

# QUEST FOR OPTIMAL WORKING CAPITAL

The Case of FK RASZTER Building Inc.

László Konstantin Kalmár



#### **ABSTRACT**

Tampere university of Applied Sciences
Degree Programme in International Business

KALMÀR, LÀSZLÒ KONSTANTIN: Quest for Optimal Working Capital The Case of FK RASZTER Building Inc.

Bachelor's thesis 78 pages, appendices 11 pages November 2016

This thesis was commissioned by FK RASZTER Building Inc. seeking optimal short-term financial management that improves net profitability. Therefore, the purpose of the study was to gather information on the organization's current short-term financial management processes, to develop an efficient model of working capital management, with respect to the organizational strategy.

The data was collected by semi-structured depth interviews, with eleven strategically selected experts of RASZTER's personnel, and by analyzing the balance sheets and the income statements of the organization from 2008 to 2015. The data was processed into a set of development proposals, by using SWOT analysis to interpret the data.

The research results showed that FK RASZTER Building Inc. is over capitalized with excess cash reserves holding high opportunity costs, due to the organization's conservative strategy. The findings indicated that a shift from a defensive working capital policy to a neutral policy would best facilitate an efficient working capital management along with the organization' low risk strategy. The research analysis has indicated the integration of short-term loans to the financing structure of the organization, and a reduced conversion cycle of tied down cash and cash equivalents. The implementation of the development proposal is expected to increase the efficiency of the overall working capital management of the commissioner organization, ensuring smooth flow of operations under fluctuating economic circumstances.

Considerably, further research would allow the investigation of the working capital management and profitability correlation, or a benchmark analysis of FK RASZTER Building Inc. with other organizations, in an industry wide research. Furthermore, inventory specific studies of FK RASZTER Building Inc. would also benefit the operational processes of the organization, which were excluded from the current thesis research.

Key words: working capital management, working capital policy, cash, short-term loan, cash conversion cycle,

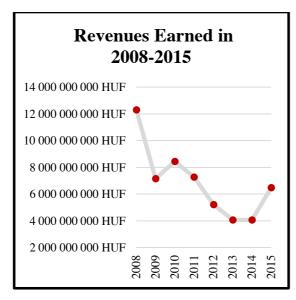
# **CONTENTS**

1	INT	INTRODUCTION4			
	1.1	1.1 Background			
	1.2 Thesis objectives and methods				
	1.3 Thesis structure				
2	THE CASE OF RASZTER				
	2.1	Company information	10		
	2.2	Hypothesis			
	2.3	Theoretical framework and limitations			
		2.3.1 Working capital	12		
		2.3.2 Working capital management and policies	16		
		2.3.3 Working capital analysis	17		
		2.3.4 Research analysis	20		
		2.3.5 Research limitations	22		
3	WORKING CAPITAL POLICY IN RASZTER				
	3.1	The Hungarian construction execution industry	24		
	3.2	2.2 Liquidity analysis			
	3.3	SWOT analysis of working capital policy	28		
	3.4	New working capital policy	34		
4	SHORT-TERM FINANCING IN RASZTER				
	4.1	Cash	36		
	4.2	SWOT analysis of cash financing.	38		
	4.3	Short-term loans	43		
	4.4	SWOT analysis of short-term loan financing	45		
	4.5	Proposed financing structure	49		
5	WORKING CAPITAL MANAGEMENT IN RASZTER				
	5.1	Cash conversion cycle	51		
	5.2	SWOT analysis of cash conversion cycle	54		
	5.3	Reduced cash conversion cycle	59		
6	CO	NCLUSION	61		
RE	EFER	RENCES	65		
APPENDICES					
	Appendix 1. Interview questioner				
	Appendix 2. Structured interview answers				

#### 1 INTRODUCTION

# 1.1 Background

The following thesis research is solely formulated around the thesis commissioner's, FK RASZTER Building Inc.'s (RASZTER), management accounting activities, within the field of working capital management. Working capital management has been emphasized by various organizations, around the world, since the Financial Crisis of 2008, due to the realization of the need for solid and functional daily operations, as well as ability to cover short term liabilities with bearable levels of risks, in a highly uncertain economic era. Profitability is considered uncertain, since 2008, which has been experienced with most organizations operating domestically and/or internationally, as RASZTER's fluctuating revenue and profit performance also show (see in figure 1 and 2).



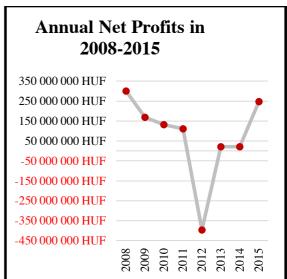


FIGURE 1. RASZTER revenue eraning

FIGURE 2. RASZTER net profits

Therefore, the topicality of working capital management, in terms of seeking liquidity, is a recent concern of many financial manager, to balance annual shortcomings. Especially in the case of the more cash oriented small and medium sized organizations, like RASZTER, the regularity and speed of asset liquidity is prioritized. This cash oriented approach is crucial for the survival of these small and medium sized organizations, as if assets do not transform at a desired rate, not only the liquidity position but also the organization's success rate, in terms of profits, is harmed. The current thesis topic is developed

as a combined outcome of personal interest in working capital management and RASZTER's devotion to analyze and find the most profit-optimized use of their short-term corporate financial resources. (Walker & Petty 1978, 228; Rehn 2012, 2; Eskelinen 2014, 1.)

The thesis topic initiates from the hypothesis that efficient working capital management improves profitability. Various thesis researches, by Rehn, Bratland & Hornbrinck and Eskelinen (2012, 2013, 2014) have identified a direct positive relation between efficient working capital management and improved profitability, which consolidates the corporate interest in the topic of developing an efficient working capital model for RASZTER. Besides the actuality of working capital management, the foundlings of this research are beneficial for various medium size organizations, similar to RASZTER, even if operating in other industries, with similar financial management practices and liquidity, which indicate transparency for adaptation.

## 1.2 Thesis objectives and methods

The purpose of this thesis is to improve the profitability of RASZTER, by the assessment of the organization's short-term financial management. The research intends to investigate the working capital of the organization within the time frame of 2008-2015, to establish a comprehensive picture of the past activities of working capital management, as a base of comparison. The research analysis incorporates some of the most relevant components of working capital management, such as cash, accounts receivable and payable as well as short-term loans, along with concepts like working capital policy and cash conversion cycle to improve efficiency. The analysis will associate the influence of working capital management efficiency with profitability, to develop conclusions, interpreted in the form of responses to the research questions.

The thesis research objective is to assess the fiscal policy of RASZTER's short-term financial management. Furthermore, the research is aimed to evaluate the short term financing capabilities of RASZTER, in relation to financial security. Finally, the research intends to identify possible improvements of the efficiency of working capital management at RASZTER.

The main research question, intended to be answered in the following thesis report, is stated as follows:

How to optimize the working capital management of FK RASZTER Building Inc. to increase profitability?

The corresponding sub-questions, leading up to final conclusion, are:

- 1. How can RASZTER's targeted liquidity position and risk and return trade-off be best optimized?
- 2. What short-term financing practices would facilitate best RASZTER's working capital management?
- 3. How can the efficiency of RASZTER's short-term financial management be maximized?

The research methods, used for the current thesis, are part of a qualitative research approach, with features of a more scientific quantitative research, in order to gather comprehensive data to be analyzed. Therefore, the core research is facilitating experimental and descriptive interviews, with additional statistical data, drawn from RASZTER's financial statements, to provide supporting background information for the interviews. The research embeds both primary and secondary data, collected by the applied qualitative and quantitate research methods. (Davies 2007, 9-10.)

Communication based primary data, is collected and interpreted specifically for the purpose of this thesis, through face-to-face depth interviews with features of a semi-structured interview, based on 12 open ended questions, with incorporated flexibility for discussions, allowing new aspects to be discovered, if the interview circumstances require. The interview questioner is included in Appendix 1. It is a commonly used qualitative research method, conducted with people knowledgeable in the field, hence providing an opportunity to outsource the experience of experts. Arguably, it is more challenging from interpretation point of view, to use open ended questions, however, it provides a broader view of analytical thinking, which was taken into consideration when selecting the qualitative research instrument. Based on strategic sampling criteria, the targeted sample size

is eleven fully conducted interviews, with specifically qualified interviewees: the CEO, the CFO and the Finance Director of RASZTER, as well as the Chief Accountant and three other accountants, the Chief Engineer, the Industrial Chief and the Business Engineers as well as the Operations Manager of the organization. The variety of respondents, from various fields of expertise, ensures a broader view of analysis. (Davies 2007, 131, 139, 155; C. Burns & F. Bush 2010, 174; Brown & Suter 2012, 30.)

Preexisting secondary data is collected from the financial statements of RASZTER, within the time frame of 2008-2015. This data is processed by applying working capital management related concepts, introduced in the theoretical framework, to evaluate the past activities of the organization. During secondary data gathering, special attention is placed on the balance sheets, from working capital management point of view, as they summarize the organization's assets and liabilities, at a specific point in time for every year, therefore, containing all the relevant values for the current thesis. (C. Burns & F. Bush 2010, 174; Berk & Demarzo 2011, 22.)

Further secondary data is also collected, by a desk research, prior to the thesis plan, in order to develop an appropriate theoretical framework of the research problem and an applicable methodology for the study in question. This initial desk research has originated from literature reviews of working capital management and profitability books and articles, as well as online materials and case studies of previously conducted thesis researches, investigating related issues and phenomenon. (Davies 2007, 38-39.)

The analysis of the research outcomes is a descriptive interpretation of the interview responses, with the consideration of the results of the secondary data drawn from the financial statements. The primary aim of the analysis is to examine the working capital policy of RASZTER as well as its short-term financing and cash conversion cycle, to optimize the management practices of the organization and achieve improved profitability.

The analysis of the depth interviews is through deductive reasoning, based on the hypothesis of increasing profitability through an efficient working capital management, by optimizing the cash conversion cycle of RASZTER, which is further described in the theoretical framework. The interview responses are summarized in a structured manner, question by question, see in Appendix 2. Further majority conclusions are drawn by analyzing

the summary table of Appendix 2, to identify patterns among the responses of different RASZTER officials. Then the identified patterns of responses are further processed by using SWOT analysis, from the perspectives of the specific research objectives. The goal of the analysis is to identify development, based on the following aspects: (1) strengths, (2) weaknesses, (3) opportunities and (4) threats. As interviewing is a qualitative research method, the analysis requires empirical interpretation of the answers provided by the respondents. To support a reliable description of the interview responses, the interviews are recorded in written and audio format, following a commonly applied protocol, and the voice recorded interviews are compared to the interview notes, to ensure precise data. (Davies 2007, 162; Bradford 2015.)

#### 1.3 Thesis structure

This thesis research is structured in the form of an academic report, introducing next the theoretical framework of the case, followed by the analysed results of the research in a logically organized manner, to draw final conclusions. The forth coming chapters will present the specific case of this study, introducing RASZTER itself, and also the related theories used as guidelines for developing the core of the research. The later chapters will conclude the interviews with SWOT analysis and statistical figures from the secondary data, with special attention on RASZTER's liquidity, cash and short-term loan financings as well as the accounts receivable and payable aspects of its cash conversion. The analysis is incorporating the statistical values from the secondary data, to compare the current status and past activities of RASZTER's working capital management. The final chapter concludes the main findings of the research, by providing an answer for the main research question, in the form of an advanced working capital management proposal for RASZTER, as well as identifying potential further research problems, related to the outcomes of this research.

#### The main thesis milestones:

- 1. Develop the research problem on request of the thesis commissioner, RASZTER
- 2. Preliminary desk research
- 3. Specify the research topic
- 4. Theoretical background research of the topic

- 5. Develop the research questions to find solutions to the research problem on hand
- 6. Research plan with methodology and analysis processes, prior to the data collection
- 7. Primary data collection with depth interviews
- 8. Secondary data collection and processing, from the financial statements of RASZER, from years 2008-2015
- 9. Collection and processing of raw data into an informative sum, appropriate to draw analysis and answer the research questions
- 10. Draw conclusions and develop potential further research problems within the topic
- 11. Conclude the final thesis report.

#### 2 THE CASE OF RASZTER

## 2.1 Company information

This following subchapter is an introduction of the commissioner organization, RASZTER. This brief introduction describes the size, the nature of business and the general corporate structure of the organization, based on an organizational document research, for a better understanding of their working capital management practices, investigated throughout the current thesis research.

RASZTER is a medium size organization operating in the construction execution industry, mainly in Hungary, with its headquarters and central office located in the town of Miskolc. RASZTER was founded in 1991 and currently operates as the chief contractor and general executor of FK Building Group, which was established in 1994 by the owners, to be able to carry out high-volume execution works with the necessary financial instruments and tangible assets. FK BUILDING GROUP consists of the following business entities:

- FK RASZTER Building Inc. chief contractor, general execution
- READYMIX RAPID BETON Kft. concrete production, concrete transport and placement, quality control
- FK KIS GÉM Kft. delivery of light and heavy building machines
- FK TRANSZ Kft. transport and forwarding.

Currently RASZTER employs 224 people, 78 of which are white-collar workers, such as engineers, architects, economists and administrators, allocated at the headquarters offices in Miskolc and at the organization's branch office in Budapest; and 146 blue-collar workers, employed at the two company-owned plants and at various construction sites.

At present RASZTER's primary attention remains in the construction execution market and strives to become the industry leader in northern Hungary, with total turnover of 5.513.136- HUF, in 2013. Currently RASZTER is experiencing revenue fluctuations as

well as net profit fluctuations, as also seen on figure 1 and 2, due to the economic circumstances in the Hungarian construction execution industry. This issue has initiated the underlying hypothesis of optimizing RASZTER's working capital management as described in the following subchapter.

## 2.2 Hypothesis

The following thesis research is based on the hypothesis of increasing RASZTER's profitability by optimizing its working capital management. The hypothesis is developed from previously conducted Master's thesis researches, by Rehn, Bratland & Hornbrinck and Eskelinen (2012; 2013; 2014), investigating organizational working capital management from various ankles. The research outcomes, of these previously conducted thesis, are summarized below, as a conceptual framework of the hypothesis.

In his research, Rehn investigated that efficient working capital management can increase corporate profitability and shareholder value. As the efficiency of working capital management can be determined by the cash conversion cycle and the net trade cycle, the study incorporated the analysis of these two variables against corporate profitability. Based on the comparison of results between Finnish and Swedish corporations, Rehn identified that the gross operating profitability can be increased by reducing the cash conversion cycle and therefore, optimizing the efficiency of working capital management. (Rehn 2012.)

The research of Bratland & Hornbrinck was a rather unexplored study, by investigating the impact of working capital policies on the stock performance, as well as the correlation of firm and industry size and working capital policies. Furthermore, the study investigated the risk and return tradeoffs of the working capital policies, emphasizing the effects of an aggressive policy. From the perspective of the current thesis objectives, the most crucial finding of Bratland & Hornbrinck was a significant correlation within the industrial sector, between the levels of working capital of an organization compared to the level of risks and returns, an organization is willing to bare. (Bratland & Hornbrinck 2013.)

Eskelinen's study was a development project to establish a working capital management and cash management analyzing model, to help researchers and students to easier analyze the changes of an organization's working capital and cash flows. Among his extensive conclusions, Eskelinen outlined the influence of a well optimized cash conversion cycle to improve and adjust working capital levels in an organization. (Eskelinen 2014.)

Referring to Rehn's and Eskelinen's conclusions, the current thesis research is based on the hypothesis of increasing RASZTER's profitability by an optimized working capital management, through developing the organization's cash conversion cycle. Furthermore, in respect to Bratland & Hornbrinck, the hypothesis is extended to identify an appropriate working capital policy for RASZTER's short-term financial management, based on the risk and return tradeoffs that the organization is willing to bare.

#### 2.3 Theoretical framework and limitations

The following chapter introduces the relevant theoretical concepts used for the research and for the analysis of the thesis. The following part of the thesis report, describes the concepts of working capital and organizational performance, related to the research, and outlines the limitations of the thesis, in terms of excluded theoretical concepts due to the time frame and the scope of the research, as well as the applicability of the concepts.

# 2.3.1 Working capital

Management accounting is aimed to help an organization's planning and controlling processes. The management of working capital is a crucial aspect of the planning and controlling processes of management accounting, for a business to be able to bare its day-to-day financial obligations. Working capital stands for the fiscal means, which an organization must provide to finance its current assets without being covered by current liabilities. (Weetman 2006, 454.)

There are two generally accepted working capital concepts: net and gross. Net working capital is described as the difference between current assets and current liabilities, which determines the nature and amount of on-hand assets in the organization, to finance its liabilities. Net working capital can be expressed in the form of the following formula:

## *Net Working Capital = Current Assets — Current Liabilities*

On the other hand, Gross working capital refers to the funds invested in current assets, which are applied for the business processes, such as receivables, inventory and cash. Hence, the main differentiating factor is that gross working capital is the investment and net working capital is the financing of the working capital. For the purpose of the research net working capital will be mostly investigated, in terms of developing an improved financing model for RASZTER's daily operations. (Walker & Petty 1978, 228-229; Rehn 2012, 6-7.)

Working Capital management is focused on the short term run of business, and therefore involves short term oriented assets and liabilities. Current assets include inventories, accounts receivable and cash; whereas, current liabilities are mostly accounts payable and short-term loans. Due to the time frame of the case study, only these above mentioned, most essential components of working capital will be considered in the research, which are discussed in details below. (Berk & Demarzo 2011, 848.)

# Current assets: inventory, cash, accounts receivable

Assets, such as cash, inventory, equipment, land, building and alike, are economic resources of an organization, which are expected to result future benefits. Current assets by definition are converted into cash, sold or consumed, usually within one year, or within a business' normal operating cycle if longer than a year. The most commonly considered current assets are cash, inventory and accounts receivable (Weetman 2006, 454; Berk & Demarzo 2011, 848; Harrison&Horngren 2008, 40, 57.)

Inventories are as a substantial component of an organization's current assets, held as part of their business operations, to store their finished or work in progress goods and raw materials. In accounting context inventories account for the value of all items held by an organization to ensure its production and operational activities, or support its sales within a one-year period. Within working capital management, inventory management is focusing on the costs and benefits of holding inventories, to increase firm value, by reducing excessive cash invested in stocks. (Weetman 2006, 454, 462; Berk & Demarzo 2011, 859; Drury 2012, 633.)

IAS 7 (IASB 1992) states that cash refers to all the available on-hand cash, including coins, banknotes and currencies. Furthermore, cash also comprises cash equivalents, such as bank deposits, which are readily convertible to known amounts of cash. These cash equivalents are short term and highly liquid investments, held for the purpose of meeting short term cash commitments, instead of investment intentions. Considering the cost of liquidity in an organization, liquid assets may earn a below-market return, and result transaction expenses if a sudden cash need raises; on the contrary, the on-hand cash offers a buffer against uncertainties, and allows a smooth flow of day-to-day operation, but has taxation related disadvantages. (Stolowy & J. Lebas 2006, 341; Benedict & Elliott 2011, 290; Berk and Demarzo 2011, 860.)

Accounts receivable are a crucial component of current assets, resulted from the sales made on credits, for which an organization is expecting to receive a payment. By providing sales on credits, an organization ensures trade credit for its customers, which is a loan on behalf of the selling organization. Bratland & Hornbrinck (2013, 20) argues that offering sales on credits arise an opportunity cost of other investment possibilities of that money, which would create a higher firm value. Often favourable interest rates are offered on trade credits, in the form of cash discounts to encourage early payments. Account receivable cash inflows are considered as convenient and flexible sources of funds, since it requires lower transaction costs compared to alternative monetary sources, such as a bank loans, and are sometimes an organization's only available immediate funds. (Stolowy & J. Lebas 2006, 328-329; Weetman 2006, 455; Berk & Demarzo 2008, 851-853.)

As for RASZTER, the use of inventories is fairly minimal, with Just-in-Time management and good supplier relations, which is a commonly implemented strategy in the construction execution industry. Hence, the inventory related capital investments, influencing RASZTER's working capital management, are less influential compared to other current assets, such as cash or accounts receivable. Therefore, RASZTER's inventories will not be considered among the current assets, investigated in this study. On the contrary, accounts receivable and cash, account for an abundant proportion of the current assets of RASZTER, since the organization follows the current trends of credit sales as well as a defensive management strategy, with high cash reserves. This leads up to one of the main

research focuses of optimizing cash levels as well as accounts receivable practices. (Interview 5 2016; Interview 9 2016.)

### Current liabilities: accounts payable and short-term loans

Current Liabilities are debts, which are claimed by, and payable for outsider parties, within one year. These current liabilities include unpaid expenses, bank loans and overdrafts. Accounts payable are often emphasized as the most relevant current labilities of working capital management. In addition, for the case of RASZTER, the current thesis will also investigate the short-term bank loans, on behalf of the organization's interests for future expansion within short-term financing options, regardless of the minimal use of loans during the previous years at RASZTER. (Weetman 2006, 454; Harrison & Horngren 2008, 40; Berk & Demarzo 2011, 848; Interview 7 2016.)

Accounts payable are current liabilities, defined as an amount owed for products or services purchased, therefore, stand for all the items, services and other supplies which an organization has purchased on credits, with a later payment date. Accounts payable is ensured by trade creditors, who are those suppliers offering goods and services in advance of being payed, often with discounts to promote strict payments. (Weetman 2006, 457; Harrison & Horngren 2008, 414; Bratland & Hornbrinck 2013, 24.)

Short-term bank loans are to finance the everyday operations of an organization to cover accounts payable, wages and other operational obligations, in case of lacking adequate cash reserves, accounts receivable or overall asset liquidity. Hence, short-term bank loans are simple corporate debt borrowings to finance daily operations, with a repayment period of one year or less. (Watson & Head 2011, 26; Investopedia.)

Operating in the construction execution industry, RASZTER often faces profit fluctuations and inconsistency in revenues, which requires other short-term financing options than cash or accounts receivable, to balance the periods of reduced business activities, throughout the year. The organization's need for future financial security stimulates the investigation of potential loan-financing possibilities during the analysis. In addition, to optimize cash reserves and accounts receivable practices, the study will investigate also RASZTER's payables to identify possible improvements to the organization's cash conversion period and improve its liquidity performance. (Interview 8 2016.)

## 2.3.2 Working capital management and policies

The primary aim of working capital management is planning and controlling the levels of working capital in an organization, and to cope with the related managerial and finical issues, as working capital management is a crucial element of liquidity and profitability. Working capital management is concerned with the appropriate levels of current assets and the necessary sources to finance current assets. The three main determinants of working capital management in an organization are: (1) Transaction motives for holding available cash to bear the day-to-day needs of a company, (2) Precautionary motives for bearing uncertain cash outflows and inflows and (3) Compensating motives for holding satisfactory levels of cash to meet bank requirements. (Berk & Demarzo 2011, 860-861; Eskelinen 2014, 8.)

In order to manage current assets and liabilities, an appropriate working capital policy is determined based on the levels of working capital in an organization, relying on the general assumption that the current assets versus current liabilities reflect the degree of risks, an organization is prepared to bare. The working capital polices are divided into three main categories, which are aggressive, neutral and defensive policies. (Belt 2009, 44; Bratland & Hornbrinck 2013, 25.)

From an organization's operational perspective, aggressive working capital policy stands for low levels of current assets in the form of percentage of the total assets. From the other end, aggressive working capital policy may also be followed with financing decision of leaning on a high amount of current liabilities, as percentage of the organization's total liabilities. From a more traditional and simplistic point of view, aggressive working capital policy leads to higher profits, due to reduced costs of lower levels of current assets. The most commonly considered risks of operating under aggressive working capital policy is that the low levels of current assets lowers the liquidity, therefore, challenges smooth operations. (Afza & Nazir, 2009, 19-21; Belt 2009, 46; Bratland & Hornbrinck 2013, 25.)

Defensive working capital policy is often implemented in an organization, operating under uncertain business circumstances. It is best described as a safety policy, with large cash or near-cash balances, customer oriented credit terms and high levels of inventories.

However, defensive working capital policy raise additional costs for an organization, in the form of storage and administration costs. Defensive policy on the contrary to the aggressive policy is associated with lower risks and returns, due to the larger investments in current assets; however, it may also reduce the profitability of the organization. (Afza & Nazir 2009, 21; Bratland & Hornbrinck 2013, 26.)

Neutral working capital policy related researches are far less, compared to aggressive or defensive polices, but it is best described as a middle ground between the aggressive and defensive working capital management practices. The definition of Bratland & Hornbrinck (2013, 26) for neutral policy states that it is aiming to "balance the advantages and the drawbacks from both policies", as an attempt to increase organizational profits with a fairly even distribution of current assets and liabilities within an organization's working capital ratio. (Bratland & Hornbrinck 2013, 26.)

The concept of working capital policies will be applied during the analysis of the secondary data collected from RASZTER's financial statements, to identify the policy, which the organization has followed in practice. Furthermore, by identifying which of the three policies is best describing RASZTER, will provide guidance how and to what extant the working capital policy and the management practices at the organization can be best advanced, to establish a more profitable working capital management model.

### 2.3.3 Working capital analysis

### Working capital ratios

The two main and most commonly used ratios, for measuring working capital and solvency, are current and quick ratios. Current ratio is the current assets divided by current liabilities, which ratio is widely used to identify an organization's ability to pay its current liabilities with its current assets. (Weetman 2006, 460; Harrison & Horngren 2008, 694.)

Quick ratio, also referred to as acid test ratio by some literatures, measures the company's solvency abilities, by deducting the inventories from the current assets, leaving only the liquid assets, the accounts receivable and the cash in the dividend, and dividing it by the

current liabilities. This formula is excluding inventories as they cannot be sold and liquidized as rapid as the other current assets. Quick ratio is calculated as the formula shows below. (Weetman 2006, 460; Benedict & Elliott 2011, 324.)

$$Quick\ ratio = \frac{Curent\ assets-Inventory}{Current\ liabilities}$$

In most industries, a quick ratio of 0,9:1 or even a 0,75:1 are considered as generally acceptable levels, for the majority of organizations. However, a ratio below 0,75:1 may alarm suppliers, and lead for demanded prepayments, due to lack of confidence. A 1:1 ratio would indicate that the current liabilities are safely covered by the current assets without inventories, with some levels of extensive cash and receivables on hand. (Weetman 2006, 460; Harrison & Horngren 2008, 697.)

As outlined, inventories are excluded from the scope of the research, considering RASZTER's current assets, due to the minimal use of inventories at the organization. Therefore, in the current thesis, quick ratio will be applied to analyse RASZTER's past working capital management activities, as it deducts inventories from the current assets and well aligns with the scope of the study. This ratio will be applied to identify the organization's financial security during the past years (2008-2015), and will be compared to the interview responses, to evaluate the levels of bearable risks at RASZTER, to associate the most optimal working capital management policy for the organization.

### Cash conversion cycle

As established in the hypothesis, cash conversion cycle reflects the efficiency of working capital management. Hence an improved cash conversion cycle, in alliance with RASZTER's working capital policy, will advocate optimized working capital management at the organization. Cash conversion cycle is a commonly used measure to determine the time period between the cash out form purchases, and the cash in, from the sales of output.

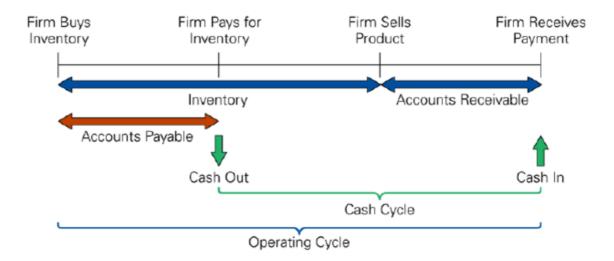


FIGURE 3. Cash Conversion Cycle (FINBRAIN-ITC 2015)

As also figure 3 represents, the initial inventories are usually purchased on credit terms as accounts payable, and the organization is not required to pay up-front cash. In addition, also the outputs of the organizations are often sold on credit terms, as accounts receivable, with a later payment due date. Hence cash conversion cycle does not always align with the operating cycle of replenishment and sales. In general, a short cash conversion cycle is considered beneficial for the organizations, as the time period of tied down capitals is fairly short, which supports short-term financial health. (Weetman 2006, 459; Berk & Demarzo 2011, 849; Bratland & Hornbrinck 2013, 27-28; Cagle, Campbell & Jones 2013.)

As Berk & Demarzo (2011, 849) outlined, cash conversion cycle can be calculated with the following formulas:

The first component is Accounts receivable Days, shows the number of days outstanding to collect accounts receivable. It is calculated as follows:

Accounts receivable Days = 
$$\frac{Account\ Receivebale}{Average\ Daily\ Sales}$$

The second component is Inventory Days, which measures the number of days, for which inventory is held. It is calculated as follows:

Inventory Days = 
$$\frac{Inventory}{Avergae\ Daily\ Cost\ of\ Goods\ Sold}$$

The third component is Accounts Payable Days, which measures the number of days for a company to pay to its suppliers. It is calculated as follows:

Accounts Payable Days = 
$$\frac{Accounts Payable}{Average Daily Cost of Goods Sold}$$

The third aspect of the research is analysing the cash conversion cycle of RASZTER from accounts receivable days and accounts payable days point of view, to achieve improved working capital management via an optimized cash conversion cycle. By establishing improved practices of payables and receivables, taking into consideration the policy of the organization along with its short-term financing options, the three aspects will provide a joint conclusion of an optimal working capital management model for RASZTER.

### 2.3.4 Research analysis

### **SWOT** analysis

SWOT analysis originates from Albert Humphrey's research project at Stanford University, in the 1960's and 1970's, during which the initial version of this method was called SOFT analysis, standing for Satisfactory, Opportunity, Fault and Threat. SWOT analysis, as known today, is often used by managers to identify the current state of the organization, as well as the potential future possibilities that the organization is facing. This analysis serves both an internal and external purpose, as it identifies the organizations internal health in terms of strengths and weaknesses as well as takes into consideration the operational environment, in terms of opportunities and threats. SWOT stands for Strengths, Weaknesses, Opportunities and Threats, and is often summarized in a table-diagram or a matrix, answering questions like in the table of figure 4. (Blythe 2008, 22-23; Morrison 2016.)

	Internal factors	External factors
Positive factors	Strengths  What are we best at?  What intellectual property do we own?  What specific skills does the workforce have?  What financial resources do we have?  What connections and alliances do we have?  What is our bargaining power with both suppliers and intermediaries?	Opportunities  What changes in the external environment can we exploit?  What weaknesses in our competitors can we attack?  What new technology might become available to us?  What new markets might be opening up to us?
Negative factors	Weaknesses What are we worst at doing? Is our intellectual property outdated? What training does our workforce lack? What is our financial position? What connections and alliances should we have, but don't?	Threats What might our competitors be able to do to hurt us? What new legislation might damage our interests? What social changes might threaten us? How will the economic [boom-and-bust] cycle affect us?

FIGURE 4. SWOT Analysis Matrix (Blythe 2008, 23)

As an example of SWOT analysis, the table above describes some of the most common aspects of identifying general strengths, weaknesses, as well as the opportunities and threats, when analysing an organization. A similar application of SWOT will be applied throughout the analysis part of the report, to logically conclude and summarize the depth interview responses, from the required aspects of the research objectives. However, in the case of the current thesis, not RASZTER as a company will be in the focus of the SWOT analysis, but it will be used to identify the strengths, weaknesses, opportunities and threats of specific features of RASZTER's working capital, analysed in the different aspects of the research. Within the analysis proses, the SWOT results will be further interpreted as a working capital development proposal.

### **PEST** analysis

PEST analysis is an environmental scanning tool that has been used for several decades, originating back to 1967, introduced by Francis Aguilar. It is investigating the external environment from the aspects of political, economic, socio-cultural and technological features. This analysis is used to identify the most crucial phenomenon occurring in the environment that influences the operations of a business. It is not only analysing the factors, influencing an organization itself, but also the other actors of the micro-environment, such as suppliers and competitors. The most crucial aspects of PEST are outlined in figure 5.

Hence, PEST analysis is a tool of external environment evaluation, with primary focus on the macro environment, less influenced by the activities of an organization or the micro environment. (Thakur 2010; Blythe 2008, 23-30.)

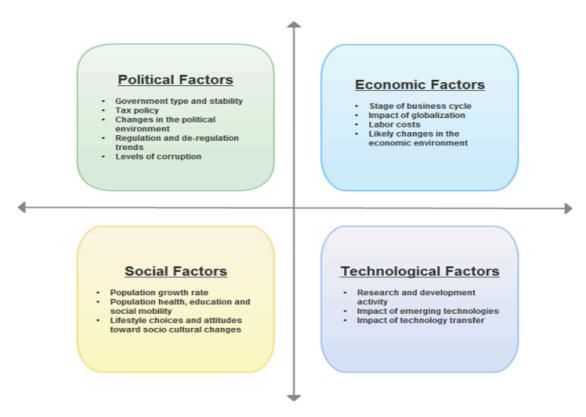


FIGURE 5. PEST analysis (2Inno 2014)

Figure 5 above describes the most crucial concepts of each aspect of the PEST analysis that needs to be considered when analysing an organizational environment from political, economic, socio-cultural (social) and technological point of view. This tool will be jointly intergraded to the liquidity analysis of RASZTER, to describe the Hungarian business environment, in order to further clarify and interpret RASZTER's current liquidity position in comparison to the environmental circumstances.

#### 2.3.5 Research limitations

The current thesis research is a qualitative study, based on an extensive amount of data gathered from depth interviews. This research approach is heavily relying on the interpretation of the interview responses, which embodies the human factor of lack of objective perspective. The study is conducted with the integration of numerical secondary data,

in a quantitative manner, to eliminate the possible misinterpretations, due to personal judgment. In addition, the interview responses are compered to each other to draw patterns of reoccurring answers that can be referred to, with certainty.

In addition, the research is solely based on RASZTER's current practices, with the consideration of theoretical assumptions and the economic circumstances. The current thesis research is excluding a benchmark comparison of other organizations' working capital management, to identify where RASZTER lacks efficiency in comparison to organizations bearing the similar threats and difficulties. However, the analysis is based on eleven interviews, with a variety of experts within RASZTER's personnel. Therefore, the extensive strategic sample size supports the reliability and certainty of the research.

As the current study is a bachelor thesis, the limited time frame of the research eliminates the possibility of applying benchmarking as well as introducing a greater degree of quantitative approaches. Besides the time frame of the research, RASZTER is an abroad located organization, which also limits the available time for interviews. However, this issue is well compensated by the organization and RASZTER's leadership, with unlimited excess to materials and the availability of the Chief Engineer's personal assistant, during the entire research. A well-functioning communication plan as well as RASZTER's contribution minimise the disadvantages of the geographical locations.

#### 3 WORKING CAPITAL POLICY IN RASZTER

This chapter intends to provide a detailed analysis of the working capital policy of RASZTER. This is carried out by analysing the organization's past liquidity compared to the external influencing factors, described by a PEST analysis. This analysis, together with the interview responses, is interpreted in a set of strengths, weaknesses as well as opportunities and threats of RASZTER's current policy. An optimal working capital policy is concluded at the end of the chapter, based on the combined outcomes of the SWOT analysis. The new policy is applied as a guideline for the other two aspects of the analysis, concerned with increasing the efficiency of the short-term financing and the working capital management of the organization.

# 3.1 The Hungarian construction execution industry

The table below is a brief summary of the most essential environmental factors, influencing RASZTER's operations and determining the necessary levels of liquidity. These factors are summarized in a set of political, economic, socio-cultural and technological features shown in the below PEST analysis matrix, in figure 6. The results are drawn from a document research of RASZTER's own extensive market research, investigated by the organization.

Political	Reduced EU project in Hungary
	Change of construction execution industry taxation regula-
	tions
	Restricted payable conditions in the public sector
Economical	Continuous effects of the Financial Crises of 2008
	Economic fluctuation
	Slowdown in the construction execution industry
	Shrinking market
	Saturated competition
Social	Lack of qualified human resources
Technological	Increasing accounting bureaucracy

FIGURE 6. PEST analysis of RASZTER

The primary issues, influencing RASZTER's current working capital management and liquidity position, are the economic and political factors of the recent Hungarian construction execution industry. Currently RASZTER operates in a shrinking industry, where the organization is facing increased competition as a result of the reducing available projects and EU sponsored tenders. In addition, the negative influences of the Financial Crisis of 2008 are expected to further affect the overall economic situation. All of these issues jointly indicate organizational need from higher levels of liquidity, as hedge against possible revenue fluctuations. In addition, the lack of human resources as well as the increasing bureaucracy of the electronic accounting and banking services further requiring efficient working capital management from RASZTER. (Interview 9 2016.)

## 3.2 Liquidity analysis

Figure 7 below, represents the average current assets of RASZTER, including also the inventories, compared to the average current liabilities of the organization, by using clustered column diagrams. The figures are calculated and averaged, from 2008 to 2015, based on the annual current assets and current labilities of RASZTER, derived from the balance sheets of the organization's financial reports of those years.

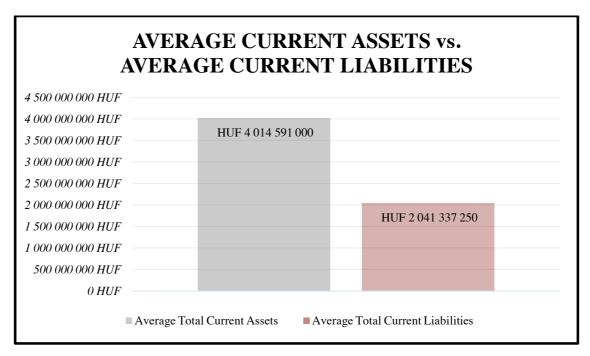


FIGURE 7. Average Current Assets and Current Liabilities of RASZTER

As Figure 7 shows above, on average RASZTER operates with twice as much current assets than current liabilities, and with secured short-term financing of its operations. Based on the responses of the depth interviews, this is partly a defence mechanism against the recent uncertain economic circumstances since 2008. The Chief Engineer (2016) described RASZTER's financial management practices after the Financial Crisis of 2008, as follows:

"The cash inflows were forecasted weekly ahead, and monitored on the first day of each week in comparison to liability obligations, to ensure smooth flow of operations" (Interview 6 2016).

Based on further references, of other interviewees, the strategic attitude of the organization is rather conservative, in terms of their working capital management, with extreme precaution and financial security. RASZTER's policy, in a spoken phrase, could be best described as stretching as far as the budget allows, covering current liabilities from the on-hand working capital of the organization. This practice of covering payables solely by current assets, mostly by accounts receivable and cash, is a jointly agreed security oriented and minimal risk taking strategy. It was chosen by the leadership of RASZTER, as a long-term approach of doing business, with prioritizing smooth flow of operations. (Interview 5 2016; Interview 6 2016; Interview 7 2016.)

The liquidity analysis of the average organizational current assets and liabilities, shown in figure 7, proves that the organization's short term financial management has well aligned with the target strategy. Hence, the current liabilities of RASZTER are well covered with excess working capital. RASZTER's security oriented management, indicates a fairly low risk and return trade off, from RASZTER's leadership point of view, considering the amount of risk the organization is prepared to bare in comparison to the profitability, those risks would result. This bare minimum of risk trade-off, practiced by RASZTER, is a crucial observation, in order to optimize the organization's working capital policy, in accordance with the leadership of RASZTER.

Figure 8 below shows RASZTER's quick ratios from 2008 to 2015, representing the ratio of the organization's current assets, excluding the inventories, and current liabilities. The liquidity of the organization is further investigated without the inventories, as RASZTER's inventories are fairly excludable contributors of the organization's core

working capital. These clustered column diagrams are interpretable as the immediate capacity of RASZTER to finance its short-term liabilities, by its truly liquid current assets. The below presented quick ratios are describing the actual degree of short-term financing ability of the organization in recent years. (Interview 9 2016.)

Quick ratio serves the purpose of identifying the state of short-term financial health in an organization. Therefore, this ratio requires further interpretation with the consideration of external factors, such as increased competition, slowdown in the economy, legislations, international affairs and other factors, described in the PEST analysis, effecting RASZTER's profitability. In order to ensure accurate conclusions, the ratios should be analysed over a period of years in comparison to the environmental factors, for accurate results. (Harrison & Horngren 2008, 696.)

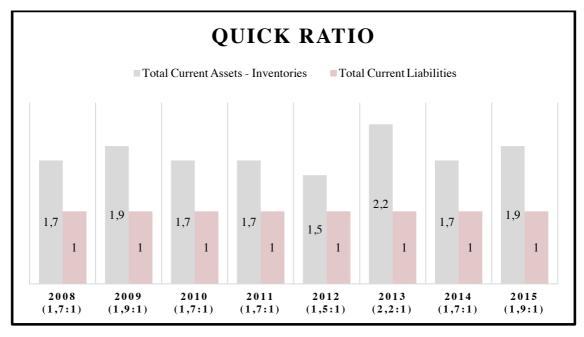


FIGURE 8. RASZTER's quick Ratio of current assets (excluding inventories) to current liabilities 2008-2015

As figure 8 indicates, RASZTER's current assets and current liabilities have followed a pattern, in terms of liquidity, over the past years. The organization's short-term financial needs have been safely covered, by cash and accounts receivable, considering an at least one and half times greater extremely liquid current asset reserves, excluding the inventories, in comparison to liabilities. Therefore, this patterns indicates an extremely high liquidity of the organization, from 2008. RASZTER's short-term financing is described by

the majority of respondents as stabile and consolidated, hence, the organization is not facing short-term financial challenges. (Interview 2 2016; Interview 6 2016.)

Based on RASZTER's liquidity, shown in figure 7, and the average current assets compared to current liabilities, shown in figure 8, the data indicates a defensive working capital policy followed by RASZTER. By definition, a defensive policy is implemented through higher levels of current assets with large cash reserves, compared to the levels of current liabilities with a quick ratio above 1:1. Defensive policy is describing perfectly RASZTER's quick ratio, varying from 1,5:1 to 2,2:1, with much higher reserves of current assets then current liabilities and low levels of risks. Based on the depth interview responses, the working capital governance at RASZTER is a result of the leadership's precautionary decisions of overall financing decisions. (Harrison & Horngren 2008, 697; Afza & Nazir 2009, 21; Bratland & Hornbrinck 2013, 26; Interview 4 2016; Interview 8 2016.)

This precautionary defensive working capital policy is a consequence of the business philosophy of RASZTER's leadership, and is not a specifically selected short-term oriented working capital management model. Which was consolidated by the Finance Director of RASZTER, among several other interviewed mangers of the organization.

"In my opinion high liquidity is a sign of lack of short-term oriented financial management polices of working capital" (Interview 9 2016).

Hence it can be concluded that the current working capital policy was not a consciously implement model of short-term management. Therefore, the importance of establishing a specifically selected working capital policy, in order to increase the efficiency of the working capital management at RASZTER, is a crucial initial phase of the development process.

### 3.3 SWOT analysis of working capital policy

The following SWOT table in figure 9 is used to logically conclude the depth interview responses, concerning RASZTER's defensive working capital policy and its influence on the overall working capital management. The below table summarizes the conclusions

drawn from the interviews, in terms of strengths and weaknesses of the current management model, and threats and opportunities concerning a better optimized working capital management. The interpretation of each aspect of the SWOT analysis is transcribed based on the depth interviews, following figure 9.

# **Strengths**

- High liquidity
- High cash reserves
- Financing capability
- Financial security
- Smooth flow of operations
- Low risks
- Less liabilities
- Accurately monitored working capital management

# **Opportunities**

- Increasing liability reliance
- Long term investment opportunities of cash reserves
- Organizational development
- Business expansion
- Governmental sponsoring
- Dividend payments
- Adjustment of working capital monitoring protocols



# Weaknesses

- Lack of specified policy
- Over capitalization
- Over liquidity
- Inefficient use of corporate reserves
- Too high cash reserves
- Lower profits
- Decision making by majority owners
- Conservative business philosophy

Inefficiency in working capital

**Threats** 

- managementOver liquidation
- Absence of loan financing
- High Retained Earnings
- Investor concerns due to unpaid dividends
- Uncertain economic circumstances

FIGURE 9. SWOT analysis of RASZTER's working capital policy

## Strengths

RASZTER's defensive working capital policy has resulted high levels of cash and accounts receivable reserves, compared to the current liabilities bared by the organization. Therefore, the organization benefits from a highly liquid working capital, which is the primary advantage of the current policy. The organization's liquidity, achieved by defensive policy, has preserved the organization's financial credibility. (Interview 1 2016.)

The defensive working capital policy has reinforced the financing capabilities of RASZTER, which has benefited the organization's operational flow, during the recent economic uncertainty. The exceeding level of accounts receivable compared to the accounts payable, beside the high cash reserves, and the retained earnings of unpaid dividends of past years, have ensured RASZTER's precautionary savings, which account for nearly twice to the organization's annual liabilities. The organization's financing capability have not only benefited the day-to-day operations, but also RASZTER's competitive position in the market. The organization was able to win various tenders, due to the extensive availability of recourses to finance the projects without depending on bank loans or deposit payments. (Interview 7 2016; Interview 11 2016.)

RASZTER is able to settle a larger quantity of accounts payable, fairly easy, even in cases of extensive unfulfilled accounts receivable. The organization's working capital policy has allowed RASZTER to enjoy a level of financial security, without depending on other loan-financing options, which would lead to various other expenses and increase the liabilities of the organization. (Interview 8 2016; Interview 9 2016.)

As mentioned, the high cash reserves have benefitted RASZTER during the recent years, to cope with the challenges of both the economy and the industry. By following a defensive working capital policy, RASZTER benefits from a 61% cash reserve of its total current assets, which is both a security and an operational insurance. This benefits of high levels of cash were a profound initiative of implementing a defensive working capital policy. The defensive policy, applied to RASZTER's working capital, has not only benefited the organization in various ways, but has also facilitated a low risk low liability strategy, in alliance with the vision of RASZTER's majority owners. (Interview 2 2016.)

#### Weaknesses

The greatest weakness, of RASZTER's current working capital policy, is the lack of specified direction of the short-term financial management, concerning the working capital management. The defensive policy, identified by the liquidity analysis, is a result of the organizations conservative and risk minimalist operational strategy, rather than the direct result of a consciously selected governing working capital policy. Regardless of the unquestionable compatibility of the organization's current asset and current liability levels (between 1,5:1 and 2,2:1) and the precise definition of defensive policy, it is best interpreted as a subconscious outcome of other areas of management. This raises the issue of uncertainty, considering the efficiency of the policy in practice at RASZTER. Also, exploiting defensive working capital policy, is disadvantageous for RASZTER, as it is resulted by a non-risk taking conservative business philosophy that is a direct indicator of less profitable choices. (Interview 9 2016; Interview 11 2016.)

Furthermore, RASZTER's current as well as overall working capital policy is based on a defining weakness of limited perspective, as most of the finance related management issues are decided by the two majority owners of the organization. Each major decision concerning RASZTER, is solely decided upon by the Chief Executive Officer and the Chief Engineer of the organization, who are the two majority shareholders, with equal ownership of RASZTER. (Interview 7 2016.)

In addition, RASZTER's current defensive working capital policy is resulting extremely high cash reserves, which is together with the accounts receivable of the organization, results a great level of excess capital, not used up for its full potential. Even though, RASZTER's nearly two third of current assets allocated in cash is an insurance policy, it is also the reason for an over capitalized and over liquid organization. This is one of the primary concerns of the management and the major shareholders of the organization, based on the recent financial closings. (Interview 6 2016.)

The high unused cash and capital reserves, tied down in the current assets, beside the amount that is used to cover the current liabilities, is an accompanying disadvantage of a defensive working capital policy. Besides ensuring smooth flows of operations, defensive working capital policy results insufficient use of corporate resources, as the cash reserves

along with the excess accounts receivable could earn higher long-term investment profits, than short-term. (Interview 5 2016.)

# **Opportunities**

There are several opportunities of RASZTER's working capital management due to the defensive working capital policy and its influence on the organizational liquidity. RASZTER's extremely high cash reserve that has built up over the past years, from the precautions, is a potential capital for three major use. It can be reallocated for organizational improvements, it can be invested to long-term investments or used to sponsor the government.

As outlined, the over liquidation of RASZTER is a result of operating with high current assets, which built up partly from the repeatedly unpaid dividends of the past financial years. According to RASZTER's leadership, the working capital levels ensure organizational stability, which would permit the payment of dividends to RASZTER shareholders at the end of the following financial year, as an act of appealing stock. (Interview 9 2016.)

Besides the opportunity of promotional utilization for stock exchange purposes, the defensive working capital policy could initiate RASZTER's organizational development and expansion, in terms of investing in vehicles, machinery, land and other operational equipment that has outdated, depreciated or lacking at RASZTER. The defensive policy is not only an opportunity of available financial resources, but it also facilitates secured organizational day-to-day operations, which ensures the circumstances for development or expansion. This opportunity is referred to by the majority of interviewees. Delayed projects are increasing at an extreme rate the current liabilities, in terms of compensational charges that RASZTER is obligated to pay for its customer, which indicates development needs to increase the efficiency of on-time project completions. (Industrial Interview 6 2016.)

Another, highly considerable opportunity of the excess current assets, due to RASZTER's defensive policy, would be the long-term investment of the tied down capitals, which are not utilized as bank collaterals or security coverage, or used to balance outstanding accounts receivable and liability obligations. (Interview 3 2016.)

Furthermore, the CEO and the Finance Director (2016) of the organization have described the possibility of some political and governmental sponsoring on behalf of RASZTER, as a possible utilization of the financial benefits of a defensive working capital policy. The available excess funds provide an opportunity to build political relations, which would entitle some priority privileges for RASZTER that is considered necessary in the current market.

The stabilized working capital management, resulted by the advantages of the defensive policy, allows RASZTER to better utilize the human resources and capacity used for the current working capital monitoring activities. As RASZTER is operating under extremely secured short term financial circumstances, the organization could reduce the weekly monitoring of receivables and cash, to a monthly security analysis. Hence, the defensive policy allows RASZTER to better utilize personnel. (Interview 2 2016.)

#### **Threats**

As pointed out by the management of RASZTER, during their interviews, the greatest threat of the defensive policy, is allowing RASZTER's working capital management to insufficiently allocate organizational resources. Currently the financial department is focused at managing payables, and covering it by accounts receivable and cash, without outsourcing alternative solutions, such as short-term loans. Therefore, RASZTER's working capital management is not stimulated under defensive policy, to utilize excess cash reserves at their full potential. (Chief Engineer 2016; Interview 7 2016.)

The absence of loan financing is a conscious management decision of RASZTER, which resulted the implementation of a defensive working capital policy. The elimination of all modes of short-term loan financing, even overdrafts, from RASZTER's working capital management, has limited the organization in terms of higher dependence on its cash reserves and accounts receivable, hence, limits RASZTER's expansion and development plans. In addition, this increases longer term risks, related to fluctuation of cash inflows, which is the current coverage of short-term liabilities. Revenues and accounts receivable are expected to reduce in the following financial year, therefore RASZTER must consider the related risks of dependency on cash and receivable, in terms of its short-term financing. (Interview 5 2016.)

The overall reduction of EU sponsored construction projects as well as shrinking of the market, are the greatest external threats RASZTER is facing, operating in a highly competitive industry. These economic conditions of the recent years have partly influenced RASZTER` management decisions, concerning the unpaid dividends. The high retained earnings of RASZTER are threatening the stock value of the organization, as RASZTER may be perceived as an unreasonable choice of investment, due to lack of dividends. (Interview 1 2016.)

All in all, most of the threats, resulted by the defensive working capital policy at RASZTER, have originated from the extreme liquidity of the organization. Liquidity in general is perceived as an optimal mean of operations, but at such an extreme rate, like at RASZTER, the over capitalized working capital has limitations concerning future developments and optimal short-term financial management.

# 3.4 New working capital policy

RASZTER's current working capital is managed under defensive policy, as concluded by the liquidity analysis of the organization and also confirmed during the depth interviews. This policy is currently resulting extremely high reserves of cash at RASZTER. The organization is benefitting from its liquid working capital, with high cash reserves and accounts receivable, but as the SWOT analysis shows, the current levels of current assets versus current liabilities suffering from over capitalization at RASZTER.

Therefore, the SWOT analysis indicates the need of reduced current assets, primarily in terms of cash, to eliminate the future limitations of insufficiently utilized cash. On the other hand, considering the financing capability of RASZTER, some additional short-term financing options, such as short-term loans, overdrafts, factoring and alike, must be considered. Naturally this shift from financing solely by cash and accounts receivable, to a combination of current assets and current liabilities, indicates a change of working capital policy from defensive to neutral. This adjustment incorporates the benefits of both of the original defensive and an aggressive policy.

In order to facilitate a neutral working capital policy at RASZTER, a quick ratio of roughly 1:1 would be the most optimal target. This ratio would indicate that the organization's main current assets, the cash and accounts receivable would be equal to the organization's current liabilities, as a neutral policy requires. Furthermore, RASZTER would be able to maintain its strengths and opportunities of the current over liquid position, as its total current assets containing also the inventories of the organization, would still exceed the total current liabilities, and RASZTER could operate at a roughly 1,2:1 total current asset to total current liability ratio.

#### 4 SHORT-TERM FINANCING IN RASZTER

RASZTER's policy shift from the current defensive policy to a neutral working capital policy, requires some additional changes in the organization's financing structure. The proposed neutral working capital policy would embody the advantages of both a reduced level of insufficient cash reserves and an increased level of short-term loans. Hence, the new policy is implemented through equalizing the levels of current assets and current liabilities, by a reduction of cash on the assets side of the balance sheet and an increase of short-term loans of the liabilities of RASZTER.

The following chapter is the analysis of RASZTER's current short-term financing, dominated by cash. Furthermore, the following chapter is also investigating the possibilities of a combination of short-term loans together with a reduction of the current financing practices at RASZTER. The primary aim of the second phase of the analysis is to identify the most efficient short-term financing practices for RASZTER, to facilitate a smooth shift of policy from defensive to neutral.

#### 4.1 Cash

RASZTER's management has placed a major role of importance on the cash reserves of the organization. The primary aim of the financial operations at RASZTER is to ensure an appropriate level of cash to secure accounts payable and monitor excess cash for short-term investment. This cash oriented operational approach is the result of the conservative and precautionary business philosophy of RASZTER, which may have efficiency related short comings, analyzed also in the current thesis. However, the cash oriented defensive working capital policy of RASZTER have granted a stable and secured performance for the organization. As the financial management of RASZTER have outlined during their interviews, the high cash helped the organization to get through an economic Word Crises and several years of financial losses. (Interview 1 2016; Interview 6 2016; Interview 8 2016, Interview 9 2016.)

Figure 10 represents RASZTER's cash contribution to its total current assets. RASZTER's cash is shown in comparison to the remaining current assets of the organization, the accounts receivable and inventories. The percentage values of figure 10 are drawn from the organization's financial statements of the investigated years from 2008 to 2015 and presented in a clustered chart diagram, as seen below.

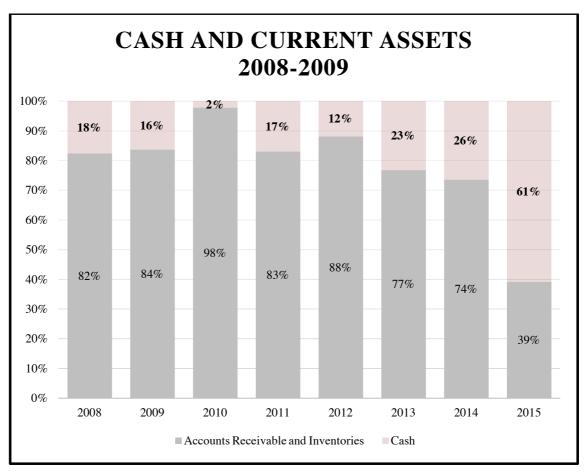


FIGURE 10. RASZTER's cash contribution of its total current assets (cash vs. accounts receivable and inventories)

As figure 10 shows, RASZTER's cash reserves on average account for somewhat 20% of the total current assets of the organization. Cash has been an increasing contributor of RASZTER's current assets from 2008, accounting for 61% of the organization's total current assets in 2015. Simultaneously RASZTER's accounts receivable have begun to diminish from 74 % of the total current assets in 2008, to 30 % in 2015. During this time frame RASZTER's inventory levels have remained fairly stagnating, around 10 % of the current assets, which further consolidates that RASZTER's main working capital contributors are cash and accounts receivable. Hence, by 2015 nearly one third of the short-term organizational resources were reallocated from accounts receivable to cash reserves.

RASZTER's recent 61 % cash reserves of the total current assets in 2015 accounted for 217.105.400- HUF, whereas the absolute monetary value of the accounts receivable in 2015 was merely half of it, 107.809.500- HUF, which further consolidates the high levels of cash in comparison to the other current assets of the organization.

"Higher and higher cash reserves are building up year by year, not used to their potential" (Interview 1 2016).

Sharing the above quoted statement, regarding the recent cash build-ups, the management of RASZTER has evaluated these cash reserves too high and a main reason of RASZTER's over liquidity during the recent years. (Interview 8 2016; Interview 9 2016.)

RASZTER went through a major readjustment of cost structures, along with employment downsizings, as a consequence of RASZTER's losses in 2012, when the economic downturn has reached its peak point in the construction execution industry. It has hit the organization, several years after the Financial Crises of 2008, because RASZTER had several long term projects already contracted in 2008, which have ensured profitability for the coming years up until 2012. (Interview 11 2016.)

As further outlined by the majority owners and founders of RASZTER, the organization's cost structure originally was set for a larger organizational size, with more projects on hand than during the years after 2008. This resulted higher cash reserves, to finance the organization's short-term obligation, than the current levels of accounts payable would require. Therefore, the organizational liquidity is a direct consequence of the organizational downsizing, with an extensive decrease of accounts payable in comparison to the organizational cash reserves from 2012 on wards. (Chief Engineer 2016; Interview 7 2016.)

#### 4.2 SWOT analysis of cash financing

The following matrix in figure 11 represents the SWOT analysis of RASZTER's cash reserves, as a transcribed interpretation of the interview outcomes and the secondary data of the financial statements of the organization. This SWOT analysis is a mean of interpreting RASZTER's current short-term financing activities, using an extensive amount

of cash. The following analysis draws conclusions concerning the areas of development, from short-term financing point of view. The outcomes will be combined together with the other, forthcoming SWOT analysis of short-term loan financing possibilities. The goal is to identify a combined financing structure that facilitates a neutral policy and increases efficiency. The table in figure 11 is a summary of the strengths, weaknesses, opportunities and threats of the current cash related activates at RASZTER. The listed internal and external, positive and disadvantageous features of RASZTER are interpreted in details below the table.

## **Strengths Opportunities** Liquidity Competitive advantage of financing capability Financing security Long-term investments Aligns with organizational strat-Convertible current assets egy Hedge against economic fluctu-Longer billing period ation Advantage of discounts Bank guarantee collateral raszter Weaknesses **Threats** EK RASZTER ÉPÍTŐ ZRT Low short-term investment in-Over liquidation terests Asset conversion expenses Insufficient utilization Prevents a neutral working capi-Longer billing period tal policy

FIGURE 11. SWOT analysis of RASZTER's cash financing

#### **Strengths**

RASZTER's high cash reserves ensure the organization's current liabilities, since the organization is able to cover its two monthly bank transfers from its cash reserves, without needing to outsource further external financing options. In addition, the extensive cash reserves allowed RASZTER to reduce and eliminate entirely the other short-term means of finance, such as short-term loans and overdrafts. (Interview 5 2016.)

The extensive level of cash, benefits the organization's financing from various perspectives. Excess cash deposits are an underlying condition for bank guarantees. Cash reserves are used as collaterals in RASZTER's main banks, for providing bank guaranties necessary to undertake large construction projects. Due to the cash financing practices at RASZTER, high amount of capital is tied down in cash, which situates the organization in a good banking relation with guarantee insurances. Hence the benefits of cash reserves further raise the organizations overall financing ability, besides covering the accounts payable obligations. (Interview 3 2016; Interview 10 2016.)

RASZTER benefits from extreme financial security with cash availability that terminates short-term loan related risks. By utilizing cash financing, RASZTER ensures its liquid position, which is a hedge against the current economic uncertainties, predicted by the leadership of the organization for the following fiscal year. The organizational liquidity, resulted by the high cash reserves, aligns with the organizational strategy, and provides also precautionary coverage of delayed accounts receivable outstanding. (Interview 5 2016.)

#### Weaknesses

RASZTER's liquid working capital, with cash financing practices, requires a large amount of short term founds. The tied down capital in cash reserves and cash deposits prevents the organization from the long term utilization of capital, in terms of long-term investments that yield higher interests than the short-term investments. Considering the extremely low interest of the short term investments, their yields ae nearly inevitable according to the financial managers of RASZTER. (Interview 9 2016.)

The main disadvantage, considering the cash reserves, is the insufficient utilization of capital. As outlined, the organization fails to make long term investment due to the cash

builds up, to ensure the smooth financing of daily operations. Considering the weak yields of short-term investments of excess cash, after payable settlements, these are almost unreasonable bank deposits. The on-hand cash reserves of RASZTER, prevent further investment options, such as business expansion and investment to personal and machinery, or even building political and social alliances. (Interview 7 2016.)

RASZTER is also facing some not directly correlated weaknesses, resulted by the cash reserves. As RASZTER relies less on receivable financing due to high cash levels, the organization is able to bill accounts receivable at longer payment periods. The related opportunities of this issue are outlined in the following paragraph, but from the perspective of weaknesses it also lengthens RASZTER's cash conversion cycle. This weakness is a complex problem raised by RASZTER's cash reserves, which is further dissected during the discussion of the cash related threats and also later on, in the last aspect of the thesis analysis of RASZTER's cash conversion cycle and working capital management efficiency. (Interview 1 2016.)

#### **Opportunities**

As outlined within the strengths and advantages of RASZTER's high cash reserves, the organization is able to maintain its operational flow even in an economically challenging period, due to its liquid financial capabilities. The high cash reserves provide operational flexibility for the organization. Furthermore, the high financial capabilities of RASZTER provide competitive advantage against other players of the industry that lack cash reserves and financing abilities. (Interview 11 2016.)

As described in the liquidity analysis, the current assets nearly account for twice of the levels of current liabilities, from which cash reserves are somewhat 61%. Therefore, even after the settlement of all the liability obligations, RASZTER is having excess cash of at least 10% of its total current assets, beside accounts receivable and inventories. Hence the organization is capable of utilizing at least 10 % of its current asset, in long-term investments with beneficial yields. In addition, by changing RASZTER's financing structure, from cash reliance to a combination of other means, RASZTER would have an opportunity to further outsource the long-term investment possibilities of its cash reserves. In practice the organization is facing an opportunity of fairly easily convertible current

assets to cash, hence the accounts receivable and even some of the inventories are available at RASZTER's disposal, to assure financing and long-term investments. (Interview 5 2016; Interview 8 2016.)

RASZTER's cash financing ensures further opportunities of well-established customer relations. As outlined among the cash related threats, the longer billing periods offered as a result of secured financing capabilities, are effecting insufficiently RASZTER's cash conversion cycle. On the other hand, these longer billing periods also provide a better customer service and customer experience on behalf of RASZTER, which is a strong competitive advantage in a shrinking industry. (Interview 4 2016.)

Within the topic of long-term relations, the cash secured position of RASZTER allows the organization to benefit of the accounts payable discounts, offered by its suppliers. RASZTER's cash reserves allow the organization to settle accounts payable bills prior to cash inflows of accounts receivable. Beside RASZTER's opportunity to show good customer manners to its suppliers, the early payment is a mutual opportunity for both parties. It allows RASZTER to take advantage of the reduced amount of accounts payable and ensures prompt payments for the suppliers. (Interview 11 2016.)

#### **Threats**

RASZTER's cash financing of short-term operations is one of the primary reasons of the organizational liquidity. However, the threat of an over liquid working capital is a concern of the majority of RASZTER's leadership. As the respondents of the depth interviews have outlined, the insufficient utilization of short-term capital is a hidden problem, since the current financing capabilities of the organization communicate financial health. RASZTER is currently facing an overshadowed insufficiency of the overall working capital management. (Interview 4 2016; Interview 8 2016.)

The organization is well completing its short-term obligations which aligns with the traditional way of interpreting a good working capital management, but further investigating the contribution of various current assets shows that RASZTER is facing overdependence on cash. Hence RASZTER would not be able to cover its liabilities solely by its receivables if the cash would be utilized for investments or other more profitable uses. The organization is facing an operational threat of larger outflow of cash as accounts payable

then inflow of accounts receivable, as RASZTER's accounts payable have accounted only to 63% of the total liability obligations of payables in 2015. This is an invisible issue of the latest financial year due to the high cash reserves filling in the gap. (Interview 5 2016; Interview 7 2016.)

In addition to the lower levels of accounts receivable in comparison to accounts payable, also the irregular inflow of the accounts receivable is a further threat of RASZTER. These cash inflows are at the end of each construction project, which often may be several years, hence RASZTER is not able to reduce its cash drastically due to the lack of constant and regular accounts receivable amounts. This further enforces the large security stashes of cash at RASZTER, to cover the outstanding receivables. Hence RASZTER's irregular cash inflows and the counter cash reserves, currently prevent the organization to reduce the current assets, and to facilitate a shift towards a neutral working capital policy. (Interview 4 2016; Interview 9 2016.)

RASZTER is also exposed to conversion expenses of other liquid short-term assets, to finance its short-term liabilities, in order to better utilize the investment opportunities of the cash. Hence a further utilization of high cash reserves, which would be the next logical strategic move on behalf of RASZTER, would also raise additional expenses, besides the profit yields of the investments. (Interview 7 2016; Interview 9 2016.)

#### 4.3 Short-term loans

Beside the reduction of excessive cash, to achieve a lower level of overall current assets, RASZTER must also consider other options of management practices, to increase the current liabilities. RASZTER's excessive cash reserves are dominating the organization's current financing structure, with several advantages as well as deficiencies. However, the overall financing structure of RASZTER requires some optimization, with preserving the benefits of the current financing practices, to facilitate the new neutral policy.

In order to implement neutral policy, the financing structure of RASZTER should incorporate other external options of short-term loans, bank overdrafts or bank guarantees in addition to the currently deployed cash and the accounts receivable. Simultaneously, the

optimization of RASZTER's short-term financing structure should stay loyal to the organization's low risk strategy and preserve the main benefits of the current cash financing practices. (Interview 9 2016; Interview 6 2016.)

Figure 12 shows the contribution of RASZTER's current liabilities, divided into all the accounts payable of the organization, compared to the amount of short-term loans, during the past years from 2008 to 2015. The clustered column figures represent the percentage of all the current labilities accounting for accounts payable and short-term loans at RASZTER.

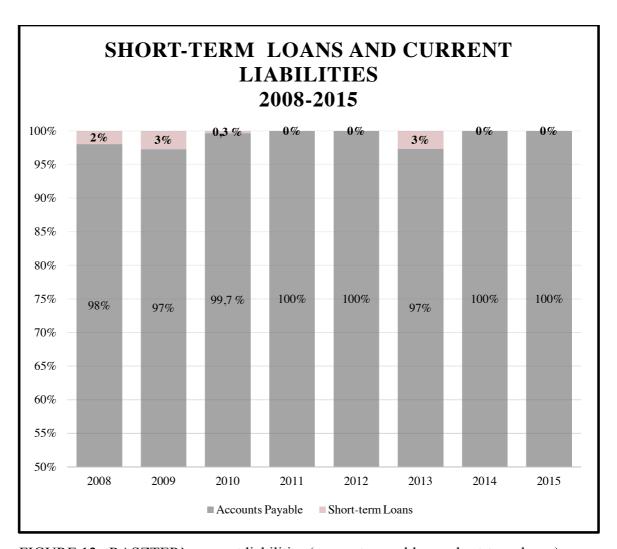


FIGURE 12. RASZTER's current liabilities (accounts payable vs. short-term loans)

As figure 12 shows RASZTER's accounts payable count for nearly all the current liabilities bared by the organization. As for the amount of short-term loan financing, at RASZTER, it is extremely minimal, at most three percent of the total current liabilities,

and in many years non-used at all. RASZTER's short-term financial strategy is heavily based on being able to finance its liabilities and short-term obligations without loans, as part of their defensive working capital policy.

"Due to the uncertain economic situations as well as due to our security oriented management we don't use short-term loans" (Interview 8 2016).

This non-loan strategy, outlined by RASZTER's Chief Financial Officer, has been proven to benefit the organization during the recent years, under the economic downturn. Five of the main competitors of RASZTER have bankrupted, following a more profit oriented aggressive working capital policy. RASZTER's defensive policy has been implemented consistently with eliminating the short-term loan financing entirely from its working capital management in 2014. Each interviewee has outlined their recent concerned about the extreme cash build ups, resulted by the absence of short-term loans. (Interview 5 2016; Interview 6 2016.)

RASZTER's short-term financial management, during the investigated period, has avoided the use of short-term loans as part of their strategy, which on the other hand, prevented the organization to benefit from some of the advantages offered by short-term loans. Furthermore, RASZTER could better utilize its cash reserves and optimize its working capital if the short-term financing would rely more on short-term loans than currently.

#### 4.4 SWOT analysis of short-term loan financing

The following matrix in figure 13 represents the SWOT analysis of a proposed short-term loan financing option for RASZTER to facilitate a neutral working capital policy. This SWOT analysis transcribes the strengths, weaknesses, opportunities and threats of RASZTER short-term financing, incorporating short-term loans. The outcomes will be used to conclude a new financing structure for RASZTER, combining cash and short-term loans.

## **Strengths Opportunities** Low interest rates Facilitates neutral policy Low level of risks Better utilized working capital Financing support for large Reduced over liquidity EU projects Financing variety raszter Weaknesses **Threats** EK RASZTER ÉPÍTŐ ZRT Time consuming negotiation Lower annual performance Against the leadership's preferences Uncertain economic situation Transactional expenses Reduced liquidity

FIGURE 13. SWOT analysis of RASZTER's short-term loan financing

#### **Strengths**

As outlined in the liquidity analysis of RASZTER as well as in the SWOT analysis of its cash financing, the organization is suffering from over liquid working capital. However, by moving towards a shared financing with short-term loans, the organizational liquidity would lower accordingly, through increasing current liabilities. Therefore, short-term loan financing balances RASZTER's liquidity issue, which is a recent concern of the leadership and the majority of the interview respondents.

By outsourcing short-term loans, to finance liability obligations, RASZTER is choosing the least risk involved external solution. Currently the short-term loan interest is 0,9 % in Hungary, which is a favourable rate compared to the long-term loans RASZTER has utilized for expansion purposes, with a 2% interest rate. Short-term loans are described by the majority owners of RASZTER as a cheap and nearly free external source of finance to ensure daily operations. (Interview 2 2016; Interview 6 2016; Interview 9 2016.)

Short-term loans are current liabilities that yield similar benefits as some major current assets, like cash and accounts receivable, in terms of facilitating smooth operations. Therefore, short-term loans are a value added service, outsourced by RASZTER, to extend the variety of financing options to further ensure secured financing. Hence, the indirect outcomes of short-term loans have some alliance with the strategic approach of RASZTER, but it is a volatile projection of benefits.

#### Weaknesses

As described by the financial management of RASZTER, loan financing was consciously eliminated, as the organization did not depend on external support. However, if the services of short-term loans would be utilized again from RASZTER's main banks, it would require time consuming negotiations, concerning the conditions. Hence drawing short-term loans and overdrafts require detailed scanning of RASZTER's coverage conditions. These weaknesses are not only short-term loan related, but are also the weaknesses of the Hungarian banking bureaucracy and the uncertainty of the construction industry. (Interview 6 2016; Interview 9 2016.)

The slow bank process of drawing short-term loans, eliminates the aspect of instant availability. In addition to the time aspect, the short-term loans are drawn at fairly expensive transactional costs, even though the interest expenses are relatively low. The expenses and the fact of dependency on borrowed money is contrary to the preferences of RASZTER's leadership, because short-term loans lack some security, which RASZTER is seeking. (Interview 3 2016.)

#### **Opportunities**

Outsourcing the short-term loans provide the opportunity of facilitating the implementation of a new neutral working capital policy. By using short-term loans, RASZTER's current liabilities increase and began to balance the large difference with current assets, which is the underlying challenge of the policy shift.

In addition, the various forms of financing, including external modes like short-term loans, allow RASZTER to inforce its security oriented strategy. RASZTER's revenues are exposed to fluctuations due to the uncertain economy, hence the organizational accounts receivable levels are unexpected to some extent. However, by incorporating an

additional source of financing, RASZTER has the opportunity to further strengthen its financing capabilities using short-term loans, with bearable levels of consequent risks. (Interview 9 2016.)

RASZTER's financing security, through incorporated short-term loans, also preserves the organization's competitive advantage of being able to finance even large EU projects in advance to payments. In the construction industry, financing capabilities are highly valued, due to the extreme cost of the projects. (Interview 10 2016.)

RASZTER's large amount of cash reserve is not utilized to its highest potential. By outsourcing the short-term banks loans, a direct proportion of cash of the amount of short-term loans, is liberalized to be invested. Short-term loans allow a more optimal capital investment to RASZTER's working capital. Furthermore, short-term loans can also be utilized to exchange cash, and provide the same benefits for RASZTER than the cash reserves, such as resistance against economic fluctuation or delayed accounts receivable.

#### **Threats**

The consequent disadvantages of short-term loan-financing of operations, carry certain threatening properties for RASZTER's long run performance. Beside the 0,9% interest, which is itself a cheap feature, the other transactional expenses of drawing short-term bank loans, together are lowering RASZTER's net profits, after taxes and interests. Since RASZTER's performance is measured by its net profit, it explains the organizational precautions and ignorance of short-term loans, as part of a beneficial working capital management. (Interview 1 2016.)

The economic uncertainty is a reason for RASZTER to be prepared for financing its daily operations from more than one sources, which are not revenue related, such as cash reserves and short-term loans. However, undertaking short-term loans is an organizational obligation and debt, which needs to be replayed to the banks. Hence, in longer term than the immediate cash needs, RASZTER will have to be able to bare its short-term loan obligations. Which is, in the case of replacing cash with short-term loans, is mostly based on future cash inflows of accounts receivable that are also exposed to uncertainty of the current economic situation. (Interview 4 2016; Interview 7 2016.)

In addition, by integrating the short-term loans to RASZTER's financing structure and working capital management, the organization achieves a reduced level of liquidity. However, as referred to in every point of the analysis, a major concern of the leadership of RASZTER is the economic uncertainty, which argues the need for reduced liquidity. As if the organizational revenues would worsen due to the economic slowdown and the cash reserves would be used up for other optimal reasons, RASZTER may fall into a spiral to keep up its short-term financing, by supplying loans from loans. (Chief Engineer 2016.)

#### 4.5 Proposed financing structure

Considering the organizational excess cash and the SWOT analysis of the current cash financing, together with the SWOT analysis of the scenario of short-term loan financing, RASZTER would benefit from the combination of these two modes. Introducing short-term loan financing to RASZTER's financing structure together with cash and accounts receivable, would well facilitate the neutral working capital policy, proposed by the first aspect of the analysis.

A shift towards a neutral working capital policy, with a quick ratio near to 1:1, would require a 25% reduction of current assets, solely from RASZTER's cash reserves that accounts for approximately 40% of the total cash. This amount is estimated by the leadership and financial management of RASZTRE as an appropriate amount for profitable long-term investments or organizational development and expansion. In addition, with introducing short-term loans, equivalent to this 40% of the current cash reserves, RASZTER would be able to spare its current financing capability. Hence RASZTER could ensure its competitive advantage and the smooth flow of operations, along with a reduced level of insufficiency in terms of over liquidity and the opportunity cost of cash investments. (Interview 7 2016; Chief Financial Director 2016.)

An integration of short-term loan financing is the most optimal change of RASZTER's short-term financing structure, based on the conclusions drawn from the second aspect of the analysis above. This solution would best facilitate not only the optimization of the current working capital management but also the proposed neutral working capital policy.

By combining cash and short-term loan financing, RASZTER would raise working capital management efficiency. In addition, the organization may preserve all the advantages of the current financing practices, yet eliminating all the disadvantages of over liquidity and over capitalization, by this integrated financing structure. The SWOT analysis of both the cash and short-term loans have shown respectively how these two modes complete one another, which is an entirely new approach of not using loan financing as a last resort, but as a mean of maximizing profitability.

#### 5 WORKING CAPITAL MANAGEMENT IN RASZTER

The previous chapters have presented the analysis of RASZTER's current overall working capital policy and financing structure, as well as the possibilities, which the organization may outsource to achieve optimized short-term financial management. In addition, RASZTER's working capital efficiency can be further increased through the smooth cycle of cash flows, allowing the reduction of cash reserves and indirectly supporting also the policy shift of the organization.

The following third and final aspect of the current thesis research analysis is concentrated around the efficiency of the working capital management of RASZTER. As efficiency is reflected through cash conversion cycle, also the analysis is focusing on RASZTER's management activates influencing the length of the organizational cash conversion time period. RASZTER's cash conversion cycle reflects the time period from purchasing an item and fulfilling the accounts payable obligation, through the period the cash is tied down in inventories, until the cash circulates back to RASZTER in terms of cash inflow from accounts receivable. (Berk & Demarzo 2011, 849.)

As outlined by the thesis commissioner, as well as seen from RASZTER's annual balance sheets, the organizational inventories are fairly inevitable in comparison to other current assets like cash or accounts receivable. Therefore, inventories are not either investigated in depth at this part of the analysis. On the other hand, the other two main influencing factors of cash conversion cycle, the accounts receivable and payable are large contributors of RASZTER's current assets and liabilities. Hence, the accounts receivable and accounts payable practices are the primary targets of this chapter.

#### 5.1 Cash conversion cycle

Currently RASZTER's management is not emphasizing cash conversion cycle, beside regular monitoring of their cash conversion length in comparison to their competitors. However, the financial management of RASZTER has outlined their interest in cash conversion cycle to generate a more consequent accounts receivable in-flow that would further reduce the cash reserve needs, along with introducing short-term loan financing.

Figure 14, seen below, shows RASZTER's cash conversion cycle, in days, presented in cluster chart digammas from 2008 to 2015. The diagram shows the number of days that RASZTER's cash reserves are tied down in inventories, from the day of paying the accounts payable until the accounts receivable is collected from the allocation of those inventories. The values presented below, are calculated by the formula of cash conversion cycle introduced in the theoretical framework, by summing up the accounts payable days and inventory days and deducting the accounts receivable days to identify the number of days that cash is tied down.

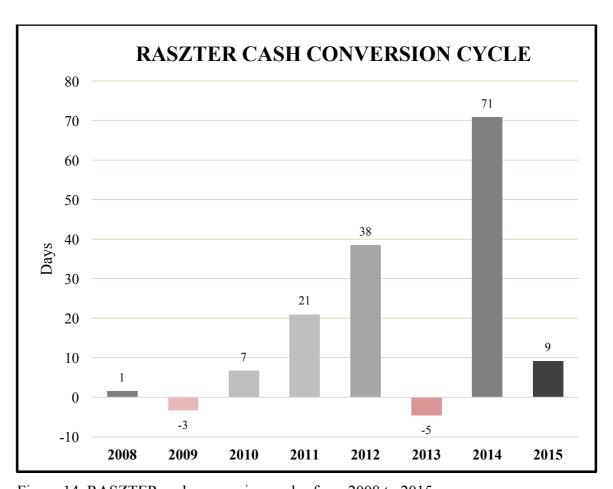


Figure 14. RASZTER cash conversion cycles from 2008 to 2015

As it can be seen on figure 14, RASZTER's cash conversion cycle in not following patterns. RASZTER manged to reach high management competency in 2008 and 2009 as well as in 2013 with low or even negative cash conversion cycles, which indicates competency. Hence the organization was able to finance from its cash inflows its short-term obligations and used its suppliers as interest free debtors for the time period of the accounts payable outstanding. (Bratland & Hornbrinck. 2013, 28; Cagle, Campbell & Jones 2013.)

Furthermore, the best cash conversion cycle of RASZTER during the investigated period was in 2013, the year following the organizational downsizing of RASZTER. This strategic action, in order to balance the economic challenges, is proven to be an efficient change in terms of improving the short-term financial management of the organization, as also confirmed by the cash conversion cycle. However, the following two years have shown some unsettling sudden growth of gap, between cash outflows and inflows, especially in 2014. This reflects RASZTER's practices of extending payable due dates to establish better customer relations, which incidentally lengthens the cash conversion period. Hence, RASZTER needs an efficiently reconstructed accounts payable and accounts receivable protocol, to balance organizational financing capabilities, without extreme reliance on cash reserves. (Interview 6 2016; Interview 7 2016.)

As it was outlined by the majority owners as well as the financial management of the organization, RASZTER has not been recently enforcing specific accounts receivable polices to ensure reduced time period of cash conversion cycle. Furthermore, the organization has not been heavily benefitting from extensive payable due dates, as the economy is currently also burdening the suppliers of RASZTER. In addition, as RASZTER's Chief Executive Officer has stated:

"The organization is capable of overall longer billing cycles, with longer and more beneficial due dates for its customers" (Interview 7 2016).

The greatest dilemma, faced by RASZTER, is weather to optimize its own cash conversion cycle to reduce the time period of tied down reserves, or emphasize the strong customer relations with longer billing cycles that are also relevant in a competitive industry. However, this trade-off is also defining the overall working capital policy and financing structure of RASZTER, as the level of necessary cash is determined by the time period of cash conversion cycle. Hence the third aspect of analysis is solely focused on analysing the accounts receivable and payable practices of the organization, to facilitate a new policy and financing structure, along with an optimized cash conversion cycle. (Interview 4 2016.)

#### 5.2 SWOT analysis of cash conversion cycle

The SWOT analysis in figure 15 summarises the last aspect of the current thesis research, considering the efficiency of RASZER's working capital management, with references to the depth interviews and secondary data. The SWOT matrix transcribes the interview results, concerning the accounts receivable and accounts payable practices influencing the entire cash conversion cycle, to be reduced to the most optimal level. The SWOT matrix, as well as the descriptions following it, interpret RASZTER's cash conversion cycle as a set of strengths, weaknesses, opportunities and threats of the account receivable and payable practices.

## **Strengths**

- Ensured payables
- Prompt payments
- Public sector projects (minimal unpaid receivables)
- Customer friendly billing cycles

## **Opportunities**

- Public sector projects
- Discounts
- Low interests of delayed payments
- Longer supplier due dates
- More regular bank transfers
- Reduce payment due dates

## Weaknesses



### **Threats**

- Long billing cycles
- Rear payable discounts
- Twice a month settled payables
- Low delay interests
- Irregular accounts receivable inflows
- Questionable paying moral
- Collection enforcements
- Public sector projects
- Twice a month settled payables
- Increasing number of delayed payments

FIGURE 15. SWOT analysis of RASZTER's accounts receivable and accounts payable practices, influencing the organization's cash conversion cycle

#### **Strengths**

Considering the current accounts payable practices of RASZTER, the organization is prioritizing its short-term obligations, and follows a decent payable track record. RASZTER is paying all payable on due dates and has a very strong credibility reputation in the industry. The prompt payments of the organization are partly ensured by its cash reserves, and are considered as part of the security and long-term oriented strategy of the organization. (Interview 2 2016.)

RASZTER's operations are oriented greatly towards public sector projects. These projects are regulated with extremely strict payment terms and legislations in Hungary. Most accounts receivable outstanding, have to be paid for RASZTER within a 30-45 days' period that is considered a very short receivable due date in the construction execution industry. In addition, RASZTER enjoys the benefits of strict regulation also eliminating the number of unfulfilled accounts receivable. (Interview 9 2016.)

As continually referred to, RASZTER in benefitting highly from the consequent opportunities of its high cash reserves. RASZTER is not only able to ensure with certainty its accounts payable obligations, which is a key element of the organizational smooth operations, but also can use it for further networking, from customers' point of view. RASZTER's accounts receivable is facilitating strong customer relations, by providing longer billing periods than the usual practice in the industry. This is solely based on RASZTER's financing ability from its cash reserves, even in the unfortunate event of late cash inflows. (Interview 6 2016; Interview 7 2016; Interview 9 2016.)

#### Weaknesses

The long billing cycles, which benefit RASZTER's customers, are influencing in several other ways the overall cash conversion cycle of RASZTER. As outlined by the secondary data analysis of calculating the cash conversion cycles of recent years, RASZTER's recent cash conversion period is fairly long in comparisons to other years. By longer accounts receivable payment days, the cash conversion of RASZTER will remain extensive, that weakens the organization's alternative monetary inflows in terms of longer time of capital tied down.

Discount availability is a subsequent weakness of both the accounts receivable and payable practices of RASZTER from slightly different view of analysis. RASZTER's financial management expressed interest in outsourcing discounts offered by its suppliers, in exchange of early payment of payable obligations, however, it is not a widely practice protocol at the moment in the Hungarian construction execution industry. On the contrary, RASZTER is not stimulating early payments by offering discounts, which is an underlying issue of inefficiency. By paying earlier its obligations, but not collecting outstanding receivables accordingly early, RASZTER's cash conversion is lengthening. (Interview 2 2016, Interview 9 2016.)

Besides the lack of prompt accounts receivable stimuli by RASZTER, the governmental regulations are not facilitating either strict payments. Currently the interest of delayed payments is relatively low in Hungary due to the latest regulations, as outlined by the financial management of RASZTER. Organizations are obligated to pay 40 EUR per unfulfilled bill, and only in the case of public sector projects an 8% interest payment. Therefore, the bearable interest levels of the private sector projects may promote delayed payments among RASZTER's customers. (Interview 6 2016; Interview 10 2016.)

RASZTER's payment settlement is currently handled with two bank transfers in a month, on the 12th and 27<sup>th</sup> of each month. Therefore, RASZTER is not paying bills on the latest due date possible, but on either of these two days, depending on which is closer and before the due date of the bill. Hence RASZTER is often bearing early payments without discount benefits, which are reducing the organizational cash conversion cycles. (Interview 5 2016; Chief Financial Director 2016.)

#### **Opportunities**

RASZTER's longer billing periods are a trade-off between good customer relations and the length of the organization's cash conversion cycle. The organization's current statues of business operations would require a more efficient working capital management that can be achieved by shortening the outstanding accounts payable due dates. The level of liquidity benefits RASZTER with a sense of flexibility that allows the organization to bare temporary drawbacks of shortened accounts payable periods, to reduce the cash conversion cycle. (Interview 1 2016.)

In the contrary, RASZTER has the opportunity to maintain customer satisfaction by replacing the indulgence of long payment periods to early payment discounts. Hence, to achieve optimized cash conversion cycles, the payment periods do not have to be shortened, but RASZTER has the opportunity to introduce new practices of discount rates to promote early payments. (Interview 5 2016.)

In addition, RASZTER may shorten its cash conversion cycle by regulating its bank transfers, and therefore increasing the majority of on due date payed accounts payable obligations. This would cause additional allocation of human resources, but allow the conversion period to shorten. In addition, RASZTER could rely more on its receivable financing and eliminate cash reserves for better uses. Besides the regularity of bank transfers, RASZTER may further consider long-term relations. The cash conversion cycle of the organization may be further optimized by negotiating extended due day payments for RASZTER's own payable obligations. Hence, RASZTER could outsource its suppliers as interest free loan providers, with a possibility to bare these payables from the inflow of accounts receivable. (Weetman 2006, 459; Bratland & Hornbrinck 2013, 27-28; Interview 7 2016; Interview 8 2016.)

RASZTER may also further outsource the opportunity of specialising business activities solely on the public sector that provides beneficial account receivable regulations and due dates. Public sector projects would benefit RASZTER from being able to count with its receivables on fairly regular base, with certainty of payment. However due to the increased level of competition in the industry, RASZTER may considered doing the majority of business in the public sector and remain present in the private sector to some extent, to be able to bare revenue uncertainties in the future. (Chief Engineer 2016; Industrial Engineer 2016.)

#### **Threats**

The current twice a month bank transfer practices of RASZTER are threating the smooth cash conversion flow. This practice requires the bills to be paid on one of the two bank transfer days closer to the actual due date, but always before the due date. It prevents RASZTER of taking advantages of their monetary funds and receivable until the last day possible. Payables are often settled prior to inflow of accounts receivable, which prevents the elimination of cash needs, as buffer against payable obligations. (Interview 2 2016.)

In addition, the majority of respondents have referred to the ethical issues of questionable payment moral, which indicates the threats of unpaid receivables in the construction execution industry, in Hungary. RASZTER has not been recently exposed to extreme levels of unfulfilled accounts receivable, but the continual economic downturn and the highly competitive market may result further issues of unfulfilled payments, as well as delayed payments. This issue threatens the theoretical proposal of reduced cash conversion, if in practice the accounts receivable remains unfulfilled on behalf of the customers. (Interview 5 2016.)

The further consequences of delayed payments, are the time concern and also the additional expenses of RASZTER to enforce collections of unfulfilled accounts receivable. According to the depth interview responses, the initial notices of payment requests are inefficient modes of collection, and usually court cases, attorney's requests and other official demands are required. It is followed with procedural expense beard by RASZTER, which are not necessarily a guarantee. (Interview 8 2016; Interview 9 2016.)

In addition, RASZTER often needs to accept unfavourable receivable conditions effecting both the profitability and the working capital management of the organization, due to the highly competitive market. Due to the government regulations, RASZTER can only issue bills with in 30 to 45 or 60 days, hence the organization is not able to require earlier than 30 days, accounts receivable due dates. (Interview 1 2016.)

Furthermore, concerning RASZTER's opportunity of focusing on the public sector, with accounts receivable insuring regulation, may also carry some disadvantages. As the majority of RASZTER's competitors may be relying on a similar approach, targeting the same projects, which will saturate the competition. Hence a trade-off between ensured accounts receivable and competitive market is a crucial consideration, threating the smooth flow of operations from RASZTER's working capital management and cash conversion cycle point of views. (Interview 4 2016; Interview 8 2016.)

#### 5.3 Reduced cash conversion cycle

As outlined throughout the analysis of RASZTER's current cash conversion cycle, the organization is facing a variety of trade-offs, mostly between a customer oriented approach and an efficient working capital management strategy. The organization's overall accounts receivable and accounts payable practices are well functioning in a structured manner. However, the current protocols regarding the length of accounts receivable outstanding and accounts payable settling, have not been strategically aligned with ensuring an efficient working capital management.

Currently RASZTER's payables are settled on time, but often before due date, as a result of the limited, two bank transfers in a month. The primary optimization would be an increased number of bank transfers at RASZTER, which would allow to use the monetary funds until the last day of the payment, as interest free loans. In addition, longer accounts payable periods may be negotiated to further increase the available time to stele those obligations and shorten the time gap between the outflow and inflow of cash. A longer payment due dates, provided by RASZTER's suppliers, along with regulated bank transfers on behalf of RASZTER, would best facility a balance between RASZTER's current on-time payment and the efficiency of working capital management.

This proposal has been a concern of RASZTER officials, as it has been discussed during several depth interviews. However, this change may most probably require larger and financially capable suppliers, or one main supplier, similar to RASZTER, operating with high cash reserves allowing the organization to bare the absence of payments for a longer time period. (Interview 3 2016.)

As described, RASZTER is facing a payment moral and credibility challenging industry, where accounts receivable payments are not always fulfilled. RASZTER is best facilitating its low risk strategy by specialisation on public sector projects, with law restricted due date requirements. In addition, RASZTER may further shorten its cash conversion cycle, by reducing the accounts receivable outstanding due dates, which is possible in the private sector but not in the public sector due to the Hungarian regulations. On the other hand, this change may worsen RASZTER's customer relations. RASZTER may also considered further outsourcing bank guarantees from their main banks, using their cash reserves as

very assuring collaterals. The bank guaranties would balance to some extant the possible short comings of unfulfilled account receivables, in case of customers with questionable credibility. (Interview 7 2016.)

Beside the overall efficiency of RASZTER's working capital management, cash conversion cycle also links to the previously discussed other two perspectives of the thesis analysis. The efficiency of RASZTER's working capital management, achieved through a reduced cash conversion cycle, allows the organization to reduce its security cash reserves. Furthermore, it allows a shift towards a neutral working capital policy that integrates short-term loan financing as well as ensures short cash flow from receivables to payables, which also further eliminates the cash needs of the organization.

#### 6 CONCLUSION

The purpose of the thesis research was to optimize the commissioner organization's current working capital management. RASZTER's current working capital policy, short-term financing structure and overall working capital management efficiency were analysed and interpreted in a set of conclusions, proposed to optimize the efficiency of the organization's short-term financial management.

As identified in the liquidity analysis, RASZTER's current working capital is managed under a defensive policy. This policy is resulting extremely high liquidity and cash reserves, available for liability obligations. However, the SWOT analysis identified various correlated disadvantages of the extensively higher levels of current assets than current liabilities, indicating a need of reduced cash, to eliminate the limitations of insufficiently utilized recourses.

Since RASZTER's defensive working capital policy was not a conscious management decision, the organization's short-term financial management requires specified direction. By implementing a new neutral working capital policy, RASZTER would be able to shift towards a more balanced current asset to current liability ratio, incorporating the benefits of both the original policy, and a profit maximizing aggressive policy.

Considering RASZTER's low risk and high security strategy, a quick ratio of roughly 1:1 would be the most optimal to target, in order to facilitate a neutral working capital policy. It would indicate that the organization's main current assets, the cash and accounts receivable, would be equal to the organization's current liabilities. Furthermore, RASZTER could still maintain its strengths and opportunities of the current over liquid position, as its total current assets, containing also the inventories of the organization, would still exceed the total current liabilities, and RASZTER would operate at roughly a 1,2:1 total current asset to total current liability ratio.

A shift towards a neutral working capital policy, with a quick ratio near to 1:1, would require a 25% reduction of current assets, solely from RASZTER's cash reserves that account approximately for 40% of the total cash. This amount is estimated by the leadership and financial management of RASZTRE as an appropriate amount also for profitable

long-term investments. On the other hand, considering the financing capability of RASZTER, some additional short-term financing options, such as short-term loans and overdrafts must be integrated to replenish the invested cash reserves. Introducing short-term loans, equivalent to the 40% of the current cash reserves, RASZTER would be able to spare its current financing capability. Hence, RASZTER could also ensure its competitive advantage and the smooth flow of operations, along with a reduced level of insufficiency, in terms of over liquidity or the opportunity cost of cash investments.

Therefore, RASZTER should combine cash and short-term loan financing, to increase its working capital management efficiency and preserve all the advantages of the current financing practices. This proposal would allow RASZTER to remain with in a conservative strategy, yet eliminating all the disadvantages of over liquidity and over capitalization.

RASZTER's current cash conversion cycle is facing a trade-off between a customer oriented approach and an efficient working capital management approach. The current protocols regarding the length of accounts receivable outstanding and accounts payable settling, have not been strategically aligned with an efficient working capital management, but have facilitated good customer and supplier relations.

Raszter's cash conversion cycle optimization requires an increased number of bank transfers at RASZTER, which would allow to use the monetary funds until the last day of the payment as interest free loans. In addition, longer accounts payable periods may be negotiated to further increase the available time to settle those obligations, and shorten the time gap between the outflow and inflow of cash.

A longer payment due date, provided by RASZTER's suppliers, along with regulated bank transfers would best facilitate a balance between RASZTER's current on-time payments and efficiency of working capital management. This requires larger and financially capable suppliers, or one main supplier, similar to RASZTER, operating with high cash reserves that allow the organization to bare the absence of payments for a longer time period.

These three aspects of RASZTER's working capital management consequently link to one another. An efficient working capital management, achieved through a reduced cash conversion cycle, allows the organization to reduce its cash reserves. Hence, it allows a shift towards a neutral working capital policy that integrates short-term loan financing as well as ensures optimal utilization of cash reserves with shorter cash flows from receivables to payables.

#### Related thesis researches

The current thesis research is extended to a wide range of working capital related theories. Hence, various further research studies may be developed as continues studies of the current thesis outcomes. Possible areas of further researches, excluded due to the time frame of the current study, are listed below as possible future bachelor and master's thesis topics

- 1. Identifying possibilities to eliminate RASZTER's inventories while preserving the operational flow, and preventing the lack of available resources. It was identified in the current study that the contribution of inventories is dispensable for the working capital management of RASZTER. The study may be analysing the correlations of an efficient working capital management and efficient operational management, emphasizing the degree of alliance or antagonism.
- 2. A further benchmark investigation of additional organizations in the Hungarian construction execution industry, using the same model of research, to gather sufficient and comparable data of working capital management. It could be used for an extensive study of researching working capital management optimization, applicable as a general industry model.
- 3. Investigation of the hypothesis, of achieving profitability by improving working capital management, by a an extensive research of the entire Hungarian construction execution industry, in a quantitative study.

#### Personal learning experience

In addition to the actual theoretical and practical knowledge obtained during the thesis process, I have gained insight to a medium sized organization's core business and financial processes. I was given the opportunity to gather information from extensive depth interviews and discussions, from various experts not only in the field of accounting and finance, but also from engineers and managers of RASZTER. Especially my interview sessions with business professionals from other fields have provided me with a better perspective of understanding the practical applications of theoretical concepts. The degree of cooperation I have experienced from RASZTER, made me realize the level of interest that organizations show in new business graduates, who may see diverse possibilities for organizational success.

I had a positive experience of being able to build international networks with experienced experts in an industry. My professional and theoretical skills as well as my communication and written language skills have also improved through the process of producing a thesis report, in the form of an academic text. My positive experiences and expanding knowledge of short-term financial management have complemented perfectly my learning process.

#### REFERENCES

Afza, T. & Nazir, M. 2009. Impact of Aggressive Working Capital Management Policy on Firms' Profitability. The IUP Journal of Applied Finance, 15 (8), 19-27.

Belt, B. 2009. Working capital policy and liquidity in the small businesses. Journal of Small Business management. 17 (3), 43-51.

Benedict, A. & Elliott, B. 2011. Financial Accounting An Introduction. Harlow, Essex. Pearson Education Limited.

Berk, J. & DeMarzo, P. 2011. Corporate Finance. Boston. Pearson Education, Inc.

Blythe, J. 2008. Essentials of Marketing. Harlow, Essex. Pearson Education Limited.

Bradford, A. Live Science. 2015. Deductive Reasoning vs. Inductive Reasoning. Read 07.09.2016. http://www.livescience.com/21569-deduction-vs-induction.html.

Bragg, S. 2015. Return on working capital. Accounting Tools. Read 22.09.2016. http://www.accountingtools.com/questions-and-answers/return-on-working-capital.html.

Bratland, E. & Hornbrinck, J. 2013. An empirical study of the relationship between working capital policies and stock performance in Sweden. Umeå. Umeå School of Business and Economics. Master's thesis.

Brown, T. J. & Suter, T. 2012. MR Student Addition. South-Western. Cengage Learning.

Burns, C. & Bush, F. 2010. Marketing Research. New Jersey. Pearson Education, Inc.

Cagle, C. S., Campbell, S. N., Jones, K. T. 2013. Analyzing liquidity using the cash conversion cycle. Journal of Accountancy. Read 25.07.2016. http://www.journalofaccountancy.com.

Davies, M. D. 2007. Doing a Successful Research Project: Using Qualitative or Quantitative Methods. New York. PALGRAVE MACMILLAN.

Drury, C. 2012. Management and Cost Accounting. Andover, Hampshire. Cengage Learning EMEA.

Eskelinen, T. 2014. Working Capital Management Model in value chains. Lappeenranta. Lappeenranta University of Technology. Master's thesis.

Finbrain ITC. 2016. Cash conversion cycle. Read 17.09.2016. http://www.finbrainitc.be/?attachment\_id=534.

Haregu, T. N. Slide Share. 2012. Qualitative data analysis. Read 04.09.2016. http://www.slideshare.net/tilahunigatu/qualitative-data-analysis-11895136.

Harrison Jr, W. T. & Horngren, C. T. 2008. Financial Accounting. Upper Saddle River, New Jersey. Pearson Education, Inc.

2Inno. 2014. PEST analysis. Read 13.10.2016. http://2inno.eu/en/content/pest-analysis.

Interview 1. 2016. Interview 20.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 2. 2016. Interview 20.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 3. 2016. Interview 20.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 4. 2016. Interview 16.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 5. 2016. Interview 15.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 6. 2016. Interview 14.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 7. 2016. Interview 15.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 8. 2016. Interview 14.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 9. 2016. Interview 19.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 10. 2016. Interview 15.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Interview 11. 2016. Interview 15.09.2016. Interviewer Kalmar, L. Town of Miskolc. FK RASZTER Building Inc.

Investopedia. Working Capital Loan. Read 05.09.2016. http://www.investopedia.com/terms/w/workingcapitalloan.asp.

McLeod, S. Simply Psychology. 2015. Observation Methods. Read 05.09.2016. http://www.simplypsychology.org/observation.html.

Morison, M. RAPIDBI. 2016. SWOT Analysis Made Simple – History, Definition, Tools, Templates & Worksheets. Read 21.09.2016. https://rapidbi.com/SWOTanalysis/#Background

Rehn, E. 2012. Effects of Working Capital Management on Company Profitability. Helsinki. Hanken School of Economics. Master's thesis.

Sauro, J. Measuring U. 2015. 4 Types Of Observational Research. Read 31.08.2016. http://www.measuringu.com/blog/observation-role.php.

Stolowy, H. & J. Lebas, M. 2006. Financial Accounting and Reporting a global perspective. London. Thomson Learning.

Thakur, S. Bright Hub Project Management. 2010. History of the PEST Analysis. Read 24.09.2016. http://www.brighthubpm.com/project-planning/101201-history-of-the-pest-analysis/.

Walker, E. W. & Petty, J. W. 1978. Financial Management of the Small Firm. Englewood Clifs, N.J. Prentice-Hall, Inc.

Watson, D. & Head, A. 2011. Corporate Finance Passport. Harlow, Essex. Pearson Education Limited.

Weetman, P. 2006. Management Accounting. Harlow, Essex. Pearson Education Limited.

#### **APPENDICES**

#### Appendix 1. Interview questioner

- 1. How would you describe RASZTER's profitability since the Financial crises of 2008?
- 2. What short-term oriented management policies does RASZTE's finance department follows? Consider the aspects of:
  - a. Cash holdings
  - b. Accounts receivable
  - c. Short-term loans
  - d. Accounts payable
- 3. What are RASZTER's Working capital strengths and weaknesses, as well as opportunities and shortcoming considering the future?
- 4. How liquid the organization's working capital is, considering the tied down short-term assets and the financial obligations of RASZTER? (Please specify your thoughts in the sense of cash conversion time period)
- 5. What is your opinion about RASZTER's operational cash-reserves, and how these are determined?
- 6. What are the main advantages and shortcomings of RASZTER's cash reserves?
- 7. What credit sale terms and processes does RASZTER use for payment collections?
- 8. How have these protocols benefited the organization, and how could they be best advanced to shorten RASZTER's cash conversion period?
- 9. How the accounts payable of the organization are processed and how the available cash discounts are outsourced by RASZTER?

- 10. What accounts payable protocols could be better advanced to optimized RASZTER's working capital management and shorten its cash conversion?
- 11. How RASZTER bares its financial obligations, besides its cash and accounts receivable?
- 12. What bank loan options are available, and could be negotiated in best case scenario in favor of RASZTER?
  - a. Available bank relations
  - b. Loan conditions
  - c. Interests

# 1. How would you describe RASZTER's profitability since the Financial crises of 2008?

- When we are describing our profitability, we refer to our net profit, or in some cases to the operating profit before the taxes and interests are payed.
- In this industry the technical composition of the projects determines greatly the profitability of each project.
- Our profitability has improved slightly from 2008 to 2009, from 3% to 3,1%, but during the following years it has begun to worsen, closing 2012 with losses.
- The first, so called better year after the crises were in 2013, when we were able to achieve 0,5% profitability, and from 2014 RASZTER took off again with above 4% profitability.
- The poor profits and losses of years 2012 and 2013 are the results of less work caused by the economic slowdown.
- There is big fluctuation of profitability from year to year in the case of RASZTER.
- I think the main reasons of losses in RASZTER's profitability were due to the decrease of projects and tenders, as a result of the economic downturn. Also RASZTER's organizational structure was designed for a much higher efficiency.
- Many of our projects, due to their size, are lasting somewhat 2 years, therefore the profit decreases of RASZTER can be seen years after the actual Financial Crises, when the level of on hand projects began to shrink compared to the organizational capacity.
- Furthermore, due to the increased competition in a shrinking market, RASZTER had to take on projects, with very thin profit margins, to win the tenders.
- By 2012 the organizational structure was reorganized, which took a longer period of time from 2008, to stabilize RASZTER's profitability, by better matching organizational capacity to the amount of work.
- The European trend of economic slowdown was not exactly identical to the construction execution industry. Also RASZTER's profitability did not reflect directly the economic downturn.
- Profit fluctuation is more or less natural phenomenon in construction execution industry.
- The organization is at its best profitability rate at 6-7 milliard HUF, as the results of 2014 and 2015 have also shown.

- 2. What short-term oriented management policies does RASZTE's finance department follows? Consider the aspects of:
  - a. Cash holdings
  - **b.** Accounts receivable
  - c. Short-term loans
  - d. Accounts payable
- I would describe RASZTER's short-term financing as stabile.
- The organizational board has jointly agreed to a security oriented and minimal risk taking strategy.
- Our policy requires that our accounts receivable always exceed the payables, to ensure a balanced short-term financial situation.
- Our operations are ensured by high levels of receivables, as the organization is mostly targeting construction projects in the public sector, which are handled with very strict on-time payment requirements based on the regulations of the Hungarian legislations, implemented in 2011.
- Our organization have not been outsourcing short-term loans for several years, as we operate fairly certainly with our receivables to finance liabilities.
- We used overdrafts, but not any other type of short-term loans.
- Initially we reduced our short-term overdrafts to the one third of the originally negotiated short-term bank allowance of RASZTER, which we have recently decided to eliminate from our short-term financings entirely.
- In the recant years, from 2015 onwards, even the overdrafts were eliminated from RASZTER's financing strategy.
- Our payables are managed with two bank transfers a month, in the middle and in the end of each month. We usually plan one month ahead our short-term liabilities, according to the expected payables, and also considering out receivables. If the difference is positive, it is deposited to the current account of RASZTER, which unfortunately is resulting extremely low interests.
- Payables are twice in a month settled, which is agreed upon by suppliers in contractual agreements.
- Accounts payable are settled twice a month on the 12th and the 27<sup>th</sup> of every month
- Our company has a significant amount of current assets tied down as bank bail deposits, which is a collateral for guarantees issued by the bank.
- The organization's financial policy could be best described that only stretching as far as the budget of the company allows, following a very conservative strategy.
- Loan financing is highly untypical, if any, at RASZTER.
- Cash reserves have increased during the recent years.
- Cash reserves are stable, only used to finance small machinery, tools and fringe benefits.
- Working capital is high with high cash reserves, therefore, RASZTER has not used short-term bank loans in the past three years. High capitals are also due to the unpaid dividends of the past three years.
- After the Financial Crises, RASZTER's board has designed a more closely monitored financial management processe, with weekly follow-ups on receivables along with the legal advisor of the company to establish collection

- plans if necessary. In addition, the cash inflows were forecasted weekly ahead, and monitored on the first day of each week in comparison to liability obligations, to ensure smooth flow of short-term financing.
- In addition, a strategic negotiation with the main suppliers would further reduce cash conversion cycle, by evolving them in the financing of the daily operation of the on-hand projects. By negotiating longer credit purchase payment due dates for the payables, compared to the due dates of the receivables of RASZTER, would reduce the organizational cash conversion cycle, using the suppliers as interest free loan creditors.

# 3. What are RASZTER's Working capital strengths and weaknesses, as well as opportunities and shortcomings considering the future?

- Concerning the working capital management, it is mostly decided by the two majority owners of RASZTER.
- RASZTER's working capital management is determined solely by the amount of work the organization has.
- When there is not enough short-term receivable due to lower levels of construction projects, the organization is using its cash reserves to finance its daily operations.
- RASZTER is not using any external sources to finance its operations, such as short-term loans, and also not overdrafts anymore.
- The organization is able to finance its operations and projects without loan financing.
- High liquidity.
- Always available cash reserves.
- RASZTER is over capitalized, and from working capital point of view over liquidised.
- Short-term bank deposits do not result high profits.
- Low bank deposit interests.
- The organization is able to convers current assets fairly easily.
- There are convertible transaction costs.
- High cash reserve availability, as bank deposit, used as collates for bank guarantees.
- Depending on the current liabilities and payables, the access cash is deposited to the bank as short-term investments, varying from 2 weeks to few months.
- Seeking governmental support and development investments would be the two most optima organization specific uses of excess cash.
- Long-term investments are one of the most considered opportunity of the current excess working capital, however the uncertain economic situation is a constant concern of RASZTER's leadership.
- The profits of the pervious financial years of RASZTER, prior to 2008, have built up in retained earnings. Which was the main reason for the organization's relative resistance against the slowdown in the economy and the organization was able to cover it current liabilities with a fairly unneglectable level of short-term loans.
- RASZTER pays deposit payment to subcontractors, to achieve beneficial discounts, due to the ability to pay subcontractors prior to the settlement of receivables.

- 4. How liquid the organization's working capital is, considering the tied down short-term assets and the financial obligations of RASZTER? (Please specify your thoughts in the sense of cash conversion time period)
- Our company is highly liquid, with massive cash reserves.
- RASZTER does not have liquidity issues and the company does not depend on short-term loans.
- Depending on the current liabilities and payables, the access cash is deposited to the bank as short-term investments, varying from 2 weeks to few months.
- Our working capital is not tied down in high levels of inventories.
- We manufacture for our construction projects or make orders of specific rowmaterials for specific projects, with fairly little left over building up in inventories.
- Sales on cash is highly untypical, if any is done anymore.
- The organization is financing its operations from own resources, therefore operates with high flexibility.
- The accounts payable are always payed according to due dates.
- The receivables are not regular inflows, as they depend from the individual contracts with each customer, and changes like delays of completion, nature caused disadvantages or technical difficulties and alike.
- The organization's current working capital and liquidity is not profitable.
- The level of liquidity at RASZTER is a combined outcome of external forces such as the low interests of investments and the uncertain economic situation.
- In my personal opinion high liquidity is a sign of lack of short-term oriented financial management polices of working capital.

# 5. What is your opinion about RASZTER's operational cash-reserves, and how these are determined?

- In my opinion, the only thing that is crucial for RASZTER's working capital management that the cash reserve cover the two bank transfers in a month.
- I think investments should be considered that higher and higher cash reserves are building up year by year, not used to their potential.
- The high cash reserves, of the current assets, are functional, as the primary aim of the finance department of RASZTER is to ensure available cash reserves to finance the payables and schedule the short term investments accordingly.
- Depending on the current liabilities and payables, the access cash is deposited to the bank as short-term investments, varying from 2 weeks to few months.
- It is determined based on the weekly predictions of the financing obligations of RASZTER.

# 6. What are the main advantages and shortcomings of RASZTER's cash reserves?

- The biggest advantage of the cash reserves is the extremely liquid position of RASZTER.
- The disadvantage is the low interest rates of deposited cash in the banks and the loss of interests earned on that money if invested in long-term.
- The organization is not benefitting from the advantages of long-term investments.
- The greatest advantage of RASZTER's high cash reserves is that in the case of delayed receivables of bigger projects, the organization is still able to cover bigger amounts of payables. Even in the case of unrecoverable receivables, the organization is capable of baring the absence of those receivables due to its high cash reserves.
- The main advantage of the high cash reserves of RASZTER is winning various project tenders, due to the ability of the organization, to offer longer payment periods, because of the extreme capability of financing its operations from cash reserves.
- RASZTER is capable of overall longer billing cycles, with longer and more beneficial due dates for customers.

# 7. What credit sale terms and processes does RASZTER use for payment collections?

- As most of RASZTER's work is for the public sector, the law requires credit sales with a 30 or 45 days' payment period.
- The organization used to send request for payment in case of unfulfilled accounts receivable, but this was an ineffective way of collections.
- We also used liquidation when an organization has failed to pay our receivables, which is also a fairy inefficient collection mode.
- During recent years we have been using official demanded payment orders, which have been efficient due to the consequences of failing to pay these, the organizations loose financial credibility.
- The organization is not using factoring, due to the related high expenses.
- Outstanding receivables are collected by Attorney's request.
- In case of less credible customers, due to their payment history, a bank guarantee is built in the contracts.

- 8. How have these protocols benefited the organization, and how could they be best advanced to shorten RASZTER's cash conversion period?
- Payment request and liquidation, as well as demanded payment orders are the most effective practices currently in the construction industry.
- Currently the organization's unpaid receivables are at a bare minimal, if any recently.
- The paying moral is unfortunately lacking ethical practices in middle Europe in this industry.
- Some of the receivable collection issues turned into law cases.
- Court cases are typical, as the organization is doing several large construction projects financed by EU supports, which require legal settlement if there is an issue of payment with the customers.
- The cash conversion cycle could be best shortened with changes in the regulations concerning the 30-60 days outstanding, for credit sales.
- Due to the shrining size of the construction execution industry in Hungary, we are forced to accept receivable related conditions, which are not beneficial for our operations nor to our working capital management.
- The receivables are most of the time full amounts of inflows.
- Increased number of projects to the public sector, would best optimize the cash conversion cycle, as strict regulations ensure the on-time payments.
- 9. How the accounts payable of the organization are processed and how the available cash discounts are outsourced by RASZTER?
- Our payables are managed with two bank transfers a month, in the middle and in the end of each month. We usually plan one month ahead our short-term liabilities, according to the expected payables, and also considering out receivables. If the difference if positive, it is deposited to the current account of RASZTER, which unfortunately is resulting extremely low interests.
- Payables are twice in a month settled, which is agreed upon by suppliers in contractual agreements.
- Accounts payable are settled twice a month on the 12th and the 27<sup>th</sup> of every month.
- The organization is taking advantage of cash discounts, by early payments, whenever it is offered by suppliers.

# 10. What accounts payable protocols could be better advanced to optimized RASZTER's working capital management and shorten its cash conversion?

- Delayed payment interests are reduced due to legislation changes of recent years.
- Currently an average delay payment fee of 40€ per bill, is practiced in Hungary.
- Also an interest of 8% is required for delayed payment due to the Hungarian Civil Code.
- All bills are aimed to be settled by RASZTER, within due date.
- The most optimal payable related practice would be to negotiate as long payment due dates as possible, with the suppliers.
- Reducing the payment due dates of RASZTER's credit sales, to stimulate faster inflows of receivables.
- A more regular bank transfer practice at RASZTER would be crucial target to optimize cash conversion cycle.

# 11. How RASZTER bares its financial obligations, besides its cash and accounts receivable?

- In 2016 the organization used leasing.
- RASZTER is not using loans, factoring, forfaiting.
- Non, as the organization is always covered by its cash reserves due to its high liquidity.
- In average 5-10% of the subcontractor bills remains in RASZTER in forms of guarantees and used as additional financing of daily operations.
- Bank guarantees are used to finance additional guarantee expenses, after project completions.
- In case of large projects, the organization negotiates long payment due date periods, with large suppliers, and using them as a form of interest free loans.
- In case of some recent extremely big EU projects, we have financed together with banks, for which contract specific interests and conditions had to be negotiated, in the case of each project.

# 12. What bank loan options are available, and could be negotiated in best case scenario in favour of RASZTER?

- a. Available bank relations
- **b.** Loan conditions
- c. Interests
- It is possible at RASZTER's main, account manager bank, to take project loans, overdrafts and investment credits.
- Due to our financial situation as well as due to our security oriented management we don't use short-term loans.
- Due to the uncertain economic situation short-term loans are not RASZTERP's most optimal financing options.
- The organization often uses investment credits, for the purchases of larger fixed assets, for transportation vehicles and alike.
- As the central bank's base rate is currently 0,9%, the short-term loan financing would be possible for RASZTER at fairly favourable rate, with low interests.
- The negotiation of bank loans would be a time consuming task, due to the high bureaucracy of the Hungarian banking system, as well as due to RASZTER's coverage conditions.
- Loan interest is +2% annually. But we have not been using it for 3 years.
- In short-term we didn't depend on loans so far.
- In long-term for expansion purposes, long-term loans could be used to finance our daily operations, to free cash reserves necessary to invest in RASZTER.
- However, the loan related expenses of interests and transactional expenses would lower the organization's annual performance in terms of net profits, after interests and taxes are payed.
- Short-term working capital loan and bank guarantees as well as overdrafts are the short-term financing options the company can apply from banks.
- It is possible to use factoring, but it is one of the most expensive solution in Hungary at the moment.
- To ensure organizational liquidity, with European Union projects, the organization receives a larger deposit prior to the project to support its financing of the projects.