profitable assuming high EBIT (Earnings before interests and taxes), but also riskier. The manager must respect both criteria at the same time. The risk of the usage of financial leverage in the Czech companies seems to be very high due

to the predominance of short-term resources for financing. According to Režňáková (2012), large companies with high ratio of long-term assets on total assets uses in large extent own sources of financing. According to Chmelíková (2014), the using of other then own capital brings following shortcomings: the cost of financial distress or costs incurred in relationships between managers, owners and creditors (the agency cost). The theories (Kislengerová, 2004) show that Czech companies prefer financing from the own sources (especially depreciations, reserves or undivided earnings) despite of the fact a certain amount of debts is cheaper than equity, it can be used the effect of tax shield and positive effect of leverage (debts enable increasing the profitability) and reduce the cost of received total capital (Jindřichovská, 2001; Synek, 2002; Petřík, 2007).

Methodology

The main objective of this paper and this research is to propose the dynamic financial strategy model that can enable to demonstrate and simulate changes of financial variables and its impact on overall financial strategy.

The basic research method to fulfil this objective is modelling in Vensim program and further simulation the possible changes. The main purpose of this model is to find theoretical and practical comprehensive insight on setting up a concrete financial strategy and impact of possible financial changes on overall financial strategy. Modelling is the process, in which with the help of abstraction simplifies the process of understanding the reality investigated.

Model can then examine the behaviour of the system by changing the input parameters. "A business model should describe how an organization creates and provides an economic and social value. It is a tool that enables an executive team to experiment with different ideas and scenarios and to predict outputs in a safe low-risk environment" (Marsh, 2013). "Financial models are tools used for making investment strategies; the examples show the importance of developing the appropriate financial models for the purpose and for understanding the assumptions used in each financial model." (Thomas & Sang, 2003). Afterwards, the method of simulation is used, which is a process of creating a real system implementation and experiment with this model in order to achieve a better understanding of the behaviour of the system and to assess various options of its activities. The other research methods are financial analysis of selected variables and studying of documents and relevant resources for building up the dynamic financial strategy model. The Vensim program can demonstrate values of dependent and independent variables, their changes in time and their impact on the desired results.

The Basis for Creating the Dynamic Financial Strategy Model

As above mentioned, the relevant sources dealing with the complex approach financial strategy is insufficient, especially in the field of academic researches. Therefore, the proposed model had to be based only on well-known information and data about issues of financial management, financial planning and financial decision-making by monographies and university handbooks.

It is surprising that no relevant financial models dealing with financial strategy were created; therefore, it seems to have insufficient literature review. This model derives from the basic principles of financial analysis that explores the profitability, liquidity and the cost and capital efficiency. Based on these basic criteria of financial analysis, the dynamic financial strategy was created. For creating the dynamic financial strategy model, the selected variables of financial analysis were used (see Table 1) – i.e. ROE (Return on Equity) and ROA (Return on Assets) as a basic variables of profitability, Total (Current) Liquidity as a complex liquidity variable, Long-term Coverage (Level of Capitalization) and WACC (Weighted Average Cost of Capital) as a complex variable for cost and capital efficiency evaluation. The generally known formulas of the selected variables are given in Table 1.

The main purpose of selecting these formulas is their comprehensive insight on the overall financial situation. Those variables also could provide the quality basis of financial strategy creation and evaluation. The possible limitations of this model could be founded in setting the cost of equity (that is difficult to determine) and cost of debt in the variable WACC (Weighted Average Cost of Capital). The principle of dynamic WACC model is involved in dynamic financial strategy model (see Figure 1). Costs of capital are expenditures of the company that must be paid to obtain different forms of capital (Billet & Dolly, 2007). Cost of equity is usually set by several methods – CAPM model (Capital Asset Pricing Model) that is suitable only for companies trading on capital market, APM model (Arbitrage Pricing Model), dividend growth model or modular models (Dluhošová, 2006).

In case of dynamic financial strategy model, the modular model was selected, because is more universal for companies that are not trading on capital market and that is more suitable in Czech companies (based on INFA methodology, details see MPO ČR, 2015). The formula of cost of equity according to modular model is given in Chart 1 (details see also Dluhošová, 2006).

The costs of debts are in terms of dynamic financial strategy model set as the cost of bank credits – the formula is given in Chart 1 (Dluhošová, 2006).

Return on Equity (ROE)	$ROE = \frac{EAT}{Equity}$
Return on Assets (ROA)	$ROA = \frac{EAT}{Equity}$
Total Liquidity	$Total Liquidity = \frac{Current Assets}{Short-term Liabilities and Credits}$
Long-term Coverage	$Level of Capitalization = \frac{Equity + Long-term Liabilities and Credits + Reserves}{Total Assets}$
WACC (Weighted Average Cost of Capital)	$WACC = R_E * \frac{E}{C} + R_D * (1 - t) * \frac{D}{C}$ $R_E = R_F + R_B + R_{FS} + R_{LA}$ $R_D = \frac{\text{cost of interest}}{\text{the average value of bank credits}} * (1 - t)$
Financial Strategy Model	$Financial Strategy = \frac{ROE + ROA + Total Liquidity + Level of Capitalization + WACC}{5}$

Chart 1: Variables in Financial Strategy Model

Source: own work; Legend: ROE – Return on Equity, ROA – Return on Assets, EAT – Earnings after Taxation, WACC – Weighted Average Cost of Capital, RE – Cost of Equity, RD – Cost of Debts, t – Tax rate, E – Equity, D – Debts, C = E + D (Total Capital), RF – risk-free rate, RB – business risk, RFS – risk premium of financial stability, RLA – risk premium of company size

Afterwards, the scoring evaluation for individual variables in financial strategy model was determined (see Table 1). Based on received values of individual variables, the set points on interval 1 – 5 are determined, where 5 means the excellent result and 1 means very bad result. The selected values and set points of individual variables are inspired by Kralicek Quick test – mainly the values of profitability ROE and ROA (Sedláček, 20001), the total liquidity is based on this source (Kislingerová, 2007), the values of long-term coverage is based on this source (Fotr et al., 2012; Sedláček, 2001) and the values of WACC as the variable of cost and capital efficiency is based on the practice (these values could be adapted to the business sector; the values in theoretical sources are not exactly determined).

Table 1: Evaluation of variables in financial strategy according to points (1 – 5)

	EXCELLENT (5)	VERY GOOD (4)	GOOD (3)	BAD (2)	VERY BAD (1)
ROE	> 0.50	> 0.30	> 0.10	> 0.00	< 0.00
ROA	> 0.15	> 0.12	> 0.08	> 0.00	< 0.00
Total liquidity	> 1.80	> 1.50	> 1.00	> 0.80	< 0.80
Long-term coverage	> 1.1	> 1	> 0.98	> 0.95	< 0.95
WACC	< 0.05	> 0.05	> 0.15	> 0.25	> 0.30

Source. own work

Results of the dynamic strategy model are pointed as an arithmetic average of received points of set variables of profitability, liquidity and cost of capital (see Chart 1 and Chart 2). Based on received total points (see Chart 2), the final financial strategy is determined. When the model shows the highest points (4 – 5), the strategy of maximum profitability and progressive expansion is given, when the results are on interval 3 – 3.9, the strategy of proportional profitability and liquidity is determined, when the results are on interval 2 – 2.9,

the strategy of maximum liquidity should be selected and when the company reaches the critical values between 1 – 1.9, the crisis and rescue strategy should be used. A detail description of individual strategies is given in Table 3. The concrete financial strategies in terms of financial strategy model are inspired by these sources (Režňáková, 2012; Živělová, 2014).

Evaluation According to Received Points	Type of Financial Strategy	Description of Financial Strategy
4 – 5	Strategy of maximum profitability	Aggressive strategy: maximizing the profitability, low or negative value of working capital, possibilities of high volume to long-term investments, potential of the company to be expanded and be progressive, the opportunity for absolute innovations
3 – 3.9	Strategy of proportional profitability and liquidity	Balanced strategy: reaching the reasonable value of working capital and acceptable profitability, the short-term investments or long-term investments with lower volumes could be realized, the expansion of company is possible, but only moderate, not progressive
2 – 2.9	Strategy of maximum liquidity	Conservative strategy: high volume of working capital, low profitability, conservative approach to the managing the long-term investments (no long-term expanding the company, focusing on operational issues of the business)
1 – 1.9	Crisis and remediation strategy	Rescue strategy: the effort to be rescued from bankruptcy, bad values of financial analysis (liquidity, profitability, indebtedness, etc., i.e. no comprehensive financial strategy is in the company realized, change of corporate and business strategy, the change of company conception, production and business, looking for new sources and opportunities for rescue and redevelopment of the company)

Chart 2: Evaluation of variables in financial strategy according to points (1 – 5)

Source: own work

Discussion and Data Analysis

Basic Model Proposal

Based on the information above (financial strategy variables, the results of financial strategy model – see Table 1, 2 and 3) the financial strategy model without dynamics (without set changes) in Vensim program was created (see Figure 1). In this model (see Figure 1), we can see direct links of dependent and independent selected variables that have direct impact on results of financial strategy.

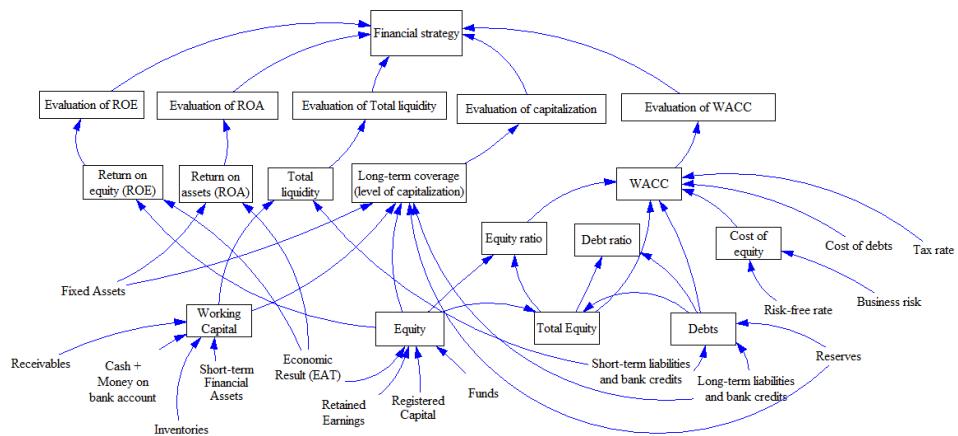


Figure 1: Financial Strategy model without dynamics

Source: own work

The following Figure 2 shows a dependent tree of variables in financial strategy model.

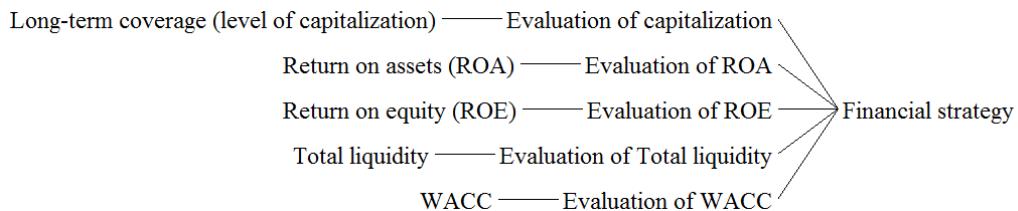


Figure 2: Dependent tree of financial strategy model without dynamics

Source: own work

For simulating the financial strategy model (see Figure 3), the basic fictive values of variables were determined as an example – fixed assets 1 million CZK, current assets (as Working Capital) 1 million CZK, receivables 500,000 CZK, cash and money on bank account 300,000 CZK, inventories 100,000 CZK, short-term financial assets 100,000 CZK, equity 1 million CZK, registered capital 300,000 CZK, retained earnings 500,000 CZK, funds 200,000 CZK, economic result (EAT – Earnings After Taxation) 1 million CZK, debts 1 million CZK, short-term liabilities and bank credits 1,3 million CZK, long-term liabilities and bank credits 400,000 CZK, reserves 300,000 CZK, cost of debts 15 %, cost of equity 17 % (that consist of risk-free rate 7 % and business risk 10 % that is determined with the help of modular model and that represent the risk of the whole brand, based on INFS methodology see MPO ČR, 2015) and tax rate 19 %. Afterwards, the formulas of selected variables were determined to finalize the financial strategy model (based on formulas in Table 1, 2 and 3). The simulation of model shows the result of individual variables and result of financial strategy. The value of ROE on the fictive example is 0.5, value of ROA is 1, total liquidity is 0.77, the long-term coverage 1.35 and WACC is 0.146. Based on this data, ROE has got 4 points, ROA has got 5 points, total liquidity has got 1 point and WACC has got 4 points. The arithmetic average of these values shows the value 3.8. This means that this case should use the strategy of proportional profitability and liquidity (on interval 3 – 3.9). The links in individual variables of financial strategy model means their graphical progress of individual values.

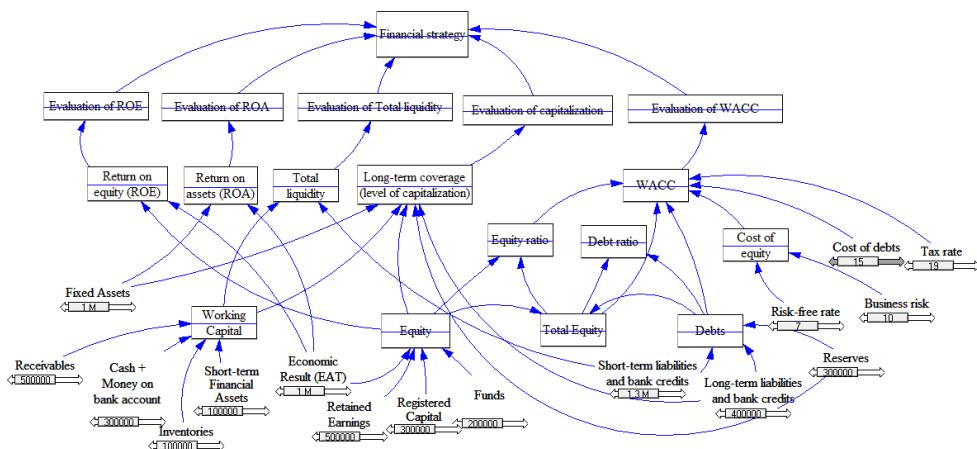


Figure 3: Financial strategy model without dynamics (simulation)

Source: own work

Dynamic Financial Strategy Model (With Simulation)

The Vensim program enables the changes of the model in time. Now, we can simulate the dynamic financial strategy model during the time (in 36 months) and impact of these changes on results of financial strategy model. First model (see Figure 4) provides the changes in equity, i.e. increasing the registered capital by contributions of shareholders by total amount of 1 million CZK and fixed assets by 1 million CZK. We suppose no other variables were changed. This change has caused the changes in ROE (from 0.33 to 0.072 in 36 months), ROA (from 0.25 to 0.009 in 36 months), long-term coverage (from 0.74 to 0.13 in 36 months) and WACC (from 0.15 to 0.16 in 36 months) as well. The total liquidity has not been changed.

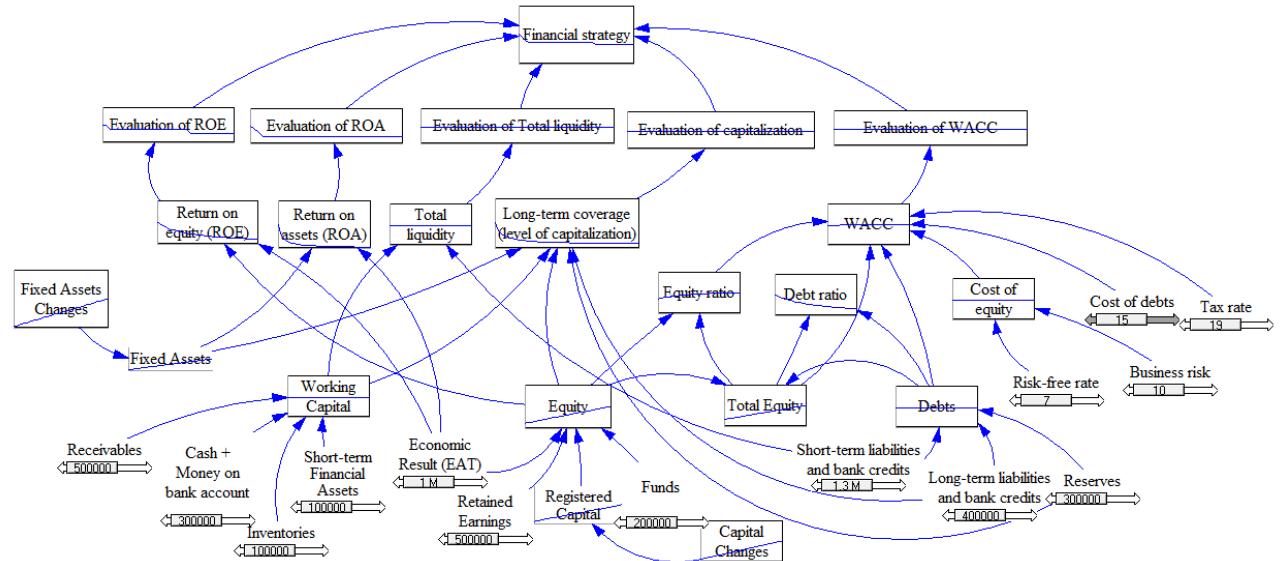
We can see changes on graphs in model during the time. The changes in equity and fixed assets have changed the received points in results of financial strategy (from 2.8 to 1.8 in 36 months – see Figure 7). The change in equity has caused the change in financial strategy, i.e. from the strategy of proportional profitability and liquidity (in basic model without changes) to strategy of maximum liquidity and at the end of 36 months to crisis and rescue strategy.

The similar situation has been provided in case of changes in debts (see Figure 5). This case supposes the increasing values of long-term bank credits by 1 million CZK and increasing the fixed assets by 1 million CZK.

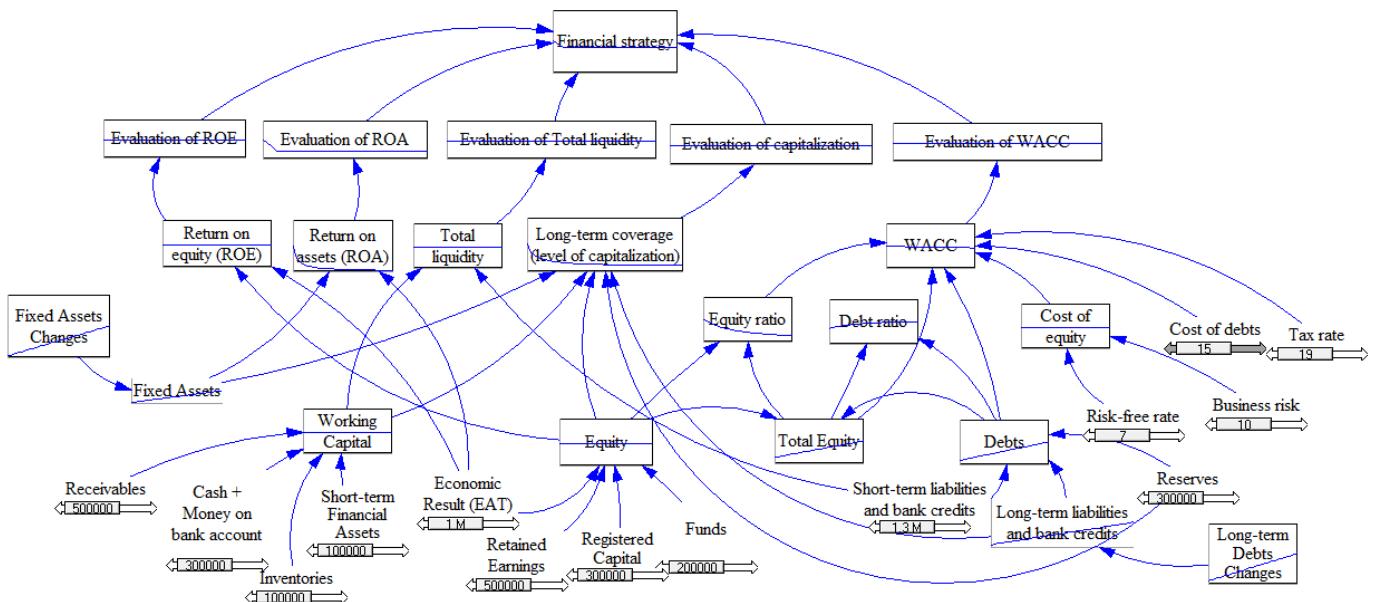
We suppose no other variables were changed. This change has changed the ROA (from 0.25 to 0.009 in 36 months), long-term coverage (from 0.74 to 0.16 in 36 months) and WACC (from 0.14 to 0.12 in 36 months). These changes have caused the final results of financial strategy, i.e. from 3 to 2.4 during the 36 months (see Figure 7). These changes have impact on financial strategy changes, i.e. from the strategy in basic model to strategy of maximum liquidity.

The third situation (see Figure 6) in this model deals with the changes in liquidity, i.e. increasing the short-term liabilities and banks credits by 1 million CZK and increasing the cash and money on bank account by 1 million CZK. We suppose no other variables were changed. These changes caused the changes in total liquidity (from 0.87 to 0.26 in 36 months), long-term coverage (from 0.82 to 0.19 in 36 months) and WACC (from 0.14 to 0.12 in 36 months).

The liquidity has not been changed the basic financial strategy, the values in changed model reached from 3.2 to 3 during the 36 months (see Figure 7). The selected changes in model and their simulation have proved the necessity of changes in financial strategy model and changes of other observed variables.

**Figure 4: Dynamic financial strategy model – with simulation (with Equity)**

Source: own work

**Figure 5: Dynamic financial strategy model – with simulation (with Debts)**

Source: own work

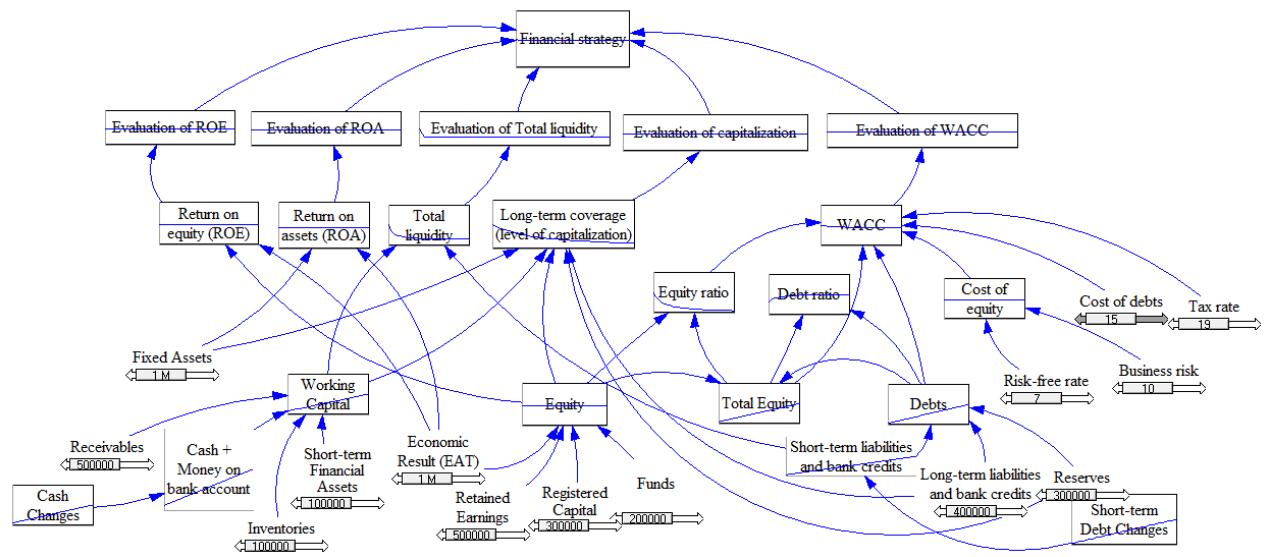


Figure 6: Dynamic financial strategy model – with simulation (with Liquidity)
Source. own work



Figure 7: Dynamic financial strategy model – changes during the time
Source: own work

Model Limitations

It could be stated the dynamic financial strategy model could be generally used in all business sectors. However, some limitations in this model could be observed. First of all, the used variables of financial analysis in financial strategy model could be the subject of

other expert discussion. The author of the paper has selected those variables of financial strategy that could complexly evaluate the profitability, liquidity, indebtedness or cost and capital efficiency and that could provide a complex and quality basis for financial strategy evaluation. The other limitation could be based on set values that are pointed in interval 1 – 5. Some values of variables (ROE, ROA, total liquidity) were inspired by selected sources of financial analysis, some values of variables (WACC, long-term coverage) were estimated based on practice and opinion of the author. The other problem of model could be based on determining the cost of equity or cost of debts, when different methods. For the dynamic financial strategy model, modular model and model of average bank credit were used for determination these risk rates. The selection of other model could change the results of financial strategy model. This model is mainly adapted to the Czech economy and companies that are not trading on capital market.

On the other hand, the model brings in the field of financial management several benefits. It provides a comprehensive theoretical insight of the financial strategy and also a quality basis for financial decision-making process, i.e. it demonstrates the impact of changes in capital and asset structure and their impact on financial strategy. At the same time, the dynamic financial strategy model could solve the dilemma in the field of financial planning, financial decision-making and setting the optimal financial strategy. This model is not only theoretical, but it could be also easily used in practice. The following simulation could observe the changes of financial decision-making during the set time. The model could be used in all business areas, but it is recommended to adapt and correct the model according to specification of a concrete business field, i.e. the set values of WACC, profitability and also liquidity. This model is open to other expert opinions that could improve the theoretical and practical usage of financial strategy model. The possible modification of this model could be based on importing the selected decision-making methods, e.g. mono-criterial exact method by using weighting assessment, i.e. setting the weights of criteria as the level of importance of individual variables in financial strategy model. The setting these weights are subjective according to individual company, therefore they were not used in basic financial strategy model. The other decision-making method could be for example additive method of evaluation (details see Roudný & Víšek, 2009). The other research in the field of financial strategy will focus on experiment that verifies the validity of the dynamic financial strategy model and its usage in practice.

Final Considerations and Conclusion

This paper has dealt with the proposal and construction of dynamic financial strategy model at its simulation. It has provided the possible changes (e.g. planned investments and using the extra sources of financing) and their impact on the observed variables and financial strategy and its necessity for changes and adoption to new situation. This model

could be considered as universal form for all business sectors with some limitations, i.e. discussion of used variables of financial analysis for financial strategy evaluation or set values of individual variables in model. The model is mainly used for companies that are not trading on capital market. With modifications (e.g. importing the selected decision-making methods) of the model and changes based on other expert opinions, the mentioned limitations could be eliminated. This model could be created with help of other programs.

Nevertheless, the model is based on relatively insufficient literature review (well-known monographies and handbooks about the financial management), because no coherent and comprehensive theories about financial strategy together with financial decision-making were created. The purpose of this paper was to create the dynamic financial strategy model that could enable to simplify the financial decision-making process and solve the dilemma in setting a concrete financial strategy. This could provide a quality theoretical and practical basis in improving the managing finance and then improving the strategic position of the company in the market. With using the changes in model (with dynamics), we can observe the effect of these changes on other financial variables and results of financial strategy. The model is based mainly on the importance of profitability, liquidity, indebtedness and cost and capital efficiency. For the individual business field, the model could be flexibly changed and adapted, e.g. in set financial variables and their optimal values. This model will be used for other researches, i.e. the behavior of the model in concrete business areas and their comparison or experiment for certain companies.

Acknowledgement

This paper has been prepared in the framework of project IGA of the Mendel University in Brno titled as "Importance of Strategic Management in Small and Medium-sized Entrepreneurship" with registration number FRRMS - IGA - 2017/024 and in the framework of project IGA of the Mendel University Brno titled as "Evaluating the performance of SMEs in the context of regional development" with registration number FRRMS – IGA – 2019/006.

References

- Bender, R. & Ward, K. (2012). *Corporate Financial Strategy*. Oxford: Routledge.
- Bhalla, V.K. (2004). Creating Wealth: Corporate Financial Strategy and Decision Making. *Journal of Management Research*, 4(1), 13-34.
- Billet, M. and Dolly King, T.-H. (2007). Growth Opportunities and the Choice of Leverage, *Journal of Finance*, 62, 697-730.
- Blažková, M. (2007). *Marketingové řízení a plánování pro malé a střední firmy*. Praha: Grada Publishing.
- Calandro, J. and Flynn, R. (2007). On Financial Strategy. *Business Strategy Series*, 8(6), 409-417.

- Chmelíková, G. (2014). Capital Structure in Start-up Firms in the Conditions of the Economy. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 62(2), 363-372.
- Dluhošová, D. (2006). *Finanční řízení a rozhodování podniku: analýza, investování, oceňování, riziko, flexibilita*. Praha: Ekopress.
- Fabozzi, F., J., Neave, E. & Zhou, G. (2011). *Financial economics: a focused approach*. NJ: Wiley.
- Fotr, J. et al. (2012). *Tvorba strategie a strategické plánování: Teorie a praxe*. Praha: Grada Publishing.
- Grasseová, M. et al. (2010). *Analýza podniku v rukou manažera*. Brno: Computer Press.
- Hrdý, M. and Šiměk, B. (2012). Valuation of the company financial distress. *E+M. Ekonomie a Management: Economics and Management*, 4, 121-132.
- Irwin, D. (2005). *Finanční řízení: Podpora klíčových rozhodnutí*. Praha: Profess Consulting.
- Jakubíková, D. (2008). *Strategický marketing*. Praha: Grada Publishing.
- Jindřichová, I. (2013). *Finanční management*. Praha: C. H. Beck.
- Jindřichovská, I. (2001). *Podnikové finance*. Praha: Management Press.
- Kalouda, F. (2009). *Finanční řízení podniku*. Plzeň: Vydavatelství a nakladatelství Aleš Čeněk.
- Karlöf, B., Lönvingsson, F. (2006). *Management od A do Z*. Brno: Computer Press.
- Kislingerová, E. (2004). *Manažerské finance*. Praha: C. H. Beck.
- Kislingerová, E. et al. (2007). *Manažerské finance*. Praha: C. H. Beck.
- Landa, M. & Polák, M. (2008). *Ekonomické řízení podniku: Má podnik dostatečnou výkonnost?* Brno: Computer Press.
- Malliette, F. (2006). A Framework for Developing Your Financial Strategy. *Corporate Finance Review*, 10(5), 11-20.
- Marsh, C. (2013). *Business and Financial Models*. London: Kogan Page Publishers.
- MPO ČR. (2015). *Finanční analýza podnikové sféry se zaměřením na konkurenčeschopnost sledovaných odvětví za rok 2013*. Recovered on August 18, 2017 from <http://www.mpo.cz/dokument150081.html>.
- Narayanan, M. P. & Nanda, V. K. (2004). *Finance for Strategic Decision-Making*. West Sussex: John Wiley & Sons.
- Nývltová, M. & Marinič, P. (2010). *Finanční řízení podniku*. Praha: Grada.
- Ogilvie, J. (2009). *Financial Strategy*. Oxford: Lima Publishing.
- Paták, M. R. (2006). *Podnikový finanční management*. Praha: Idea servis.
- Petřík, R. (2007). *Ekonomické a finanční řízení firmy*. Praha: Grada Publishing.

- Režňáková, M. (2012). Efektivní financování rozvoje podnikání. Praha: Grada.
- Roudný, R. & Víšek, O. (2009). *Základy manažerského rozhodování*. Pardubice: Univerzita Pardubice.
- Růčková, P. & Roubíčková, M. (2012). *Finanční management*. Praha: Grada.
- Sadler, P. & Craig, J. (2003). *Strategic Management*. London: Cogan Page.
- Sedláček, J. (2006). *Účetní data v rukou manažera – finanční analýza v řízení firmy*. Brno: Computer Press.
- Smith, S. S. (2014). Strategy, Sustainability, and Innovative Financial Reporting. *Journal of Strategic Innovation and Sustainability*, 10(1), 19-23.
- Stříteská, M. & Svoboda, O. (2012). Survey of Performance Measurement Systems in Czech Companies. *E+M. Ekonomie a Management: Economics and Management*. 1, 68-84.
- Synek, M. (2002). *Podniková ekonomika*. Praha: C. H. Beck.
- Synek, M. et al. (1999). *Podniková ekonomika*. Praha: C. H. Beck.
- Tetřevová, L. (2006). Financování projektů. Praha: Professional Publishing.
- Thomas, S. Y. and Sang, B. L. (2003). *The Oxford Guide to Financial Modelling: Applications for Capital Markets, Corporate Finance, Risk Management and Financial Institutions*. Oxford University Press.
- Valach, J. (2006). Tendence současného vývoje dlouhohodobého finančního management. *Český finanční a účetní časopis*, 1(3), pp. 22-32.
- Valach, J. et al. (1999). *Finanční řízení podniku*. Praha: Ekopress.
- Wöhe, G. and Kislingerová, E. (2007). *Úvod do podnikového hospodářství*. Praha: C.H. Beck.
- Živělová, I. (2014). *Financial Management*. Brno: Mendel University in Brno.