



Evidence From A Developing Economy On The Effectiveness Of Working Capital And Quality Management Systems

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Abstract: Argentine manufacturing enterprises' profitability will be examined in this paper utilising the literature's primary theoretical framework for investigating the impact of working capital management. In industrialised economies, this issue has been studied extensively, but this issue has received scant attention in emerging economies. A stratified selection method was used to choose the companies to be studied based on an economic criterion. The information was gathered through a questionnaire and spans three years. We employed a fixed effects regression model to meet our study objectives, which showed accuracy in explaining the impact of working capital management on profitability. ' As a result of the findings, it can be deduced that an increase in any one of the variables examined leads to a rise in ROA and ROE. On the other hand, there is a statistically significant negative correlation between leverage and profitability when it comes to profitability.

Keywords: Economy, Working Capital Management, SMEs, Profitability, Leverage, Emerging Economy.

Introduction:

Working capital management (WCM) is critical to a company's financial performance since it serves as the link between profitability and liquidity [1]. As a result, companies must constantly evaluate the relationships between assets and short-term liabilities to ensure the company's survival and expansion while minimising the risk of financial difficulty.

Managing working capital is even more critical in developing and emerging markets, where the volatile conditions of the financial markets and the uncertainties associated with the economic situation cause extreme turbulence and general price volatility [2]. In light of the current economic situation in Argentina, small and medium-sized enterprises (SMEs) face significant difficulty in gaining access to the credit market, which is heavily reliant on the banking system, as well as in obtaining the financing they require to expand their operations. These issues are magnified even further in the manufacturing sector, where enterprises have a greater need for capital than in other industries [3]. According to academic research,

businesses in emerging markets must manage their working capital efficiently to increase profitability and productivity while also maintaining employment and economic stability. For the most part, past research has concentrated on working capital and profitability in industrialised nations.

In recent years, literature has only begun to pay attention to developing nations. On the other hand, the findings are still up for debate and require further examination to provide more empirical data. The purpose of this research is to investigate the effects of capital management on the profitability of small and medium-sized enterprises (SMEs) in Argentina from this perspective [4]. For a variety of reasons, this subject is exceptionally pertinent right now. First and foremost, small and medium-sized enterprises (SMEs) are the backbone of the country's economy, making significant contributions to employment and social well-being. As a result, a thorough investigation of this topic can yield valuable information that can be used to assess the health and competitive potential of these businesses. Second, because the financial system mainly focuses on banks, small and medium-sized enterprises (SMEs) face significant financial restraints. The findings may be beneficial in assisting their owners and management in making financing decisions that are appropriate for the characteristics of their firm and the specific reference environment. The remainder of the paper is arranged in the following manner. The second portion develops the literature review, and the third section outlines the employed approach. A discussion of the findings is presented in the fourth section, and lastly the conclusion is presented in the final section.

Literature Review:

Working capital management is concerned with managing a company's current assets and obligations, which serve as a link between liquidity and profitability. Working capital management that is effective and efficient promotes the continuation of company operations by enhancing the organization's ability to generate cash flow to meet short-term obligations [5].

The ideal size of working capital, on the other hand, is determined by the operational features of the company as well as the economic situation in which the company operates. As a result, particularly in situations with high environmental fluctuation, determining the appropriate size is difficult and necessitates continual monitoring to make the necessary adjustments. As previously stated, various studies have been conducted in recent years to examine the impact of working capital management & profitability in emerging nations, particularly in Africa [6]. When it comes to profitability in Nigeria, Falope and Ajilore discovered a negative association between profitability and the following factors: average account receivables, inventory turnover, cash conversion cycle, and average payment period. Bagchi and Khamrui investigated Indian corporations and discovered a negative association between working capital and profitability. Abbasi and Bosra discovered that the cash

conversion cycle and the number of days of holding stocks have no significant impact on the ratio of gross operating profit to assets in Iran.

In contrast, account receivables and account payables have a significant negative impact on the ratio of gross operating profit to assets in the United States. Ahmed conducted a study of the balance sheets of Pakistani companies and concluded that working capital had a beneficial impact on the company's performance under consideration [7]. Within the same economic framework.

A study by Tufail and Khan discovered a positive association between the size of a textile company and its profitability and a negative relationship between working capital and its performance. Rehman and Anjum found a similar pattern of findings in Pakistani cement companies, which they documented. Researchers in Kenya discovered that trade receivables and inventory duration harm manufacturing small and medium-sized enterprises (SMEs) profitability. The research conducted by Prempeh and PeprahAmanKona looked at manufacturing companies publicly traded on the Ghana Stock Exchange. They discovered a positive association between capital structure and profitability. In addition, other investigations have been conducted in the Latin American environment. Ribeiro de Almeda and Eid discovered that investments in cash flow are less profitable than cash investments. Raising working capital at the start of the year harmed the value of Brazilian enterprises.

In the same economic environment, Nakamura and Palombini pointed out that the degree of debt, the size of the company, and the growth rate all have a substantial impact on the management of working capital and cash flow [8]. Vazquez Carrazana and colleagues studied Brazilian agri-food enterprises and found a positive and statistically significant relationship between profitability and liquidity. Arcos and Benavides discovered that the CCC of Colombian enterprises was inversely linked to the profitability of those companies. Mandujano Herrera and Navarro Orihuela conducted research in manufacturing enterprises in Peru and Chile, finding a negative association between the cash conversion cycle and the necessity for working capital and the profitability of the companies.

As is clear from the preceding, a cursory review of studies undertaken in emerging and developing economies has revealed a wide range of findings about the relationship between working capital management and profitability. According to Vélez-Pareja et al., Latin American corporations have an excess of liquidity, destroying shareholder value. In the same perspective, Payne and Bustos pointed out that enterprises have implemented ineffective working capital management procedures, stressing that companies have excessive liquidity. Terrain and colleagues conducted a study of Argentine companies publicly traded on the Buenos Aires Stock Exchange, concluding that companies with larger working capital have higher profits. The empirical findings, in addition, run counter to the literature, which indicates a negative association between liquidity and profitability, highlighting a negative relationship between liquidity and debt, as well as a positive relationship between changes

in current capital and long-term debt. According to the current research, to fully handle this issue, it is required to analyse the interaction between all of the drivers of working capital and profitability simultaneously because there are reciprocal influences between each aspect. As a result, any move that influences one of its values will inevitably impact others. This study examines the individual components that makeup working capital (inventory, account receivables, account payables, cash conversion cycle) using the current ratio, the size of the business, and financial leverage, all of which are based on the theoretical reference framework suggested by the primary literature [9]. The factors previously described reflect the independent variables that impact profitability, whilst the latter represents the dependent variable that has an impact on profitability. The profitability of enterprises demonstrates the ability of the company to make use of its resources. It is assessed by two indicators: return on assets (ROA) and return on equity (ROE).

Methodology:

Studying working capital components in Argentine manufacturing businesses is the goal of this article. Because we wanted to ensure that the sample was representative of a wide range of businesses, we opted for this data collection method. A stratified sampling based on an economic criterion was used to choose the firms.

A two-part questionnaire was used to gather the information. The first document included an overview of the business, including its founders and current proprietors. Second, we needed to gather all of the financial information necessary to calculate the metrics we had in mind for our investigation. We have normalised the balance sheet data to counteract the effects of inflation. A three-year horizon has been chosen for the study (2016-2018). Those businesses whose data was incomplete were omitted from the analysis. In total, 177 small and medium-sized enterprises (SMEs) participated in the survey. Table 1 shows the derived variables used to study the connection between working capital and profitability factors.

Dependent Variable	
ROA	Ratio EBITDA/Total Assets
ROE	Ratio Net Income/Total Equity
Independent Variables	
IN	Inventory/Cost of Sales x 365
AR	Accounts Receivables/Sales x 365
AP	Accounts Payables/Sales x 365
CCC	(Receivables collection period + Inventory conversion period) – Payables deferrals period
CR	Ratio Current Assets/Current Liabilities
SIZE	Natural Log Total Assets

Table 1: Variables

A fixed-effects model is used in this study. The following is a breakdown of the profitability regressions:

$$ROA_{it} = \alpha_i + \beta_0 + \beta_1 IN_i + \beta_2 AR_{it} + \beta_3 AP_{it} + \beta_4 CCC_{it} + \beta_5 CR_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \epsilon_{it}$$

$$ROE_{it} = \alpha_i + \beta_0 + \beta_1 IN_i + \beta_2 AR_{it} + \beta_3 AP_{it} + \beta_4 CCC_{it} + \beta_5 CR_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \epsilon_{it}$$

Results and Discussion:

Table 2 shows the descriptive analysis that were studied.

	Mean	Median	Max	Min	St Dev
ROA	0.215	0.171	0.987	0.027	0.173
ROE	0.379	0.337	0.914	0.019	0.476
IN	7.873	8.156	19.967	0.413	4.791
AR	6.769	4.785	12.893	4.273	3.105
AP	1.467	1.483	3.567	1.065	1.119
CCC	12.108	11.783	18.287	4.986	3.876
CR	7.782	7.200	12.180	6.100	1.925
SIZE	7.231	8.164	10.987	0.981	4.228
LEV	9.176	8.129	16.975	5.482	2.903

Table 2: Statistical Analysis

Correlation analysis of the variables is shown on Table 3.

	ROA	ROE	IM	AR	AP	CCC	CR	SIZE	LEV
ROA	1								
ROE	0.571	1							
IN	0.389**	0.479**	1						
AR	0.478**	0.401**	0.031	1					
AP	0.516**	0.517**	0.337**	-0.327*	1				
CCC	0.139*	0.359**	0.029	0.263*	0.029	1			
CR	0.399**	0.423**	0.041	0.019	0.057	0.129	1		
SIZE	0.371**	0.112*	0.048	-0.221*	0.129	0.218	0.139	1	
LEV	-0.462**	-0.459**	-0.031	0.143	-0.331	-0.187	0.047	0.327	1

*, ** and *** show significance at 10%, 5% and 1%, respectively

Table 3: Analysis of Correlation

Both ROA and ROE have significant and positive correlation coefficients with IM, AR, AP, CCC, CR and SIZE, indicating that increasing every independent variable has a beneficial impact on company performance. On the other hand, financial leverage (LEV) harms profitability, underlining that an increase in debt leads to a decrease in the company's performance. The correlation between both the independent variables is insignificant or non-existent at all.

Regression models with fixed effects, such as the one shown in Table 4, indicate the impact of working capital on ROA and ROE.

When explaining ROA fluctuation, the model's control variables show its reliability. ROA and ROE, two profitability measures, have a solid and positive relationship with IN, AR, AP, CCC, CR, and size. Increasing every one of these independent factors has a beneficial impact on profitability. A rise in debt has a negative and significant influence on both performance metrics, whereas financial leverage (LEV) has a positive and significant impact. To understand how each variable affects ROA and ROE, you can look at Table 4. Findings are consistent with specific literature, although they deviate from empirical results found in other studies, highlighting how individual characteristics of companies' sectors and reference economic contexts can influence their outcomes.

Conclusion:

In this study, we examined the effect of working capital management on Argentine manufacturing enterprises' profit, utilising the literature's primary theoretical framework. Research on this topic is standard in established economies, but it is far less so in emerging and developing economies. A stratified selection method was used to choose the companies to be studied based on an economic criterion. A questionnaire was used to gather information about the years 2014-2016. There were a total of 194 firms studied. As part of the research, we were using a fixed-effects regression model. The tests show that the model is accurate in predicting the profitability impact of working capital management. There was a significant positive correlation between all working capital components and profitability, indicating that an increase in each of these variables leads to better ROA and ROE performance.

However, the association between profitability and leverage is negative and statistically significant, implying that an increase in debt has a detrimental impact on the performance of firms. Several practical and theoretical consequences flow from this research's findings. Working capital management & profitability are linked in an emerging economy, and empirical findings add evidence to the current research. A second benefit of the data is that corporate leaders can better manage different working capital components.

References:

1. Aktas N, Croci E, Petmezas D (2015) Is working capital management valueenhancing? Evidence from firm performance and investments, *Journal of Corporate Finance*, 30:98-113.
2. Deloof M (2003) Does working capital management affect profitability of Belgian firms? *Journal of Business Finance & Accounting*, 30 (4):573-587.

3. 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.
4. Shin HH, Soenen L (1998) Efficiency of working capital and corporate profitability, *Financial Practice Education*, 8 (2):37-45.
5. Sensini L (2015) Selection of determinants in Corporate Financial Distress, *European Journal of Business and Management*, 7 (2):73-82.
6. Afza T, Nazir MS (2009) Impact of Aggressive Working Capital Management Policy on Firms' Profitability, *the IUP Journal of Applied Finance*, 15 (8):19-30.
7. Campos A, Chen J, Ferri G, Parisi M, Sanchez JA, Sensini L (2014) Business risk prediction models: an empirical analysis, *International Conference on Accounting and Management Research*, 426-445.
8. Baños-Caballero S, García-Teruel PJ, Martínez-Solano P (2012) How does working capital management affect the profitability of Spanish SMEs? *Small Business Economics* (39): 517-529.
9. Alvarez T, Diaz E, Sanchez JA, Sensini L (2014) Innovation and performance: evidence from an empirical analysis, *ICEFR*, 518-529.