



## An Empirical Analysis of the Working Capital Management Practices of South African Retail Firms

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**Abstract:** Working capital is considered to be the ‘lifeblood’ of businesses. Working capital strategy can best be described as a strategy made by the firm for making decisions on two important things, namely how much to invest in each component of current assets, and how to finance those investments. Against this backdrop the present inquiry sought to examine the working capital management strategies employed by the South African retail firms. The study employed a panel of retail firms listed on the Johannesburg Stock Exchange (JSE) for the period 2010–2019 as the unit of analysis. Working capital management was proxied by cash conversion cycle (CCC), average age of inventory (AAI), average collection period (ACP), and average payment period (APP). Descriptive and correlational analyses were employed for empirical investigation. The data were derived from the Orbis dataset and taken from the financial statements of 16 retail companies listed on the JSE. The findings of the study revealed that South African retail firms predominantly employed conservative working capital policies. More specifically, the results of the study documented that ACP and AAI were higher than APP for the sample of South African retail firms. Thus, the firms were holding more current assets in the form of trade receivables and inventories, relative to current liabilities, which in turn increased the length of the CCC.

**Keywords:** Cash conversion cycle; conservative working capital policies; retail firms; South Africa; working capital management strategies

**JEL Classification:** G31; G32

### 1 Introduction

The South African retail sector contributes significantly to economic growth and job creation. Teuteberg (2020:14) states that, in the third quarter of 2019, South Africa employed around 3.4 million people in the sector. As a result, its significance should

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not be underestimated. One way to ensure the success of the retail sector, is through the management of working capital. In today's changing business environment, firms are required to adopt working capital management (WCM) strategies that outweigh those of their competitors, while at the same adapting to changes in the external environment. As a result, the emergence of WCM plays an essential role in the finance area, as it is primarily concerned with short-term investment and financing (Makori, 2013). Here, WCM is taken to refer to all strategies adopted by a firm, to manage the relationship between its short-term assets and short-term liabilities, with the objective of ensuring that it continues its operations.

Determining the optimal level of working capital in a firm is a daunting task. It raises questions about the appropriate amount of working capital, as well as the financing of these assets (Rakočević, Latinović & Milosavljević. 2014:255).

WCM, in addition to capital structure, capital budgeting, dividends, and cost of capital, is a critical subject in financial management (long-term financial decisions). WCM is a common factor that has a direct impact on a company's profitability and liquidity. If well understood, it can provide a significant competitive advantage; yet, ineffective WCM can result in significant losses (Virkkala, 2015). WCM, according to Barg, Nazir, Khan, Khan and Razzaq (2016), is one of the most contentious issues in corporate finance. It is a crucial and difficult financial decision for any company, because it affects returns and profitability.

Mangesha (2014:20) defines working capital policy as a strategy that provides guidelines for managing current assets such as accounts receivable, inventory, and cash and current liabilities such as accounts payable and accruals. Working capital practises, according to Beasley, Brigham and Sibindi (2008), are concerned with a firm's fundamental policies relating to the classification and financing of current assets.

A firm may employ an aggressive WCM policy with a low level of current assets as a percentage of total assets, or it may also use a high level of current liabilities as a proportion of total liabilities for its financing. Excessive levels of current assets may have a negative effect on a firm's profitability, whereas a low level of current assets may lead to a lower level of liquidity and stockouts, resulting in difficulties in maintaining smooth operations (Van Horne & Wachowicz, 2004).

The present study aims to contribute to the existing body of knowledge on working capital management practices, by examining the WCM strategies employed by the South African retail sector. The goal of this research is to determine how South African retail businesses handle their working capital. South Africa is a large, complex, and dynamic country with almost 60 million people of various races, cultures and income levels, who inhabit nine provinces. Vastly differing South African consumer needs and expectations, along with unique political and socioeconomic forces, prompted the authors to choose this country as the focus of

study. Although the concept of WCM has been studied globally, few studies have been conducted in the South African retail sector (see, e.g., Garg & Gumbochuma, 2015; Louw, 2015; Mabandla, 2018). The WCM methods of South African companies listed on the Johannesburg Stock Exchange (JSE) are examined in this article, for the period spanning 2010–2019, with a sample of 16 companies.

Identifying WCM practices is one of the most difficult challenges for any retail firm. Among the questions posed by these firms, is: What are the WCM practices of South African retail firms? WCM can be done in a variety of ways, employing two fundamental policies, either by adopting an aggressive or a conservative WCM policy. Profits may be higher if a company adopts a more aggressive investment policy that includes more fixed assets and fewer current assets. It does, however, carry the risk of leaving insufficient funds for daily operations and short-term debt repayment. A conservative investment policy, by contrast, sees a company investing less in fixed assets and more in current assets. For the purpose of financing working capital, an aggressive policy implies that current liabilities are kept at a higher proportion than long-term debts. A high level of current liabilities necessitates more liquid resources, in order to pay off debts sooner. Since current payments bear a lower rate of interest, however, they can result in more savings. A larger portion of working capital is financed in a conservative working capital financing policy.

WCM studies have focused on the relationship between WCM and profitability, without considering the WCM strategies used by firms in South Africa (Garg & Gumbochuma, 2015, Kasozi, 2017). This article fills the gap by examining the WCM practices of JSE-listed South African retail firms. Against this backdrop, the objective of the study reported on here, was to examine the WCM strategies employed by South African retail firms.

The remainder of the article is structured as follows: the next section reviews the literature on WCM practices; then follows a review of the literature on WCM practices, before describing the research approach used in the study. The results of the empirical analysis are provided and discussed, before concluding the article.

## **2. Review of Related Literature**

A WCM approach is best described as a company's strategy for deciding on two key issues: how much to invest in each component of current assets, and how to finance those investments. Any company seeking to manage its working capital effectively, needs to decide how much cash and inventory to keep on hand, how much accounts receivable to allow, and whether to finance these current assets with short- or long-term funding. The working capital policy is made up of all of the firm's decisions.

The importance of optimal WCM is emphasised by the company's requirement to maximise profits, while minimising the risk of illiquidity. Profit generation and maximisation, which lead to corporate growth, are a company's primary goals, and one way of achieving this is through effective WCM (Sathymoorthi, Mapharing & Selinkie, 2018:83). Thus, it is critical that all WCM components be well managed, to support business operations and generate shareholder value.

Two important considerations are involved in WCM policies: investing in, and financing, working capital. Working capital analysis can assist in deciding what sort of finance to use to fund variable and fixed current assets. According to Fisher's Separation Theorem (1930), a corporation should distinguish between an investment and a finance investment. This principle is applicable, as any business should distinguish between how much it invests in working capital, and how it plans to finance it (Rehn, 2012:6).

### **2.1. Working Capital Management Strategies**

There are three basic approaches to working capital financing: aggressive, conservative, and moderate. Firms choose various policies to support their working capital and, as a result, their business operations. According to Nyabuti and Alala (2014), a company's working capital management policy might be aggressive or cautious.

According to Enqvist, Graham and Nikkinen (2014), working capital strategies emphasise the liquidity of current assets to meet current liabilities. Since a company with a high liquidity level has a lot of idle capital to deal with, and must absorb the cost of these idle assets, liquidity is more significant.

WCM varies by industry, according to Louw, Hall and Brummer (2016), therefore it would be more useful to explore the relationship between WCM and profitability within a particular industry. A company with a high volume of sales will, for example, require more current asset finance than one with a low volume of sales.

Because short-term debt has a low interest rate, businesses may adopt a riskier approach by using it to fund existing assets. Short-term debt notably has a higher risk of default than long-term debt (Dhole, Mishara & Pal, 2019). Short-term debt, non-spontaneous debt, and long-term financing are used to finance all temporary current assets, permanent current assets, and some fixed assets in an aggressive financing strategy. If a company keeps a small percentage of its overall assets in current assets, or uses a lot of short-term debt, it may be pursuing an aggressive strategy. This approach will enhance revenues, while increasing the likelihood of the company collapsing. An aggressive strategy aims to keep current assets low, in comparison to current liabilities. Managers seek to keep current assets a little margin ahead of current liabilities. Funds, by contrast, do not come out of nowhere because

they are used to immediately settle liabilities. Liabilities account for a minimal percentage of total assets, whereas receivables are kept at a high level. Because sales on trade credit are targeted to regular consumers with low credibility, there is a high degree of receivables (Enqvist et al., 2014; Zimon, 2020; Zimon & Tarighi, 2021).

Following an aggressive working capital investment strategy improves profitability and implies strong liquidity, lowering risk. This working capital investment strategy yields a low CCC, indicating that the company is receiving payments from customers swiftly, but deferring payments to suppliers until the due date approaches (Kwenda, 2017:49). This method is less expensive, yet more risky, because short-term fund changes (interest rates) may not always be accessible, when needed. A company with a stringent working capital policy offers short credit terms to consumers, has less inventory on hand, and has fewer liquid assets (Chen & Kieschnick, 2018). Despite the low interest rate on short-term financing, businesses may adopt a riskier approach by using it to fund existing assets.

In a conservative strategy, non-current assets, perpetual current assets, and some temporary current assets are all funded through long-term debt, as are the remaining short-term assets. It demands a significant cash reserve, as well as a low level of customer receivables and supplier loans (Zimon, 2020:226). As a result, if a company follows this method, it will have plenty of cash on hand, enough goods in the warehouse, and all of its payables will be paid on time. The conservative strategy aims to keep current assets at a high level, while keeping short-term liabilities to a minimum. This method allows companies to have substantial inventory, while keeping a low level of short-term receivables. Cash is also maintained in good condition. This technique necessitates a low level of short-term debt. The conservative strategy is linked to a high degree of liquidity (Zimon & Tarighi, 2021). This strategy has a reduced risk because repayments are spread out over a longer length of time and the rewards are smaller. Because of the needless liquidity, the corporation is less profitable under this strategy (Besley & Brigham, 2013:256). The downsides of this strategy include greater borrowing costs and a substantial investment being held in temporary working capital.

Firms adopt a moderate approach, according to Paramasivan and Subramanian (2009), by using long-term debt and equity to finance fixed assets and the majority of current assets. This method could be used to establish a financial plan that best aligns the projected life of assets with the expected life of the funding sources used to finance assets. Firms that operate in an uncertain environment in terms of demand, prices and interest rates, prefer this strategy. Besley, Brigham and Sibindi (2015) state that a moderate policy lies in-between the two extremes in relation to both expected risk and return. In addition, this policy leads to a CCC that is somewhere between restrictive and relaxed policies. The major benefit of this policy approach,

is that it guarantees the smooth operation of the working capital cycle, with moderate profitability.

## **2.2. Working Capital Management Policy Framework**

Firms use different policies to support their working capital and, as a result, their operations. Any company's financial managers should keep a careful eye on working capital levels, in order to keep cash requirements on track. Cash constraints may emerge from a lack of attention to working capital investment.

## **2.3. Empirical Literature Review**

The literature revealed mixed views about WCM practices.

Weinraub and Visscher (1998), who investigated the relative relationship between aggressive and conservative approaches by examining ten different business groups, discovered that each of these industries had its own set of working capital management practices. They also found that highly aggressive WCM appeared to be matched by a somewhat cautious WCM.

Irene and Ondigo (2018) investigated the impact of WCM practices on the financial performance of Nairobi Securities Exchange-listed commercial and service sector firms. To be profitable, they recommend that firms adopt an aggressive investment policy and a conservative financing policy (Irene & Ondigo, 2018). A conservative financing policy would offset the risk associated with an aggressive investment, therefore optimal working capital strategy should be maintained to strike a balance between current assets and current liabilities (Irene & Ondigo, 2018).

Nandom, Mubarik and Aziz (2017) contend that WCM is an important component of financial management, which has a direct effect on the financial performance of a firm. Inadequate working capital may generate a loss for the firm. In their view, when excessively substantial amounts of capital are tied up in current assets (conservative strategy) for example debtors and inventories, the business is not earning any return on these funds. If working capital is funded by debt such as bank overdraft, it attracts high-interest costs which will reduce profits (Nandom et al., 2017).

Aytac, Hoang, Lahiani and Michel (2020) analysed the WCM and profitability of wine farms in France, and found that reducing CCC improved profitability, which favoured an aggressive WCM strategy. Thus, the findings revealed that reducing CCC was accompanied by decreasing AAI and ACP: in other words, low investment in current assets positively contributed to the success of the wine farms (Aytac et al., 2020).

Studies by Enqvist et al. (2014) and Bhatia and Srivastava (2016) provide a strong argument for using an aggressive CCC strategy to maximise a firm's profitability. An aggressive investment CCC strategy, it is suggested, helps to increase liquidity and reduce the risk of cashing out and the challenges that arise with it.

Mohamad, Rahman and Saad (2017) linked working capital policy in the financial performance of small and medium enterprises (SMEs) in Malaysia with a sample of 103 SMEs from 2008–2013. By using correlation and pooled ordinary least squares (OLS) regression, the results suggested that the aggressiveness of an investment policy stimulated a firm's performance (Mohamad et al., 2017).

Pais and Gama (2015) argue that implementing more aggressive WCM policies increases a firm's profitability. Sohail, Rasul and Fatima (2016:42) state that firms that choose conservative strategies are capable of increasing profits by properly managing the cash conversion cycle and keeping all special components of working capital (such as trade receivables, trade payables and inventory levels) at the most favourable levels. Following an aggressive strategy, by contrast, was found to have a negative effect on the firm's profitability and shareholder value (Sohail et al., 2016).

Adam, Quansah and Kawor (2017) investigated the effects of aggressive and conservative current asset investment and financing policies on six manufacturing firms on the Ghanaian Stock Exchange from 2000–2013, finding that current asset investment and financing policies have highly significant positive effects on long-term returns on shareholders' equity.

Small- and medium-sized firms in Poland that are part of group purchasing organizations (GPOs) were used by Zimon and Tarighi (2021) to determine the effects of the Covid-19 worldwide crisis on WCM policy. According to the findings, the firms adopt a moderate–conservative strategy to working capital management. In addition, the results suggest that the Covid-19 pandemic had no significant impact on WCM approaches.

According to Akbar, Akbar, Nazir, Poulouva and Ray (2021), WCM influenced operating and market risk returns of firms from 12 diverse industrial segments in Pakistan, during the ten-year period 2005–2014. The influence of WCM on operational and market risk for firms was investigated using a System Generalized Method of Moments (SGMM) regression estimation. Higher working capital levels were linked to lower stock price volatility in empirical testing, implying that shareholders preferred a conservative working capital policy. Furthermore, firms with more liquid assets experienced less stock market volatility. By contrast, excess working capital and a longer net trade cycle were related to higher operating income volatility. Further, in a study of firms listed on the JSE in South Africa from 2007–

2016, Mabandla (2018) observed a strong correlation between aggressive WCM and financial performance.

### 3. Research Methodology

#### 3.1. Sample Description and Data Sources

Retail companies listed on the JSE in South Africa, from 2010–2019, constituted the study population. The financial statements of 16 South African retail firms listed on the JSE for a ten-year period were taken from the Orbis database for this study, which was used to analyse those firms' WCM strategies.

#### 3.2. Variable Definition

This article makes use of cash conversion cycle (CCC) and its components, namely average age of inventory (AAI), average collection period (ACP), and average payment period (APP) as metrics to determine the WCM practices of the retail sector. The CCC is of paramount importance for retailers and similar businesses, as their operations rely heavily on buying inventories and selling to consumers. It illustrates how quickly a firm can convert its products into cash through sales. The shorter the time frame, the less capital is tied up in business processes, and vice versa. WCM policies should ensure that CCC is not compromised. Trends in CCC and its components were applied to determine the WCM strategies from 2010–2019, with the variables as defined in Table 1.

**Table 1. List of variables.**

Variables	Description	Measurement
ROA	Return on assets	$Net\ income \div total\ assets$
ROE	Return on equity	$Net\ income \div total\ equity$
NOPM	Net operating profit margin	$EBIT \div total\ revenue$
AAI	Average age of inventory	$Cost\ of\ goods\ sold \div inventory \times 365\ days$
ACP	Average collection period	$Accounts\ receivable \div net\ sales \times 365$
APP	Average payment period	$Accounts\ payable \div cost\ of\ sales \times 365$
CCC	Cash conversion cycle	$AAI + ACP - APP$
SIZE	Firm size	$Logarithm\ of\ total\ assets$
LEV	Leverage	$1 - (equity \div total\ assets)$
CR	Current ratio	$Current\ assets \div current\ liabilities$

*Source: Researchers' own compilation.*



## 4. Empirical Results and Discussion

### 4.1. Descriptive Statistics

Figure 1 depicts trends in the retail sector. From 2011–2016, the CCC exhibited a rising trend, then began to drop until 2019. Throughout the study period, greater levels of ACP and AAI were associated with low APP. As a result, it is clear that the sector employed a conservative WCM strategy.

The pursuit of shorter ACP and AAI, while depending largely on shorter-term financing from trade payables through prolonged APP, is part of an aggressive CCC strategy. By contrast, a more conservative CCC approach includes preserving large amounts of trade receivables and inventories, while relying on short-term credit financing. The use of lengthy ACP and AAI, and a shorter AP, is mirrored in the conservative CCC strategy.

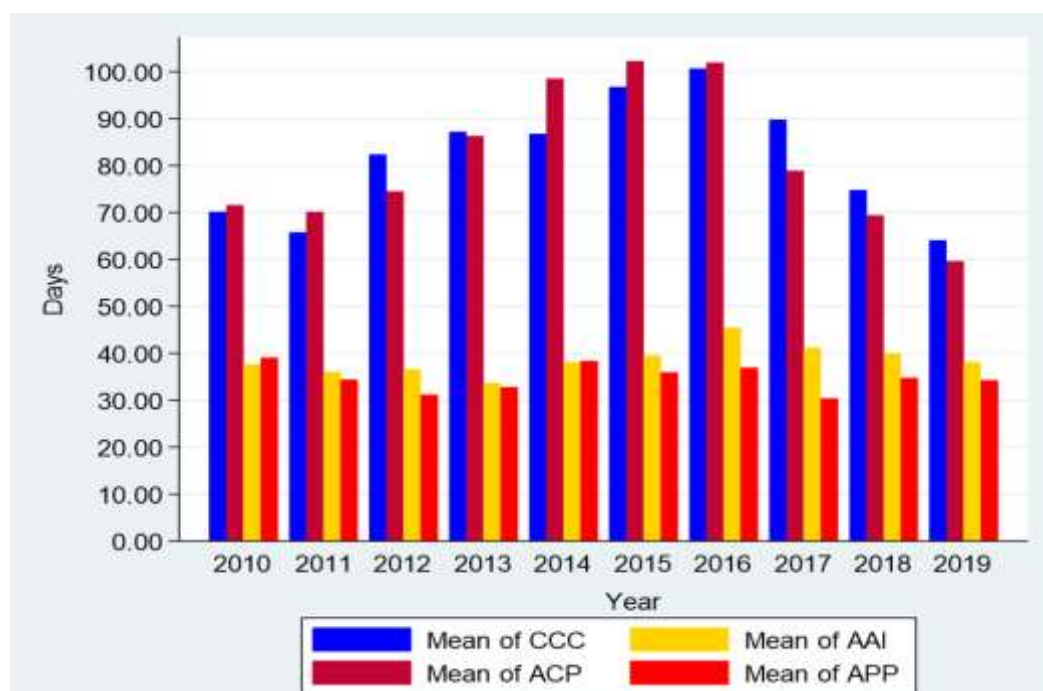


Figure 1. Trends in cash conversion cycles and their components in the South African retail sector

The measures of tendencies such as the mean, median, standard deviation, and minimum and maximum values of the variables for the sample of retail firms under consideration, are reported in Table 2.

**Table 2. Summary Statistics**

Variable	Mean	Median	Standard deviation	Minimum	Maximum	Observations
CCC	81.82	28.51	117.99	-65.10	611.00	160
ACP	81.32	36.00	112.62	3.00	677.00	160
AAI	38.62	41.36	23.58	0	127.62	160
APP	34.81	33.00	19.40	0	103.00	160

The total observation for each variable was 160 data points. The descriptive statistics were drawn from the calculated standard of WCM measurement of the AAI, ACP and APP, jointly reflected in the CCC which is used as a comprehensive measure of WCM. The average CCC for South African retail firms was 81.82 days, with the minimum and highest values ranging from -65.10 days to 611 days, respectively. This suggests that the CCC experienced a great deal of variation, possibly because of the varying credit policies of retail firms, which do not follow the same credit guidelines. The fact that companies collected from customers before paying suppliers might lead to a negative CCC. The data sample was expected to have a wide range of CCC, owing to cash transactions from retail firms selling products with a shorter life span, such as groceries, as against retailers which sell durable goods, such as furniture, where sales could take place at any time. The findings revealed that it took an average of 49.81 days for South African retail firms to collect debts from debtors. This means that retailers had to wait more than a month to collect from debtors, after credit sales.

The AAI, which measures how long it takes to sell the goods recorded by South African retail firms, was on average 42.08 days, with zero (0) minimum days and a maximum of 127.62 days. This range is relatively large, and could result in the CCC being large as well. The AAI varied from firm to firm, given the nature of the goods sold. A firm which sells groceries, for instance, turns around inventory more quickly than a furniture store. The zero minimum AAI days could be explained by some companies embracing a just-in-time stock management policy. The average payment period reported by South African retailers was 37.77 days, with a median of 35.97 days. Notably, the mean and median values were almost identical, suggesting a symmetrical data distribution. The APP was recorded as having a minimum value of four (4) days and a maximum value of 103 days, when it came to South African retail firms. The standard deviation of 17.96 days indicates that there was not much variance. A prolonged average payment period could affect a firm's creditor reputation.

## 4.2. Correlational Analysis

For the correlation matrix for all variables included in the analysis, which was based on data from 160 observations gathered between 2010 and 2019, see Table 3.

The relationship between ACP and ROE was negative, according to the correlation matrix, and the result was statistically significant at the 1% level of significance. This illustrates that increasing any of the CCC components affected business profitability, as indicated by ROE. Furthermore, ACP was found to have a negative relationship with ROA. At the 5% level of significance, the relationship between ROA and APP was statistically significant, whereas the relationship between ROA and ACP was insignificant. However, AAI and ROA were positively related, but statistically insignificant. These results were in line with the a priori expectations.

The results shown in Table 3 reveal a negative relationship between ACP and NOPM at the 5% level of significance. This suggests that profitability dropped as the collection period lengthened (NOPM). Furthermore, the variables APP and NOPM were found to be inversely associated at the 5% level of significance. A positive and statistically significant relationship between AAI and NOPM was also observed, which means that any changes in the AAI had a favourable effect on the NOPM.

**Table 3. Correlation matrix for the main variables used in this study**

	NOP M	ROA	ROE	CCC	ACP	AAI	APP	SIZE	LEV	CR
NOPM	1.0000									
ROA	0.3748 ***	1.0000								
ROE	0.2693 ***	0.5775** *	1.0000							
CCC	0.0301	0.0060	-0.1231	1.0000						
ACP	0.0092	-0.0393	-0.1381* *	0.9530** *	1.0000					
AAI	- 0.4558 ***	0.0148	-0.0616	-0.0422	- 0.2041** *	1.0000				
APP	- 0.1750 ***	-0.1320	-0.0490	- 0.4902** *	- 0.3543** *	0.0452	1.0000			
SIZE	0.1002	0.3590** *	0.3429** *	- 0.2696** *	- 0.2674** *	0.0052	0.2631** *	1.0000		
LEV	- 0.3503 ***	- 0.2811** *	-0.0376	- 0.2970** *	- 0.1964** *	0.0655	0.4438** *	0.2086** *	1.0000	
CR	0.3045 ***	0.3609** *	0.0913	0.5088** *	0.4395** *	-0.0884	- 0.4689** *	-0.0173	- 0.8068** *	1.000 0

Note: \*, \*\* and \*\*\* indicate the 10%, 5% and 1% level of significance, respectively

The current ratio, as a measure of firm liquidity, showed a significant positive relationship with ROA, with a correlation coefficient of 0.03045. Similarly, a

significant positive association between current ratio and NOPM was found. According to the findings, any positive change in WCM improved financial performance, which explains why retail firms' profitability was improved by the effective management of current assets and current liabilities. In terms of control variables, the study discovered a positive relationship between size and profitability measures (ROA and ROE) at the 1% level of significance. This implies that firms' assets were used efficiently, to generate profits. More so, an increase in total assets was accompanied by rising profitability. These findings are supported by Mabandla (2018), who discovered a positive relationship between size and gross operating profit in South Africa's retail sector. As the findings indicate, larger firms were more profitable than smaller ones. This is rooted in the economies-of-scale concept, which is founded on the traditional neo-classical view of WCM. As businesses grow, so their unit costs start to fall due to bulk buying, which reduces costs and increases the profit margin (Niresh & Thirunavukkarasu, 2014). This was in line with a priori expectations. The study also found a statistically significant inverse relationship between ROA and leverage, with a correlation coefficient of -0.2811 at the 1% level of significance.

The study likewise observed an inverse association between NOPM and leverage, with a -0.3503 correlation coefficient. The leverage variable was negatively correlated to ROE, and the strength of the relationship was statically insignificant. This inverse relationship indicates that as firms increased their debt, so their profitability declined. A similar study conducted by Garg and Gumbochuma (2015) among JSE-listed retail firms discovered a negative relationship between net operating profit margin and leverage. This simply means that as firms depend more on debt, their cash outflow increases, which reduces their profitability. It was expected that leverage and ROA would move in opposite directions. The findings of the study showed that South African retail firms adopted WCM practices. According to descriptive statistical indicators, retail businesses had a longer CCC: the average for the entire panel set sample was around 82 days. ACP days, which had the same number of days as CCC, contributed to the high CCC. In addition, retail firms took long to convert inventories, with an average of 38.62 days. In this study, the results showed that ACP and AAI were higher than APP, thus, firms were holding more current assets in the form of trade receivables and inventories, relative to current liabilities. The mean values of the statistical measures indicated that firms were adhering to a conservative working capital policy.

## 5. Conclusion

WCM strategies in the retail sector in South Africa were investigated in the research reported on here. The present study aimed to contribute to knowledge on the working

capital conundrum. Managing working capital is a critical decision to undertake, since striking a balance between short-term assets and short-term liabilities is crucial to mixing an aggressive and a conservative strategy. The results of the study indicated that South African retail firms employed a conservative strategy in managing working capital. Liquidity was increased as a result of a conservative investment strategy being used in WCM. The risk of not being able to settle maturing debts is reduced, when conservative investment policies are implemented.

To function effectively and efficiently, firms must maintain a certain level of working capital. For example, if working capital is insufficient, a firm faces an increased risk of insolvency, whereas excessive working capital reduces profitability. The practical implications of this study are that the decision-makers in firms will be encouraged to consider the significance of CCC in formulating their WCM strategies, because the time span of CCC is closely related to either aggressive or conservative working capital strategies. To operate as a buffer for unexpected financial commitments, companies need to invest more in current assets than they do in current liabilities. Current liabilities should be kept lower than current assets (conservative financing strategy), as firms which employed conservative financing strategies performed better than those which used an aggressive financing strategy. Furthermore, firms should always maintain a positive net working capital (current assets minus current liabilities). The study's limitation is that it did not include the period of the Covid-19 pandemic. As such, future studies could explore the impact of the pandemic on the WCM policies of retail firms.

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