



REAL-LIFE ILLUSTRATIONS OF PROFITABILITY AND WORKING CAPITAL MANAGEMENT

#1Mrs. SINGU DIVYA, Assistant Professor

#2Mrs.CHINTHA SWATHI, Assistant Professor

Department of MBA,

SREE CHAITANYA INSTITUTE OF TECHNOLOGICAL SCIENCES, KARIMNAGAR, TS.

ABSTRACT:

This study examines how small and medium-sized manufacturing enterprises (SMEs) in the Czech Republic manage their working capital. Using the questionnaire, the investigators were able to collect the necessary information. The sample selection technique used probability sampling. To identify the largest enterprises, an economic predictor has been added to a reference group. A comprehensive assessment of 105 production companies was conducted over a five-year period, from 2014 to 2018. The study's control variable was leverage, while the other factors influencing working capital served as its independent variables. Profits were calculated using EBITDA as the dependent variable. These researchers designed and conducted the study using dynamic group data and a quantitative approach. The robustness investigation demonstrated that the data was correct. There is data that offering customers longer extensions has little influence on profits. The results for the other categories likewise demonstrated a negative relationship with the companies' earnings. This means that more money must be spent on things like adding new products and obtaining supplies from new vendors, which reduces profits.

Keywords: Working Capital Management, Profitability, Cash, Leverage, SMEs

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1. INTRODUCTION

Extensive research in corporate finance supports this idea (Aktas et al. 2015; Filbeck and Krueger 2005; Chen and Sensini 2014; Filbeck and Krueger 1999; Deloof 2003). Early financial decisions have a huge impact on the profitability and longevity of an organization.

Given the current state of the economy, these decisions are especially important because they have a significant impact on the organization's working capital and financial flow.

To improve their financial situation, firms must prioritize working capital (Campos et al., 2014; Mannetta and Zhang, 2014; Sharma and Kumar, 2011).As a result, the study literature offers a wide range of viewpoints on the relationship between working capital and performance (Tauringana and Afrifa, 2013; Sensini, 2020; Ukaegbu, 2014). Research indicates that dedicating funds to working capital can improve a company's profitability and revenue growth (Baños-Caballero et al. 2020; Aktas et al. 2015). As a result, offering trade credit improves client connections and creates additional revenue. Furthermore, by keeping a greater inventory, the

corporation protects itself from variations in the cost of vital commodities. Overall, seller extensions make it easier to obtain bank loans with lower interest rates than those offered by vendors (Mueller and Novak, 2014; Campos et al., 2014; Alvarez et al., 2021).

When analyzing these advantages, it is critical to examine the overall structure of the industry as well as the specific sector in which the company operates (Sanchez and Sensini, 2013; Diaz et al., 2019; Shan et al., 2019). As previously indicated, an excess of working capital involves getting extra funds, which may result in increased expenses that reduce the organization's profitability. Aktas et al.; Chalmers et al. (2020); Sensini (2003), Chang (2018). As a result, higher working capital expenses may reduce profitability.

Several research (Aktas et al., 2015; Tsuruta, 2018; Baños-Caballero et al., 2014; Sensini and Vazquez, 2021) show that working capital investment and profitability are not directly associated. According to these research, a company has sufficient working capital when the purchases made with that money boost its profitability. Excessive working capital investments are damaging to the overall success of



the firm.

This study explores the relationship between working capital and profitability in a sample of small and medium-sized industrial enterprises in the Czech Republic that share the aforementioned characteristics.

Small and medium-sized firms (SMEs) are more vulnerable to risks than large organizations since they have fewer financial resources. As a result, our analysis was limited to this particular topic (Chalmers et al., 2020; Sensini, 2020).

There are several reasons why this study is vital. The inquiry was initially prompted by the quick rate of market transformation. Furthermore, the majority of study on this topic focuses on matured or mature nations, giving little attention to the economies under consideration. Our research enhances the subject by adding new empirical evidence to the existing literature. Furthermore, empirical evidence shows that proactive working capital management practices boost earnings for organizations. Because of its tremendous real-world consequences, this incident teaches business managers crucial lessons.

The project used panel analysis on a sample of 105 small and medium-sized firms. The data show a direct association between working capital and a firm's profitability.

The paper is then structured. Section 2 explores evidence that shows a link between successful working capital management and an organization's profitability. The techniques and empirical sample are described in the following section.

Section 4 includes a detailed review of the practical findings and reliability evaluations. The paper's conclusion includes a few opening notes.

2. LITERATURE REVIEW

In recent years, scholarly research on the relationship between an organization's operating capital and its performance has increased significantly. This topic is receiving increased attention since how a firm manages its working capital can impact its capacity to make money, stay in business, and grow (Chen et al., 2014; Sensini, 2015). To be successful and efficient, working capital management must include the factors that influence it, such as debts, inventory, loans, and duties (Brennan et al., 1988; Sanchez and Sensini, 2017; Mannetta et al., 2013).

To strike the best balance between profit and risk, working capital management should ensure that the company has enough cash to cover its short-term loans (Filbeck and Krueger, 2005; Sensini, 2017; Boisjoly et al. 2020; Mannetta, 2014; Bello and Sensini, 2020; Chalmers et al. 2020).

Credit awards have the potential to increase income and clients. Nonetheless, these accommodations increase the likelihood that clients would lose money, resulting in less revenue for the organization (Sensini, 2016; Diaz and Vazquez, 2019; Campos et al., 2019).

Stock control is the link between manufacturing and selling, and it has a significant impact on sales and cash flow (Cohen et al., 2013; Alvarez et al., 2014; Campos et al., 2015; Sensini, 2020; Chen et al., 2021). Mueller and Sensini (2021), Shin and Soenen (1998), Chen et al. (2019), and Mannetta and Zhang all agree that loans have a significant impact on working capital.

Borrowers may be able to obtain greater interest rates than banks, resulting in loan terms that are beneficial to them. Using this strategy, however, may result in the loss of supplier relationships or the inability to obtain discounts.

So, people continue to debate how factors affecting working capital and income are related (Nobanee et al., 2011; Petersen and Rajan, 1997). Various points of view have been utilized in business writing to describe the relationship between working capital and profitability.

Several research (Enqvist et al., 2014; Mannetta, 2014; Goncalves et al., 2018; Lyngstadaas, 2020; Moussa, 2018) have demonstrated a correlation between adequate working capital and profitability.

Many research (Ren et al. 2019; Dalci et al. 2019; Akgun and Karatas 2020; Pham et al. 2020; Wang et al. 2002; Ukaegbu 2014) disagree with this assumption, finding that the relationship between working capital and income is really the inverse of what most people believe. These studies (Sensini, 2016; Michalski, 2014) show that larger investments in working capital require more money, which raises interest rates and increases the likelihood that a corporation would face financial difficulties.

Research has shown a concave link between profitability and working capital (Baños Caballero et al., 2014; Tsuruta, 2018; Aktas et al., 2015; Mannetta et al., 2014). Several studies have discovered a negative U-shaped relationship between WCM and an organization's ability to produce money. This creates a long-term positive connection that will endure until the amount of working capital reaches its peak. Once the relationship reaches this ideal level, which is influenced by financial concerns, it begins to deteriorate. To be more explicit, the optimal level is achieved on a smaller scale due to small and medium-sized firms' limited financial resources. The study presents many perspectives on how working capital affects corporate success. Different methodologies can result in varying appraisals of working capital



(Dalci et al., 2019; Ukaegbu 2014; Baños-Caballero et al. 2014).

A variety of factors influence a company's working capital and profit margin.

Some of the success measures discussed are return on assets (ROA), return on equity (ROE), profits before interest and taxes (EBIT), and earnings before interest, taxes, and amortization (EBITDA). Several research initiatives have also developed methods for assessing the effectiveness of working capital management. There are two of these: the Cash Conversion Cycle (CCC) and the Net Trade Cycle.

In accordance with past research, this study investigates how accounts payable (AP), accounts receivable (AR), stocks (I), and the cash conversion cycle (CCC) affect an organization's capacity to generate revenue and remain in business.

3. RESEARCH METHODOLOGY

We were able to obtain all of the financial information we required for our investigation by administering a questionnaire. The group was selected using a probabilistic process. It consists of modest Czech production enterprises. In addition, we utilized an economic discriminant to select organizations that provided good examples for the reference group in terms of overall assets, turnover, personnel levels, and other factors. According to Amendola et al. (2020), utilizing this strategy improved the accuracy of the statistics and increased the significance of the study results.

The study examined 105 manufacturing companies. The study spanned five years, from 2014 to 2018.

In this study, DSO, DSI, DPO, and CCC are all considered separate factors because each has its own impact on working capital. We also employed leverage as a control variable, as other studies have proposed (Padachi, 2006; Shin & Soenen, 1998; Sensini and Vazquez, 2021).

EBITDA was utilized as the dependent variable to determine how profitable the company was.

Table 1 shows all of the criteria and how they were determined for each.

Table 1- Variables of interest

	Variables	Calculation Methods
Dependent	Firm Profitability (P)	EBITDA/Total Assets
Independent	Days Sales Outstanding (DSO)	(Accounts Receivable/Sales) * 365
	Days Sales Inventory (DSI)	(1/Stock Turnover) * 365
	Days Payable Outstanding (DPO)	Accounts Payable/Cost of Goods
Control	Leverage (LEV)	Total Debts/Total Assets

The dynamic panel data approach was used in this study because of its capacity to handle unobservable variables that could influence endogeneity and

profitability.

The following regression model was implemented at this juncture:

$$P_{it} = \beta_0 + \beta_1 P_{it} + \beta_2 X_{it} + \beta_3 X_{it}^2 + \beta_4 LEV_{it} + \beta_5 LEV_{it}^2 + \alpha_i + \lambda_t + \varepsilon_{it} \quad (1)$$

α_i reflects unobservable heterogeneity, while X_{it} highlights the importance of specific aspects in working capital management. The ε_{it} indicator is a stochastic occurrence, not an uncontrollable component that might affect a company's profitability.

Following validation of the inverted U-shaped relationship, a quadratic relationship was added.

4. EMPIRICAL RESULTS

Using the GMM estimator (Arellano & Bond, 2001), four unique models were created to investigate the impact of various working capital components on income. To uncover potential model flaws, the AR index and Hansen's J statistic (Arellano and Bond, 1991) were used.

The findings highlight the following aspects. Credit strategy (DSO) is not tied to a company's profitability. It appears that how you manage your inventory has a detrimental impact on your profits.

Obtaining deferrals (DPO) from suppliers lowers earnings. The Cash Conversion Cycle supports Premise 4a by exhibiting an adverse association with income.

Finally, there are occasions in which coercion and an organization's profitability are diametrically opposed.

To assess the stability and reliability of the results, we used estimators with both random and fixed effects, as well as the Hausman test (1978).

Table 2 - GMM estimations

	Model A		Model B			
	H1	H2	H3	H4	H2c	H4b
P	0.127(0.12)	0.06(0.11)	0.142(0.13)	0.059(0.13)	0.069(0.12)	(0.083)(0.11)
DSO	-0.019(0.02)					
DSI	-0.049**(0.02)					
DSI2	-0.067*(0.01)					
DPO	-0.033*(0.01)					
CCC	-0.023*(0.02)					
CCC2	-0.006(0.01)					
LEV	-0.067*(0.01)	-0.087*(0.03)	-0.048(0.06)	-0.075(0.04)	-0.056(0.05)	-0.061(0.05)
LEV2	0.023(0.02)	0.015(0.01)	0.019(0.02)	0.021(0.01)	0.012(0.02)	0.016(0.01)
F test	1.14	48.39***	41.39***	1.61**	1.69**	43.27***
Hansen J	129.31	123.2	134.57*	112.4	133.4	115.26
AR 1 test	-2.31**	-2.19**	-2.28**	-2.32**	-2.29**	-2.31**
AR 2 test	0.74	0.85	0.86	0.78	0.76	0.73

***, **, * and ^ denote a p value of .001, .01, .05, and .1, respectively.

The test results show that fixed effects estimators outperform other approaches, as seen in Table 3.



Table 3- Robustness Check

	Model A				Model B	
	H1	H2	H3	H4	H2c	H4b
DSO	-0.017** (0.01)					
DSI		-0.033** (0.02)				
DSI2					-0.070*** (0.01)	
DPO			-0.018** (0.01)			
CCC				-0.023*** (0.01)		
CCC2						0.0065* (0.00)
LEV	-0.041* (0.02)	-0.045* (0.02)	-0.045* (0.02)	-0.041* (0.01)	-0.043* (0.02)	-0.061** (0.01)
LEV2	0.043*** (0.00)	0.043*** (0.00)	0.041*** (0.00)	0.042*** (0.00)	0.043*** (0.00)	0.042*** (0.00)
R2	0.061	0.067	0.071	0.073	0.073	0.071

***, **, * and ^a denote a p value of .001, .01, .05, and .1, respectively.

The findings reveal that there is a direct association between the major drivers of working capital and income. The estimators claim that in some situations, a U-shaped relationship arises between certain variables. Nonetheless, it appears that the linear relationship is most important.

5. CONCLUSIONS

The major goal of this paper was to assess the impact of various working capital management strategies on small and medium-sized firms in the Czech Republic.

We used a questionnaire to collect the study's data and all of the financial information needed for our research. The cohort consisted of randomly selected offices of manufacturing SMEs in the Czech Republic. Using this methodology improved the accuracy of the estimates and increased the importance of the study's conclusions. An economic forecasting tool has been included to help find the most appropriate companies for the reference group. A five-year detailed analysis of 105 producing companies was conducted, spanning 2014 to 2018. The study used leverage as the control variable, with numerous factors influencing working capital serving as the independent variables. Profits were calculated using EBITDA as the dependent variable.

Their research was conducted using dynamic group data and a quantitative technique. This method has various advantages and allows for the analysis of less obvious aspects that may have an impact on the results. The robustness analysis confirmed the data's accuracy.

A study revealed that offering payment extensions to customers has no obvious impact on a company's financial performance. Furthermore, the findings for the remaining factors showed an unfavorable link with the profitability of the firms. As a result, we may conclude that purchasing more products and growing our supplier network are additional costs that lower our profitability.

This publication has the potential to be useful from a variety of perspectives. The data might, at the

absolute least, help executives improve their working capital management. This study adds to the existing body of empirical research on the relationship between working capital and income, which has been the subject of several scholarly inquiry

REFERENCES

1. Aktas, N., Croci, E., Petmezas, D. (2015). Is working capital management value-enhancing? Evidence from firm performance and investments, *Journal of Corporate Finance*, 30, 98-113.
2. Baños-Caballero, S., García-Teruel, P.J., Martínez-Solano, P. (2014), Working capital management, corporate performance, and financial constraints. *Journal of Business Research*, 67, 332–338.
3. Campos A., Chen J., Ferri G., Parisi M., Sanchez J.A., Sensini, L. (2014). Business risk prediction models: an empirical analysis, *International Conference on Accounting and Management Research*, pp. 426-445.
4. Chalmers D.K., Mannetta E.W., Zhang W. (2014). Impact of Working Capital Management Policies on Corporate Performance, *ICEFR*.
5. Chalmers D.K., Mannetta E.W., Novak B., Sensini L., Shan A. (2018), Effects of macroeconomics impulses on Working Capital Efficiency, *DIAF*, pp. 221-235.
6. Chalmers D.K., Sensini L., Shan A. (2020). Working Capital Management (WCM) and Performance of SMEs: Evidence from India, *International Journal of Business and Social Science*, 11 (7), 57-63.
7. Chalmers D.K., Mannetta E.W., Sensini L. (2020). R & D and Internationalization: Effect on the Performance of SMEs, *International Journal of Advances in Management and Economics*, 9 (3), pp. 39-48.
8. Chalmers D.K., Della Porta M., Sensini L. (2020), Export intensity and leverage: an empirical analysis of Spanish SMEs, *International Journal of Economic and Financial Issues*, 10 (5), pp.382-386.
9. Chang, C. (2018) Cash conversion cycle and corporate performance: Global evidence. *International Review of Economics and Finance*, 56, pp. 568–81.
10. Chen, J., Sensini, L. (2014). Net working capital, Cash flow and Performance of SMEs: an exploratory study. *Small and Medium Size Enterprises: Governance, Management and Performance*, 296-315, Malta Univ. Press.

