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**Dissertation**

**On**

**“Working Capital Management Effects on Performance in Small and Medium Enterprises”**

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Abstract

Working capital management plays a crucial role in the corporate world and significantly affects the organization’s financial performance and profitability. The existing research puts a huge focus on analyzing and addressing the influence of WCM on large-scale organizations. Still, there is a lack of research that addresses the impact of working capital management on SMEs. Thus, this research mainly addresses the impacts of working capital management on the SMEs’ performance. Further, it focuses on investigating the correlation between the SMEs’ performance and the effectiveness of working capital management. To attain this research aim and objectives, a mixed research methodology i.e., a combination of both quantitative and qualitative research methods is used to realize the strengths of both methodologies. Further, pragmatism research philosophy and deductive research approach are used to better conduct this research. This research proposed a conceptual framework, including independent variables (account payable, account receivable, inventory, and cash conversion cycle), dependent variables (net operation profit, return on assets, and return on equity), and control variables (leverage, firm size, and sales growth). This study contributes to the existing body of knowledge to address the influence of WCM on SMEs' performance and how can SMEs optimize their working capital management using best practices or strategies to ultimately optimize their performance.

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Glossary

WCM – Working Capital Management

SMEs – Small and Medium Enterprises

CCC – Cash Conversion Cycle

ROA – Return On Assets

INV – Inventory

AR – Account Receivables

AP – Account Payables

GOP – Gross Operating Profit

CR – Current Ratio

NWC – Net Working Capital

AIM – Alternative Investment Market

DEA – Data Envelopment Analysis

MI – Malmquist Index

EPS – Earning Per Share

ARM – Account Receivable Management

INVM – Inventory Management

ROE – Return On Equity

SGW – Sales Growth

LEV – Leverage

SLR – Systematic Literature Review

MSME – Ministry of Micro, Small & Medium Enterprises

# Chapter 1: Introduction

# Introduction

This chapter is based on the comprehensive introduction of this study, which is focused on addressing the effects of WCM (working capital management) on performance in SMEs (small and medium enterprises). Working capital represents the variance between the current liabilities and current assets of the organization. Sagner, (2012), argues that effective management of working capital is a very important part of any company regardless of industry type or size. The working capital comprises the current financial assets, inventories, and receivables of the company. Organizations need to deal with and manage it carefully because it has a great impact on the overall performance of the organization. This research mainly focused on addressing the impact of WCM on the performance of SMEs. This chapter will critically introduce this research dissertation, including background information, problem statement, aim & objectives, research questions, research scope, research rationale, research significance, and structure of the report.

## Background Information

The existing literature based on corporate finance mainly focuses on studying the organization’s long-term decisions about its financial state, such as capital structure, dividends, investments, and valuations of the firm. Ren et al., (2019), argue that working capital management is a very important aspect for an organization due to its impact on business decisions, associated risks, profitability, and overall delivered consumer values. Working capital management represents one of the most crucial aspects of any organization no matter from which industry, the organization belongs and what is the size of the organization. The recently published research studies addressed the impacts of the reduction of working capital management measures on the profitability of the organizations.

However, there is a major lack of attention provided by existing literature to identify the determinants of WCM. A search of the existing works recognized that only a few research studies; Lin & Wang, (2021) and Gill & Biger, (2013) focus on large-scale organizations, but there is no evidence found related to SMEs, except the facts that robust working capital management is very important for small-scale organizations (James Sunday, 2011). In most SMEs, the assets are current assets, whereas the current liabilities represent one of the major sources for taking external financial support in case of the faced constraints and difficulties in getting funding to establish long-term capital markets. Thus, working capital management has a pivotal role in the existence and evolution of small firms.

Working capital management represents the most effective practices and strategies that can be employed by any organization for better managing its current liabilities and assets by balancing the requirements of enough readily available resources, such as receivables & inventory for efficiently supporting their business operations while reducing the capital knotted with their assets. WCM is very important for SMEs because they are extremely vulnerable to cash flow disruptions and also they don’t have enough understanding related to the best practices for working capital management. It might lead these SMEs to increase inventory costs, cash flow shortages, inefficient management of receivables, and decreased profitability.

Despite the significance of WCM in SMEs still, there is a severe need for further research to explore the most effective practices of WCM on SMEs, examine the influence of WCM on the SMEs' performance, and investigate the role of other factors on the efficacy of used WCM practices on the SMEs. Thus, this research mainly emphasizes addressing this research gap by demonstrating the impacts of effective working capital management on SMEs’ performance (Chalmers et al., 2020). This research will conduct in-depth research to contribute the most vital and valuable insights into the robust WCM practices for SMEs, performance enhancement obtained from effective working capital management, and the impacts of external elements on the efficacy of SMEs working capital management. The obtained information and insights can be used by the SMEs’ managers, stakeholders, and policymakers to support the growth and success of the SMEs.

## Problem Statement

Working capital management is one of the most crucial aspects of any organization regardless of its size and type of industry. There is much research that emphasizes and addresses the importance of working capital management for SMEs but still, there is a gap in existing research to provide a comprehensive understanding related to the impacts on the performance of SMEs. Most SMEs often struggle to efficiently management their working capital which leads to liquidity issues, constraints in facilitating cash flow, and decreased profitability (Gill & Biger, 2013). The existing research studies neglect the specific requirements and circumstances for SMEs. It results in a huge gap in the research to address the association between performance outcomes and WCM in the context of SMEs. Thus, this research mainly intends to bridge this gap by addressing the probable impacts of robust working capital management on the performance of SMEs along with suggesting best practices to optimize their working capital management for ultimately optimizing their performance and realizing sustainability.

## Aim & Objectives

### Aim

The main aim of this research is to assess and address the influence of working capital management on the performance of SMEs.

### Objectives

This research has the following objectives.

* Review existing literature to analyze the intricate correlation between the efficiency of WCM and indicators of SMEs’ financial performance (Lin & Wang, 2021).
* Identifying and analyzing used methodology in existing research to discover the impacts of WCM on SMEs’ performance.
* Identifying and analyzing the key practices adopted by SMEs for the management of working capital.
* Identifying the key determinants of working capital management for the performance of SMEs.
* Examining the most critical factors that may impact SMEs’ decisions for working capital management.

## Research Questions

This research will focus on the following questions to proceed further and achieve the specified aim and objectives for this research.

* What are the best practices that can be used by SMEs to enhance their working capital management?
* What are the key working capital management components adopted by SMEs?
* What are the key factors that can influence SMEs’ decisions regarding their working capital management?
* What are are key issues or challenges faced by SMEs in realizing robust working capital management?
* What are the most efficient strategies that can be implemented by SMEs to improve the management of their working capital to enhance their business performance?

## Research Scope

This research mainly focuses on examining and addressing the precise relationship between SMEs’ working capital management and their performance. This research will discuss the adopted practices by SMEs for the management of their working capital management along with the vital components of the used practices. Then this research will assess the indicators of the performance of SMEs and the impacts of the adopted WCM practices on these performance indicators. The research will also emphasize identifying and addressing the key factors that influence WCM decision-making within the SMEs. Further, this research will deeply delve into the key constraints that SMEs often face along with the associated issues or challenges in effective working capital management (Baños‐Caballero et al., 2010). The scope of this research study is limited to only SMEs operating in different sectors and industries. Moreover, this research will also realize both theoretical and practical insights along with addressing the implications of this research on robust working capital management in SMEs.

## Research Rationale

Working capital management is a very important aspect of any organization regardless of its size and type of industry, especially for SMEs. There are several existing research that argue the prevalence of WCM in large-scale organizations but they avoid addressing the impacts of working capital management on the performance of SMEs. Thus, this research aims to bridge this gap by exploring the relationship between the SMEs' performance and WCM practices. SMEs play a crucial role in the development of any country’s economy by creating job opportunities and driving innovation (Tauringana & Adjapong Afrifa, 2013). The discussion of the associated challenges with working capital management and its best practices can let policymakers develop robust interventions for supporting SMEs. Overall, this research places a great emphasis on addressing this significant research gap and generating vital insights for the stakeholders while contributing to the sustainable growth of SMEs.

## Research Significance

The significance of this research is multifaceted and holds immense potential to address the importance of WCM in improving SMEs’ performance. This research will underscore the significance of WCM in SMEs by deliberating the correlation between WCM and SMEs' performance. This research significantly contributes to bridging the gap of lack of focus to address the influence of WCM practices on SMEs' performance. It will address the most significant factors that can influence WCM decisions among SMEs and the implications on their performance (Tuovila, 2024). The improvement in financial performance can ultimately contribute to the overall economic development of the countries by creating more job opportunities and driving innovation. Further, the recommended WCM practices can let the SMEs’ managers and stakeholders in enhancing their profitability, liquidity, and overall firm health. The obtained insights from this research can also help policymakers in designing robust initiatives to improve SMEs'' financial access and literacy.

## Structure of the Report

This research dissertation comprises five chapters, namely introduction, literature review, methodology, findings & discussion, and synthesis, conclusion, recommendations, & implications.

**Chapter 1: Introduction**

This is the first chapter that introduces this research, including background, problem statement, research questions, aim & objectives, research scope, research rationale, and research significance.

**Chapter 2: Literature Review**

The second chapter critically reviews the relevant and previously published research papers to offer a better understanding of this research and analyze the used concepts and theories by other researchers in their respective research works.

**Chapter 3: Research Methodology**

Then the third chapter will discuss the selected **mixed research methodology** along with the other used methods, including, **mixed-methods research design, pragmatism research philosophy, deductive research approach, systematic literature review data collection,** and **descriptive, and thematic data analysis methods**.

**Chapter 4: Results and Findings**

Then the fourth chapter will discuss the obtained results and findings from this research to ensure whether they adhere to the research aim and objectives. In this chapter, the obtained results from descriptive statistics will be presented along with the obtained vital insights from extracted themes using thematic analysis.

**Chapter 5: Discussion of Results and Findings**

Then the fifth chapter will provide a critical discussion of the obtained results and findings.

**Chapter 6: Conclusion and Recommendations**

Then the sixth chapter will conclude this research along with addressing the limitations and implications of this research and providing actional recommendations to further proceed with this research.

# Summary

This chapter critically introduced this research dissertation, which is based on addressing the impacts of WCM on the performance of SMEs. It provides a detailed discussion of the research background, problem statement, aim & objectives, research questions, research scope, research rationale, research significance, and structure of this report.

# Chatper 2: Literature Review

# Introduction

This chapter is based on the critical review and discussion of the previously published and relevant research papers or journal articles. This chapter could serve as the most critical element of the overall research dissertations by offering a detailed discussion of the previously available concepts, knowledge, empirical findings, and theories related to the topic of this research. It will review the pragmatic studies to better illustrate the correlation between working capital management and the performance of SMEs. The critical analysis of existing knowledge and used concepts or theories by previously conducted studies can contribute to offering an in-depth understanding of the impacts of WCM on SMEs' business performance.

## Working Capital Management and its importance for SMEs

Tuovila, (2024) states working capital management represents an organization’s business strategy for efficiently managing their working capital. The working capital represents the remaining capital after the present liability’s accounting. Effective working capital management can help ensure that the organization efficiently operates while properly utilizing and managing its current liabilities and assets in the best possible way. It enables the organization to realize an optimized utilization of the liabilities and assets for facilitating an efficient flow of cash while addressing both unplanned and planned expenditures and determining the effectiveness of their business operations to maintain liquidity.

According to Hawley, (2022), efficient working capital management is very important for the fundamental operations and financial health of organizations. One of the key traits of a successful business is its ability to use working capital management to uphold a robust balance among liquidity, growth, and profitability. Working capital refers to a routine need of any organization because they need a steady cash amount for covering unforeseen costs, making routine payments, and purchasing basic raw materials to produce goods. Working capital management mainly aims to comprise working capital operation cycle maintenance to ensure ordered operations, reduced capital costs, and maximum return on available assets. It is very important for the organization, especially SMEs because they mainly depend on working capital management. After all, it helps in realizing a balance between the firm’s current liabilities and assets along with covering all of the financial obligations and boosting earnings.

## Components of Working Capital Management and their importance for SMEs

WCM has several components but the four most essential components are account receivables, inventory, account payables, and cash conversion cycle which play crucial roles in ensuring an organization’s overall operational proficiency and financial health.

### Days Sales Outstanding (DSO)

DSO represents the most vital part of the firm’s current assets and represent the amount that the organization owes to its customers. An organization should timely gather its all receivables so that the funds can be appropriately used for fulfilling the operational costs and other debts. However, the account receivables appear on the balance sheet of the company but they can only be become assets after collected. Effective management of this component can help accelerate cash inflow, reduce bad debt, and improve consumer relationships (Fernando, 2023). The handling of DSO by a company is assessed using the days' sales outstanding metric, which reveals the average number of days taken by an organization to gather its sales revenues.

### Days Inventory Outstanding (DIO)

DIO represents another important component, which is a primary asset for any organization as it helps in converting sales revenues. It refers to the finished goods or raw materials that are kept on standby by the company. The price at which a company sells and reloads its inventory is considered the measure of success. It also be considered as an indicator of the sales strengths by the investors and the efficiency of an organization in manufacturing and purchasing things. A lower inventory indicates that the firm is in charge of losing sales, whereas a higher inventory indicates the wastage of its working capital. So effective management of this component can help minimize stockouts, decrease carrying costs, and enhance operational proficiency and profitability.

### Days Payable Outstanding (DPO)

DPO represent the dues that the organizations owe to their vendors. It represents the amount that an organization needs to pay within a short period. The firms attempt to balance payments with the account receivables in maintaining the flow of cash to the maximum level. However, the organizations might delay payments as long as it is not possible to maintain positive ratings for credit along with building good relationships with creditors and suppliers (Oktavia & Indrati, 2021). Effective management of this component can help enhance the flow of cash, improve the management of liquidity, and strengthen the relationship with the vendors. In an ideal scenario, the average time of collecting receivables must be shorter than the average time in settling the payables for any company.

### Cash Conversion Cycle (CCC)

Cash represents the core part of any organization. It not only represents the bank balance or currency, but it comprises all of the organizational assets that could be immediately converted into cash whenever required. Effective management of this component can help in improving firm liquidity, reducing dependency on outside financing, and improving financial stability (Mawarni & Widodo, 2023). The cash conversion cycle represents a metric to address the needed days by a company to convert the spent cash on inventory into the cash received by selling the products. A shorter cash conversion cycle represents that the cash is tied in the inventory and account receivables. To improve the cash conversion cycle, organizations need to focus on increasing their account payables and reducing their account receivables and inventory.

Tauringana & Adjapong Afrifa, (2013) addressed that the existing research studies addressed the prevalence of the WCM throughout the CCC (cash conversion cycle) and its all components on the large-scale organization’s profitability by making assumptions that these firms have enough resources. They fail to address the significance of WCM and its component on the SMEs. Thus, this research mainly intends to examine and address the significance of working capital management and its elements (i.e. accounts payable, accounts receivable, cash, and inventory) on the SME's profitability. This research used a panel data regression analysis method with a questionnaire on the SMEs. The obtained survey results demonstrate that efficient management of the account receivables and account payables is essential to increase the profitability of SMEs. It has been also observed that accounts payable is more important for SMEs as compared to account receivables, whereas the cash conversion cycle and inventory are not imperative for SMEs' productivity.

## Role of Working Capital Management in Increasing SMEs' Profitability and Trends in Working Capital Management

Wali Ullah et al., (2018) state that working capital management is one of the most significant parts of the overall corporate financial management because it directly impacts the company’s profitability. As SMEs don’t have sufficient access to the long-term capital market, they emphasize realizing an efficient utilization of working capital management to ensure profitability. Thus, this study mainly intends to investigate the relationships and impact of WCM on the SMEs’ profitability. This research collected relevant data from 10 SMEs related to the textile industry from 2012 to 2017. A detailed literature has been conducted that addresses CCC (cash conversion cycle), INV (inventory), AR (account receivables), and AP (account payables) as are most important variables. These variables are tested against the measures of profitability, such as GOP (gross operating profit) and ROA (return on asset). The econometric analysis has a specific relationship between ROA and INV but does not have any relationship with the GOP. Financial debt and asset turnover are important for both ROA and GOP. CR (current ratio) is significantly associated with the GOP, not with ROA (Wali Ullah et al., 2018). These research findings strongly witnessed that effective WCM is necessary for SMEs to endure higher profitability.

Zhang, (2017), addresses working capital management as the most critical aspect of any organization’s financial management. It includes an efficient management of the organization’s current liabilities and current assets in ensuring that the company has appropriate liquidity to cover both immediate and lasting obligations. This research mainly intends to assess and explore the growing landscape of working capital management and its profound impacts on different industries. WCM could be represented as the backbone of an organization that faced significant market dynamics, technological advancements, and economic shifts in recent times. This research investigates the evolving trends in the practices of working capital management, such as cash flow strategies, digital tools, and optimized inventory management. In the currently growing business landscape, an effective understanding and adaptation of these working capital management trends is important for investors, policymakers, and professionals in making the most effective and informed decision while potentially navigating the varying topography of working capital management (Zhang, 2017). This research also addresses the influence of working capital management on the liquidity, financial health, and overall competitiveness of the organizations.

## Impacts of Working Capital Management on SMEs' Performance Factors Influencing Working Capital Management

Konak et al., (2016) state that WCM represents the sum of the current assets and owned assets by an organization. Working capital management can efficiently afford and maintain the short-term expenses of the company, including raw material, maintenance, labor, tax, repair expenses, general managerial expenses, and insurance emerging from the beginning to operating and maintaining the business operations. Organizations need to remain aware of the effects of WCM on their business performance. Thus, this research mainly intends to regulate the association between the WCM and the organizational performance of 29 out of 30 listed SMEs in the Borsa Istanbul Industry Index 2011-2014. Further, this research employed cross-sectional time series and OLS test methods. The obtained research findings address the negative association between the cash conversion cycle, net margin, and Short-term debt turnover days (Konak et al., 2016). Moreover, this research addressed that efficient working capital management like reducing the short-term debt turnover days can significantly impact the performance of SMEs.

Gill, (2011) argues that a well-organized management of the organization’s working capital is essential for maintaining their liquidity and profitability. A robust working capital management focuses on maintaining the finest balance between all of the working capital’s components. A robust working capital management represents a fundamental part of the overall business approach of any organization in creating and delivering excellent values to the customers, stakeholders, and shareholders. This research mainly aims to recognize and address the factors that largely influence the requirements and management of working capital. This research addresses these requirements of WCM as the least amount of desired resources for sufficiently covering all the usual expenses and costs for operating the business operations. This research takes a sample of about 166 firms in Canada listed on the Toronto Stock Exchange from 2008 to 2010. A non-experimental and correlational research design is applied in this study. The obtained research results denote that ROA (return on assets), OC (operating cycle), firm size, sales, and firm internationalization can significantly influence the organization’s requirements for working capital management. Further, the obtained research findings address that the firm size, sale growth, OC, and ROA significantly influence the working capital requirements in Canada’s service industry (Gill, 2011). Additionally, this research contributes to improving the awareness and understanding of best working capital management strategies among investors, financial management consultants, and financial managers.

## Performance Measurement Methods and metrics for SMEs

Stojkic & Bosnjak, (2019) state that each organization is unique in itself regarding the offered services or products, employees, customers, business strategy, experience, business values, business decisions, and profitability. These key traits play a crucial role in the successful implementation of the key enhancement initiatives and the significance of the level of the firm’s quality maturity. In the current globalization era information and knowledge are considered as the most vital factors in the success of any business. Organizations need to be capable and flexible enough in efficiently cope the uncertain market conditions while gaining a competitive edge. In recent times, the organization realized the significance of performance measurement by efficiently measuring and monitoring their performance, SMEs are very important for both domestic and overseas markets because they significantly contribute to economic development. However, SMEs face many challenges to compete with multinational organizations. Large-scale organizations have sufficient financial and human resources & expertise for efficiently procuring and implementing typical performance management systems to gain competitive advantages while ensuring relevancy with long and short-term business goals (Stojkic & Bosnjak, 2019). This research mainly intends to offer a detailed overview of various performance management methods, such as financial ratio analysis, benchmarking, employee performance analysis, consumer feedback, and key performance indicators to measure performance for SMEs.

Olaitan & Flowerday, (2017), argues the significance and increased recognition of the performance measurement. The increased influence of globalization and accelerated technological advancements realize drastic changes in conducting and managing businesses globally. Both public and private organizations focus on continuously measuring and monitoring their performance considering both non-financial and financial parameters. The increased pace of technological advancement and globalization’s impact led to comprehensive modifications in how businesses are conducted globally. The private and public firms identified robust systems for performance measurement to obtain competitive advantages. This research mainly intends to address the key metrics, such as financial performance metrics, operational efficiency metrics, employee productivity metrics, market performance metrics, and customer satisfaction metrics for assessing SMEs' performance. Further, a detailed literature review is conducted using content analysis and findings are validated on about 50 SMEs in Nigeria. The research findings realize a set of four most critical success factors, such as IT infrastructure, process ownership, continuous assessment, and customer-centric performance measure KPIs for the SMEs' performance measurement in developing economies (Olaitan & Flowerday, 2017). These factors are well-suited for the SMEs and are necessary for successfully benchmarking SMEs' performance against their business goals.

## Relationship between Working Capital Management and SME Performance

According to Chalmers et al., (2020), the business decisions that impact working capital management are critical for firms of all sizes because they significantly influence a firm’s liquidity. WCM shares a precise relationship with the performance of organizations. This research study mainly aims to analyze the correlation between working capital management and an organization’s performance. The elements that developed working capital further deepen this relationship. This research conducted a critical analysis of the SMEs listed in the BSE (Bombay Stock Exchange)’s IPO index for the duration of 6 years from 2012 to 2017. These firms are chosen considering two criteria. The first criterion is that the selected firms must have all the desired information throughout this research study and the second criterion is that they are not a part of any group. Following these two criteria, about 42 SMEs are selected and analyzed. The analysis results addressed a significant and negative correlation between the AR (accounts receivables), profitability, and NWC (net working capital). On the other hand, inventory and AP (accounts payables) are positively related to profitability. The obtained research results are enriched with the previous literature and offer empirical evidence related to the specific context. Additionally, these results are very helpful for SME managers and owners in making better financial decisions to strengthen working capital management.

Nkowane, (2024) argues that working capital management represents the administrative part to efficiently deal with all the aspects of a firm’s current liabilities and assets in reducing the probability of any organization to bankrupt along with increasing their return on assets. It can also be stated as the financial management approach to efficiently maintain the levels of current liabilities and assets for ensuring that the SMEs have enough flow of cash to meet short-term obligations. The optimization of SMEs’ liquidity using working capital management can improve the overall financial performance of SMEs. Further, effective working capital management also significantly reduces the requirement for external funding while avoiding the risks of liquidity shortages. They can also mitigate credit risks, liquidity risks, and operational risks by facilitating robust working capital management for enhancing SMEs' overall resilience against potential market fluctuations.

## Adopted WCM strategies by SMEs

According to Afrifa, (2013), most financial experts are aware of the term working capital management but it has very complex operations that are misunderstood by most financial experts. The difficulties in managing the working capital address that there is a need for an excellent level of knowledge and experience to easily utilize working capital management to improve firm performance. This research aims to conduct an in-depth investigation of the impact of posed qualification and experience by the managers on the adopted practices of working capital management in SMEs from the financial director’s point of view. A questionnaire analysis has been conducted on the about 248 SMEs listed in AIM (alternative investment market). Further, one-way ANOVA, T-test, and post hoc test have been employed on the obtained comebacks from 72 managers of the SMEs listed in AIM. The obtained findings addressed that organizational managers with great qualifications and more years of experience can better manage all of the WCM aspects and facilitate best WCM practices, such as routine monitoring of cash flow, enhanced inventory management, negotiated payment terms, streamlined account receivables, forecasting of working capital, efficient management of account payables, and so on.

### Routine monitoring of cash flow

This WCM practice can be used by SMEs to keep a continuous track of all the cash inflows and outflows within the company. They need to have a close eye on their entire cash flows to ensure the availability of sufficient liquidity to cover their day-to-day expenses related to office utilities, supplies, and employee payroll. This continuous track on the cash flow can let the SMEs in timely recognize any shortage of cash and implement suitable proactive measures for better addressing them to adjust the schedules of their payments and secure temporary financing for the company (Wang, 2023).

### Enhanced inventory management

The SMEs must have robust inventory management in optimizing their working capital management. For this purpose, they need to maintain an optimum level of inventory management to better fulfill the demands of customers while blocking excessive capital in unsold items. They can regularly audit their inventories, implement a Just-In-Time inventory system, and negotiate on the auspicious terms for reducing the carrying costs.

### Negotiated payment terms

The SMEs also need to enhance their flow of cash by negotiating the extended terms of payment with the vendors or suppliers. It can let them in better holding great control over the cash for a long duration before the settlement of their account payables to ultimately enhance liquidity. However, they can also realize a balance among the extended payment terms to ultimately maintain better relationships with the suppliers (Michalski, 2014). The SMEs can also take advantage of the offered discounts by the supplier's upfront payments.

### Streamlined account receivables

Effective management of the account receivables is essential for SMEs in shortening their cash conversion cycle and management of working capital. It comprises prompt invoicing followed by credit policies and overdue payments to reduce the risks of corrupt debts. SMEs can accelerate the inflows & outflows of their cash by streamlining the processes of account receivables to minimize the requirement of peripheral financing.

### Forecasting of working capital needs

SMEs can also take advantage by timely and accurately predicting their future needs for working capital management as per the seasonal demand patterns, projections of sales, and other relevant factors. These correct predictions of the requirements related to SMEs’ working capital can let SMEs better plan for their futuristic financial needs and avoid a shortage of cash flow (Rohanova & Kravchenko, 2020). This accurate prediction can also let SMEs in better recognizing the potential growth opportunities while tackling the associated financial issues or challenges.

### Efficient management of account payables

The SMEs can also focus on improving their timing to make payments to their suppliers to reserve the flow of cash. It can be achieved by SMEs by prioritization the payments following the relationships with the suppliers and taking benefit of the available discounts of the early payments. Moreover, the implementation of digital payment systems could efficiently streamline SMEs’ accounts payable processes and minimize administrative costs.

## Exploring the Role of Technology to Improve Working Capital Management and signicance of technological evolution

According to Habib & Mourad, (2022), organizations continuously strive to realize an exceptional utilization of the available limited amount of resources. The theory of resource allocation addresses that gulf companies select a cost-efficient distribution of organizational resources into different business activities. This study mainly intends to assess the effectiveness of WCM using different techniques, such as DEA (data envelopment analysis), Tobit regression, and MI (Malmquist index). This research proposes a novel DEA-Malmquist technology for analyzing the impacts of working capital management on these companies’ overall business performance. The obtained research results address that most of these companies utilize a conservative approach to working capital management. There are no statistical differences in the overall productivity scores. Organizations with effective WCM have better returns and income. The obtained research findings pose great implications for the financiers and investors who want to make investments in the companies (Habib & Mourad, 2022). These implications can also let the decision-makers utilize the best procedures and strategies for enhancing the working capital management strategies for enhancing the return on investment.

Khan et al., (2024) argue that the survival and long-term success of any company depends on the effectiveness of its working capital management. All organizations, including large-scale and small-scale depend on financial resources for efficiently running their business operations and reaching their business goals. Money is very important for companies and is referred to as the lifeblood for them. Without sufficient funding, no organization can attain its goals. One of the major challenges that organizations face is related to making their working capital management capable of handling all their financial activities. Thus, this research mainly aims to address the significance of technology adoption in enhancing the effectiveness of working capital management. The obtained research findings address that the adoption of technology can facilitate automatic invoicing & collections, reorganize inventory & procurement, integrate the firm’s data & systems, enhance transparency & collaboration, increase proficiency & agility, and increase security & scalability (Khan et al., 2024). This research addressed that the organizations that leverage the latest technologies can enhance their working capital management with great control over it while driving sustainable growth and maximizing consumer and shareholder values.

## Working Capital Management and Sustainability in SMEs

Macatumbas Corpuz & Bool, (2021) argues that the SMEs significantly contribute to providing employment and developing any country’s economy. This research mainly focuses on addressing and investigating the correlation between the practice of working capital management strategies used by SMEs and their sustainability. A correlational descriptive research design is utilized for this research and the desired research data is collected using a self-structured questionnaire which is tested on about 30 SMEs and authenticated through Cronbach alpha. The obtained research results addressed that most of the SMEs struggle to generate funding to run their routine business operations. They also have low social, economic, and environmental sustainability. Further, this research addressed that robust management of available cash can enhance the firm’s social and economic sustainability. On the other hand inventory management and account receivables are specifically associated with economic, environmental, and social sustainability.

## Working Capital Management in the IT and manufacturing Industries

According to OTOLA & GRABOWSKA, (2020), financial management represents an organization’s short-term and long-term decisions. Working capital management is crucial for any type of industry because it directly influences the organization’s operational proficiency and financial health. This research mainly aims to address the significance of working capital management in the IT industry and the working capital management strategies by the listed organization in the stock exchange of the IT industry. The gained insights related to the types of financing approaches by the organizations are matching. Aggressive, and conservative strategy. Further, this research conducted a critical analysis to address the relationship between the firm value and the use of WCM strategies. A robust working capital management in the IT industry can let organizations efficiently manage their cash flow, account receivables, account payables, inventories, debt, and associated business risks (OTOLA & GRABOWSKA, 2020). The obtained research findings addressed a positive but weak relationship between the organizational values and variables used to describe working management strategies.

Chris-Ejiogu et al., (2024), argues working capital management is a modest and straightforward notion to demonstrate the firm’s ability to fund the differences between the short-term liabilities and assets. This research mainly focuses on exploring the employed WCM approaches by the manufacturing industries in Nigeria and their impact on the firm’s values measured in EPS (earnings per share). This research employs a facto research design including a finalized sample of 9 quoted manufacturing companies. The independent variables comprise many strategies used for working capital management, such as account payable management, account receivable management, cash conversion efficiency, cash conversion cycle, current liabilities to the overall asset ratio, and current assets to the overall asset ratio. The obtained research results addressed the temporary and enduring impacts of WCM on the EPS. The long-term impacts address a significant but negative association between EPS and ARM (account receivable management). On the other hand, APM (account payable management) shows a non-significant but positive impact. CCC (cash conversion cycle) and INVM (inventory management) are positively related to EPS (Chris-Ejiogu et al., 2024). Moreover, this research suggests other organizations enhance their short-term corrective measures, such as responsive and agile strategies in the account receivables to ensure instant and robust impacts on their financial performance.

## Conceptual Framework

This research mainly aims to empirically investigate the impacts of WCM on the performance of SMEs for providing potential recommendations to the SMEs in developing robust practices and strategies in enhancing their working capital management to increase their profitability. This conceptual framework guides and determines the things for measuring statistical relationships for investigating the impacts of WCM on SMEs. Based on the conducted literature review, a conceptual framework is developed for ascertaining the impacts of working capital management on SMEs’ performance. This conceptual framework emphasizes assessing the impacts of the working capital management’s components, such as DSO (Days Sales outstanding), DIO (Days Inventory outstanding), DPO (Days Payable outstanding), and CCC (cash conversion cycle) on the performance of SMEs measured by NOP (net operation profit), ROA (return on assets), and ROE (return on equity).

This below-illustrated figure depicts the proposed conceptual model, which represents the components of working capital management as the independent variables and measures of SMEs’ performance as the dependent variables along with the control variables evaluated based on the SGW (sales growth), LEV (leverage), and SIZE (size of firms).

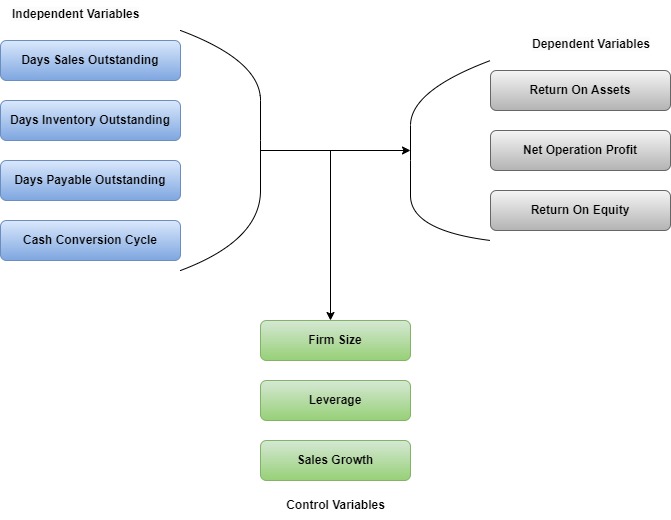


Figure : Conceptual framework

## Hypotheses Development

Following the above-illustrated conceptual framework, the below hypotheses can be developed concerning the research objectives and questions.

* **H1**: *The adopted key WCM strategies by SMEs significantly impact on their financial performance.*
* **H2**: *The key determinants of working capital management have significant impact on the performance of SMEs.*
* **H3**: *There is a significant relationship between the efficiency of working capital management and indicators of SMEs’ financial performance.*
* **H4**: *There are critical factors that might influence SMEs’ decisions for working capital management.*
* **H5**: *There are substantial impacts of WCM on SMEs’ performance.*

# Summary

This chapter conducted a critical review of the previously published and relevant literature to gain a better understanding of this research topic. This chapter provided a detailed discussion of various aspects related to working capital management and SMEs. This chapter included about 17 research papers to realize an in-depth understanding of this research topic. All research papers depict different themes related to this research topic.

# Chapter 3: Methodology

# Introduction

This chapter is based on a detailed conversation of the chosen methodology for this research study. It mainly focuses on outlining the research philosophy, research design, and research approach along with the employed methods for conducting this research to address the impacts of working capital management on SMEs' performance. This research chapter can serve as the roadmap to efficiently conduct this research while addressing how this research data will be gathered, analyzed, and interpreted for effectively addressing this research's aim and objectives. Here we will deliberate the chosen research philosophy, research approach, research design, research methods, methods of data collection, and data analysis methods. Further, the applicable ethical considerations in this research will also be discussed.

The methodology is a very important part of any research as it offers a systematic framework or roadmap to conduct a research study while ensuring the consistency, validity, and integrity of the obtained findings. It guides the whole research process from the creation of the research questions to the interpretation of the obtained research findings. It helps to select a suitable research design and approach as per research objectives and questions while outlining the data collection and analysis methods.

## Research Methodology and justification

Research methodology is one of the crucial parts of any research study. Schulenberg, (2007), addressed business research study as an efficient, systematic, objective, and critical study for addressing an issue and developing a potential solution. The main intention of this research is to examine and address the impacts of working capital management on SMEs’ performance. This research study addresses the used research methodology, including research design, research approach, target population, data collection methods, sampling method, and data analysis methods. The outlined research questions in this research are indications of the utilization of both research methodologies, (i.e. qualitative and quantitative) for seeking the convergence between working capital management and SMEs’ performance. This research used a **mixed research methodology** to better address the research aim following both quantitative and qualitative aspects of this research. This research methodology can offer vital insights related to the composite correlation between the performance of SMEs working capital management. This research methodology can facilitate an in-depth exploration of the complex phenomenon of this research and offer the most valuable research insights for the development of research theory and practical implications.

The **mixed** **research methodology** is very suitable for this research due to its ability to integrate qualitative and quantitative exploration to capture both contextual and numerical insights. Working capital management shares an intricate relationship with SMEs' performance, so the use of mixed research methodology can enable a deeper exploration of this relationship. The synthesis of collected numerical data can significantly reveal the underlying patterns and nuances that cannot be apparent using any methodology alone. Thus, this research methodology can efficiently explore diverse perspectives for ultimately improving the research finding’s validity and realizing detailed understanding to inform both practice and theory.

## Research Philosophy and justification

For this research, we used a **pragmatism research philosophy** that addresses objectivity in this research. This research philosophy does not influence the data collection and commences the objective analyst’s role to make unbiased research interpretations about the collected facts in this research (Kaushik & Walsh, 2019). This research philosophy can significantly recognize the key elements of working capital management while formulating effective guidelines for ensuring management efficiency. This research has been conducted to efficiently investigate the correlation between SMEs’ performance and the effectiveness of WCM. Pragmatism research philosophy establishes a causal relationship between working capital management’s components and measures of SMEs' performance through statistical methods and rigorous research design.

We use **pragmatism research philosophy** because it emphasizes realizing objectivity in the overall research to uncover the global principles and laws governing the research phenomenon. This research philosophy can align well with both quantitative and qualitative research methodologies to realize empirical statistical and thematic analysis. It can also substantially generalize the research findings beyond the specific research content by uncovering the research themes and patterns adhering to principles of pragmatism. In the context of working capital management, this research philosophy can disclose predictive relationships between the indicators of SMEs’ performance and financial variables. Further, it can also help in systematizing the research knowledge via quantification to improve the adequacy of the research parameters and their correlations.

## Research Approach and justification

In this research, we use a **deductive research approach**, which was chosen as per the developed conceptual framework, and made hypotheses to collect the most relevant data to this research and then validate the research hypotheses (Edgar & Manz, 2017). The developed conceptual framework creates a solid foundation for this research to address the intricate association between the performance indicators of SMEs and working capital management’s components. Then the relevant research data can be collected for empirically testing these hypotheses with the help of statistical analysis methods. Deductive reasoning will be used because it is suitable for pragmatism research philosophy and highly structured for better investigation of the relationship between SMEs' performance and working capital management.

The chosen **deductive research approach** is suitable for this study as it is very helpful in testing the existing concepts, hypotheses, and theories. This research approach can attain a great focus throughout the research concerning the research hypotheses for examining the intricate relationship between performance indicators of SMEs and working capital management’s components. Further, the testing of made research hypotheses on empirical data can help in drawing significant conclusions based on the extracted themes from the collected secondary data.

## Research Strategy and Justification

Research strategy represents an important process for providing a unique direction to the overall research while addressing and answering the research questions. Luger, (2020), argued that research strategy holds clear research objectives obtained from the crated research questions. The sources of data collection must be clear to effectively facilitate the research strategy. This research mainly intends to assess the complex correlation between WCM and SMEs’ financial performance. The most suitable research strategy for this research is a **multi-methods strategy**. Multi-methods research strategy is very beneficial because it can substantially facilitate triangulation across the obtained research findings.

This **multi-methods strategy** is suitable for this research as it helps in integrating the qualitative and quantitative methods to provide an inclusive understanding of the correlation between SMEs’ performance and WCM. It can help in triangulating the obtained research findings by comparing the acquired results from diverse sources to ultimately improve the consistency and legitimacy of the obtained research findings. It allows for conducting a nuanced analysis of the obtained research findings by combining qualitative and quantitative research data. It also offers an appropriate level of adaptability and flexibility in the chosen research design to tailor research methodologies to the research context, questions, and objectives.

## Data Collection Method and Justifcation

Data collection represents a process of collecting empirical research data to gain an in-depth understanding of the research. In this research study, we mainly focus on collecting secondary research data, including both quantitative and qualitative research data. The collection of secondary research data helps in saving time and resources required for data collection, besides the employment of the secondary research data is less expensive. In this research, we used an **SLR (systematic literature review) method** for the collection of both qualitative and quantitative research data for this research (Murad, 2020). This research method helps ensure a wider coverage of the previously published literature related to this topic for recognizing the key theories, concepts, and pragmatic findings. It follows a clear and reproducible procedure for enhancing the consistency and credibility of the research findings for validating the obtained results.

This research method is well-suited for this research study to conduct a comprehensive review of existing literature focusing on addressing the effects of WCM on SMEs’ performance. This method can let the researcher systematically evaluate the research quality while drawing potential conclusions. It realizes rigorous literature to let the researchers generate evidence-centric research insights to contribute to this research theory and practice.

## Data Analysis Methods and Justification

In this research, descriptive analysis is used to answer the selected research questions. The descriptive analysis method helps describe and compare the independent variables (working capital management’s components) and dependent variables (indicators of SMEs’ performance) numerically. It can let the researchers better present the research data while facilitating an easier data interpretation. Further, it can assess the specific impacts of the WCM components on the performance of SMEs. This data analysis method can be applied to investigate the quantitative research data and explain the obtained research findings. In the descriptive analysis, we will provide an analysis of different considered variables, such as DSO, DPO, DIO, CCC, NOP, ROE, ROA, SIZE, LEV, and SGW considering the parameters as unit, minimum & maximum values, mean, median, and standard deviation.

Moreover, the qualitative research data is analyzed using **thematic analysis**. We used thematic analysis because using this method, we can extract vital themes or patterns from the research by critically exploring the complexity and depth of the collected qualitative data. The thematic analysis comprises six stages, where in the first stage the researcher is familiarized with the collected research data. After familiarization with the research data, in the second stage, the researcher needs to make notes of the critical data sets and prior research ideas. At this stage, the initial codes are generated considering the theories related to working capital management. Terry & Hayfield, (2021) states that a code needs to be critically defined and not overlap with other codes, and logically fit in the context of the research. Also, coding should be manually done and labeling data sufficiently extract the pertinent codes and address the development of significant research themes. In the third stage, the generated codes should be critically analyzed for developing research themes. In this research, the developed conceptual framework will guide the process of theme development. These themes will offer significant relationships between the collected data and research questions. Further, sub-themes can also be created for realizing a comprehensive illustration of the main themes.

The use of **descriptive analysis methods** can help in better understanding the key characteristics of WCM and performance metrics of SMEs. **Thematic analysis** can significantly explore the qualitative aspects of this research. Overall the combination of these data analysis methods can better analyze both qualitative and quantitative research data while offering valuable research insights to better interpret the association between working capital management and SMEs’ performance.

## Ethical Considerations

According to Perera & Emmerich, (2018), ethical concerns are associated with the suitability of the approach to conducting the research in association with the rights of people who might be affected by this research work. Ethics also represent the behavioral codes appropriate to the research’s academics and management. This research emphasized appropriateness of this research’s conduct can significantly influence a comprehensive standard of behaviors. Thus, this research should address and adhere will all the applicable issues during this whole research while remaining careful about this research’s impact on providing access and association that might be influenced by this research outcomes.

This research has been directed by the Northumbria University code of integrity and ethical practices to easily follow the applicable procedures and principles to justify the research performance. This research needs to ensure that the secondary research data is attained and utilized according to the applicable guidelines and regulations of data protection. The confidentiality and privacy of the involved organizations or individuals in the included research should be respected. Also, all the necessary licenses and permissions should be taken for accessing and using the secondary data. The permission can be taken from the data owners, data providers, or other regulatory bodies. The credibility and reliability of all the used sources for secondary data collection must be carefully evaluated. All the collected research data should only be used for the specified research goals or objectives while avoiding an unethical utilization of the collected data. All of the methods, theories, and sources for this research should be clearly and transparently documented. All of the used sources need to be originally cited with a specified referencing style (Zimmerman & Blythe, 2021). Further, the intellectual property rights of the data owners, data providers, and other stakeholders need to be respected while adhering to the copyright rules and regulations. Moreover, this research needs to adopt potential steps for reducing any probable harm that might arise due to the utilization of secondary research by aggregating or anonymizing the data to protect the individual’s and organization’s identities.

# Summary

This research chapter offered a critical discussion of the selected research methodology for this dissertation. In this research, mixed-research methodology is used along with the pragmatism research philosophy, deductive research approach, and mixed-methods research strategy. Further, a systematic literature review data collection method is used for collecting both qualitative and quantitative research data for this research. Then descriptive statistics and thematic analysis methods are used for analyzing the collected research data. Finally, this research addressed and discussed the ethical considerations followed and adhered to throughout this research. In the next chapter, the obtained findings and results from this research will be discussed.

# Chapter 4: Results and Findings

# Introduction

This is another important chapter for this dissertation, which can serve as the most crucial component of the overall research dissertation as it discusses the obtained research results and findings. This chapter will provide a detailed overview and discussion of the collected research data, data analysis, and derived findings from this research. It will offer a well-structured analysis of research results and findings attained from different stages of data collection and data analysis. It begins with descriptive statistics to assess the influence of WCM on the SMEs’ performance. The gathered data will be examined and understood in shedding light on the formed research questions (Afrifa & Tauringana, 2015). The research findings are organized following the obtained research themes from the conducted thematic analysis to delve deep into this research and offer a comprehensive exploration of this research and its potential implications.

## Results

### Descriptive Statistics

According to the proposed conceptual framework, the working capital management’s components, such as DSO (Days Sales outstanding), DIO (Days Inventory outstanding), DPO (Days Payable outstanding), and CCC (cash conversion cycle) represent independent variables, whereas the indicators of SMEs’ performance, such as NOP (net operation profit), ROA (return on assets), and ROE (return on equity) represent dependent variables. According to the research hypotheses, the days sales outstanding, days inventory outstanding, and cash conversion cycle pose a negative impact, whereas days payable outstanding pose a positive influence on the SMEs’ profitability. Some control variables are also there, such as SGW (sales growth), LEV (leverage), and SIZE (size of firms) that control both dependent and independent variables. A sample of the SMEs was taken from the MSME (Ministry of Micro, Small & Medium Enterprises) directory. This research mainly focused on the SMEs related to major industries, such as textile, apparel, food products, machinery & equipment, and fabricated metal products (Bhattacharjee, 2024).

Table ‑: No. of SMEs and their industries

|  |  |  |
| --- | --- | --- |
| **Industries** | **No. of SMEs** | **Natural of business** |
| Textile | 20 | Make and sell clothes |
| Food products | 30 | Produce food items, restaurants, snacks, and beverages |
| Apparel | 25 | Manufacture and sell beauty, cosmetic, and fashion products |
| Machinery and equipment | 10 | Manufacture different machinery and their equipment |
| Fabricated metal products | 15 | Develop metal products like windows, doors |

The table represents the summary of the used variables’s descriptive statistics. This presented descriptive statistics comprises, unit, minimum, maximum, mean, median, and standard deviation of the considered variables for the SMEs in the taken sample.

Table ‑: Descriptive statistics

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **Unit** | **Minimum** | **Maximum** | **Mean** | **Median** | **Std. deviation** |
| DSO | Days | 25 | 40 | 32.5 | 32.5 | 10.6067 |
| DPO | Days | 15 | 25 | 20 | 20 | 7.0710 |
| DIO | Days | 45 | 60 | 52.5 | 52.5 | 10.6067 |
| CCC | Days | 55 | 75 | 65 | 65 | 14.1421 |
| NOP | Currency | 150000 | 300000 | 225000 | 225000 | 106066 |
| ROE | Ratio | 0.04 | 0.2 | 0.12 | 0.12 | 0.113137 |
| ROA | Ratio | 0.06 | 0.15 | 0.105 | 0.105 | 0.06364 |
| SIZE | Employees | 50 | 100 | 75 | 75 | 35.35534 |
| LEV | Ratio | 0.3 | 0.5 | 0.4 | 0.4 | 0.141421 |
| SGW | Ratio | 0.05 | 0.12 | 0.085 | 0.085 | 0.049497 |

The above-illustrated table depicts the descriptive statistics for the chosen 90 SMEs, including the components of working capital management (i.e. DSO, DPO, DIO, & CCC), performance indicators (i.e. NOP, ROA, & ROE), and control variables (LEV, SIZE, & SGW). The minimum and maximum values refer to the observed range in the chosen sample. The mean and median offer an initial understanding of each variable’s central tendency. The standard deviation addresses the data point’s variability across the value of the mean.

**Key Insights Related to WCM Components**

* The SMEs on average take 32.5 days in receiving payment from their customers, where they make payment to their suppliers early on an verage of 20 days. It might be due to the offered discount by the suppliers.
* The average day's inventory outstanding are 52.5 days, which is too high. It mights be due to that the SMEs always attempting to attain economic sales on their operations.
* Further, the average value of CCC is 65 days, which addresses the average taken time by SMEs to convert their working capital into cash (Afrifa & Tingbani, 2018). It is very high, which shows that the SMEs need to make more investment in their current financial assets.

**Key Insights Related to Performance Indicators**

* The average ROA is 10.5% and the ROE is 12%, which shows that SMEs can produce a reasonable return on the invested capital.
* The average NOP is $225000 addresses that most SMEs generate a good level of profitability.
* The average LEV is 4% which denotes that the involved SMEs have a higher level of debt than their equity.

**Correlation between SMEs’ Performance and WCM Components**

* A low cash conversion cycle is related to high profitability, which implies robust working capital management.
* Efficient accounts payable and accounts receivable management can lead to an enhanced flow of cash and increased profitability.

Table : Correlational analysis

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **CCC** | **AR** | **AP** | **INV** | **NOP** | **ROE** | **ROA** | **SIZE** | **LEV** | **SGW** |
| CCC | 1.00 | 0.85 | -0.65 | -0.80 | 0.90 | 0.40 | 0.50 | -0.35 | 0.50 | 0.55 |
| AR | 0.75 | 1.00 | -0.55 | 0-0.90 | 0.75 | -0.40 | 0.35 | 0.45 | 0.60 | -0.65 |
| AP | -0.60 | -0.55 | 1.00 | 0.75 | -0.45 | 0.25 | 0.65 | 0.45 | 0.25 | -0.15 |
| INV | 0.85 | 0.65 | -0.85 | 1.00 | -0.65 | -0.50 | 0.45 | 0.35 | 0.40 | 0.80 |
| NOP | 0.95 | 0.90 | 0.80 | -0.60 | 1.00 | -0.40 | 0.55 | 0.15 | 0.45 | 0.85 |
| ROE | 0.75 | 0.30 | 0.45 | 0.60 | -0.65 | 1.00 | 0.75 | 0.35 | 0.40 | -0.33 |
| ROA | -0.55 | -0.35 | 0.50 | 0.55 | -0.40 | 0.45 | 1.00 | 0.95 | 0.70 | 0.80 |
| SIZE | -0.20 | 0.35 | 0.40 | -0.33 | -0.19 | 0.41 | 0.86 | 1.00 | 0.71 | 0.55 |
| LEV | 0.75 | -0.45 | 0.15 | 0.65 | 0.85 | -0.35 | -0.15 | 0.86 | 1.00 | 0.70 |
| SGW | 0.60 | 0.85 | 0.45 | 0.25 | -0.65 | 0.35 | 0.40 | -0.23 | 0.25 | 1.00 |

From the above-illustrated table, it can be seen that the correlation among different variables is significant at 1.00, which denotes a perfect and positive relationship among variables. The components of working capital management, such as DSO, DPO, DIV, and CCC have significant and positive or negative relationships with the indicators of SMEs’ performance (Asif & Clement, 2022).

### Thematic Analysis

This thematic analysis has been conducted in six phases that are illustrated below.

**Phase 1: Data Familiarization**

The first phase of thematic analysis is data familiarization, where the researcher needs to actively engage and immerse in the collected research data through the recording of interactions and transcripts (Zheng et al., 2022). Here the researcher needs to deep delve to familiarize themself with each data aspect in attaining a robust base for the data analysis process.

**Phase 2: Generation of Initial Codes**

After the process of data familiarization, the researcher should identify and create the initial data codes to represent the most significant data features. These codes are helpful to grasp the key concepts, ideas, and patterns related to the created research questions. The initially generated codes should be more specific and provide a sign-off for the overall research context.

**Phase 3: Building Themes**

Table ‑: Coding table for thematic analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Research Article 1 | Research Article 2 | Research Article 3 | Research Article 4 | Research Article 5 |
| Title: Factors Influencing Corporate Working Capital Management: Evidence From An Emerging Economy | **Title**: The Impact of Working Capital Management on Firms Financial Performance: Evidence from Pakistan | **Title**: Do working capital management practices influence the investment and financing patterns of firms? | **Title**: Cash Flow Management Utilization by Small Medium Enterprises (SMEs) in Northern Uganda | **Title**: Working Capital Management of smes in covid-19: Role of managerial personality traits and overconfidence behavior |
| Citation: NASER, K., NUSEIBEH, R., & AL-HADEYA, A. (2013). Working Capital Management of smes in covid-19: Role of managerial personality traits and overconfidence behavior. *Journal of Contemporary Issues in Business Research*, *2*(1). | **Citation**: Tanveer Bagh, Nazir , M. I., Khan  , M. A., Khan , M. A., & Razzaq, S. (2016). The Impact of Working Capital Management on Firms Financial Performance: Evidence from Pakistan. *Journal of Economics and Financial Issues*, *6*(3), 1097–1105. | **Citation**: Akbar, A., Jiang, X., & Akbar, M. (2020). Do Working Capital Management Practices Influence the Investment and financing patterns of firms? *Journal of Economic and Administrative Sciences*, *38*(1), 91–109. https://doi.org/10.1108/jeas-07-2019-0074 | **Citation**: Uwonda, G., Okello, N., & Okello, N. G. (2013). Cash flow management utilization by Small and Medium Enterprises (SMEs) in Northern Uganda. *Journal of Accounting, Auditing, Economics and Finance*, *1*(5), 067–080. | **Citation**: Zheng, X., Zhou, Y., & Iqbal, S. (2022). Working Capital Management of smes in covid-19: Role of managerial personality traits and overconfidence behavior. *Economic Analysis and Policy*, *76*, 439–451. https://doi.org/10.1016/j.eap.2022.08.006 |
| * Operational strategy | * Inventory turnover | * Capital expenditure | * Cash flow forecasting | * Financial data analysis |
| * Knowledge management | * Account receivables | * Dividend payouts | * Credit control | * WCM practices |
| * Firm size | * Account payables | * Collaboration | * Budgeting | * Risk assessment |
| * Return on assets | * SMEs performance | * Inventory management | * Cash flow monitoring | * Openness |
| * Return on equity | * Liquidity | * Inventory turnover | * Data insights | * Risk aversion |
| * Leverage | * Solvency | * Debt financing | * Automation | * WCM decisions |
| * Growth opportunities | * Earning per share | * WCM components | * Cash flow research | * Conscientiousness |
| * Economic condition | * Profitability | * Equity financing | * Economic conditions | * Learning ability |
| * Cash conversion cycle | * Sale growth | * Credit policies | * Cash conversion cycle | * Knowledge sharing |
| * Strategic alignment | * Competitive edge | * Cash availability | * Net operating profit | * Adaptability |
| * Employee engagement | * Cash flow management | * SMEs profitability | * Account payables | * Risk tolerance |
| * Adaptive organizational culture | * Net profit ratio | * Cash inflows and outflows | * Inventory management | * WCM components |
| * Alignment | * WCM decisions | * Performance indicators | * Investment decisions | * Empirical analysis |
| * Operating cash flow | * Strategic vision | * Capital management | * Account receivables | * External factors |
| * Net operating profit | * Continuous improvement | * Risk aversion | * Inventory levels | * SMEs performance |

**Phase 3: Developing Themes**

After developing the initial codes for this research, similar types of codes are recognized and grouped into broad research themes or patterns. These research themes refer to the general ideas or perspectives from the collected research data (Akbar et al., 2020). It has been ensured throughout this phase that the relationships between initial codes and themes or sub-themes are visualized using the appropriate coding metrics or thematic maps.

* **Theme 1**:Ambiguity in working capital management
* **Theme 2**: Working capital management practices
* **Theme 3**: Cash flow forecasting
* **Theme 4**: Factors Impacting Working Capital Management
* **Theme 5**: Management operating style and traits

**Phase 4: Reviewing Developed Themes**

Then a comprehensive review of all the developed themes was conducted to recognize the suitable themes by following the process of associating, improving, separating, and removing the primary research themes. The extracted data from themes must adhere the meaningful and recognizable discrepancies (Zheng et al., 2022). Here the collected data has been revisited to validate these research themes in ensure that they are relevant and coherent.

**Phase 5: Naming and Describing the Themes**

In this phase, each selected theme is named and described in detail with its key traits or characteristics with supportive evidence from the collected research data. At this phase, an in-depth analysis has been obtained of all the developed themes for emerging an integrated story.

Table ‑: Naming and describing the themes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Theme 1: Ambiguity in working capital management** | **Theme 2: Working capital management practices** | **Themes 3: cash flow forecasting** | **Theme 4: Factors Impacting Working Capital Management** | **Themes 5: Management operating style and traits** |
| * Uncertainty | * Cash flow forecasting | * Scenario planning | * Company growth | * Financial discipline |
| * Data dependency | * Inventory management | * Predictive analysis | * Economic conditions | * Risk aversion |
| * Balancing acts | * Account payable management | * Performance monitoring | * Financing options | * Adaptability |
| * Industry dependency | * Account receivable management | * Contingency planning | * Industry practices | * Strategic planning |
| * Continuous monitoring | * Performance measurement | * Business strategy | * Supplier relationships | * Communication & collaboration |

**Phase 6: Write up**

In this phase of thematic analysis, all research findings will be appropriately produced into an inclusive narrative. The developed research themes are combined with the relevant data for interpreting the potential explanations aligned with the research objectives and questions.

* **Theme 1: Ambiguity in working capital management**

The first theme is based on the uncertainty in WCM at SMEs. This theme will reveal the prevalent significance of ambiguity in the field of working capital management. The SMEs may face uncertainties and difficulties while making the necessary business decisions related to financial stability, liquidity, and cash flow management. The obtained research findings address that the associated issues or challenges with effective management of working capital require an accurate forecast of changing market conditions and operational dynamics (Uwonda et al., 2013). The SMEs need to develop robust management strategies for their working capital while mitigating the associated risks.

* **Theme 2: Working capital management practices**

The second research focused on addressing the best practices that can be used by SMEs in realizing robust working capital management. This theme will focus on different employed practices by SMEs in efficiently managing their working capital. Currently, inventory management has increasingly emerged as the most crucial factor with the approaches to reduce the associated costs, optimize the inventory levels, and reduce the stockouts for improving the operational proficiency and firm’s liquidity. The days payable outstanding and days sales outstanding significantly improve the trading terms, accelerate the cash collection, and strengthen the payable terms for improving the management of cash flow.

* **Theme 3: Cash flow forecasting**

This theme is based on the forecast of any firm’s cash flow during a certain period. The research findings disclose that there are many approaches and techniques used by SMEs in correctly estimating the inflow and outflow of cash in the future, comprising scenario modeling, data analysis, and project probable market projections (Bagh et al., 2016). Scenario planning and analysis increasingly evolved as a critical tool to assess the influence of diverse marketing conditions and scenarios on the requirements of working capital management. Further, sensitivity analysis also emerged in better forecasting the relevant variables to let the SMEs proactively recognize the opportunities and risks.

* **Theme 4: Factors Impacting Working Capital Management**

This theme is based on the identification and discussion of the factors that might influence working capital management. The requirement and management tactics of WCM are largely influenced by external factors, such as industrial trends, macroeconomics, and business cycle segments. The SMEs’ financial performance and liquidity management are significantly impacted by economic variables, such as GDP growth, interest rates, and inflation. Also, the days payable outstanding, days sales outstanding, days inventory, cash conversion cycle, and competition pose significant opportunities and challenges in working capital management for SMEs.

* **Theme 5: Management operating style and traits**

This theme is based on addressing the role of management operating traits and styles in working capital management (NASER et al., 2013). The organizational culture, leadership strategies, business values, and decision-making abilities largely influence the effectiveness of working capital management. A robust leadership and managerial strategy can foster a culture of collaboration, discipline, and innovation for influencing the organizational personnel’s attitudes and abilities in optimizing the performance of the working capital management.

# Summary

This chapter is based on presenting and discussing the obtained results and findings from this research. Here we first presented the selected SMEs from the MSME sample. Then we provided descriptive statistics for all selected variables in the developed conceptual model along with the obtained key insights from the SME’s performance indicators and WCM components. Then we presented a detailed discussion of the conducted thematic analysis for the developed research themes

# Chapter 5: Discussion of findings and results

# Introduction

This chapter provides a critical discussion of the obtained results and findings in this research. It is one of the pivotal research phases, where we transition from the realm of collection and analysis of research data to data interpretation and synthesis. This chapter will embark on an in-depth exploration of the gained insights related to WCM, its impacts on SMEs’ performance, and the relationship of its components with the performance indicators of SMEs. Further, it will uncover the underlying research dynamics to shape the relationship between the practices of WCM and SMEs’ financial performance. The obtained research findings will be discussed based on the initially specified research objectives.

## Discussion of Results

### Descriptive Statistics

From the obtained descriptive statistics from Table 2, it can be seen that the value of return on equity and return on assets are 12% and 10.5% respectively (Japari, 2017). It states that the SMEs in the taken sample are cost-efficient in producing more profit through their business operations by appropriately deploying and using their assets. The maximum value of the return on assets and return on equity are 15% and 20%, respectively. It addresses that the SMEs in textile, apparel, food products, machinery & equipment, and fabricated metal products have shown a great return on equity with the maximum value.

The SMEs often receive their expense from the customers on an average of account receivables of 135 days, whereas they make upfront payments to their vendors and suppliers on an average of accounts payable of 55 days before receiving payments from the customers. It might be due to the offered discounts by the vendors and also SMEs not depending on the traded debt with the abundant support and initiatives from the government funding for their business operations. The minimum and maximum account receivables from the customers are 1200 and 1500, respectively, whereas the minimum and maximum account payables from the suppliers are 300 and 800, respectively.

The average value of inventory is 900, which is very high. As it is very high, it might be possible that SMEs focus on attaining economies of scale across their business operations (Zhang, 2017). However, this higher level of inventory may cause redundant costs for the companies i.e., fixed costs might impact the SMEs' profitability. The maximum and minimum values of the inventory for these SMEs are 1000 and 800, respectively.

Moreover, the mean value of the cash conversion cycle is 37.5 days which is an acceptable level. However, there is a need for SMEs to increase little bit investment in financing their current assets to reinforce their profitability. The maximum and minimum values of the cash conversion cycle are 45 and 30 days respectively. (Meryem BELLOUMA, 2011).

### Pearson correlation

A Pearson correlation test has been conducted to examine the relationship between the considered dependent and independent variables. In Table 3, a correlation analysis has been demonstrated for all of the used variables in this research. This table addresses that the account receivable component of working capital management has a negative relationship with the dependent variables, such as net operating profits, return on assets, and return on equity, whereas the account payable component shares a positive relationship with these dependent variables (Meryem BELLOUMA, 2011). Further, the cash conversion cycle and inventory components of working capital management also share a negative relationship with these dependent variables, such as operating profits, return on assets, and return on equity. Moreover, the accounts payable and accounts receivable have a correlation of 0.745, whereas the inventory and cash conversion cycle have a correlation of 0.935. These obtained correlations are statistically substantial at the level of 1%. Other independent variables have poor correlations that are statistically critical at the 0.5% and 1% confidence levels.

## Discussion of Findings

In this section, a detailed conversation of the obtained findings from this research will be provided concerning the research objectives and illustrated best practices to enhance the SMEs’ performance.

**Hypothesis 1**: *The adopted key WCM strategies by SMEs significantly impact on their financial performance.*

This research intends to assess and analyze the key practices adopted by various SMEs for strengthening their WCM aspects. From this research, it has been observed that there many ways are using which SMEs can improve the management of their working capital. The WCM requirements are closely associated with the performance measures of the SMEs. The SMEs increasingly focus on utilizing best practices, such as inventory control, cash flow management, account payable or receivable management, and temporary financing approaches for WCM to enhance their overall performance (Afrifa, 2013). The SMEs depend on the revenue and sales for determining their requirements of working capital management to offer potential values for their stakeholders and shareholders. The firms need to give priority to competency management to meet their set business goals or objectives. The SMEs significantly contribute to enhancing the company’s profitability, liquidity, and overall monetary performance. The robust cash management practices, inventory management practices, and trade management practices significantly contribute to the performance enhancement of SMEs.

**Hypothesis 2***:* *The key determinants of working capital management have significant impact on the performance of SMEs.*

This research also intends to identify and analyze the key determinants to strengthen the working capital management of SMEs. The nature of the business activities of the firms is very significant and correlated with the firm’s performance. For instance, textile firms spend on current assets and static assets, whereas apparel firms only invest in current assets because they don’t have similar needs of working capital management as textile firms. Sales growth represents one of the most crucial determinants of WCM in the SMEs. The poor working capital management led to ambiguity due to a lack of control over used methods and competencies. Many economic and non-economic variables are there that help in measuring SMEs' performance (Elbadry, 2018). Further, efficient control over the inventory, cash, accounts payable, and accounts receivable are key factors for WCM. An effective strategy for debt management can significantly improve the firm’s sales by influencing credit schemes, taxation, and operational efficiency.

**Hypothesis 3**: *There is a significant relationship between the efficiency of working capital management and indicators of SMEs’ financial performance.*

This research objective aims to assess the relationship between working capital management and the indicators of SMEs’ financial performance. This research deeply explored the effects of the WCM’s components on the SMEs’ performance. A robust working capital management can enhance the firm’s performance, which can be reflected through their return on equity, return on assets, and net operating profit. The obtained research findings addressed that robust working capital management enhances the performance of firms. The use of excellent WCM practices for better managing the firm’s liquidity can help the firms in meeting their financial obligations. The companies largely focus on reducing this cash conversion cycle by taking upfront payments and providing significant discounts on them (de Carvalho, 2019). The robust working capital management practices can significantly decrease the cash conversion cycle and enhance various WCM levels for efficiently meeting SMEs’ requirements.

**Hypothesis 4**: *There are critical factors that might influence SMEs’ decisions for working capital management.*

This research objective emphasizes identifying and assessing the most crucial factors that might impact SMEs’ working capital management decisions. The four components of WCM, such as return on assets, inventory, cash conversion cycle, and return on equity significantly impact the SME’s decisions for effectively managing their working capital. The account receivables and account payables greatly influence the SMEs’ profitability. An optimum stage of working capital can realize an equilibrium between its effectiveness and associated risks by keeping a systematic analysis of the WCM’s components (Mufti et al., 2023). The different working capital measures, such as inventory turnover ratio, net trade cycle, cash conversion cycle, and working capital turnover ratio explain the divergence between SMEs’ performance and working capital management. The cash conversion cycle has a negative relationship with SMEs’ performance which emphasizes developing short cash conversion cycles in reducing their dependency on external funding sources.

**Hypothesis 5**: *There are substantial impacts of WCM on SMEs’ performance.*

This research objective focuses on identifying the most crucial components of working capital management that might influence the performance of SMEs. This research utilized return on assets and return on equity which are useful in measuring the financial performance of SMEs. There are multiple aspects, such as inventory control, cash flow management, and accounts receivable and payable that might impact SMEs’ performance. The components of WCM strongly correlated with the KPIs (key performance indicators), such as solvency, profitability, and liquidity to support the extracted data patterns (K. Chalmers et al., 2020). The industrial benchmarks and practices can support the performance results of SMEs with the changing stages of working capital management. The use of robust working capital management can significantly enhance the utilization of resources, streamline business operations, and mitigate financial constraints while exploiting significant growth opportunities for SMEs.

### Comparison with prior research

The obtained research findings offered the most valuable and important insights that aligned with prior research. These research findings addressed that the Days Sales Outstanding have a negative relationship with the SMEs’ profitability which aligns with the research conducted by Afeef, (2023) and Almazari, (2014). It addresses that effective management of DSO can result in a shorter time of collection that eventually enhances SMEs’ performance. On the other hand, these research findings address a positive correlation between the Days Inventory Outstanding and profitability consistent with the research studies conducted by Rumyantsev & Netessine, (2007).

However, some of the results and findings are different from prior research. For example, this research does not address any significant impact of Days Payable Outstanding on the SMEs’ profitability which contrasts with the findings of research conducted by Nwakaego, (2016), who addresses a positive correlation. This discrepancy might be due to varying factors, such as the type of industry or considered sample for research. Moreover, these research findings address the limited influence of the Cash Conversion Cycle on SMEs’ profitability which differs from studies like (Lin et al., 2016), (Mawarni & Widodo, 2023). It addressed a crucial need for a more nuanced understanding related to the interaction of CCC with the other components of WCM and its influence on SMEs’ performance.

# Summary

This research chapter presented a critical conversation of the obtained research results and findings of this research. Here we first discussed the obtained descriptive statistics from this research concerning the selected independent variables, dependent variables, and control variables. Finally, we presented and critically discussed the obtained research findings based on the specified research objectives in this research to ensure that the findings align with the research objectives.

# Chapter 6: Conclusion and Recommendations

# Introduction

This chapter is based on concluding this overall research dissertation by summarizing key project activities, findings, and results from this research. It can serve as an inclusive synthesis of the research results and findings by providing an in-depth analysis and understanding of this research topic and its importance. Here first we will conduct this dissertation by summarizing the obtained key results and findings considering the research objectives and questions. Then the implications of this research will be discussed along with addressing the limitations posed by this research. Further, most actionable recommendations will be provided to overcome these limitations. Finally, key research directions will be discussed to further proceed with this research in the future.

## Conclusion

This research critically addressed and demonstrated the importance of WCM in improving the SMEs’ performance. This research offered critical insights related to WCM to improve the SMEs' profitability and overall performance. This study argued the role of WCM in enhancing SMEs’ financial stability, management of cash flow, and overall monetary performance. This research addressed and critically interpreted the complex association between the SMEs’ performance and WCM along with discussing the factors that influence WCM and best practices that could be used by the SMEs in improving their working capital management. The SMEs’ management and employees also play an important role in realizing robust WCM and further strengthening it to enhance the overall financial management in SMEs. Many SMEs leveraged technologies and innovation behaviors to ultimately attain robust working capital management.

This dissertation has been divided into six main chapters, including introduction, literature review, research methodology, results & findings, discussion of research & findings, and conclusion & recommendations. In the first chapter, this dissertation was comprehensively introduced, including the background information, problem statement, aim & objectives, research questions, research scope, research rationale, research significance, and report structure. Then in the second chapter, a critical literature review was conducted to gain a better understanding of this research topic along with its different aspects. These existing research studies presented different research aspects and themes. The third chapter provided a detailed discussion of the chosen mixed research methodology along with the pragmatism research philosophy, mixed-methods strategy, deductive research approach, systematic literature review data collection method, descriptive, and thematic methods for data analysis. The fourth chapter discussed the obtained results and findings from this research, where descriptive statistics for the considered independent, dependent, and control variables and five key research themes. Then in the fifth chapter, a critical discussion of the obtained research results and findings was provided. Finally, in the sixth chapter, this dissertation is concluded along with summarizing the whole research, addressing limitations, recommendations, and future avenues.

This research conducted a critical review of the existing and relevant literature to analyze previous work and assess the used methods, concepts, and theories in their respective research. It helped a lot in better understanding the complicated relationship between the WCM and financial performance indicators of SMEs. Further, we also analyzed their methodologies to select a better and efficient research methodology for this research. This research also addressed and critically discussed best WCM practices or strategies that could be used in strengthening working capital management. The identification of key determinants of WCM can better guide SMEs in effectively managing their working capital to improve their performance. Further, the key factors that influence SMEs’ decisions about their working capital management are discussed which can be helpful for better working capital management.

Moreover, this research critically argued the crucial role of effective WCM in influencing SMEs' financial performance and sustainability while addressing the role of accounts receivable, accounts payable, cash conversion cycle, and inventory management to significantly impact SMEs' liquidity and profitability. This research addressed the role of several factors, such as firm size, industry traits, managerial styles, and market fluctuations to devise personalized approaches for SMEs in optimizing the proficiency of WCM. This study also addressed the significance of efficient cash flow forecasting to effectively manage working capital whole better predict the SMEs' needs for external funding. Moreover, this research explored specific management operating traits and styles to influence SMEs' decisions for their working capital management.

Overall this study largely focuses on improving the existing body of available knowledge and research by offering vital insights to address and interpret the intricate relationship between SMEs’ performance and WCM. Further, it provides the most effective and actionable recommendations to the policymakers and SME managers based on the identified key factors, drivers, practices, and challenges for enhancing their SMEs’ competitiveness and sustainability.

## Research Limitations

However, this research efficiently addressed and argued the vital role of WCM in enhancing SME performance and addressed the intricate relationship between them but this research also posed some limitations. The first limitation is related to the sample of SMEs from MSME, which might limit its generalizability to a comprehensive context of SMEs. Also, the restriction to access the SMEs’ data and financial records posed challenges to collecting sufficient and high-quality research data. This restricted access might impacted the adequacy and consistency of the conducted analysis. The mixed research methodology provided vital insights for this research but it posed few limitations related to biases in the collection & analysis of data and interpretation of the research findings. External factors, such as industrial trends, economic conditions, or regulator changes that are not in the control of the researcher might influence the obtained research findings. Moreover, the obtained research findings are specifically related to the considered context and might not apply to all SMEs operating in diverse locations and industries.

## Research Implications

The implications of this research are very complex and extended to many stakeholders related to this research, such as researchers, SMEs, financial institutions, and policymakers. Some of the key research implications are as follows.

* The obtained research findings offer vital and valuable insights to the SMEs’ managers and owners related to the significance of robust WCM for improving SMEs’ decisions regarding financial resource optimizations for improving their performance.
* The research findings can be used by policymakers in formulating the best initiatives and policies to better support SMEs in optimizing their working capital management by providing enough access to different financing options, initiatives, and training (Bekteshi et al., 2021).
* Financial institutions can adopt these research findings to develop personalized lending services or products for better fulfilling the SMEs’ needs for WCM.
* The obtained research insights can also be used by the investors in better assessing the SMEs’ financial health and overall performance considering the WCM’s components.
* The obtained research findings and provided key future avenues can be used by other academic researchers in further proceeding with this research and applying these findings to diverse industries and geographic locations.

## Recommendations

* The SMEs should develop and deploy robust systems to monitor and manage their working capital by regularly reviewing their cash flow, account receivables or payables, and inventory levels.
* They need to deploy advanced methods for cash flow forecasting to correctly forecast the futuristic cash flows for better financial planning and resource allocation.
* They can adapt effectual inventory management methods, such as Just-In-Time inventory system for optimizing the inventory levels and reducing the associated costs.
* They should facilitate potential measures for accelerating the collection of account receivables and optimizing the account payables for improving the overall flow of cash.
* They should focus on increasingly investing in technological solutions, such as ERP systems, accounting software, and digital financial management tools for better streamlining the processes and improving the overall proficiency of working capital management (Montero-Romero & Cordobés-Madueño, 2015).
* The managers and owners of SMEs should get the necessary education and training related to the effectual working capital management strategies and practices to correctly utilize them.
* The SMEs also need to seek advice and feedback from financial consultants and advisors for developing personalized strategies for their working capital management following specific circumstances and requirements along with conducting regular audits to identify the areas that need further improvements.

## Future Research Avenues

Future studies can assume and trail the avenues illustrated below for further proceeding and improve this research.

* Future research can focus on conducting longitudinal research studies to examine the long-lasting impacts of the diverse strategies and practices used for WCM on the performance and sustainability measures of SMEs.
* They can also emphasize examining the impacts of industry-centric factors on working capital management because diverse industries have different cash conversion needs, operating cycles, and risk profiles. An effective analysis of these factors can significantly influence the used strategies in working capital management to realize valuable insights.
* They can identify and compare the used working capital management practices across diverse industries to conduct an inclusive investigation of the WCM across diverse industries for ultimately identifying the industry-centric patterns and trends.
* Future research should emphasize exploring and analyzing the role of technologies, such as artificial intelligence, blockchain, and big data to strengthen the supply chain visibility, inventory management, and accounting practices for ultimately optimizing the WCM and enhancing the SMEs’ overall performance (Ozmen & Bora, 2023).
* Future research studies can emphasize studying the influence of robust working capital management on improving SMEs’ access to external funding or financing by improving their creditworthiness for their business growth and expansion.
* Future studies can also focus on conducting cross-cultural research studies in comparing the used practices of WCM and indicators of financial performance across diverse business atmospheres and cultural contexts and how the cultural values & norms influence SMEs’ decision-making for their working capital management.
* Future studies can also examine the precise correlation between the SMEs’ practices of WCM and initiatives of environmental sustainability and the impacts of government regulations and policies on the SMEs’ working capital management and overall performance.

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# Appendix

## Reflection

This research mainly focused on addressing the impacts or effects of working capital management on the performance of small & medium enterprises while addressing the intricate correlation between them. This research deep-dived to address and analyze the effects of WCM on SMEs’ performance by demonstrating the best practices to enhance working capital management, factors that impact the relationship between SMEs’ performance and WCM, and key determinants that strengthen a firm’s working capital management.

The process of conducting any research thesis or dissertation is full of challenges and learnings. This experience is full of learning, insights, and challenges for me with a culmination of in-depth research and analysis. I am feeling obliged to get this opportunity to enroll in this dissertation and contribute my knowledge, expertise, and efforts in this research field.

One of the key takeaways attained from this research exertion is the identification and awareness of the critical role played by working capital management to shape the SME’s financial management, profitability, productivity, and overall performance. From the conducted extensive literature review and empirical research analysis, I recognized that careful consideration and management of the WCM components, such as accounts payable, accounts receivable, inventory, and cash conversion cycle is necessary for the SMEs and they pose a profound influence on the liquidity, profitability, and overall financial performance. It further emphasizes the need for robust WCM practices and strategies for SMEs to seek growth and success in the current dynamic business atmosphere.

Further, this process of conducting a detailed research thesis largely improved my knowledge about different research methodologies, research approaches, and research designs along with the data collection and data analysis methods. Here I learned a lot of things ranging from setting appropriate aims & objectives to creating effectual research questions, selecting the best methods to collect research data analyzing the collected data in both quantitative and qualitative forms, conducting descriptive analysis for quantitative data, and thematic analysis for qualitative data. I found each step of this research dissertation provided valuable knowledge and learning with a great experience. Furthermore, the engagement with the academic literature and synthesis of existing literature largely broadened my perspectives improved my crucial thinking abilities, and let me efficiently assess different research concepts, theories, and empirical research findings within the context of this research topic.

Despite the strengths and best parts of this research, it is also important to acknowledge and address the encountered challenges and limitations throughout this dissertation. This research posed limitations related to the taken sample from MSME, restrictions over the financial data of SMEs, limitation of the research scope, and generalizability & applicability of the research findings. Moreover, the navigation of the faced complexities during the conducted statistical analysis and interpretation of the desired research results need careful consideration and attention to the commitment of research toward precision and rigor.

I am very happy and satisfied with this experience and my contributions made throughout this research. Also, I am highly obliged for the assistance and support from my supervisor, teachers, peers, and mentors. As I embark on the subsequent phase of my academic journey, I am confident that the knowledge, learnings, skills, and insights from this experience will surely contribute to both my professional and personal development.