

Sustainability of working capital management of SMEs in times of crisis

Lesego J Mothowagae¹ and Makgopa F Tshehla¹

¹Graduate School of Business Leadership

University of South Africa

tshehlmf@unisa.ac.za; Motholj@unisa.ac.za

Abstract:

The purpose of the study was to evaluate the sustainability of working capital management requirements for small-medium enterprises (SMEs) during crisis. The study adopted a quantitative method. Data were collected through a survey questionnaire from SMEs in the construction industry in Gauteng province, South Africa. This study employed purposive sampling with a sample size of 60 construction employees. Data analysis was undertaken using descriptive statistics. The study's findings reveal that businesses adopt working capital management practices, have key value metrics for working capital management, consistently review their working capital, and actively manage working capital in times of crisis. Working capital was also identified as a key performance metric and mainly driven by top management in the company. The study contributed to the body of knowledge by providing information on the importance of working capital in small businesses during a crisis and it also showed that working capital is viewed as a key performance indicator during the crisis by small businesses.

Keywords:

Working capital management, construction management, sustainability, crisis

1 Introduction

The South African construction industry has been put in a pivotal position with the government announcing its plans for massive infrastructure projects in the next four years to boost economic output (National Treasury, 2020; Ramokgopa, 2020). However, South African SMEs face several internal and external constraints (Mafundu & Mafini, 2019). These constraints include poor working capital management. Working capital management are short-term financing decisions that include managing current assets and liabilities (Pand & Nanda, 2018). SMEs are the most vulnerable category of companies in times of crisis, with factors such as their liability of smallness and lack of resources (including working capital) playing a role (Eggers, 2020). South African SMEs experience a high failure rate without crisis (SEDA, 2015). It is crucial to investigate how SMEs in the construction industry manage their working capital in a bid to survive and grow. Several studies in other countries have shown that working capital management is positively related to the profitability of companies in the construction industry when there is no crisis (Cordova & Alberto, 2018; Dash, 2018; Pham et al., 2020). Other studies focusing on a crisis reported conflicting results. Some of these studies indicate that the relationship between working capital management and company performance

is affected (Haron & Nomran, 2016; Simon, Sawandia & Abdul-Hamidb, 2017) while others indicate the contrary (Akgün & Karataş, 2020). The main aim of this study was to assess the sustainability of the working capital management for SMEs operating in construction projects.

2 Literature Review

The South African construction sector is in a distinctive position due to a unique project-specific and complex environment that combines different investors, clients, contractual arrangements, and consulting professions (Sibiya, Aigbavboa & Thwala, 2015). The SMEs sector experienced a turnover growth with an increase of 17% from 2013 to 34% in 2019 (StatsSA, 2020). The industry plays a pivotal role in supporting the government's agenda of embarking on a capital infrastructure drive of more than ZAR1 trillion over the next four years (Ramokgopa, 2020). However, it is important to note that the construction industry in Africa faces several challenges, including budget overruns, corruption, lack of skilled workers, accidents on sites, and capital supply constraints (Construction Review Online, 2021).

Mafundu and Mafini (2019) identified five key constraints to the performance of SMEs in the construction industry in South Africa. These constraints relate to resource allocation, occupational health and safety, human resources, leadership style and workplace communication. The study further reveals that delays in receiving client payments impedes successful project delivery for some SMEs. Possible measures to improve the performance of construction companies in South Africa include: the need for timely settlements of debts by clients (a key component of working capital), proper project planning, clear communication channels, timely supply of materials and proper material procurement (Sibiya et al., 2015). Settlements of debts by clients are recognised as receivables in working capital management. The average collection period, a component of the cash conversion cycle (CCC), measures how long it takes for a company's clients to settle their debts. Thus, its identification as a key challenge for construction companies points to working capital management being important for their success.

A study conducted by Cordova and Alberto (2018) in Ecuador indicated that efficiency is positively related to working capital in companies' construction. A study conducted in India, revealed that construction companies ought to focus on two working capital variables, accounts payables and receivables, as they have a significant relationship with profitability (Dash, 2018). This is consistent with another study conducted in Vietnam which found that working capital management is positively related to the profitability of companies (Phan, Nguyen, & Nguyen, 2020). This is contrary to a study conducted in the Pakistan cement sector which revealed that working capital management is not significantly related to profitability (Sarwat et al., 2017).

Working capital in construction industry is positively related to profitability as compared to other sectors such as cement industry. This could be influenced by factors such as CCC which is quicker in the construction industry compared to normal operations such as manufacturing.

2.1 Working capital management and sustainability

The study seeks to understand SMEs' sustainability of working capital management during a crisis. Financial sustainability is an important measure of a company's performance. Filene (2011) defines sustainability as the ability of an organisation to continue operating in a defined way for an indefinite period. A company can attain its objectives and goals over a long period of time. The term sustainability has all-encompassing dimensions which also includes environmental sustainability, financial sustainability, institutional sustainability, and market sustainability among others (Marwa & Aziakpono, 2015).

Kinasih, Dorkas and Supramono (2020) conducted study on the influence of working capital management on the sustainable growth of companies with specific focus on manufacturing companies listed on the stock exchange in Indonesia. The study revealed that working capital management is inverse to asset utilisation. In turn, asset utilisation has a positive effect on a company's sustainable growth. Thus, implying that working capital management influences a company's sustainable growth.

Njoloma (2019) analysed the financial sustainability determinants of service delivery of parastatals in Malawi. The results suggested that working capital management is integral in ensuring that companies keep appropriate levels of liquidity. In addition, the findings from Njoloma (2019) indicate that a significant and positive relationship exists between working capital management and the financial sustainability of business enterprises. This is consistent with Wachira (2018), who found a positive and significant relationship between working capital management and financial sustainability. An empirical study by Corpuz & Bool (2021) examined the relationship between working capital management and the sustainability of micro-enterprises in the Philippines. The study assessed individual components of working capital management and their effect on sustainability, gathering data from micro-enterprise owners and managers. Their findings point to cash management being significantly related to both social and economic sustainability. Inventory and accounts receivables management were also shown to have a significant relationship with social, environmental, and economic sustainability (Corpuz & Bool, 2021).

2.2 Working capital management and company performance

This section covers literature review on the relationship between working capital management and company performance.

2.2.1 Working capital management and performance without a crisis

Siraj et al. (2019) studied the influence of working capital management on company performance for non-financial companies in Pakistan. The findings from the study suggest that working capital management practices influence both profitability and growth. On the individual constituent components of working capital management, the study found that only accounts receivable management influence both profitability and growth, while inventory management influenced growth and accounts payable management influenced profitability (Siraj et al., 2019). Effective working capital management positively affects company performance (Konak & Guner, 2016). Working capital management practices such as decreasing short-term debt turnover days influence the performance of Turkish industrial companies (Konak & Guner, 2016). Zariyawati, Hirnissa and Diana-Rose (2017) investigated

the effect of working capital management on company performance for both large and small companies in Malaysia. The study found that working capital management practices having a significant effect on company performance. However, differences between large and small companies were also observed. They observed that the effect of working capital management on company performance is more pronounced for small companies. Thus, company size might play a mediating role between working capital management and company performance.

Companies seeking to improve their economic value can employ a working capital management approach which reduces their cash conversion cycle, this is according to a study by Al-Mawsheki, Ahmad and Nordin (2019). Their study was focused on Malaysian manufacturing companies. They used the ratio of current assets to total assets as the proxy for working capital investment policy, the results indicating that a significant and positive relationship exists between it and company performance. On the other hand, they found that working capital financing policy, as represented by the ratio of current liabilities to total assets, does not influence company performance (Al-Mawsheki et al., 2019).

Studies such as Kasozi (2017), Masocha and Dzomonda (2016) and Louw, Hall and Pradhan (2019) have been undertaken in the South African context, examining the relationship between working capital management and company performance. Kasozi (2017) focused on listed South African manufacturing companies, finding results showing a relationship between the variables under study. Kasozi (2017) found that companies that were better at accounts receivable management and debt collection performed better than their counterpart which did not do well in those areas of working capital management. In addition, the author found inventory management to be significantly and positively related to company performance. The study by Masocha and Dzomonda (2016) focused on small and medium enterprises, revealing that they were failing to properly manage their working capital, which adversely affected their performance. The study by Louw et al. (2019) focused on the retail and construction sector in South Africa. The findings from the study indicate that working capital management and profitability are related in the long run. The findings also suggest that working capital management significantly influences retail companies more than construction companies.

2.2.3 Working capital management and performance during crisis

Haron and Nomran (2016) examined the determinants of working capital management in different circumstances that precede, coincide, and follow a financial crisis. Their findings indicate that working capital management negatively affects growth before and after a crisis. The study also found profitability to have a significant relationship with working capital management before and after a crisis. Akgün and Karataş (2020) investigated the relationship between working capital management and company performance during the 2008 global financial crisis for companies in the European Union. The results showed that gross working capital had a negative relationship with company performance during the crisis, while net working capital have a significant and positive relationship with business performance. According to Simon et al. (2017), differences in the relationship between working capital management and business performance can be observed between a crisis period and a post-crisis period. Their findings suggest that the influence of working capital management on company performance is more pronounced in periods where there is no crisis as compared to a crisis period. They posit that an investment in working capital is adversely affected during a crisis period leading to lower performance by companies. Oseifuah (2018) examined the

relationship between profitability and working capital management practices during the 2008 global financial crisis for companies located in South Africa. The study found that only one component of working capital management positively correlated with profitability during the financial crisis: accounts receivables management. The other components of working capital management, namely inventory management, accounts payable management, and cash conversion cycle were found to have insignificant relationships with profitability during the crisis.

3 Research Methodology

The study employed a quantitative research approach. A quantitative research method focuses on objective measurements and collection of numerical data using research instruments such as questionnaires and survey and on analysing the data using computational techniques. The target population includes employees in the construction sector in SMEs operating in the construction industry in Gauteng, South Africa. The target population consisted of an estimated 200 employees. This study used the purposive sampling technique. This was due to the need to choose a sample with members knowledgeable about the subject under study. Thus, purposive sampling was undertaken with a specific focus on employees who knew their organisations' working capital management practices. For this study a sample of 60 employees was chosen. Data was collected with a survey questionnaire. The survey questionnaire was designed to collect and analyse primary data on the impact of working capital management on the sustainability of SMEs during a crisis. The questionnaire was composed of close-ended questions. The questionnaire was comprised of five sections. The first section of the questionnaire sought the respondents' demographic details such as age, gender, educational levels, and ethnic background. The second section sought information on the respondents' organisation, this information was essential to assess the respondents' views differentiated on the type of their organisation. The third section focused on working capital management sustainability during a crisis and the fourth section focused on working capital management practices. The fifth section sought information on organisational performance of the respondents' companies.

4 Research Findings

The intended total number of respondents for the study was 60 respondents. Out of this total, 49 respondents completed and returned the questionnaires for final analysis (Table 1). This was a response rate of 81.7%. Of the respondents, the majority were permanent general employees (83.7%).

Table 1: Response rate of respondents

Position	Number Participated	% Response
Director	3	6.1
Senior manager or Executive	1	2.0
Entry-level Manager	2	4.1
Professional Specialist	2	4.1
Permanent General Employee	41	83.7
Total	49	100.0

4.1 Demographic profile

Table 2 gives an overview of the demographic profile of the respondents by gender, age, highest educational level, and functional area in the company. Most of the respondents were males (71.4%), with the remainder of the respondents were females (28.6%). On the age distribution of the respondents, most of the respondents were less than 40 years (83.7%) and the remainder of the respondents fall under 40-49 years age group (16.3%). Concerning the highest educational level of the respondents, majority of the respondents had matric (44.9%) as highest educational qualification, followed by the respondents who had post-matric degree or diploma (26.5%) as the highest educational qualification. On the functional areas of the respondents, majority of the respondents indicated projects (55.1%) as the functional area, followed by the respondents who indicated other support services (40.8%) as the functional area.

Table 2: Demographic profile of respondents

Characteristics of the respondents	Frequency (%)
Gender	
Female	14 (28.6 %)
Male	35 (71.4%)
Age Group (years)	
Less than 40 years	41 (83.7%)
Greater than 40 years	8 (16.3%)
Highest Educational Level	
Below matric	12 (24.5%)
Matric	22 (44.9%)
Post matric degree or diploma	13 (26.5%)
Postgraduate qualification	2 (4.1%)
Functional Area	
HR	1 (2.0%)
Project	27 (55.1%)
Finance and Marketing	1 (2.0%)
Other support services	20 (40.8%)

4.2 Description statistics

4.2.1 *The working capital management practices required to sustain the operations of SMEs during a crisis*

The working capital management practices: key value metrics for working capital management; the frequency of review of capital management requirements; how the company manages the working capital in times of crisis; and justification of increasing working capital for the growth the company.

The working capital management practices construct derived from literature consisted of 5 items measured on a 5-point Likert scale. Based on the overall mean of 3.72 (SD = 0.67) for the construct, the respondents tend to agree with the work management practices (Table 3). The reliability for working capital management practices has a Cronbach alpha greater than 0.60, hence it was regarded as acceptable. The findings from the study indicate that majority of the respondents agree that the company was adopting work capital management practices. Concerning value metrics for working capital management practices, majority of the respondents agree that the metrics were in place in the company. On review of working capital management practices, most of the respondents agree that it was being done more often. On the active management of working capital management practices during the crises, most of the respondents agree that it was being actively management although some of the respondents could neither agree nor disagree about the active management of working capital during the crises. Concerning whether increases in working capital is justified by growth, many of the respondents agree with this view.

Table 3: Descriptive statistics

Item	Mean	Standard Deviation	Inter-Item Correlation
Working capital management practices	3.72	0.67	0.63
Working capital management on sustainability	3.16	0.88	0.85
Working capital management on performance	3.79	0.57	0.67

4.2.2 The impact of working capital management on the sustainability of SMEs during a crisis

The working capital management on sustainability construct derived from literature consisted of 4 items measured on a 5-point Likert scale. Based on the construct's overall mean of 3.16 (SD = 0.88), the respondents tend to neither agree nor disagree with the work capital management on sustainability. The working capital management on sustainability construct had reliability greater than 0.70 (Cronbach alpha), hence it was regarded as more adequate. The study's findings indicate that most respondents could neither agree or disagree on whether to blame financial policies or external factors when the company gets into a financial crisis. Concerning whether the company had modified its strategies concerning working capital management policies, most respondents were neutral on this view. Furthermore, some respondents disagree that the company had modified its strategies concerning working capital management policies considering the crisis. Majority of the respondents agree the company can combine a high focus on working capital and long-term growth despite some of the respondents being unable to agree or disagree on whether the company can combine a high focus on working capital and long-term growth. Concerning whether there have been any differences in focus towards working capital management or long-term growth, most respondents could neither agree or disagree on this view despite some respondents agreeing that there have been noticeable differences in focus towards working capital management or long-term growth.

4.2.3 *The impact of working capital management on the performance of the company during the economic crisis*

The working capital management on performance construct derived from literature consisted of 6 items measured on a 5-point Likert scale. Based on the overall mean of 3.79 (SD = 0.57) for the construct, the respondents tend to agree with the working capital management on the company performance. The reliability for working capital management on performance construct was greater than 0.60, hence it was regarded as acceptable. The study's findings indicate that most respondents agree that working capital is used as performance measurement in the company's internal reports. Concerning the company using KPIs to measure working capital, majority of the respondents agree that the KPIs were used to measure working capital. Majority of the respondents agree that the current primary strategic focus measures the company growth. Many of the respondents agree with this view concerning whether the external factors have contributed towards financial performance in times of crisis. Most respondents agree that top management within the company was responsible for deciding how much focus should be put on working capital management. Most respondents agree with this view regarding whether management was responsible for working capital management decisions and follow ups within the company.

5 Conclusions

The results of this study confirmed that SMEs in construction industry adopt working capital management practices which are sustainable during economic crisis. An increase in working capital management can improve growth of an organisation during crisis period. The working capital management can be used as performance measurement in the company's internal reports. The company should implement key performance measures (KPI) to measure the working capital. The external factors have contributed towards financial performance in times of crisis. Top management within the company was responsible for deciding how much focus should be put on working capital management. Management was responsible for working capital management decisions and follow-ups within the company.

The study's contribution is that SMEs must consistently review their working capital management practices to sustain their businesses during times of crisis. SMEs need to develop working capital management strategies to enhance growth of their businesses. The study's limitation is that the sample's distribution has 60% of respondents with project management function (project, finance, and marketing), and the rest of the respondents come from other services within the project. Further research should be conducted with the respondents who predominantly perform project management functions.

6 References

- Akgün, A. İ. & Karataş, A. M. (2020), 'Investigating the relationship between working capital management and business performance: Evidence from the 2008 financial crisis of EU-28', *International Journal of Managerial Finance*.
- Al-Mawsheki, R. M. S. A., Ahmad, N. B. & Nordin, N. B. (2019), 'The Effects of Efficient Working Capital Management and Working Capital Policies on Firm Performance:

- Evidence from Malaysian Manufacturing Firms', *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(3), pp. 59-69.
- Cordova, J. & Alberto, C. (2018), 'Measurement of efficiency in the construction industry and its relationship with working capital', *Revista Ingeniería de Construcción*, 33(1), pp. 69-82.
- Corpuz, B. M. & Bool, N. (2021), 'Working capital management practices and sustainability of Barangay Micro Business Enterprises (BMBEs) in Ilocos Norte, Philippines', *International Journal of Research in Business and Social Science* (2147-4478), 10(2), pp. 21-32.
- Dash, M. (2018), 'Working Capital Management and Profitability of the construction sector in Bangalore', *Journal of Commerce & Accounting Research*, 7(4).
- Eggers, F. (2020), 'Masters of disasters? Challenges and opportunities for SMEs in times of crisis', *Journal of Business Research*, 116, pp. 199-208.
- Haron, R. & Nomran, N. M. (2016), 'Determinants of working capital management before, during, and after the global financial crisis of 2008: Evidence from Malaysia', *The journal of developing areas*, 50(5), pp. 461-468.
- Kasozi, J. (2017), 'The effect of working capital management on profitability: a case of listed manufacturing firms in South Africa', *Investment management and financial innovations*, 14(2), pp. 336-346.
- Kinasih, Y. N. P., Dorkas, R. A. A. & Supramono, S. (2020), 'Is working capital management able to increase sustainable growth through asset utilisation?', *The European Journal of Applied Economics*, 17(2), pp. 136-146.
- Konak, F. & Guner, E. N. (2016), 'The impact of working capital management on firm performance: An empirical evidence from the BIST SME industrial index', *International Journal of Trade, Economics and Finance*, 7(2), pp. 38-43.
- Louw, E., Hall, J. H. & Pradhan, R. P. (2019), 'The relationship between working capital management and profitability: evidence from South African retail and construction firms', *Global Business Review*, 1(1), pp. 1-21.
- Mafundu, R. H. & Mafini, C. (2019), 'Internal constraints to business performance in black-owned small to medium enterprises in the construction industry', *The Southern African Journal of Entrepreneurship and Small Business Management*, 11(1), pp. 1-10.
- Masocha, R. & Dzomonda, O. (2016), 'The mediating role of effective working capital management on the growth prospects of Small and Medium Enterprises in Polokwane Municipality'.
- Oseifuah, E. (2018), 'Global financial crisis, working capital management and profitability of non-financial firms listed on the Johannesburg Stock Exchange', *South Africa, Academy of Entrepreneurship Journal*, 24(3), pp. 1-12.
- Panda, A.K. & Nanda, S. (2018), 'Working capital financing and corporate profitability of Indian manufacturing firms', *Management Decision*, Vol. 56 Issue: 2, pp.441-457, <https://doi.org/10.1108/MD-07-2017-0698>
- Pham, K. X., Nguyen, Q. N. & NGUYEN, C. V. (2020), 'Effect of Working Capital Management on the Profitability of Steel Companies on Vietnam Stock Exchanges', *The Journal of Asian Finance, Economics, and Business*, 7(10), pp. 741-750.
- Sarwat, S., Iqbal, D., Durrani, B. A., Shaikh, K. H. & Liaquat, F. (2017), 'Impact of working capital management on the profitability of firms: Case of Pakistan's cement sector', *Journal of Advanced Management Science*, 5(3).

- Sibiya, M., Aigbavboa, C. & Thwala, W. (2015), 'Measures to improve the performance of construction projects in South Africa'.
- Simon, S., Sawandia, N. & Abdul-Hamidb, M. A (2017), 'The impact of working capital management investments on firm performances during and after financial crisis', *International Conference on Accounting Studies (ICAS)*, pp.79-85.
- Siraj, M., Mubeen, M. & Sarwat, S. (2019), 'Working capital management and firm performance: Evidence from non-financial firms in Pakistan', *Asian Journal of Empirical Research*, 9(2), pp. 27-37.
- Wachira, R. N. (2018), 'Financial sustainability determinants of government owned entities in Kenya', JKUAT-COHRED.
- Zariyawati, M., Hirnissa, M. & Diana-Rose, F. (2017), 'Working capital management and firm performance of small and large firms in Malaysia', *Journal of Global Business and Social Entrepreneurship (GBSE)*, 3(7), pp. 22-31.