Effects of working capital management on the profitability of South African construction companies listed on the JSE

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ABSTRACT

This study examines the correlation between inventory and accounts payable management and the profitability of construction companies listed on the Johannesburg Stock Exchange (JSE). The annual financial statements of all 13 listed construction businesses from 2009 to 2019, including statements of financial position and financial performance, were obtained from an external database for statistical analysis. The study employed multiple linear regression to assess the impact of working capital management on the financial performance of construction companies listed on the JSE. Additionally, a correlation model was utilised to investigate any potential relationships among the variables being examined. The study's findings indicate that the management of working capital has a notable impact on the profitability of construction companies listed on the Johannesburg Stock Exchange (JSE) in South Africa. Despite contradicting findings from other studies that support the opposite conclusion, this study demonstrates that effective management of working capital does not necessarily lead to a positive relationship with financial performance for financial managers of construction companies. Therefore, it is crucial to consider other aspects of management in addition to working capital.

ARTICLE INFO

Introduction

Numerous companies strive to create revenue or profit in order to achieve financial sustainability (Almaleer, 2019). The success or failure of a corporation is primarily determined by its capacity to make comprehensive economic management decisions (Kwenda & Holman, 2013). According to these writers, management decisions can be categorised into three groups: working capital management (WCM), capital budgeting, and capital structure (ibid). According to Loo and Lau (2019), Working Capital Management (WCM) refers to the immediate resources that a company needs to support its regular business operations. Effective working capital management (WCM) significantly contributes to achieving high financial performance (Siraj, Mubeen & Sarwa, 2019). The construction sector plays a crucial role in driving economic growth in numerous emerging nations. Nevertheless, as a result of substantial investment in infrastructure projects, there is a significant probability of financial mismanagement (Colonnell & Haas, 2016). Gundes, Atakul, and Buyukyoran (2019) assert that the proficient administration of a construction firm is primarily contingent upon robust financial management. When a corporation purchases inventory on credit from suppliers and subsequently settles the payment at a later date, it is engaging in trade under the payable turnover period. The complete procedure is referred to as a cash conversion cycle (CCC) (Louw, 2014).

The construction sector in South Africa comprises of prominent corporations that are publicly traded on the Johannesburg Stock Exchange (JSE), such as Group Five and Murray & Roberts, together with smaller and medium-sized enterprises controlled by black individuals (Mafundi & Mafini, 2019). Dithebe et al. (2018) and Aighavboya, Oke, and Muyambu (2018) have identified various
challenges in the South African construction sector that impact its financial performance, one of which is technological advancements. According to Meintjies (2019), amid the current economic downturn, South African construction companies that are publicly listed are confronted with the difficulty of maintaining their existence.

In the construction business, companies have extended payment terms with their suppliers due to the requirement of realising sales before making payments. This leads to a deterioration of the positive relationship between the construction company and its suppliers (Viswanath et al., 2018; Surendra, Shveta & Neeru, 2018). According to Viswanath et al. (2018), the construction business has an average payment period of 93.97 days. Meszek and Polewski (2006) argue that a negative CCC in the construction business indicates that payments are past due. The process of converting inventory into accounts receivable can be time-consuming due to the sluggish pace at which inventory is sold. Conversely, this entire circumstance may also impact the financial success of building enterprises.

This study aims to evaluate the correlation between inventory and accounts payables management and the financial performance of construction companies listed on the Johannesburg Stock Exchange (JSE). In order to do this, the following practical goals were set. The study aims to investigate and analyse the empirical objectives: i) Assess the correlation between the duration of inventory collection and the profitability of construction companies listed on the Johannesburg Stock Exchange (JSE) from 2009 to 2019; ii) Examine the relationship between the average duration of collection of payments and the profitability of construction companies listed on the JSE from 2009 to 2019; iii) Investigate the correlation between the average duration of payment periods and the profitability of construction companies listed on the JSE from 2009 to 2019.

The subsequent section will address the literature review, which will be succeeded by the research methodology, the study's findings, limits and recommendations, practical implications, contribution, and ultimately the conclusion.

**Literature Review**

The following subsections will be looking at various aspects of the working capital management and profitability in the South African construction sector, and a conceptual model for the study will be presented.

**Overview of the South African construction sector**

Unemployment reduction is the first priority of any government to decrease poverty and maintain high levels of economic growth. The construction sector aims at bridging inequality in the economy (Olaruwaju & Ibrahim, 2020). They add that challenges such as unemployment are faced by South Africa as a developing country, with an increase in unemployment to 29% in the second quarter of 2019 moving from 27.6% in quarter one of 2019 (ibid). According to Haupt and Harinarain (2016), the construction sector plays a vital role in any country’s economy, and it also contributes significantly to the South African economy. Windapo and Cattell (2013) agree and add that in the South African economy, the construction industry plays an important role and contributes significantly to the economic growth, compared to any other industry in the country. Statistics South Africa (2017) reported that the construction industry’s total income in South Africa in 2017 was R495.5 billion, which showed a growth of 7.8% per annum over the income in the corresponding survey of 2014 (R395.1 billion).

From 2005 to 2018, the construction sector in South Africa played a vital role in terms of its capital formation; the average contribution to gross fixed capital formation by the construction industry was around 43% (Construction Industry Development Board (CIDB) (2019). Below in Figure 1, is an analysis of gross fixed capital formation in construction (GFCFC) for the 2018 fiscal year. Investment by the general government was included at R113,293 million, public corporations at R121,658 million, and the private sector at R185,496 million.

![Figure 1: Analysis of gross fixed formation in construction; Source: CIDB (2019)](image)

**Operations of the construction companies**

Construction companies complete the buildings and infrastructure work; the projects are completed on the amount and time agreed prior with the client (Praveen 2017). For work to be carried out, the construction companies have to bid for a tender and the best company will be awarded the tender. A tender is defined by Thomas (2019) as a negotiable price bid from a client who requires
goods and services from the suppliers of those goods and services. In the construction company, employees from the tender division will estimate the manpower, materials in quantity, equipment and machinery needed to complete the project (Praveen). According to Patil, Wangmare and Gawande (2016), the aims and procedures in the tendering process are as follows:

i. A contractor has to be selected for a construction project.

ii. The current market has to be tested, especially in the case where the nature of existing contracts is long term.

iii. The companies bidding must comply with regulations regarding free and open competition.

Factors influencing the profitability of construction companies

Economic factors

The construction sector is a large and complex industry. Gundes et al. (2019), successful assert that the management of construction projects relies largely on sound management of financial resources. In the construction industry, building material, labour and machinery costs increase every year due to inflation, which could impact negatively on the construction company’s profitability (Musarat, Alaloul & Liew, 2019). They define inflation as an increase in the price of material and machinery costs in a construction project (ibid).

Technological changes

Changes that take place in technology can affect the financial performance of construction companies, as most construction projects depend on modern technology. Dithebe et al. (2018) lament that the South African construction sector is faced with several difficulties that influence the financial performance of construction companies including issues such as technological changes. It is likely that in the current economic environment, technological changes in the construction industry will have a negative impact on the labour market, and the nature of work will require skills in the future. Tertiary institutions should also equip the next generation to take full advantage of new technology in the construction. This may be inspired by the fact that a lack of suitable technology in the construction industry is associated with the risk of the collapse of many projects and a lack of job opportunities due to slow economic growth (Magaba, Cowden & Karodia, 2015).

Political factors

Office-bearers are regularly involved in corruption in projects, and contractors with strong political connections will often be awarded the tender while the ones with fewer connections may not be awarded projects, which will affect their financial performance (Bekr, 2017). This is exacerbated by the financial performance of the South African construction sector being affected by the incapacity of the government to effectively fund the construction projects (Dithebe et al., 2018). Besides, Onana (2018) explains that for a project to be a success, it requires good project management, strong project design and no interference from the government or political parties.

Management style

The growth and performance of the construction company could be negatively influenced by poor management style and lead to a company not accomplishing its desired goals (Ismail & Fathi 2018). According to Buba and Tanko (2017), there is a need for effective leadership in the construction industry in developing countries because it is evident that there is poor project performance such as cost, work quality and poor durability. Additionally, Liphadzi, Aighavboa and Thwala (2015) suggest that project managers encourage construction employees to ensure better project performance. Furthermore, Alkhamali (2014) articulates that in different phases of a project’s lifecycle, disputes and conflicts arise in the construction project and are referred to as unpleasant events since they impact negatively on the costs and the project’s performance.

Ecological factors

Bad weather conditions could result in a project being delayed, which impacts negatively on the construction company’s activities, thus on their financial performance. Likewise, Akanni, Oke and Akpomiemie (2014) supports that the geographical area, ground conditions and weather conditions could have a negative influence on the construction company’s performance. Construction projects could also be delayed due to hot weather conditions (Alshebani & Wedawatta, 2014). In addition, Perez et al. (2018) admit that bad weather conditions can cause planned completion dates not to be met for a construction project.

Profitability in the construction sector

According to Babalola and Anifowose (2018), profitability is explained as a construction company’s operations that reflect the final outcome. They distinguish between profit and profitability as explained in the following:

i. **Profit**: During a specified accounting period, it is the total income earned by the construction company. According to Tulsian (2014), profit is the company’s ability to earn money. From an accounting perspective, profit is a long-term objective of a company and does not only measure product success but also how the product is developing in the market (Nishanthini & Nimalathasan, 2013).
ii. **Profitability:** Is referred to the company’s ability to earn profit on sales or construction projects. According to Ponsian et al. (2014) profitability is defined as the rate of return on the company’s investment.

A company’s profitability is referred to as one of the most suitable measures of the company’s outlook. A company cannot achieve growth without profitability, and it can only grow in the future if it shows a positive profit (Škuflić, Mlinarić & Družić, 2018). Bolek and Wiliński (2012) suggest the use of the following formula to measure the construction company’s profitability:

\[ \text{Return on Assets (ROA)} = \frac{\text{Net income}}{\text{Average total assets}} \times 365 \]

When using financial ratios, ROA is one of the most popular (Jewell & Mankin, 2011). Other authors (Jewell & Mankin, 2011) propose the following formula is used to measure the construction company’s profitability:

\[ \text{ROA} = \frac{(\text{Net income} + \text{interest expense})}{\text{Average total assets}} \times 365 \]

According to White (2020), ROA is a profitability ratio that refers to the profit that a company can make from the assets it owns. ROA is expressed as a percentage, with a higher number indicating a well-organised management in handling its statement of financial position to produce a profit. Return on equity (ROE) on the other hand, gives shareholders a clear picture of how effectively the company is managing the money that investors have contributed to it; the profitability of the company being measured in relation to shareholders’ equity (Fuhrmann 2019). Fuhrmann (2019) recommends the construction company’s profitability to be measured using the following formula:

\[ \text{ROE} = \frac{\text{Net income}}{\text{Shareholder equity}} \times 365 \]

Gross operating profit (GOP) is referred to as a measure of a company’s profitability and it is defined as sales less the cost of goods sold divided by total assets less financial assets (Dong & Su 2010, p. 62). Alipour (2011) proposes the following formula to be used to calculate GOP:

\[ \text{GOP} = \frac{(\text{Sales} - \text{cost of goods sold})}{\text{Total assets} - \text{financial assets}} \times 365 \]

**Inventory management**

Inventory comprises completed goods, plants, and machinery, in-process products recorded and stored at the construction site, and inventory storage, and hiring would cost the company money (Chua 2019). Rathinakumar et al. (2018) contend that construction projects are influenced by material management as it amounts to 55-60% of the construction total cost; thus successful construction projects’ effective material planning is crucial. Therefore, to reach anticipated profit, it is important to control the material costs (Jakkraphobyothin, Srifa & Chinda 2018, p. 1). To corroborate that, Pulungan and Rochim (2019) state that maintaining material at optimal costs for good inventory management is essential; and better internal control needs to be implemented by companies by establishing policies to increase inventory cost efficiently.

**Inventory conversion period**

Finished goods, conversion period, material conversion period and work-in-progress forms part of the inventory holding period. The inventory conversion period is influenced by the efficiency and effectiveness of the manufacturing process and the selling process; and the time it takes to produce a product depends on the nature of the product (Muturi, Wachira & Lyria 2015, p. 368). Furthermore, inventory conversion period can impact the performance of the company in a case where there is a lack of inventory, and the time it takes to produce a product depends on the nature of the product (Muturi, Wachira & Lyria 2015, p. 368). Furthermore, inventory conversion period can impact the performance of the company in a case where there is a lack of inventory, and the time it takes to produce a product depends on the nature of the product (Muturi, Wachira & Lyria 2015, p. 368). Sugathadasa (2018) advises the use of the following formula for calculating the inventory conversion period:

\[ \text{Inventory conversion period (ICP)} = \frac{\text{Inventory}}{\text{Cost of goods}} \times 365 \]

**Cash conversion cycle**

The number of days between the expenditure of the company’s cash for buying of raw materials to manufacture goods and the collection of money for final goods is referred to as cash conversion cycle (Cristera, C. & Cristea M., 2018). A company’s effective working capital is measured by CCC, and it is considered a valuable measure (Ikechukwu & Nwakaego, 2016). Al-Mohareb (2019) defines the Cash conversion cycle (CCC) as the payment of materials purchased from suppliers and collection of cash from debtors for sales on credit.

**Accounts payable management**

Accounts payable are regarded as a main source of short-term financing for companies (Enow & Kamala, 2016). The information that is needed in the accounts payable process are purchase orders used by the company and invoices from the supplier (Agbo & Nwankwo, 2018). For Enow and Kamala (2016), it is important to manage accounts payable effectively in a company as it contributes positively to cash flow and promotes a healthy relationship between the company and its suppliers.
Accounts receivable management

Profits seem to be little in the construction industry, and the sector would need to deal with any level of uncertainties that would include the project, parties involved, kind of contract and the method of financing the project. It can cost contractors a lot of money when such uncertainties take place, which in most cases take contractors out of business. As a result, they need to consider asking for advance payments from customers or delay payments to suppliers (Chen & Chen, 2012). Accounts receivable management is a process of making the right choices regarding trade debtors and making sure that the company gets positive results in collecting the company’s debts from its debtors (Ogundare & Olatunji, 2018). Accounts receivables are considered a valuable resource for the business, and it is important to understand them and how they can affect the business (Wallvik & Viklund, 2014).

Average payment period

The number of days the company takes to pay its suppliers is regarded as the average payment period; these payments are mainly for materials and subcontractors in the construction industry (Killingsworth & Mehany, 2018). In the construction industry, payment cycles differ from payment due upon receipt of an invoice to payment cycle between 15 and 30 days (Tether et al., 2015). Agbo and Nwankwo (2018) give the following formula for the average payment period calculation:

\[
\text{Average payment period (APP)} = \frac{\text{Accounts payables}}{\text{Cost of goods sold}} \times 365
\]

Average collection period

In the construction industry, the average collection period (ACP) is 45 days; anything more than that suggests that collection methods are poorly managed, and a higher collection period might have a negative effect on the cash flow, and the company would have to borrow money from a financial institution to finance the project (Killingsworth & Mehany, 2018). According to Zainudin (2009), credit means selling goods on credit; the customer will promise to make a payment in the future (specified date) and outstanding amounts are recorded under the seller’s balance sheet as accounts receivable. Zainudin and Regupathi (2010) suggest the following formula to measure the average collection period:

\[
\text{ACP} = \frac{\text{AR} \times 365}{S}
\]

Where:

- ACP = Average collection period,
- AR = Accounts receivable (or trade debtors),
- S = Total annual sales (turnover or revenue)

Conceptual Model

Figure 2 below illustrates how the conceptual framework for this study assesses the relationship between inventory and accounts payables management on the profitability of JSE listed construction companies. It depicts the possible effects of the independent variables (ICP, ACP and APP) on the dependent variables (ROA, ROE and GOP).

![Conceptual Model](image)

Figure 2: Conceptual model
The ICP measures the time taken to convert inventory into sales. Efficient inventory management, indicated by a shorter ICP, is hypothesized to positively impact Return on Assets (ROA), Return on Equity (ROE), and Gross Operating Profit (GOP). This suggests that optimizing inventory turnover can enhance overall asset utilization, profitability, and operational efficiency. The ACP represents the average number of days it takes for a company to collect payments from its customers. A shorter ACP implies better credit management and is expected to improve ROA, ROE, and GOP. Efficient collection of receivables ensures better cash flow, which supports higher asset efficiency and profitability. The APP indicates the average time taken by a company to pay its suppliers. Managing this period effectively, particularly by extending it without straining supplier relationships, can improve cash flow. This is expected to positively impact ROA, ROE, and GOP by optimizing the use of available resources and enhancing profitability.

The model underscores the importance of operational efficiency in driving financial performance. Efficient management of inventory, receivables, and payables is crucial for enhancing asset utilization and profitability. Companies should focus on:

i. **Optimizing Inventory Management**: Implementing strategies like just-in-time inventory systems and accurate demand forecasting to reduce the ICP.

ii. **Improving Receivables Collection**: Strengthening credit management and collection practices to shorten the ACP, thus ensuring better cash flow.

iii. **Managing Payables Effectively**:Negotiating favorable payment terms to extend the APP, improving overall cash management without compromising supplier relationships.

### Research & Methodology

This study used quantitative research design because of the quantitative nature of its data; and the study also looked to measure relationships and tendencies within the data to draw statistical conclusions. Quantitative research is a procedure that involves the collection and analysis of data that can be used to make predictions or test relationships between variables (Bhandari 2020). The target population in this study consisted of all 13 JSE-listed construction companies during the period 2009-2019. The researchers used all the JSE-listed construction companies because there was access to all the companies’ information. No sampling method was used as a result. Many of the companies that were involved in the construction of stadiums, the erection of the Gautrain and upgrading major freeways in preparation of the world cup were JSE-listed. The period of 10 years starting from 2009 included a good period, profitable period (just before and after the world cup) and a relatively quiet period that would arguably have followed. The study made use of secondary data because of the reliability of the standardised financial statements of JSE-listed construction companies.

The IRESS database was used to collect standardised financial statements to calculate financial ratios for the study. The effect of inventory and accounts payables management on the profitability of the companies was determined using the multiple linear regression and correlation analyses. Regression analysis makes predictions by determining the correlations among two or more variables (Uyanik & Guler, 2013). The independent variables for the regression models were: ICP, ACP and APP; and the dependent variables were: ROA, ROE and GOP. The data obtained from IRESS database between the years 2009-2019 were in a raw form and in order to be analysed needed to be converted into financial ratios, such as ROA, ROE, GOP, ICP, ACP and APP, which was done using Microsoft Excel (2013). The calculated ratios were used to prepare a multiple linear regression and correlation model from 2009-2019. The results of the models were used to interpret if there is any significant (S) or non-significant relationship (NS) between the independent variables (ROA, ROE and GOP) and dependent variables (ICP, ACP and APP). Before the analysis, data was trimmed to minimise the effects of outliers. Correlation research is used to determine if there is any relationship that exists between two or more variables. Creswell (2010) reports that correlation research is research that allows a researcher to explain the relationship between variables. Results from the output tables were analysed year by year.

### Findings and Discussions

This study investigated whether there was any relationship between the inventory and accounts payables management on the profitability of the JSE listed construction companies in South Africa during the period 2009-2019. Raw data were used to calculate the ratios in an Excel spreadsheet. To determine the relationship between the variables, a multiple linear regression and correlation model were used. The level of significance is shown by a p-value. In a case where the p-value is less than 0.05 (< 0.05), it is an indication that independent variables have a significant (S) influence on the dependent variables; and if the p-value is more than 0.05 (> 0.05), it is an indication that independent variables do not have a significant (NS) influence on the dependent variables.

### Summary of key results of the regression model based on ROA

The summary of the research results in Figure 3 reveals that in 2010, APP had a significant effect on ROA, ICP and ACP had no significant effect on ROA. In 2011, ACP had a meaningful relationship and ICP and APP had no significant effect on ROA. In 2013, ICP had a major influence on ROA, and ACP and APP had no significant influence on ROA. In 2019, ACP and APP had a significant relationship on ROA. In the years 2009, 2011, 2012, 2014, 2015, 2016, 2017, and 2018, none of the independent variables had a significant effect on ROA. Therefore, WCM had little or no influence on the financial performance of listed construction companies in South Africa, which could be due to the fact that construction companies have higher inventory, accounts receivable and payable than any other industry, as indicated by Ghazzali (2019). Some of these results corroborate or contradict the existing literature on
WCM. For instance, studies such as those of Nobanee (2018), Toan et al. (2017), and Al-Mawsheki (2014) found a negative relationship between WCM and construction companies’ financial performance.

Figure 3: Regression model test results based on ROA

Summary of key results of the regression model based on ROE

The research results in Figure 4 reveal that in 2019, ICP had a significant effect on ROE; and ACP and APP had no significant effect on ROE. In the years 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017 and 2018, none of the independent variables had a significant effect on ROE. Therefore, on the financial performance of listed construction companies in South Africa, WCM had little or no influence, maybe due to contractors under-calculating the actual contract amount. Campbell (2019) hinted that a well calculated total contract amount can help companies in improving their profits. In comparison with existing literature, a study by Tangbani (2015) found a positive relationship between WCM and ACP and APP. On the other hand, the study also found a negative relationship between WCM and ICP.

Figure 4: Regression model test results based on ROE

Summary of key results of the regression model based on GOP

The results in Figure 5 demonstrate that in 2010, ACP and APP had a significant effect on GOP and ICP had no significant effect on GOP. In 2014, APP had a significant effect on GOP and ICP, ACP had no significant effect on GOP. In 2015, APP had a significant effect on GOP and ICP, ACP had no significant effect on GOP. In 2016, APP had a significant effect on GOP and ICP, ACP had no significant effect on ROA. In 2017, ICP, ACP and APP had a significant effect on GOP. In 2018, APP had a significant effect on GOP and ICP, ACP had no significant effect on GOP. In 2019 ACP and APP had a significant effect on GOP and ICP had no significant effect on GOP. In years 2009, 2011, 2012 and 2013, none of the independent variables had a significant effect on GOP.
therefore, WCM had little or no influence on the financial performance of listed construction companies in South Africa. In a different study by Moses (2014) on non-financial companies, it was found that there is a positive relationship between WCM and company’s profitability in other sectors except for construction and telecommunication industries.

**Figure 5: Regression model test results based on GOP**

**Summary of key results of the correlation model based on ROA**

The outcomes of Figure 6 depict that in 2010 ACP and APP had a significant effect on ROA, with both displaying a decline in the number of days indicating a negative effect. In 2009, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019, none of the independent variables significantly affected ROA. Hence, on the financial performance of listed construction companies in South Africa, WCM had little or no influence. This could be due to supply chain departments not handling tender processes well. Newell (2017) argues that companies can increase their profits if their supply chain department is well functioning. A study on the retail companies by Louw (2014) between WCM and the company’s profitability also found a negative relationship.

**Figure 6: Correlation model test results based on ROA**

**Summary of key results of the correlation model based on ROE**

The results in Figure 7 show that in the years 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019, none of the independent variables significantly affected ROE. consequently, WCM had little or no influence on the financial performance of listed construction companies in South Africa, maybe resulting from unpredictable weather conditions that may delay the completion of the project among other factors. This agree with an argument by Perez et al. (2018), who stress that construction projects may be delayed due to harsh weather conditions and the company might be expected to pay contractual penalties.
Summary of key results of the correlation model based on GOP

The outcomes in Figure 8 portray that in 2014, APP had a significant effect on GOP, displaying a decline in the number of days, indicating a negative effect. In 2015, APP had a significant effect on GOP, displaying a decline in the number of days, indicating a negative effect. In 2009, 2010, 2011, 2012, 2013, 2016, 2017, 2018, and 2019, none of the independent variables significantly affected GOP. Thus, WCM had little or no influence on the financial performance of listed construction companies in South Africa, maybe owing to damaged materials that need to be replaced among other factors. Contrasting this result, a study by Anton and Nucu (2021) on Polish firms found a positive relationship between WCM and the profitability.

Conclusion

This study examines the correlation between inventory and accounts payable management and the profitability of construction companies listed on the Johannesburg Stock Exchange (JSE) in South Africa. The financial statements of construction companies listed on the Johannesburg Stock Exchange (JSE) from 2009 to 2019 were acquired from the IRESS database. The data was analysed using tables, figures, and descriptive statistics. Linear regression and correlation analysis were employed to establish the connection between the independent variables (ICP, ACP, and APP) and the dependent variables (ROA, ROE, and GOP). The study findings suggest that the management of inventory and accounts payables had minimal or negligible impact on the profitability of construction enterprises. This study contributes to the current body of research, building upon previous studies conducted by Nobanee (2018), Toan et al. (2017), and Al-Mawshendi (2014). These studies have all identified a detrimental correlation between working capital management (WCM) and the financial performance of construction enterprises. Forecasting working capital management (WCM) is crucial for construction organisations because of the vital role cash flow plays in the first phases of projects (Kandpal 2015).
Mukherjee and Rao (2020) assert that in order to enhance profitability, construction companies should prioritise the collection of funds from ongoing projects and refrain from taking on more contracts. Additionally, they emphasise the importance of promptly collecting cash from debtors to sustain business operations. Construction companies listed on the JSE may consider implementing this strategy to assess if it enhances their financial performance. According to Yahaya and Bala (2015), a lack of working capital management (WCM) can reduce a company’s profitability and perhaps result in a financial catastrophe. If this applies to other industries, it should also apply to construction companies listed on the JSE. According to Jones (2019), construction organisations should optimise their efficiency in order to enhance their profitability.

The findings of this study are inconclusive in absolute terms. While the majority of years observed indicated that WCM had no or negligible impact on the financial performance of JSE-listed construction companies, there were instances where the outcome was positive. Furthermore, it has been noted that there are research with divergent findings, indicating a favourable correlation, despite being done in other industries.

Effective management of working capital does not guarantee a favourable correlation with the financial performance of construction enterprises. Therefore, it is essential to consider other aspects of management as well.

This study adds to the current body of literature, which includes the works of Nobanee (2018), Toan, Nhan, Anh, and Man (2017), and Al-Mawsheshi (2014). These studies have all indicated a negative correlation between working capital management (WCM) and the financial performance of construction enterprises. This study provides empirical evidence on the working capital management (WCM) of construction companies listed on the Johannesburg Stock Exchange (JSE), addressing a research vacuum in the literature. It contributes to the ongoing discussion by presenting data that may challenge the findings of earlier studies, which have shown conflicting outcomes.

The study was restricted to construction companies listed on the Johannesburg Stock Exchange in South Africa. It focused on the time span from 2009 to 2019. Consequently, the findings may not be applicable to a broader context. For any attempt to generalise the results, it may be advisable to examine a broader study that includes building companies not currently listed and covers different time periods. Furthermore, this study is solely focused on quantitative analysis and does not incorporate the qualitative dimension of working capital management. Researchers should investigate incorporating capital budgeting and capital structuring into future studies, as the study indicated that working capital management (WCM) did not have a substantial impact on profitability in construction enterprises. Non-JSE listed construction enterprises can also be utilised for research purposes. Future studies could also explore a qualitative investigation.

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References


Praveen, V.P. (2017). What does a construction company do? What do the jobs consist of, or what does the company make?


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