

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI**

**WORKING CAPITAL MANAGEMENT AND FINANCIAL PERFORMANCE
OF LISTED NON-FINANCIAL FIRMS IN GHANA**

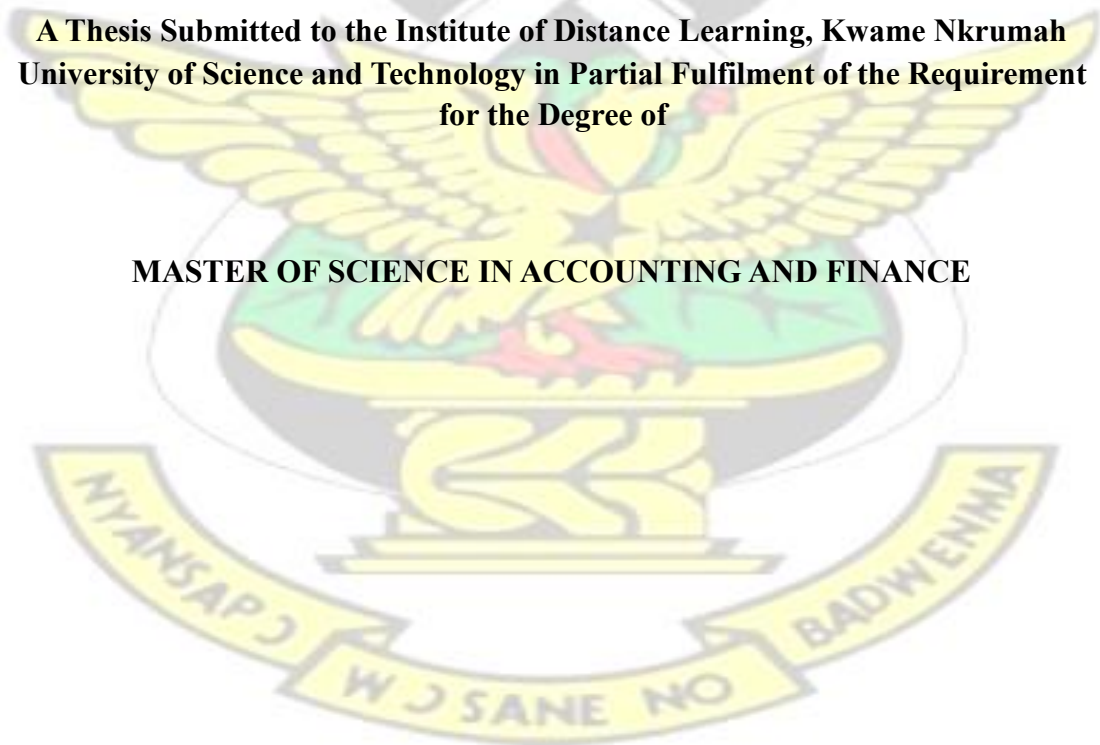
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**A Thesis Submitted to the Institute of Distance Learning, Kwame Nkrumah
University of Science and Technology in Partial Fulfilment of the Requirement
for the Degree of**

MASTER OF SCIENCE IN ACCOUNTING AND FINANCE



**NOVEMBER 2023
DECLARATION**

I hereby declare that this is my own work towards the award of Master of Science Degree in Accounting and Finance and that to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree in this University, except where due acknowledgement has been made in the text.

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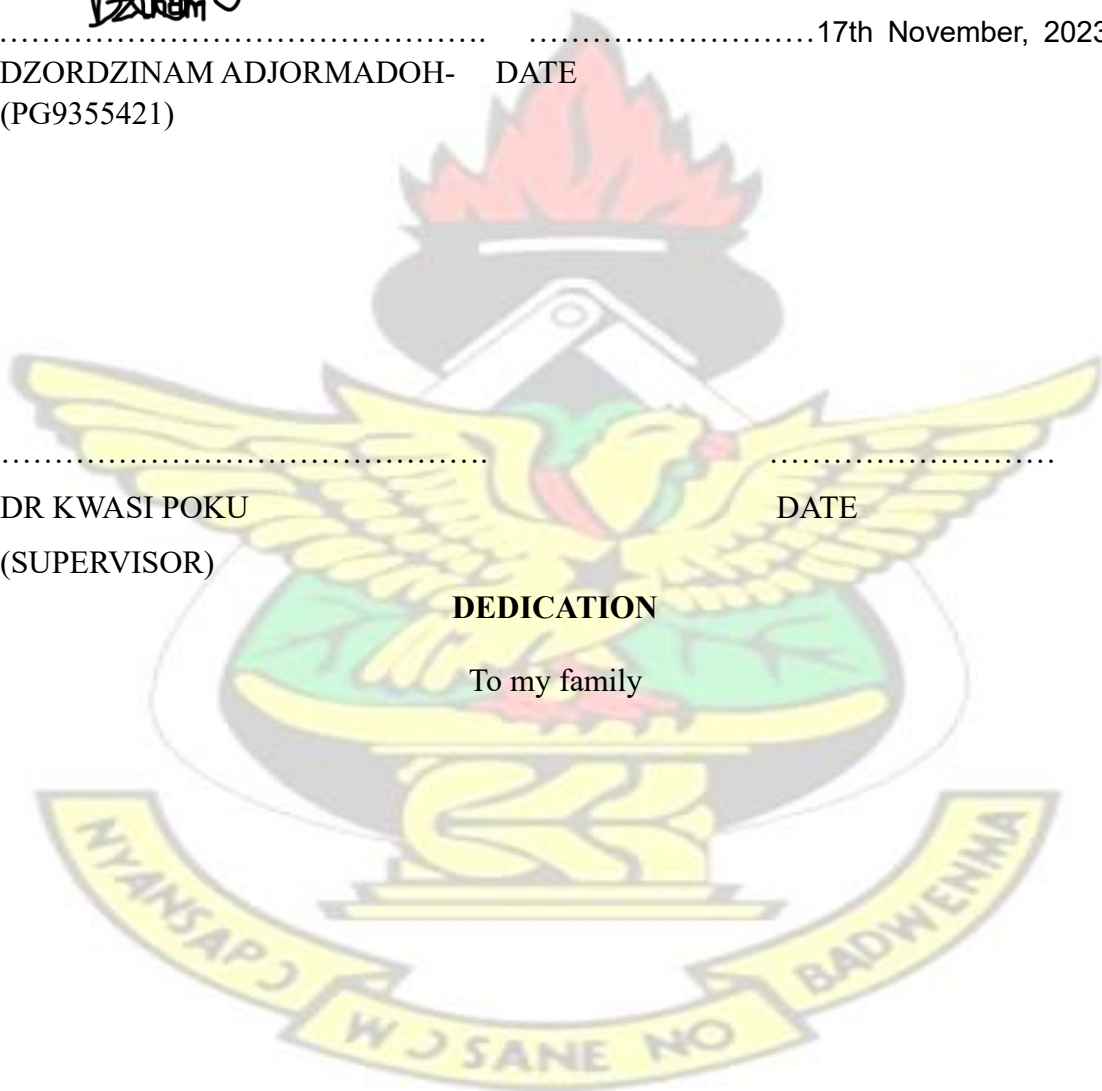
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DATE

DEDICATION

To my family



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ACKNOWLEDGEMENT

I would like to extend my heartfelt appreciation and deep gratitude to my esteemed research supervisor, Dr. Kwasi Poku. Under his exceptional guidance, I have been fortunate to experience an unparalleled student-supervisor relationship that has truly shaped my academic journey. Dr. Poku's unwavering patience, constructive criticism, and genuine passion for my success have been instrumental in the preparation of this thesis. I am truly grateful for the time and dedication he has invested in me, and I consider myself fortunate to have had the privilege of being his student.

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academic journey. To my immediate family, you are simply the best, and I am forever grateful for your love and unwavering support. May the Almighty God bless you abundantly and reward your sacrifices with multiplied blessings.

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ABSTRACT

The study examines the effect of working capital management on the financial performance of non-financial firms listed in Ghana. The research adopts a quantitative research methodology, specifically a causal research design guided by the positivist paradigm. The study utilizes secondary data from the financial statements and annual reports of 22 non-financial firms listed on the GSE between 2001 and 2021. The Generalized Method of Moments model was employed for data analysis, considering the interdependence of variables and potential endogeneity issues. The study reveals important relationships between working capital management and financial performance indicators. A longer collection period is associated with improved financial performance but a lower market value, while a longer payment period to suppliers is linked to higher profitability but a lower market value. Cash conversion efficiency has mixed relationships, with a positive but statistically insignificant correlation with financial performance and a negative correlation with market value. Additionally, a shorter cash conversion cycle is associated with higher profitability and market value (Tobin's q). Based on the findings, the study recommends for non-financial firms in Ghana include optimizing days sales outstanding, managing days payment outstanding strategically, enhancing cash conversion efficiency, shortening the cash conversion cycle, considering the trade-off between liquidity and financial performance, and establishing a system for continual monitoring and analysis.

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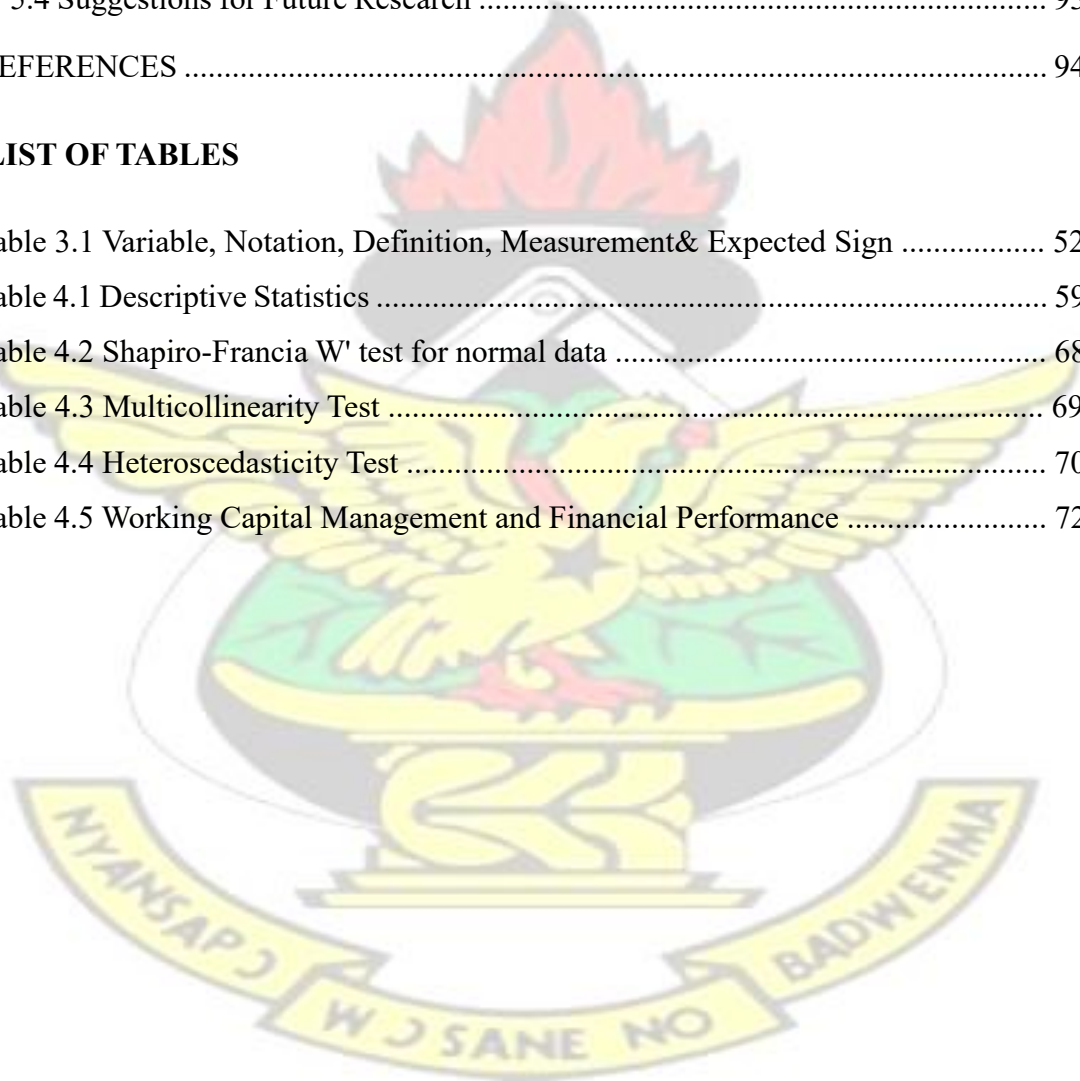
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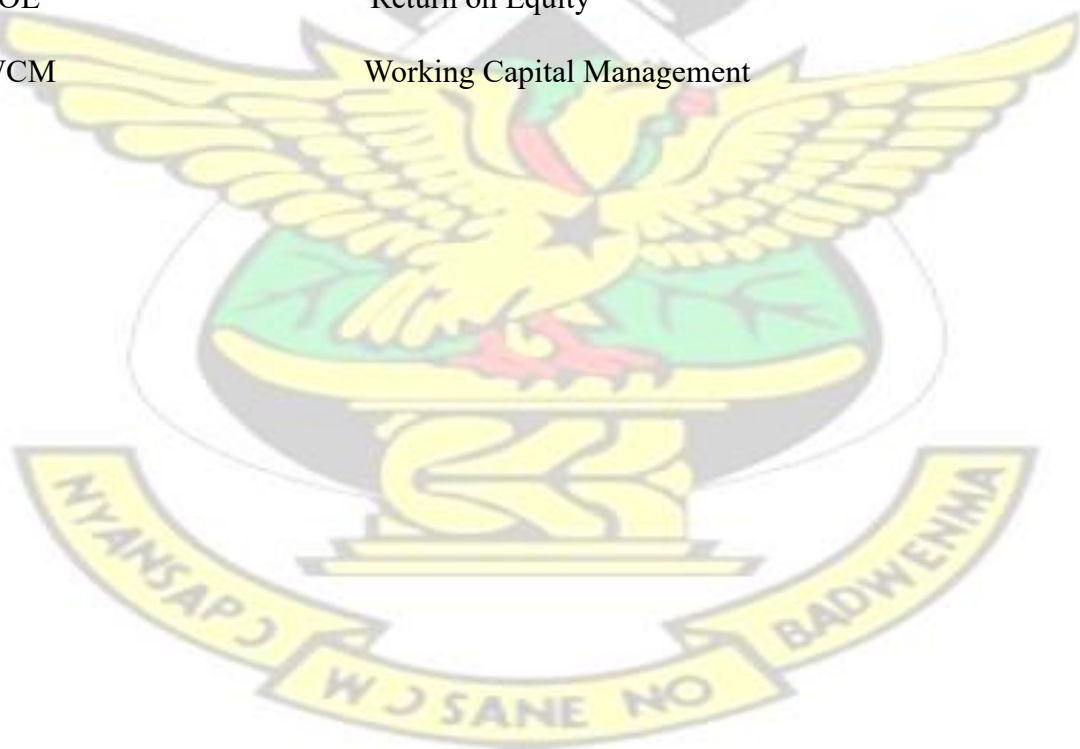
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ACRONYMS

ACP	Average Collection Period
APP	Average Payment Period
CCC	Cash Conversion Cycle
CCE	Cash Conversion Efficiency
DPO	Days Payable Outstanding
DSO	Days Sales Outstanding
GDP	Gross Domestic Product
GSE	Ghana Stock Exchange
OC	Operating Cycle
ROA	Return on Assets
ROE	Return on Equity
WCM	Working Capital Management



CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Working capital management (WCM) is one of the most crucial facets of financial management, and it has a direct impact on the financial performance of firms (Rahim et al., 2023; Wibowo & Ryalvin, 2023). WCM is the process by which a company manages its current assets and current liabilities in a manner that is both more effective and yields the highest potential return on those assets (Zeidan, 2022). Policies that efficiently manage a company's working capital may boost a company's financial performance; conversely, ineffective working capital management can cause operational problems (Habib & Kayani, 2022). The objective of working capital management is to guarantee that businesses can control operating expenditures and meet their short-term debt commitments by maintaining appropriate cash flows (Nyeadi et al., 2018). Thus, this is achieved by ensuring that businesses can properly manage their working capital.

To increase the profitability of their organisations and create value for their investors, financial managers must apply effective techniques for WCM (Sawarni et al., 2022). Even though maximising profits is a core objective for the majority of non-financial firms, bankruptcy difficulties may occur if these companies place an undue emphasis on profitability at the expense of preserving sufficient liquidity (Sawarni et al., 2022). Therefore, the objective of WCM is to achieve a healthy balance between the several components that make up working capital (Ajike et al., 2022). Insolvency and bankruptcy will likely come from a lack of understanding of the impact of working capital on profitability and management's inability to prepare for and exercise control over its components (Kiplagat et al., 2019).

Garg and Meentou (2023) have shown that working capital management has a significant effect on the financial performance of firms in India. The study found that firms with better working capital management practices are more financially stable and profitable than those with poor working capital management practices. Specifically, studies have found that the days' sales outstanding, days payable outstanding, cash conversion efficiency, cash conversion cycle, and operating cycle are key components of working capital management that affect the financial performance of firms.

Prasad et al. (2019) posit that regardless of the organization's size or sector, financial managers must approach WCM with great care since it has a substantial influence on the success of a business. This is true regardless of the organization's industry of operation. Working capital is controlled by a variety of factors, including firm type, operational cycle, cash conversion cycle, credit policy, raw material availability, and price variations (Amponsah-Kwatiah & Asiamah, 2020; Olaoye & Okunade, 2020). The successful administration of the firm's working capital has a direct influence on the company's financial performance. To attain the desired financial performance, firms should adopt policies that result in a shorter cash conversion cycle and fewer days of sales outstanding. Work-in-progress, raw materials, and finished goods are the three basic categories that come under the term "inventory" when addressing the use of working capital by manufacturing enterprises (Anton & Afloarei Nucu, 2021).

Consequently, manufacturing organisations should maintain optimal inventory levels to ensure that their financing expenses are kept to a minimum, which will improve their overall financial performance. The non-financial firm sector is one of the most significant contributors to the Gross Domestic Product (GDP) in the Ghanaian economy. In a developing country like Ghana, the importance of proper management of working capital cannot be overstated. The majority of publicly listed firms in

Ghana have seen declining profits and poor stock performance over the last few years. The production line of one of the listed non-financial firms in Ghana has been declining steadily due to the firms' recurrent losses over the years.

According to Altaf and Shah (2021) how a business manages its working capital has the potential to have a significant impact on the firm's profitability and, thus, its value; thus, WCM is a crucial component of financial management. For WCM to contribute to the growth of a company's value, it is necessary to maintain an appropriate equilibrium between liquidity and profitability. Also, the cash conversion cycle (CCC), also known as the time lag between the spending for the acquisition of raw materials and the receipt of revenue from the sale of completed items, is a frequent indicator of WCM. The time lag refers specifically to the amount of time that goes between two occurrences. The greater the time lag, the greater the working capital investment required (Altaf & Shah, 2021). This shows that organisations with efficient management of their working capital have very rapid cash conversion cycles (Anton & Afloarei Nucu, 2021).

Accounting for all of these factors makes it difficult to determine the optimal amount of working capital for a company. It presents concerns about the appropriate number of current assets and how these assets should be funded. As Habib and Kayani (2022) point out, working capital investment requires a compromise between profitability and risk. This implies that actions that tend to improve potential financial performance also tend to increase risk, whereas those that emphasise risk reduction tend to reduce potential profitability (Habib & Kayani, 2022).

1.2 Statement of the Problem

The relevance of good management of working capital by firms globally cannot be understated, as it is necessary for boosting profitability and growth, which are critical for tackling unemployment issues and ensuring economic stability. According to the

World Bank (2016), developing nations may considerably address their socioeconomic problems by acquiring and expanding their industrial base. WCM often reduces a firm's requirement for short-term loan funding (Jabbouri et al., 2022). The WCM may be done in several ways; nonetheless, two methodologies stand out: aggressive and conservative practices. Earnings may be boosted by an aggressive investment strategy with a high percentage of fixed assets and a low proportion of current assets (Nyeadi et al., 2018). However, conservative policy features less investment in fixed assets and more investment in current assets (Habib & Kayani, 2022).

Management of working capital and the firm's financial performance are inextricably linked. Several studies have examined the connection between WCM and financial performance. In both developing and developed countries, there were contradictory empirical findings regarding the effect of working capital using liquidity variables such as Cash Conversion Cycle (CCC), Average Payment Period (APP), Average Collection Period (ACP), and days sales outstanding, days payable outstanding, cash conversion efficiency, cash conversion cycle, operating cycle on the firm's financial performance. These studies on working capital found significant positive effects, negative effects, and no significant effects. Yakubu, Alhassan, Mikhail, et al. (2017), Pirttilä et al. (2020) and Kasozi (2017) reported a positive impact in Ghana and other African countries; Ganesan (2019) and Akoto et al. (2013) found a significant negative effect; and Sawarni et al. (2022) and Prempeh and Peprah-Amankona (2020) found no effect.

There is a dearth of literature on listed non-financial firms in Ghana as most studies have focused on only manufacturing firms without considering other non-financial firms such as technology, retail, healthcare, energy, telecommunications, transportation, hospitality, entertainment and media (Badu & Asiedu, 2013; Amponsah-Kwatiah &

Asiamah, 2020; Amponsah-Kwatiah & Asiamah, 2021; Dadzie & Wiafe, 2017; Prempeh & Peprah-Amankona, 2020). However, it is important to investigate working capital management (WCM) in non-financial firms because they have a significant impact on the Ghanaian economy, and their WCM practices can affect their financial performance. Effective management of working capital is critical for all firms, and understanding the WCM practices of non-financial firms can provide insights into best practices that can be applied across different sectors (Yakubu, Alhassan, & Fuseini, 2017). Conducting a study that includes both manufacturing and other non-financial firms can help to identify similarities and differences in WCM practices between sectors and determine which practices are most effective across different types of firms.

Furthermore, a study on non-financial firms including manufacturing, technology, retail, healthcare, energy, telecommunications, transportation, hospitality, entertainment and media can contribute to filling this gap in knowledge and provide valuable insights to improve their financial performance. Maina (2019) postulates that the future viability of the non-financial sector (including the manufacturing sector) depends on the efficient management of working capital. A sector of our national economy that is crucial and contributes substantially to the performance of economic growth, with the potential to decrease unemployment and inflation by raising supply, among a plethora of other destiny-altering economic benefits and results.

Previous studies often employed cross-sectional analyses and traditional regression models to investigate relationships between variables (Babbie, 2015). Despite their valuable insights, these methods have limitations, such as the inability to establish causality or capture temporal changes, and issues like linearity assumption and multicollinearity (Hair et al., 2018). To address these limitations, it is important to use alternative methodological approaches like panel data analysis. This method helps

establish causality, capture temporal changes, and account for complex relationships among variables, thereby enhancing the validity and generalizability of study findings (Olaoye & Okunade, 2020; Sawarni et al., 2022). This methodological gap highlights the importance of exploring alternative analytical approaches, such as dynamic panel data analysis that may provide a more comprehensive understanding of the WCMfirm performance relationship. This study aims to fill the research gaps highlighted above by examining the relationship between WCM and financial performance for listed non-financial firms in Ghana.

The current study stands out as unique and novel by examining the relationship between WCM and financial performance for listed non-financial firms in Ghana through the lens of specific contextual factors and employing advanced methodological approaches. Consequently, this study will contribute to the literature by offering a deeper understanding of WCM and financial performance in the context of Ghana's listed non-financial firms and providing valuable insights for both academia and practitioners. Besides, this study's findings will provide valuable insights into the most effective WCM practices for these firms to ensure their survival and growth. Also, the study employs a more comprehensive analytical approach, including dynamic panel data analysis. These alternative approaches allow for a more nuanced understanding of the complex relationships between WCM and financial performance and provide insights into the underlying mechanisms driving these relationships.

The purpose of the present study is to investigate the impact of WCM on the financial performance of non-financial companies listed on the Ghana Stock Exchange (GSE) to close the gap in the area of contradictory findings and to include liquidity and leverage as control variables in a dynamic study model, which most previous studies ignored.

1.3 Objectives of the Study

1.3.1 Main objectives

The study explores the effect of working capital management on the financial performance of listed non-financial firms in Ghana.

1.3.2 Specific objectives

The specific objectives are

1. To ascertain the effect of days sales outstanding on the financial performance of listed non-financial firms in Ghana,
2. To assess the effect of days payable outstanding on the financial performance of listed non-financial firms in Ghana,
3. To determine the effect of cash conversion efficiency on the financial performance of listed non-financial firms in Ghana,
4. To examine the effect of the cash conversion cycle on the financial performance of listed non-financial firms in Ghana

1.4 Research Questions

The following research questions were explored:

1. What is the effect of days sales outstanding on the financial performance of listed non-financial firms in Ghana?
2. What is the effect of days payable outstanding on the financial performance of listed non-financial firms in Ghana?
3. How does cash conversion efficiency affect the financial performance of listed non-financial firms in Ghana?
4. What is the effect of the cash conversion cycle on the financial performance of listed non-financial firms in Ghana?

1.5 Significance of the Study

The study on the relationship between WCM and financial performance for listed non-financial firms in Ghana has several potential benefits for various stakeholders. Firstly, the management and employees of these firms stand to gain a great deal from the research findings if they successfully adopt good WCM practices in their companies. Effective WCM can help improve a company's liquidity and profitability, which can contribute to its overall success and growth. By understanding the most effective strategies for managing working capital, these firms can ensure their survival and competitiveness in the Ghanaian business environment.

Secondly, the research will contribute to the advancement of theory and knowledge on the changes that non-financial companies are going through concerning the management of working capital. By addressing the empirical, issues, and theoretical, and methodological gaps highlighted in previous research, the study will provide a more comprehensive understanding of the WCM-firm performance relationship and help identify the unique challenges and opportunities that exist in the Ghanaian business environment.

Thirdly, the results of the research will be helpful to policymakers and regulators in the establishment and implementation of rules and regulations addressing the management of working capital in enterprises that are not financial institutions. This can lead to a more efficient and effective regulatory framework for managing working capital, which can contribute to the overall health and stability of the Ghanaian economy.

Fourthly, security analysts, financial analysts, stock brokers, and other professionals will find the material on working capital management included in this study to be beneficial. Effective WCM is essential for investment analysis and portfolio

construction, and the findings of this study can help these professionals make more informed investment decisions and mitigate risk.

Finally, the results of the research will serve as a reference for additional studies into working capital management and the effect that it has on the financial performance of organizations. This can lead to a greater understanding of the link between a company's financial performance and the management of its working capital, which is something that this study has thoroughly endorsed.

1.6 Scope of the Study

This study provides an in-depth examination of the nexus that exists between the management of a company's working capital and the financial performance of nonfinancial firms. As a consequence of this, working capital-related variables have been analysed to determine the nature of the link that exists between these factors and financial performance indicators. The scope of the analysis is limited to Ghanaian non-financial firms that are publicly traded. The independent variables and the outcome variables were connected to demonstrate their connection and the causal relationship that exists between them. The return on assets (ROA) and Tobin's were utilized to reflect the financial performance of the firm which was the focus of the research. The study also controls for liquidity and leverage that have a direct link with the financial performance of firms.

1.7 Brief Methodology

Examining the effect of working capital management on the financial performance of non-financial firms listed on the Ghana Stock Exchange (GSE), the current study employs a quantitative research methodology guided by the positivist paradigm. Given that the objective of the research is to conduct a comprehensive and in-depth analysis within this particular context, this methodology is appropriate. Using a quantitative

methodology, the study seeks objective and quantifiable insights into the connection between working capital management and financial performance. A causal research design is used to establish the relationship between working capital management and financial performance. This design permits the examination of cause-and-effect relationships and assists in determining the extent to which variations in working capital management practises impact the financial performance of listed non-financial firms in Ghana.

Secondary panel data consisting of both cross-sectional and time-series data are utilised in this study. This information is derived from the financial statements and annual reports of all 22 non-financial firms listed on the Ghana Stock Exchange between 2001 and 2021. By utilising secondary data, the study gains access to a large and exhaustive dataset, allowing for a more accurate representation of the nonfinancial sector in Ghana. This study employs the Generalised Method of Moments (GMM) model to analyse the data and assess the research hypotheses. Due to the interdependence of variables, this econometric technique is well-suited for managing panel data and permits the control of potential endogeneity issues. Due to the timeseries character of the data, the GMM model can effectively capture the dynamic relationships between working capital management variables and financial performance indicators. The quantitative approach, positivist paradigm, causal research design, and application of the GMM model contribute to a rigorous and reliable analysis of the impact of working capital management on the financial performance of non-financial firms listed on the Ghana Stock Exchange. This methodology provides a firm foundation for producing reliable and empirical findings to address the research objectives and contribute to the existing literature in this field.

1.8 Limitations

The research was limited to listed non-financial companies in Ghana. Due to time constraints and data availability, the researcher is unable to broaden the study to additional non-financial firms operating in Ghana. Therefore, the researcher has chosen to limit the analysis to listed non-financial enterprises with easily available annual reports and financial statements. However, these limits had no negative influence on the result of the research. Concentrating the study on listed non-financial firms is advantageous, given that they operate within recognised standards and often adhere to international financial reporting standards. This provides tremendous credibility and dependability to the data source.

1.9 Organization of the Study

The study is organized into five interconnected chapters. The first chapter provided an overview of the research. It comprised the study's background, a problem description, objectives, the hypotheses to be investigated, the study's significance, its scope, limitations and its structure. In the following chapter, known as Chapter Two, a review of the theoretical literature, a review of the empirical literature, and a discussion of the variables of interest in the study were examined. The methodology of the study was detailed in Chapter Three. Thus, the study technique and research design were addressed in chapter three. This chapter also examined data sources and data kinds, in addition to the econometric models that were used to determine the link between dependent and independent variables. The subsequent in-depth analysis of the obtained data is addressed in chapter four, and chapter five finishes the study with a summary of the most significant findings, policy implementation proposals, and conclusions drawn therefrom.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

A review of the relevant literature was conducted, dividing it into thematic and subthematic categories. The review touched on the concepts and theories that underpinned the investigation. Also, the previous studies on the link between working capital management and the financial performance of non-financial firms listed on GSE. Finally, a conceptual framework showing the interrelationship between the dependent and independent variables.

2.1 Conceptual Review

The section of the study dedicated to the conceptual review focuses mostly on discussions of very relevant and applicable variables and concepts. The variables under consideration are the concept of WCM, cash conversion cycle, day sales outstanding, days payable outstanding, cash conversion efficiency, operating cycle, financial performance, liquidity and leverage.

2.1.1 Concept of working capital management

There are two methods to describe working capital, and these are gross working capital and net working capital. Net working capital refers to the difference between current assets and liabilities (Mandipa & Sibindi, 2022). Gross working capital is the amount of money a company has available to invest in its current assets at the moment, whereas net working capital is the amount by which the company's current assets exceed its current liabilities (Mardones, 2022). Net working capital may be defined as the difference between the book value of a company's current assets and current liabilities; however, the second definition is the most common use (Wasiuzzaman & Arumugam, 2013). According to Le (2019), a company's working capital is used for a range of

objectives, such as the purchase of supplies and equipment, the payment of employees and other personnel, the covering of regular expenses, and the satisfaction of credit obligations.

The pursuit of profitability and the management of sufficient liquid assets to meet immediate obligations are important objectives for several types of businesses (Effiong & Ejabu, 2020). The attainment of these goals and the management of the firm's working capital undoubtedly contribute to the overall performance of the organisation (Afrifa, 2016). It is optimal for firms to maintain a level of working capital that is neither too high nor too low. Working capital that is too large frequently signals that the company's finances are in disarray (Jabbouri et al., 2022), while inadequate working capital may result in a liquidity crisis (Pirttilä et al., 2020). According to Nyeadi et al. (2018), the management of a business's working capital is crucial since it affects the company's profitability, risk, and value.

Nastiti et al. (2019) opine that managers are entrusted with planning, organising, and managing a variety of working capital components, including cash, bank balance, inventory, receivables, payables, overdrafts, and short-term loans (Iqbal et al., 2015). To prevent the risk of either overtrading or under-capitalizing the firm, it is vital to identify the proper amount of working capital (Dadzie & Wiafe, 2017). A company is considered to be overcapitalized when it has an excessive quantity of inventory, receivables, and numbered accounts payable, resulting in extra expenses and decreasing profits (Anton & Afloarei Nucu, 2021). On the other side, overtrading happens when a company strives to maintain a high trading volume with insufficient long-term financing (Altaf & Shah, 2021). This may result in substantial financial losses. This may have a short-term good effect on the company's bottom line, but it may have a long-term negative impact on cash flow (Ajike et al., 2022).

2.1.1 Cash conversion cycle

The time required for an organisation to convert its resources into cash is known as the cash conversion cycle (CCC). Additionally, it may be defined as the interval between cash inflows and cash payments (Baker et al., 2019). According to this concept, when all other factors are held constant, a company's profitability and liquidity will increase when its CCC is short, resulting in more efficient use of its working capital (Amponsah-Kwatiah & Asiamah, 2021). To maintain a shorter CCC, the payment process for suppliers may be slowed down while the payment procedure for consumers may be accelerated. Liquidity determination is one of the purposes that a company's CCC may provide (Abbas et al., 2019). The amounts of a company's receivables, inventory, and payables affect its liquidity (Sharif & Islam, 2018).

Instead of trying to employ one part of working capital to the detriment of another, the CCC proposed by Zawaira and Mutenheri (2014) focuses on regulating and planning the length of all working capital components, including accounts receivable, payables, and inventories, as a whole via precise management of cash flow periods. The CCC is computed by subtracting the payables delay age from the sum of the inventory cycle period and the receivables cycle period (Al-Mohareb, 2019). As a consequence, CCC's management concentrates on the management of current assets and current liabilities, as well as their interrelationships (Al-Mohareb, 2019). As a result of the calculation and analysis of the CCC, the likelihood of enhancing working capital management becomes evident when the CCC approach is used (Lin & Lin, 2021). Therefore, if it is feasible to decrease the time of the CCC, the company will benefit from enhanced levels of efficiency and productivity (Ceylan, 2021). If the firm expedites its orders, the lead time will be reduced and the inventory will flow through the manufacturing process more rapidly (Seth et al., 2020). This will result in a shorter period of cash spent on materials

and more precise forecasts (Seth et al., 2020). It is more probable that the firm will experience fewer risks and uncertainties if forecasting is performed over a longer period (Seth et al., 2020).

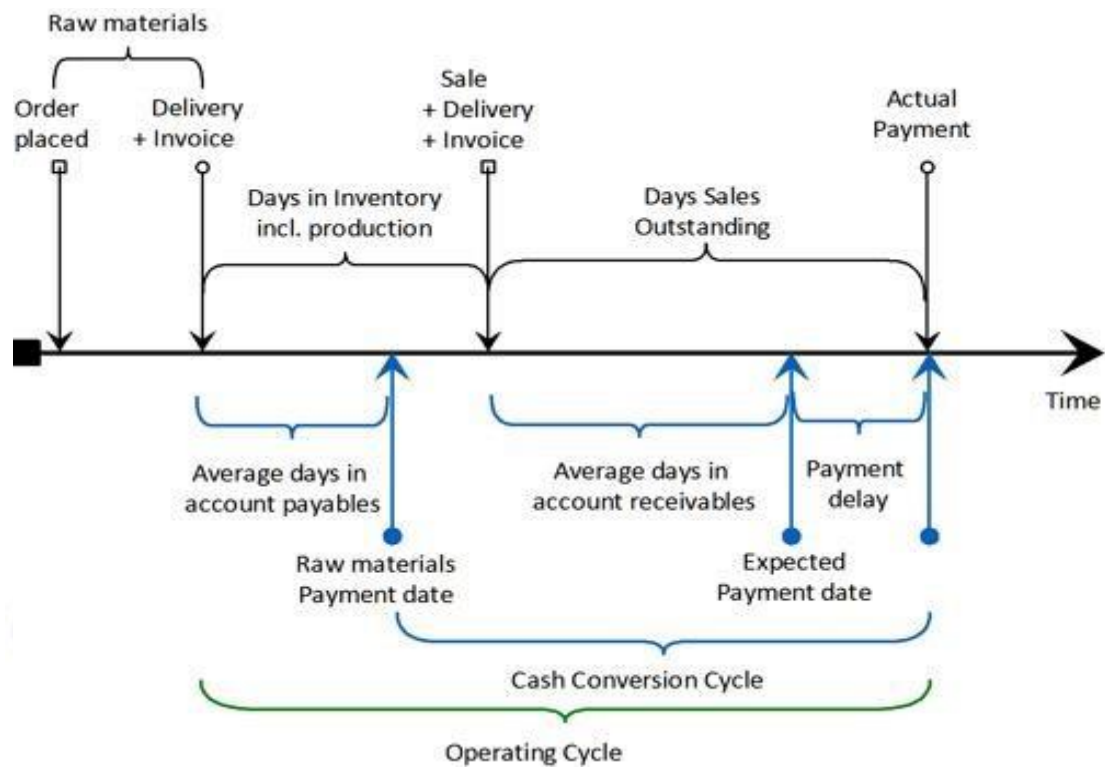


Figure 2.1 Cash Conversion Cycle Source: Adapted from Weiss (2012)

The empirical evidence demonstrates an inverse link between cash flow and CCC, with bigger cash flows boosting a company's flexibility to handle unforeseen costs (Chowdhury et al., 2018). By shortening the time it takes for the cash to flow from the company's working capital (idle assets) to sales, also known as the cash cycle, more financial efficiency, effectiveness, and flexibility may be accomplished (Sawarni et al., 2022). Using the CCC technique provides management with a framework for measuring the impact of changes to WCM on the enterprise as a whole (Mawutor, 2014).

2.1.2 Days sales outstanding

The days' sales outstanding is a financial metric that measures the average number of days it takes a company to collect payment from its customers for goods or services

sold on credit (Pham et al., 2020). This is the same as the average collection period which is the number of days corresponding to the proportion of sales for which payment has not yet been received (Pham et al., 2020). It is the average number of days it takes for a business to recover money owed by consumers. In other words, it is the average number of days required to turn accounts receivable into cash (Pham et al., 2020). According to Ganesan (2019), accounts receivable originates from the provision of goods or the execution of services on credit (Cote & Latham, 2019). Receivables represent claims against third parties for the expected receipt of cash, goods, or services in the future (Sathyamoorthi et al., 2018). The value of receivables is dependent upon the total quantity of credit sales as well as the collection method for such sales (Altaf & Shah, 2021).

The information that the average collection time of a corporation provides more than one useful insight into the organization's overall functioning (Hensher et al., 2023). However, caution is required in its interpretation. Khan et al. (2019) postulate that implementing an efficient credit strategy ensures accurate debt collection operations and is crucial to enhancing the efficacy of receivables management, and hence the performance of organisations. Moreover, Juan García-Teruel and Martínez-Solano (2017) emphasised that firms may produce value by minimising the number of days that their accounts receivable are past due. Martínez (2019) concluded that the amount of time it takes to recover receivables had a negative link with the success of enterprises.

Ejike and Agha (2018) define accounts receivable as the current assets of a business resulting from the sale of products and services on credit. Managers in the financial sector should devise a workable strategy to limit the expansion of credit and the expenses connected with it (Ejike & Agha, 2018). When deciding on a receivable

strategy, managers should pay equal weight to the advantages and disadvantages of each of the alternatives (Wulandari et al., 2022). Individuals in control of a company's finances need to study a variety of profit forecasts and potential outcomes. The amount of money that would be held up due to bad debt, collection expenses, receivables, and missed cash discounts must be weighed against any sales that would be lost or gained as a direct consequence of a proposed policy (Wulandari et al., 2022). There are times when businesses are ready to take a hit to recently found sales in exchange for the chance of a long-term gain as a consequence of a shift in strategy (Atseye et al., 2015). Businesses may discover that adopting a certain credit strategy is advantageous to their attempts to grab a larger piece of a previously untapped market (Mazlan & Leng, 2018).

2.1.3 Days payable outstanding

Days Payable Outstanding (DPO) is a financial metric that measures the average number of days it takes a company to pay its suppliers for goods or services purchased on credit and this is the same as the average payment period (Abdulnafa et al., 2022). Cash on hand should increase proportionally to the extension of the average payment period, whilst working capital should remain stable (Abdulnafa et al., 2022). The great majority of firms want to reduce the average payment period to preserve strong relationships with their most significant suppliers and, presumably, to get trade discounts. The computation of an organization's average payment period may shed light on its cash flow and stability, hence revealing potential difficulties (Aldubhani et al., 2022). Trade credit is the largest source of short-term financing and one of the most accessible kinds of financing; also, the interest rate on trade credit is proportionate to the amount of funds granted, and it is an informal and unplanned source of financing (Cao et al., 2022).

Chen et al. (2020) compared the importance of establishing a relationship with a payee as a realistic objective to being a component of an ideal inventory level. A strong connection between a firm and its suppliers not only increases production on a strategic level but also strengthens credit histories, which is advantageous for the company's future development (Chen et al., 2020). Delaying the payment of accounts payable is damaging since it results in the enforcement of substantial penalties by suppliers and has a bad influence on any future business relationships (Pham et al., 2020). Due to their influence on the size of a company's operating financing needs, payables are a crucial component of managing a company's working capital (Pham et al., 2020). In reality, a firm may reduce its need for working capital and the pressure imposed on it to support its operations with short-term debt if it uses trade credit and maximises its potential.

However, if a business can collect its obligations in a timely way, it will be able to take advantage of a substantial financial discount due to the early payment discount (Jani et al., 2020). Payables to third parties in commerce are a vital source of short-term income (Soukhakian & Khodakarami, 2019). According to Juan García-Teruel and Martínez-Solano (2017), firms have a propensity to adopt optimal accounts payable practices due to market imperfections. Accounts payable, on the other hand, offers both benefits and costs to businesses. On the one hand, it assists organisations in increasing their operational efficiency and profitability by reducing their transactional expenses (Juan García-Teruel & Martínez-Solano, 2017). The APP may be used to evaluate how well a firm handles its payables. This percentage represents the average interval between payments to creditors. It refers to the average length of time between the acquisition of a product and the payment of its suppliers (MartínezSola et al., 2017).

2.1.4 Cash conversion efficiency

Cash Conversion Efficiency (CCE) is a financial metric that measures how efficiently a company is converting its investments in working capital, such as accounts receivable, inventory, and accounts payable, into cash flow from operations. Improving working capital management is a critical priority for CFOs in today's economic environment (Ceylan, 2021) This is because cash conversion efficiency is directly linked to a company's profitability and financial health (Seth et al., 2020). Companies with higher CCE can generate more cash from operations and reinvest it back into their business, while those with lower CCE may struggle with cash flow and may need to rely on external financing (Seth et al., 2020).

Several studies have found that CCE is positively associated with financial performance. For example, a study by Kieschnick et al. (2008) found that firms with higher CCE have higher profitability and market value, and are less likely to experience financial distress. Similarly, Lyngstadaas and Berg (2016) found that CCE is positively associated with return on assets, return on equity, and Tobin's Q, a measure of firm value. However, achieving high CCE can be challenging for companies, as it requires effective working capital management practices. A study by Basyith et al. (2021) found that companies with better accounts receivable and inventory management practices tend to have higher CCE. Similarly, Crespi-Cladera et al. (2021) found that companies with better accounts payable management practices tend to have higher CCE.

In addition, external factors such as industry characteristics and economic conditions can also impact CCE. For example, a study by Lin and Lin (2021) found that companies in industries with longer cash conversion cycles, such as retail and manufacturing, tend to have lower CCE. Also, Pirttilä et al. (2020) found that economic conditions, such as

interest rates and inflation, can also impact CCE. The literature suggests that CCE is an important metric for measuring a company's financial performance and health and that effective working capital management practices are crucial for achieving high CCE. As Seth et al. (2020) note, improving CCE requires a comprehensive approach that involves not only working capital optimization, but also process and technology improvements, and collaboration across functions and with external stakeholders.

2.2.5 Operating cycle

The concept of the operating cycle holds a significant position in finance and accounting. It gauges the duration required by a company to convert its resources, including raw materials and labour, into cash (Gonca & Sahin, 2022). The operating cycle plays a vital role in working capital management as it offers insights into a company's capacity to generate cash from its operations (Chasha et al., 2022). The operating cycle includes four crucial stages, i.e., procurement of raw materials, conversion of raw materials into finished goods, selling finished goods, and receiving payment from customers (Chasha et al., 2022). The length of each stage varies depending on the industry, business nature, and other related factors (Chasha et al., 2022). Shortening the operating cycle is an effective technique to enhance a company's financial performance and cash flow (Akkas, 2023). By reducing the time, it takes to convert resources into cash, a company can increase its liquidity, minimize its reliance on external financing, and enhance its profitability. There are several strategies that companies can use to shorten their operating cycle (Chasha et al., 2022). For instance, companies can negotiate shorter payment terms with suppliers, implement just-in-time inventory systems to reduce inventory holding costs and improve their collection procedures to minimize the time required to receive payment from customers.

Prior research has found a significant correlation between the operating cycle and firm performance. For example, Zariyawati and Reyad (2022) demonstrated that reducing the operating cycle duration can lead to improved liquidity and profitability for small and medium-sized enterprises in Malaysia. Similarly, (Chasha et al., 2022) research (2017) revealed that firms with shorter operating cycles tend to have higher returns on assets and gross profit margins. Furthermore, previous studies have also investigated the impact of individual stages of the operating cycle on firm performance. Soukhakian and Khodakarami (2019) found that minimizing the time it takes to collect payment from customers can considerably improve a company's financial performance. Similarly, Mielcarz et al. (2018) highlighted that reducing the time it takes to convert raw materials into finished goods can lead to improved profitability for manufacturing companies.

Other studies have also explored the impact of the operating cycle on various dimensions of firm performance. For example, in a study by Pakdel and Ashrafi (2019), the authors examined the impact of the operating cycle on a company's growth rate. They found that a shorter operating cycle was associated with higher growth rates, indicating that companies that can convert their resources into cash more quickly are better positioned to finance growth. In addition, several studies have investigated the relationship between the operating cycle and a company's financial risk. For instance, a study by Mandipa and Sibindi (2022) found that a longer operating cycle was associated with higher financial risk, as companies with longer operating cycles are more exposed to changes in market conditions and supply chain disruptions.

Moreover, research has also shown that the operating cycle can have a significant impact on a company's working capital management. Companies with longer operating cycles tend to have higher working capital requirements, indicating that a longer

operating cycle can lead to a strain on a company's working capital (Pirttilä et al., 2020). Thus, the operating cycle is a crucial component of working capital management that provides insights into a company's ability to generate cash from its operations. Shortening the operating cycle can lead to improved financial performance, and there are several strategies that companies can use to achieve this goal. Previous studies have demonstrated the impact of the operating cycle on various dimensions of firm performance, including liquidity, profitability, growth, financial risk, and working capital management (Akkas, 2023; Mandipa & Sibindi, 2022; Pakdel & Ashrafi, 2019).

2.1.6 Financial performance

Return on equity (ROE) is a classic performance measure that compares a company's profits to the amount of equity owned by its shareholders (Hagel et al., 2010). In addition, they noted that the use of ROE as a metric of financial success is subject to several key caveats (Choiriyah et al., 2020; Hagel et al., 2010). Numerous businesses might use financial tactics to artificially maintain a high ROE as a short-term solution, with the sole intention of concealing failing economic fundamentals (Choiriyah et al., 2020). This may be done to conceal deteriorating economic situations. ROE may be maintained despite a decline in operational profitability via stock repurchases and the issuance of new debt stock backed by cash reserves. This may let the ROI stay unchanged. If the ROE decreases, it might be bad for stock prices. In contrast, given that risks are not as immediately evident and quantified, it seems prudent and beneficial to use ROE as opposed to other measures (Yustrianthe & Mahmudah, 2021).

An alternative indicator that has been experimentally deemed better than ROE and other measures such as cash flow return on investment (CFROI), internal rate of return (IRR), and discounted cash flow is worthy of consideration (Jihadi et al., 2021). Given the preceding debate and conjecture regarding ROE as a proxy for financial performance,

it is useful to investigate an alternative indication empirically regarded as being better than ROE and other measures. Return on assets (ROA) is an essential indicator that public and private firms in the United States and throughout the globe use to monitor and assess their profitability over time (Choiriyah et al., 2020; Jihadi et al., 2021). ROA is not impacted by the aforementioned categories of funding, which might skew the outcomes. According to the study of Hagel et al. (2010), ROA is a more reliable indicator of a company's financial performance than the return on sales, which is shown on an income statement. The ROA is computed by taking into account all of the important assets for the continuous operation of the firm.

If the firm can demonstrate a decent return on sales, the next consideration is whether it can also generate an acceptable return on its assets (Wijaya, 2019). In contrast to asset-light enterprises, which may generate a very high ROA with razor-thin margins, asset-intensive businesses need a greater level of net income to maintain operations (Wijaya, 2019). This is because asset-intensive organisations must manage a greater quantity of assets. When ROA is used as the key metric of success, management is instantly refocused on the essential assets necessary to keep the organisation afloat (Trisnarningsih & Rahmasari, 2023).

Today, business owners and managers can hire or work with a third-party firm to manage their businesses' assets and the activities that go along with them (Uyar, 2019). No one indication or measurement is always appropriate; rather, a number of them will be applicable at different times (Lahouel et al., 2021). On the other side, problems arise when ROE is relied upon excessively. ROA may provide alternatives to the primary operations, such as asset optimization, that may be evaluated (Ghardallou, 2023). ROA is the ratio of a company's taxable profit to the total value of its assets. Therefore, ROA

was chosen as the indicator of the financial performance of Ghana's publicly listed non-financial firms.

In addition to the ROA, Tobin's q is adopted as another measure of the financial performance of the listed non-financial firms. Tobin's q is often used to evaluate a company's investment opportunities and its ability to create value for its shareholders (Chung & Pruitt, 1994). A high Tobin's q indicates that the market values the company's assets more highly than their book value, suggesting that the company is generating a positive return on its investments (Dakhlallh et al., 2020). Tobin's q is used to compare the financial performance of different companies within the same industry, as well as to evaluate a company's performance over time (Dakhlallh et al., 2020). It is also useful for identifying potential investment opportunities, as companies with high Tobin's q values are more likely to be undervalued by the market (Sawarni et al., 2022). Tobin's q is used in conjunction with ROA to get a complete picture of the firm's financial health.

2.1.7 Liquidity

The liquidity position of an entity is its ability to pay off debts that come due in the next twelve months with cash and cash equivalents. According to Adam and Buckle (2003), liquidity is the management's ability to fulfil contractual commitments to creditors at the proper time without having to increase profits through activities such as investment or their ability to sell financial assets. Liargovas and Skandalis (2008) observed that businesses can employ liquid assets to finance their operations and investments when it is unlikely that they would get financing from an external source. Since it has more cash on hand, a corporation with higher liquidity is better prepared to cope with unanticipated emergencies and obligations that mature during times of low profitability. It was recommended that the corporation should seek to

simultaneously raise its current assets and decrease its current obligations.

Since the firm's liquidity may have a substantial impact on the financial performance of non-financial enterprises, it was recommended that the company make this effort (Almajali, 2012). Jovanic (1982) reaches the opposite result and claims that the impact of liquidity on the financial performance of businesses is insignificant. Kanga and Achoki (2017) analysed the agricultural market in Kenya and the performance of publicly traded agricultural firms. Overall, their results were good. The pooled ordinary least squares (OLS) regression analysis conducted in this inquiry revealed a strong positive relationship between the Return on Assets and Return on Equity of businesses and their Liquidity (ROE). Ali and Bilal performed research on twentythree distinct Jordanian manufacturing enterprises (2018). The regression analysis results reveal that liquidity is a major determinant of return on assets (ROA) for the selected businesses.

Kimondo et al. examined the long-term survival of 39 Kenyan nonfinancial companies that were actively listed on the stock market in 2016. According to multivariate regression estimates, the liquidity of businesses was a significant predictor of their ROA. Ali et al. (2018) investigated Jordanian firms in the industrial and service sectors. According to the findings of regression analysis, the liquidity of a company is an excellent predictor of its ROA. Kung'u (2017) examined the economic viability of Kenya's manufacturing firms to ascertain their viability. According to the results of the research, there is a strong association between the success of the analysed enterprises and their liquidity. Schulz (2017) conducted a panel analysis of

3,363 privately-held small and medium-sized enterprises in the Netherlands between 2008 and 2015. (SMEs). According to the study's results, liquidity is a poor predictor of return on assets and return on capital employed (ROCE), but it has no statistically significant influence on return on assets.

2.1.8 Leverage

Leverage constitutes debt ratios. Previous studies estimated debt using a similar method by dividing total obligations by total assets (Das et al., 2022). When assessing a company's ability to satisfy its financial obligations, leverage considers the percentage of its total capital that is given via debt (loans) (Fauzi et al., 2022). Since firms often utilise a mix of stock and debt to fund their operations, the leverage ratio is crucial (Fauzi et al., 2022). When deciding whether or not a firm will be able to repay its debt when it comes due, it is crucial to be aware of the overall amount of debt owned by that organization (Das et al., 2022)

Eunju (2005) observed in their research on the association between profitability and financial leverage and the size of enterprises that companies with larger assets were more profitable than those with smaller assets. This suggests that companies with more debt were less lucrative. Additionally, it was discovered that the ratio of financial leverage to earnings per share showed an adverse relationship (Mangalam & Govindasamy, 2010). It is also essential to note that leverage is a crucial factor that affects the financial success of a corporation, and as a consequence, shareholder value may be maximised when the company uses more debt (Mangalam & Govindasamy, 2010).

Selvanayaki et al. (2016) analysed the agricultural market in Kenya and the performance of publicly traded agricultural firms. The pooled ordinary least squares (OLS) regression analysis conducted in this inquiry revealed a strong positive relationship between the return on assets and return on equity of businesses and their liquidity (ROE). Musah and Kong (2019) researched 23 different Jordanian manufacturing firms. The regression analysis results reveal that liquidity is a major determinant of return on assets (ROA) for the selected businesses. Wambia and Jagongo

(2020) examined the long-term survival of 39 Kenyan nonfinancial companies that were actively listed on the stock market in 2016. According to multivariate regression estimates, the liquidity of businesses was a significant predictor of their ROA.

Kalbuana et al. (2022) investigated Jordanian firms in the industrial and service sectors. According to the findings of regression analysis, the liquidity of a company is an excellent predictor of its Pandiangan and Sihombing (2022) examined the economic viability of Indonesian manufacturing firms to ascertain their viability.

According to the results of the research, there is a strong association between the success of the enterprises and their liquidity. Schulz (2017) conducted a panel analysis of 3,363 privately held small and medium-sized enterprises in the Netherlands between 2008 and 2015. According to the study's results, liquidity is a poor predictor of return on assets and return on capital employed (ROCE), but it has no statistically significant influence on return on assets.

2.2 Theoretical Review

Examining the theories upon which the study was founded allowed for the construction of an acceptable theoretical framework for the research. These theories are the transaction cost theory, the Miller-Orr cash management model, and the working capital cycle theory. These hypotheses were chosen for the current investigation because of their ability to explain working capital management and the connection between it and the financial performance of a company.

2.2.1 Transaction Cost Theory

Commons (1931) created the phrase "transaction costs" in 1931, and several scholars, including Arrow and Debreu (1954) and Williamson (1988), contributed to the theory's development. Transaction costs are the expenditures that are incurred in the everyday operations of an economy (Arrow & Hahn, 1999). In Transaction Cost Theory (TCT),

the unit of study is the transfer of an item or service, and the most relevant result is how the transaction is conducted (Williamson, 1993). The author also discussed the functions of frequency, specificity, uncertainty, limited rationality, and opportunistic behaviour in the calculation of transaction costs. Consequently, in economics and related disciplines, the transaction cost refers to a fee associated with the execution of any economic transaction inside a market (Vosselman, 2002).

The TCT is based on the premise that business transactions must be conducted in a way that minimises administrative expenses (Cordelia, 2006). Products and services are investments in the management of working capital. These investments often take the shape of cash, debtors, shareholders, and creditors, and they provide management with issues (Cordelia, 2006). Before determining the best level of investment in existing assets, a company's management must do a risk-versus-profit analysis.

Reducing the amount of time, it takes to collect accounts receivable might increase earnings, as well as an improvement in the company's liquidity and current assets (Ganesan, 2019). It increases the companies' creditworthiness and safeguards them against cash flow issues and other financial troubles (Sharif & Islam, 2018). When a firm makes its short-term debt payments on time, not only does it gain the trust of the company's primary stakeholders and suppliers, but it also lays the groundwork for the company's long-term financial performance (Sgroi & Sciancalepore, 2022) As anticipated by Ferris (1993) transactional cost theory of trade credit, businesses can increase their operational efficiency by lowering the length of time it takes for customers to pay their invoices. This is made feasible by the reduction of transaction costs. The reduction in account receivables will boost profitability (Bhattacharya et al., 2008).

2.2.2 Miller-Orr Cash Management Theory

This concept expands on Baumol's (1988) theory, which was heavily criticised for its handling of financial resources. Miller and Orr (1966) created this model to provide a more precise method of cash management. The model has gained traction over time due to its ability to strike a good balance between realism and simplicity (Miller & Orr, 1966). The model presupposes that the distribution of net cash flows is normal, with mean and standard deviation equal to zero (Jones & Hensher, 2004). The lower limit is established by the corporation per its need to maintain a cash balance, while the higher limit serves as both a control and return point (Jones & Hensher, 2004).

Pandey (2018) found that when a company's cash reserves were running short, it would buy new securities until the reserves were once again at a comfortable level.

Furthermore, the author stressed the need to maintain a sound financial reserve (Pandey, 2018). Too much or too little cash on hand indicates that funds are not being used effectively. Stopping manufacturing and, by extension, the company's activities, when cash reserves are low may have a domino effect that leads to a loss of consumers and market share (Padachi, 2006). Even though a business is making money, if it lacks liquid assets, it might have interruptions in its daily operations (Afrifa & Padachi, 2016). Creditors may be compelled to force the company to close if this happens (Afrifa & Padachi, 2016).

2.2.3 Working Capital Cycle Theory

According to the working capital cycle theory, how a company manages its finances at various times of the year depends on the kind of business being analysed (Brealey et al., 2008). The CCC model is another name for this theory. Gitman (1974) was the first to suggest it as a component of a work cycle. The concept illustrates the dynamic connection between a company's working capital and its internal cash flow (Moss & Stine, 2013). Consequently, this theory may be used to predict the amount of capital

needed to sustain any given level of sales (Ebben & Johnson, 2011). The working capital cycle refers to the time it takes for a firm to convert its cash into raw materials or finished goods and subsequently recover payment from its debtors (Ceylan, 2021). The working capital cycle refers to the period required to turn a company's net current assets and current liabilities into cash (Al-Mohareb, 2019).

Due to its incorporation of balance sheet and income statement information, the CCC enables a timely assessment of liquidity management (Jose et al., 1996). As the CCC measures the period between spending money on raw materials and getting money from sales of finished goods, it is another comprehensive indication of working capital (Padachi, 2006). Management of the company's assets and liabilities is essential to the company's success. Despite claims that classic ratios such as the current ratio, acid test ratio, and cash ratios do not provide reliable information regarding working capital, the emphasis on cash inflow and outflow resulting from the purchase, manufacturing, sales payment, and collection processes has persisted over time (Richards & Laughlin, 1980). Therefore, it is essential to note that each company's working capital cycle will be unique and must be estimated in a manner that takes into consideration the company's size, goods, and assets, among other factors (Mielcarz et al., 2018).

Lastly, the turnover of raw materials, work-in-progress, and finished goods may be shown in connection to working capital to demonstrate how often a business transforms its inventory into sales (Al-Mohareb, 2019; Sugathadasa, 2018; Weiss, 2012). The turnover ratio falls as firms' resources increase (Jose et al., 1996; Lin & Lin, 2021). Thus, these areas of purchasing, production scheduling, and distribution are each allocated a portion of the expected revenue (Ebben & Johnson, 2011; Moss & Stine, 2013).

2.3 Empirical Review

Examining the relationship between the WCM and the financial performance of firms, this section of the literature review focused on contemporary issues within the area of working capital management. Before concentrating on Ghana, the research took into account studies from advanced economies, developing nations, and Africa. Therefore, it is imperative to highlight the following findings and conclusions made by other researchers concerning the subject of this study.

2.3.1 Cash conversion cycle and firm financial performance

The cash conversion cycle (CCC) is a significant metric for companies because it influences their liquidity and profitability. Numerous studies in the past have examined the correlation between the CCC and firm financial performance. Chen and Chung (2013) discovered that a shortened CCC is associated with greater profitability, as measured by return on assets (ROA), with this relationship being stronger for firms with higher sales growth and larger scale. Ganesan and Krishnan (2015) also discovered a correlation between a shortened CCC and a company's profitability, as determined by the return on assets (ROA) and return on equity (ROE). They discovered, however, that this relationship is stronger for firms with greater financial leverage.

Kareem and Abid (2017) examined the relationship between the CCC and the financial performance of a sample of Nigerian companies. They discovered that a shortened CCC correlates with increased profitability, as measured by both ROA and ROE. In a similar vein, Sharma and Kumar (2019) discovered a negative correlation between CCC and firm profitability, as measured by ROA, ROE, and net profit margin.

However, some studies have produced contradictory findings. For instance, Uyar and Kuzey (2017) found no correlation between the CCC and the financial performance of Turkish firms. They argued that the effect of CCC on profitability is contextdependent,

so the results cannot be generalised across nations or industries. Similarly, Haghani and Safari (2021) discovered that the effect of CCC on firm profitability depends on the firm's age, scale, and leverage. They argued that firms should modify their strategies for managing their working capital to their particular characteristics.

In addition, several studies have investigated the moderating influence of other financial and nonfinancial factors on the association between CCC and firm financial performance. For instance, Saeedi, Jafari, and Ghapanchi (2017) discovered that asset turnover partially mediates the relationship between CCC and firm profitability. Similarly, Ganesan and Krishnan (2015) argued that a shortened CCC improves a company's liquidity position, which in turn influences its profitability positively.

The moderating effect of industry context on the relationship between CCC and firm financial performance has also been investigated in other studies. For instance, Shukla, Manaktola, and Sengupta (2016) discovered that the impact of CCC on the profitability of manufacturing firms is greater than that of service firms. They argued that this is because manufacturing companies have greater working capital needs due to their inventory-heavy operations. In addition, several studies have investigated the influence of the CCC on firm risk. Abdallah and Dashti (2018), for instance, discovered that a shortened CCC reduces the probability of default for firms in the Kuwaiti market. They argued that effective administration of working capital enhances a company's ability to fulfil its financial obligations, thereby decreasing the likelihood of default. On the other hand, Uyar and Kuzey (2017) discovered that the CCC has no significant effect on the firm's credit risk profile.

Lastly, several studies have investigated the relationship between CCC and firm performance under various economic conditions. Nguyen, Nguyen, and Nguyen (2021)

examined the effect of the COVID-19 pandemic on the CCC and firm performance in Vietnam. They discovered that the pandemic has heightened the significance of managing working capital efficiently, as firms confront liquidity constraints and increased uncertainty. In addition, they discovered that a shortened CCC has a positive effect on firm profitability, even under the difficult economic conditions brought on by the pandemic.

2.3.2 Day sales outstanding and firm financial performance

Day Sales Outstanding is a crucial metric for businesses because it measures the average number of days required to collect payment from consumers. Numerous prior studies have examined the correlation between DSO and firm financial performance. Firms with a shorter DSO can increase their liquidity and cash flow, which can have a positive effect on their financial performance. On the other hand, a prolonged DSO may indicate ineffective credit management and can have a negative impact on the profitability of the business.

According to Sudarsanam and Lai (2001), firms with a shorter DSO are more profitable, as measured by ROA, than those with a prolonged DSO. They argued that effective credit management is essential for increasing the profitability of a business.

Kim, Jung, and Song (2016) discovered a significant negative relationship between DSO and firm profitability, as measured by ROA and ROE, for Korean firms. They argued that firms should prioritise the improvement of their collection processes to improve their financial performance.

However, some studies have produced contradictory or equivocal findings. For instance, Chee, Wong, and Tan (2017) discovered that the relationship between DSO and firm profitability for Singaporean firms is not statistically significant. They argued that the impact of DSO on a company's profitability may vary based on its industry and

other financial factors. Similarly, Sharma and Kumar (2019) discovered a weak and insignificant correlation between DSO and firm profitability for Indian companies.

In contrast, several studies have discovered a correlation between DSO and firm financial performance. For example, Van Zijl, Taylor, and Brümmer (2007) discovered that, for South African firms, firms with a longer DSO have greater profitability, as measured by ROA, than firms with a shorter DSO. To increase profitability, they argued that firms should prioritise sales growth over credit management. Likewise, Chakraborty and Ray (2017) discovered a positive correlation between DSO and firm profitability, as measured by ROA, for Indian manufacturing firms.

In addition, several studies have investigated the moderating effect of other factors on the association between DSO and firm financial performance. For example, Piazzalunga, Zanetti, and Paltrinieri (2016) discovered that the relationship between DSO and profitability is stronger for companies with greater growth prospects. They argued that enterprises with greater growth prospects need effective credit management to support their investment activities. In addition, Singh, Goyal, and Pandey (2019) discovered that the effect of DSO on firm profitability is contingent upon the capital structure of the firm. They argued that firms with greater levels of debt should prioritise efficient credit management to avoid liquidity and financial distress.

In the literature, the relationship between DSO and firm financial performance is supported by contradictory findings. Some studies have found a positive or insignificant relationship between DSO and profitability, while the majority of studies have found a negative one. These disparities may be attributable to differences in sample size, firm-specific factors, industry context, and measurement techniques. In addition, the moderating effects of other factors, such as growth opportunities and capital structure,

emphasise the significance of taking each company's specific circumstances into account to optimise credit management strategies and enhance financial performance.

2.3.3 Days payable outstanding and firm financial performance

The DPO of a business indicates how long it typically takes to pay its suppliers. This indicator is crucial due to its potential impact on a company's liquidity, cash flow, and bottom line. A lengthier DPO can improve a business's cash flow, while a shorter DPO may burden relationships with key suppliers. Several studies have examined the relationship between DPO and a company's bottom line. Rahman and Rabbani (2017) discovered a highly significant inverse relationship between DPO and profitability (as measured by ROA and ROE) for Bangladeshi businesses. They asserted that businesses should pay their suppliers on time to improve their bottom lines.

However, some studies have produced contradictory or equivocal results. According to one study, the correlation between DPO and profit for Turkish manufacturers is negligible (Eriş, Sayglı, & eniş, 2019). Industry and other financial considerations may moderate the effect of DPO on a company's profitability, they suggested. Zhang, Ding, and Liu (2016) also found no meaningful correlation between DPO and profitability for Chinese publicly traded companies.

Several studies have demonstrated a positive relationship between DPO and financial performance. According to the research of Murya and Ombati (2019), a lengthier DPO is associated with higher profitability (as measured by ROA) for Kenyan firms. In their opinion, companies can better their financial performance by using their payables as a source of low-cost financing. Similar to our findings, Al-Najjar, Clark, and Tippett (2016) discovered a positive correlation between DPO and profitability, as measured by ROA, for UK-based companies.

Additionally, the effect of additional factors on the relationship between DPO and business financial success has been investigated. According to research conducted by Diao, Song, and Zhang (2018), the negative impact of DPO on a company's profitability is more pronounced for organisations with less financial flexibility. They argued that businesses with less financial elbow room are more likely to experience cash flow issues, which could negatively impact their bottom line. In addition, Lee and Kim (2018) found that business size moderates the effect of DPO on profitability. They argued that due to their weakened negotiating position with their suppliers, smaller businesses may benefit more from an extended DPO.

The research does not consistently support the connection between DPO and the financial performance of firms. There have been conflicting findings regarding the relationship between DPO and profits, with some studies indicating a negative correlation and others finding either no correlation or a positive correlation. Differences in sample size, firm-specific characteristics, industry context, and measurement techniques may be responsible for these divergent results. Other factors, such as financial flexibility and business scale, have a moderating effect on the necessity of customising payment solutions to each company's particular circumstances.

2.3.4 Cash conversion efficiency and firm financial performance

The Cash Conversion Efficiency metric is utilised to assess the proficiency of a company in converting its investments in inventory and receivables into cash. The aforementioned metric holds significance for firms as it serves as an indicator of their proficiency in effectively managing their working capital and generating cash flows. Numerous academic inquiries have explored the correlation between corporate social and environmental responsibility (CCE) and the financial performance of firms.

Hirschev and Skiba (2014) discovered a direct correlation between cash conversion efficiency (CCE) and profitability, as assessed by return on assets (ROA), among firms in the United States. The authors posited that companies possessing elevated levels of cash conversion efficiency (CCE) may enhance their profitability through the reduction of financing expenses and the augmentation of cash reserves. Tsen, Lee, and Chen (2017) revealed a positive correlation between Corporate Social Responsibility (CSR) and profitability, as assessed by Return on Equity (ROE), for firms in Taiwan.

Nevertheless, certain research endeavours have yielded ambiguous or inconsistent outcomes. Oyinlola, Oduyoye, and Fakile (2018) found that there exists a feeble and statistically insignificant correlation between Corporate Environmental Responsibility (CCE) and profitability, as evaluated through Return on Assets (ROA), among manufacturing firms in Nigeria. The authors posited that the influence of CCE on a company's profitability could be contingent upon the industry context and additional financial variables. Chen and Yen's (2017) research revealed a non-significant correlation between Corporate Social Responsibility (CSR) and firm value, as assessed by Tobin's Q, for companies in Taiwan.

Additionally, research studies have explored the moderating impact of various factors on the correlation between Corporate Social Responsibility (CSR) and the financial performance of firms. Chen and Liu (2017) discovered that the favourable effect of Corporate Social Responsibility (CSR) on a company's profitability is more pronounced for firms with greater asset turnover. The contention put forth is that companies exhibiting greater asset turnover stand to gain a greater advantage from proficient cash conversion, as it facilitates the generation of increased cash flows from their assets. Furthermore, Agyemang, Essien, and Opoku (2018) discovered that the influence of CCE on a company's financial performance is dependent on the size of the organisation.

The contention put forth is that relatively smaller enterprises stand to gain greater advantages from an elevated Cash Conversion Efficiency (CCE) owing to its potential to facilitate more effective management of their operational liquidity.

Moreover, certain research endeavours have directed their attention towards examining the influence of distinct organisational attributes on the correlation between corporate social and environmental responsibility and economic outcomes. San, Akhtar, and Ullah (2019) conducted a study which revealed that firms with higher levels of financial leverage experience a stronger positive impact of CCE on their profitability. The authors posited that effective cash conversion can aid companies in mitigating their financing expenses and enhancing their profitability, particularly when confronted with elevated debt levels. Wang, Feng, and Li (2020) discovered that the favourable influence of CCE on the performance of a firm is more pronounced for firms that possess greater growth opportunities. According to the suggestion put forth, companies that possess greater growth prospects can derive greater advantages from the effective management of their working capital. This is because such management practices allow them to channel their resources towards growth-oriented investments while simultaneously maintaining their financial stability.

Apart from its influence on financial performance, Corporate Social Responsibility (CSR) has also been associated with other organisational consequences, such as operational effectiveness and ecological sustainability. Chen and Chen (2018) conducted a study which revealed that companies exhibiting elevated levels of cash conversion efficiency (CCE) demonstrate superior operational efficiency, as indicated by their inventory turnover and receivables turnover ratios. This finding suggests that effective management of cash conversion is linked to improved management of

inventory and receivables. Jia, Li, and Liu (2019) discovered that companies exhibiting elevated levels of cash conversion efficiency (CCE) are inclined towards adopting sustainable business practices, including environmental conservation and social responsibility. This suggests that effective management of working capital may encourage the implementation of sustainable business practices.

In general, extant literature posits that Corporate Cash Efficiency (CCE) constitutes a crucial measure for companies, as it serves as an indicator of their adeptness in effectively managing their working capital and generating cash inflows. The literature on the subject suggests that there is a varying degree of correlation between corporate social and environmental responsibility (CCE) and financial performance. While some studies have reported a positive association, others have yielded mixed or inconclusive findings. The potential influence of additional variables, such as asset turnover, firm size, financial leverage, and growth opportunities, implies that the correlation between CCE and financial performance may be dependent on other unique characteristics of the firm. Furthermore, the correlation between Cash Conversion Efficiency (CCE) and other organisational consequences, such as operational effectiveness and sustainability, underscores the wider ramifications of managing working capital for corporations.

2.3.5 Operating cycle and firm financial performance

The operating cycle is the period required for a company to convert its inventory into currency. It is determined by adding the inventory conversion period and receivables conversion period. The operating cycle is a crucial aspect of working capital management because it reflects a company's ability to efficiently manage its inventories and receivables, which can have significant effects on its financial performance.

Numerous studies have investigated the connection between the operational cycle and the financial performance of a company. For example, Raheman and Nasr (2007)

discovered that shortened operating cycles correlate with greater profitability, as measured by return on assets (ROA) and return on equity (ROE). They argued that firms with shortened operating cycles can generate cash flows faster and more efficiently, thereby enhancing their financial performance. Similarly, Akhtar and Ahmed (2013) discovered that shortened operating cycles correspond to a higher market valuation, as measured by Tobin's Q. According to their findings, firms with shortened operating cycles are perceived as more efficient and effective, which can increase their market value.

Other studies, however, have yielded contradictory or equivocal findings concerning the relationship between the operating cycle and financial performance. Chittenden, Hall, and Hutchinson (1996) discovered that the relationship between the operating cycle and profitability is non-linear, with shorter and longer operating cycles associated with lower profitability and moderate operating cycles associated with higher profitability. They argued that firms with moderate operating cycles can achieve a balance between effective working capital management and inventory holding costs, thereby enhancing their profitability. Similarly, Cullinan and Wang (2006) discovered that the relationship between the operating cycle and financial performance varies by industry, with shorter operating cycles being associated with higher profitability in some industries but not others.

Other research has examined the impact of firm-specific variables on the relationship between the operating cycle and financial performance. For example, Zhang, Chen, and Ma (2019) discovered that the positive effect of shortened operating cycles on firm profitability is stronger for firms with higher asset turnover, indicating that firms with higher asset turnover can benefit more from efficient working capital management. In contrast, Bokpin and Isshaq (2017) discovered that the negative impact of longer

operating cycles on firm profitability is greater for firms with greater financial leverage, indicating that firms with greater financial leverage may incur greater financing costs associated with holding high levels of inventories and receivables.

The literature suggests that the operational cycle is an important metric for businesses, as it reflects their capacity to efficiently manage working capital and generate financial flows. While some studies have discovered a positive correlation between the operating cycle and financial performance, others have discovered contradictory or equivocal results. The nonlinear relationship between the operating cycle and profitability, as well as the moderating effects of industry characteristics, asset turnover, and financial leverage, suggest that the relationship between the operating cycle and financial performance may be contingent on other firm-specific variables.

2.4 Conceptual Framework

The conceptual framework presents the pictorial representation of the interrelationships between the dependent and independent variables as shown in

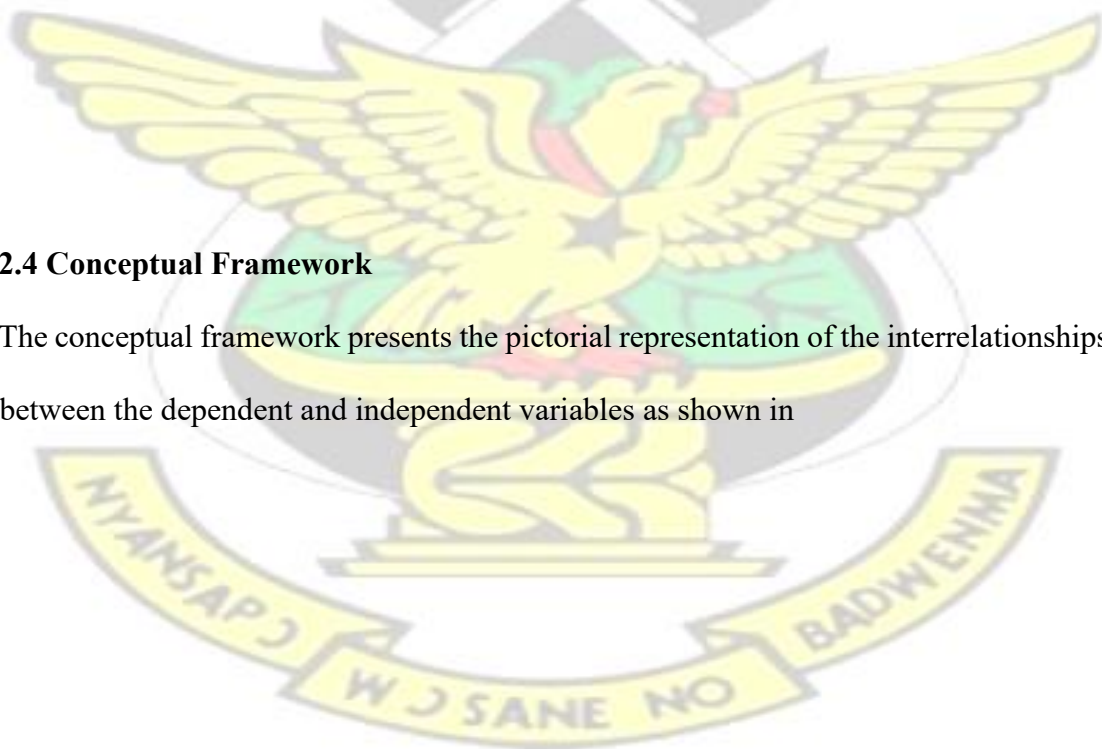


Figure 2.1.

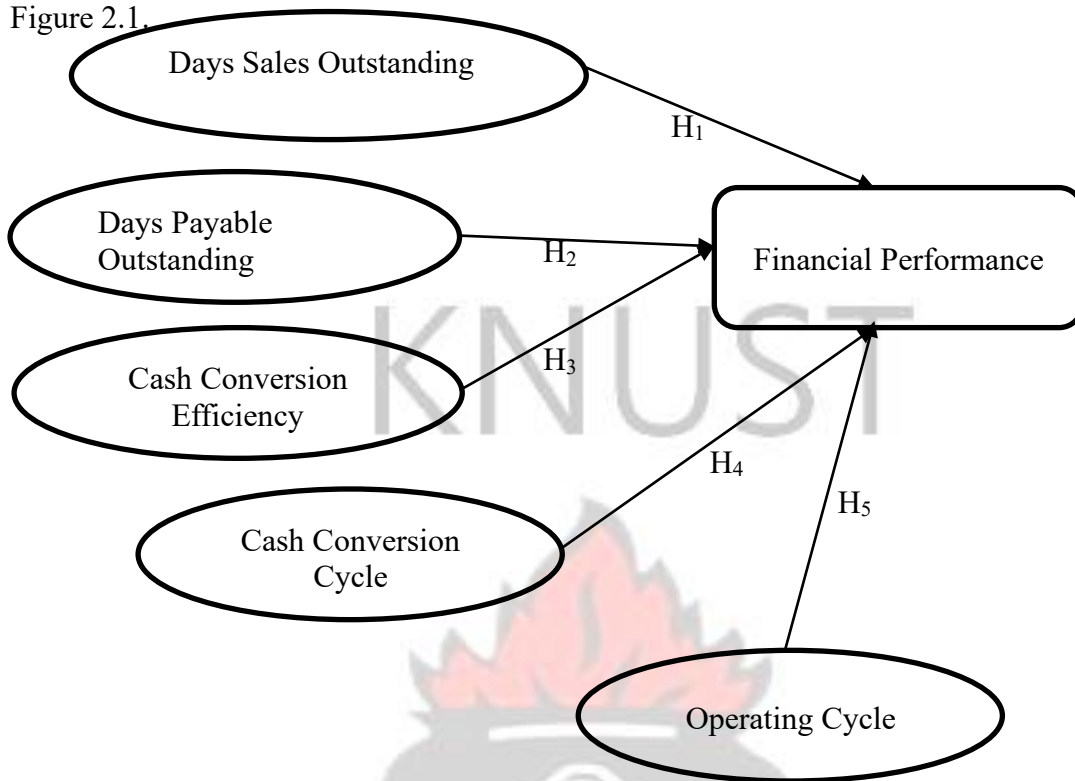


Figure 2.2 Conceptual Framework

Source: Author's Construct (2023)

Empirical antecedents have established a link between determinants of working capital and the financial performance of firms (Akkas, 2023; Ibrahim & Isiaka, 2021; Pandiangan & Sihombing, 2022; Wibowo & Ryalvin, 2023).

The information that the average collection time of a corporation provides more than one useful insight into the organization's overall functioning. Empirical evidence has shown that there was a positive association between the days' sales outstanding and the financial performance of firms. Based on the above supposition, the hypothesis is formulated as:

H₁: A shorter day of sales outstanding of listed non-financial firms in Ghana will surge their financial performance.

The great majority of firms wish to reduce the days payable outstanding to preserve strong relationships with their most significant suppliers and, presumably, to get trade discounts. The computation of an organization's average payment period may shed light on its cash flow and stability. Therefore, it is theorized that

H₂: Prolong days payable outstanding of listed non-financial firms in Ghana will increase their financial performance.

They found that firms with shorter OC and higher CCE had higher profitability, as measured by ROA. Moreover, Kwon et al. (2020) investigated the effect of CCE and OC on financial performance in the Korean retail industry. They found that firms with higher CCE had higher profitability.

H₃: Higher cash conversion efficiency increases the financial performance of listed non-financial firms in Ghana.

Decreasing the time of the CCC, the company will benefit from enhanced levels of efficiency and productivity. If the firm expedites its orders, the lead time will be reduced and the inventory will flow through the manufacturing process more rapidly. This will result in a shorter period of cash spent on materials and more precise forecasts. Thus, the proposition is that

H₄ A rapid cash conversion cycle of listed non-financial firms in Ghana will improve their financial performance.

Shortening the operating cycle is an effective technique to enhance a company's financial performance and cash flow (Akkas, 2023). By reducing the time, it takes to convert resources into cash, a company can increase its liquidity, minimize its reliance on external financing, and enhance its profitability. Thus, it is hypothesized that

H₅: Shortening the operating cycle increases the financial performance of listed nonfinancial firms in Ghana.

2.5 Chapter Summary

The relevant literature review was divided into four sections: conceptual review, theoretical review, empirical review and conceptual framework. The transaction cost theory, the Miller-Orr cash management model, and the working capital cycle theory were chosen for this study because they can shed light on working capital management and its relationship to the financial performance of organizations. Following an intensive analysis of the relevant published information, which ranged from works produced by authors in affluent countries to works written by authors in undeveloped countries to studies conducted in Ghana, the following conclusions were reached: The relevant literature research on the issue of working capital and financial performance yielded inconclusive results. The average collecting period, the average payment period, and the cash conversion cycle were mentioned as crucial factors throughout the debate. Finally, but by no means least, a conceptual framework was developed to graphically represent the interrelated components discovered in the study.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The methodology chapter of this study delves into the various approaches employed to achieve the research objectives. It sheds light on the research approach and design adopted, as well as the sources and types of information utilized in the study. This section also comprehensively discusses the working capital management variables and their respective justifications. Furthermore, the chapter outlines the estimation model

utilized to explore the relationship between working capital management and financial performance, specifically the return on assets (ROA) and Tobin's q, of nonfinancial companies listed on the Ghana Stock Exchange (GSE).

3.1 Research Approach

The research methodology employed in this study is quantitative and aligned with the positivist paradigm. The positivist philosophy, rooted in the works of Comte (1851), emphasizes the use of observation and reason to comprehend human behaviour. It asserts that knowledge derived from experience and senses, including measurement, is reliable and factual. Consequently, positivism contends that research should only be based on observable and measurable data, which can be objectively collected and interpreted (Dannels, 2018). The use of positivism is suitable for this study as it seeks to conduct an in-depth analysis of the relationship between working capital management and the financial performance of non-financial companies listed on the Ghana Stock Exchange (GSE). Quantitative methodology, which is derived from positivism, involves the collection of precise, scientific data that is often analyzed using statistical methods to ensure the generalizability of the findings (Apuke, 2017).

3.2 Research Design

The research design chosen for this study is the explanatory (causal) research design, which allows the establishment of a cause-and-effect relationship between the independent variable (working capital management) and the dependent variable (financial performance). This design is often used in social sciences research to investigate the relationship between variables and to determine if one variable causes a change in another. Exploratory research is a preliminary research design that aims to explore a research problem, identify research questions, and generate hypotheses

(Adams & McGuire, 2022). Exploratory research is typically used when there is a need to gain a better understanding of a research problem.

The choice of explanatory (causal) research design for this study is justified by the need to establish a clear cause-and-effect relationship between working capital management and financial performance. This design enables the researcher to determine if there is a significant impact of working capital management on the financial performance of non-financial companies listed on the GSE. Additionally, the explanatory (causal) research design is suitable for this study because it allows for the control of extraneous variables that may affect the relationship between working capital management and financial performance. This is important because it allows us to isolate the impact of working capital management on financial performance (Briggs, 2019). Moreover, the explanatory (causal) research design allows for the use of statistical techniques to analyze the data collected (Vebrianto et al., 2020). This makes it possible to establish a clear and objective relationship between working capital management and financial performance, as the statistical results can be replicated and verified.

3.3 Population

The population of this study consists of all the non-financial firms listed on the GSE as of the year ending 2021. The GSE is the principal stock exchange of Ghana and serves as the main platform for trading in securities. It is important to note that the focus of this study is on non-financial firms, as financial firms (such as banks and insurance companies) have different working capital management practices compared to non-financial firms. The non-financial firms listed on the GSE represent a diverse range of industries including manufacturing, consumer goods mining, construction, real estate and pharmaceutical.

The inclusion of all twenty-two (22) non-financial firms listed on the GSE ensures that the study has wide coverage and can be used to make generalizations about the effect of working capital management on financial performance across different industries. The population of this study is also limited to firms that have published their annual reports and financial statements for the period of 2001 to 2021. This is because the study requires financial data from these years to analyze the relationship between working capital management and financial performance. Firms that did not publish their financial data during this period are excluded from the study population.

3.4 Data and Sampled Firms

The study used a secondary data set extracted from the annual reports and financial statements of non-financial firms listed on the Ghana Stock Exchange. The data set comprises 22 firms operating in various industries, including manufacturing, mining, services (non-financial), construction, and real estate (Ghana Stock Exchange, 2022). The period covered by the data set is from 2001 to 2021. The selection of the firms was based on inclusion criteria, such as being listed on the Ghana Stock Exchange, having a list of financial statements for the study period, and being a non-financial firm. Firms that did not meet these criteria were excluded from the study. The inclusion of firms from diverse industries provides a broader perspective on the relationship between working capital management and financial performance across different sectors.

3.5 Measurement and Justification of the Variables

3.5.1 Dependent variables

Return on Assets (ROA) - ROA is a financial ratio that measures a company's profitability by dividing net income by its average total assets. ROA is an important measure of a firm's financial performance, as it indicates how efficiently the company is using its assets to generate profits. ROA is a commonly used metric in financial

analysis and has been found to have a significant relationship with Tobin's q in previous studies (Sawarni et al., 2022).

Tobin's q - Tobin's q is a measure of a firm's market value relative to its replacement cost. It is calculated by dividing the market value of the firm's assets by their replacement cost (Liu et al., 2022). Tobin's q is an important measure of a firm's performance, as it indicates whether the firm is overvalued or undervalued in the market. Tobin's q has been used extensively in empirical studies as a proxy for the market value of the firm and is a significant predictor of firm performance (Dakhlallh et al., 2020).

3.5.2 Independent variables

Days Sales Outstanding (DSO) - DSO is a measure of the average number of days that a company takes to collect payment from its customers after a sale has been made (Mielcarz et al., 2018). DSO is an important measure of a firm's liquidity and its ability to manage its accounts receivable. Previous studies have found that DSO has a significant negative relationship with firm performance, as longer DSO periods can lead to cash flow problems and reduce financial performance (Chasha et al., 2022).

Days Payable Outstanding (DPO) - DPO is a measure of the average number of days that a company takes to pay its suppliers after it has received goods or services. DPO is an important measure of a firm's liquidity and its ability to manage its accounts payable. Previous studies have found that DPO has a significant positive relationship with firm performance, as longer DPO periods can improve cash flow and increase financial performance (Mielcarz et al., 2018).

Cash Conversion Efficiency (CCE) - CCE is a measure of how efficiently a company can convert its investments in working capital into cash. It is calculated by dividing the operating cash flow by the sum of accounts receivable and inventory. CCE is an

important measure of a firm's operational efficiency and its ability to manage its working capital. Prior studies have found that CCE has a significant positive relationship with firm performance, as higher CCE values indicate better cash flow management and higher financial performance (Pirttilä et al., 2020).

Cash Conversion Cycle (CCC) - CCC is a measure of the average number of days that a company takes to convert its investments in inventory and accounts receivable into cash. It is calculated by subtracting DPO from the sum of DSO and inventory turnover days. CCC is an important measure of a firm's liquidity and its ability to manage its working capital. Earlier studies have found that CCC has a significant negative relationship with firm performance, as longer CCC periods can lead to cash flow problems and reduce the financial performance of firms (Zalaghi et al., 2019).

Operating Cycle (OC) - OC is a measure of the average number of days that a company takes to convert its investments in inventory into cash. It is calculated by adding DSO to inventory turnover days. OC is an important measure of a firm's liquidity and its ability to manage its inventory. Previous studies have found that OC has a significant negative relationship with firm performance, as longer OC periods can lead to inventory management problems and reduce financial performance (Olaoye & Okunade, 2020).

3.5.3 Control Variables

Liquidity - Liquidity is a measure of a firm's ability to meet its short-term obligations. It is calculated by dividing current assets by current liabilities. Liquidity is an important control variable in financial analysis, as it affects a firm's ability to manage its working capital and generate profits (Schilling, 2016).

Leverage - Leverage measures a firm's use of debt financing and can affect its cost of capital and financial risk. The inclusion of leverage as a control variable in the study is

important because it has been shown in previous studies to have a significant impact on a company's financial performance. A high level of debt can lead to a higher cost of capital and reduced profitability, which can negatively affect the company's return on assets. By controlling for leverage, the study can better isolate the impact of other independent variables on the dependent variable (Ochieng'Wayongah & Mule, 2019).

Table 3.1 Variable, Notation, Definition, Measurement & Expected Sign

<u>Variable</u>	<u>Notation</u>	<u>Definition</u>	<u>Measurement</u>	<u>Expected Sign</u>
Return on Assets	ROA	Return on assets efficiently a company is using its assets to generate profits.	$\frac{Net\ Income}{Total\ Assets}$	+ve
Tobin's q	Q	Tobin's q is a ratio that measures the market value of a company's assets relative to the replacement value of those assets.	$\frac{(Market\ Value\ of\ Equity + Book\ Value\ of\ Debt)}{(Replacement\ Cost\ of\ Assets)}$	+ve
<u>Variable</u>	<u>Notation</u>	<u>Definition</u>	<u>Measurement</u>	<u>Expected Sign</u>
Days Sales Outstanding	DSO	Days Sales Outstanding (DSO) measures the average number of days it takes a company to collect payment after a sale has been made on average daily sales.	$\frac{Accounts\ Receivable}{Annual\ Credit\ Sales} \times 365$	-ve
Days Payable Outstanding	DPO	Days Payable Outstanding (DPO) measures the average number of days it takes a company to pay its suppliers.	$\frac{Accounts\ Payable}{Annual\ Credit\ Purchases} \times 365$	+ve
Cash Conversion Efficiency	CCE	Cash Conversion Efficiency (CCE) measures how well a company manages its cash flow.	$\frac{(Annual\ Sales / ((Beginning\ AR + Ending\ AR) / 2 + (Beginning\ Inventory + Ending\ Inventory) / 2))}{x\ 365}$	+ve

Cash Conversion Cycle	CCC	The Cash Conversion Cycle (CCC) measures the length of time it takes a company to convert resources into cash flow.	$DSO + DIO - DPO$	-ve
Operating Cycle	OC	The Operating Cycle (OC) measures the length of time it takes a company to convert inventory into cash.	$DIO + DSO$	-ve
Liquidity	LIQ	The ability of a company to meet its short-term obligations	$\frac{Current\ Assets}{Current\ Liabilities}$	+ve
Leverage	LEV	The proportion of total debts of the firm to the total assets	$\frac{Total\ Debts}{Total\ Assets}$	-ve

Source: Author's Compilation (2023)

3.6 Data Analysis

The data analysis is a crucial part of this study as it aims to examine the relationship between the independent variables (days sales outstanding, days payable outstanding, cash conversion efficiency, cash conversion cycle, operating cycle, liquidity, and leverage) and the dependent variables (Return on Assets and Tobin's q). The data analysis was performed using Microsoft Excel and STATA version 15.1. Descriptive statistics were used to summarize and present the characteristics of the collected data. The mean, standard deviation, minimum, maximum, and range of the variables were computed using STATA. Skewness and kurtosis were also computed to check for normality.

Regression analysis was employed to investigate the relationship between the independent and dependent variables. The regression analysis was conducted using STATA version 15.1. Two regression models were used, namely the dynamic model GMM and the static model fixed or random models, to estimate the relationship between the dependent variable and the independent variables. The regression analysis was conducted in three stages. In the first stage, the relationship between the independent variables and the dependent variable, Return on Assets, was examined. In the second stage, the relationship between the independent variables and the dependent variable, Tobin's q, was examined. In the third stage, the relationship between the independent variables, control variables (liquidity and leverage), and dependent variables (Return on Assets and Tobin's q) was examined.

To check the validity of the regression model, several diagnostic tests were conducted. The tests included the test for multicollinearity, heteroscedasticity, normality, and autocorrelation. The Breusch-Pagan/Cook-Weisberg test was used to test for heteroscedasticity, while the White test was used to test for the presence of autocorrelation. The Jarque-Bera test was used to test for normality. The significance of the relationship between the independent and dependent variables was determined by the p-value. A p-value less than 0.05 was considered statistically significant, indicating that there is a significant relationship between the independent and dependent variables. The R-squared value was also used to measure the goodness of fit of the model.

3.8 Model Specification

The study utilized both static and dynamic panel data regression to analyze the econometric data, which consists of cross-sectional and time-series dimensions. Panel data are multidimensional datasets that include time-series measurements, where

observations of various phenomena are collected for the same organizations or individuals across several periods (Humphrey, 2019). Static panel data analysis simultaneously considers time series and cross-sectional data, and there are two ways to vary in static panel data models: fixed effects and random effects (Frees, 2004).

Fixed effects assume that the intercepts differ across firms, but each company does not change over time, and the Hausman test selects the most suitable model between fixed and random-effects models. In contrast, random-effects regression models require two criteria: first, all variables must be selected randomly from a particular distribution, and second, the variables must be distributed independently of all other variables (Moral-Benito et al., 2019)

Dynamic panel data regression is used when dependent variables are predicted to have a sufficiently high degree of persistence, which is often the case with measures of firm performance. The study employs two commonly used dynamic panel estimation strategies, namely Difference GMM and System GMM (Arellano & Bond, 1991; Blundell & Bond, 1998). To address endogeneity issues, the study employs the generalized method of moments (GMM) estimators (Arellano & Bond, 1991; MoralBenito et al., 2019), which are superior to fixed effects estimators in overcoming endogeneity and simultaneity bias (Arora & Dharwadkar, 2018).

$$Y_{it} = \alpha + \beta Y_{it-1} + \gamma X_{it} + v_{it} \quad (3.1)$$

Y_{it} performance metrics TQ and ROA and X_{it} denotes the set of independent variables including working capital variables control variables and Y_{it-1} represent the lagged financial performance term.

The Difference GMM estimator, also known as the Arellano and Bond Estimator, uses the lagged levels of the dependent variables as inputs for the first differenced lags of

the dependent variable, while the System GMM estimator employs the lagged difference of the dependent variable as instruments for the equation in levels and the use of lagged levels of the dependent variable as instruments for the equation in first difference. The System GMM estimator is more robust than the Difference GMM estimator (Renzhi and Baek, 2020). To address heteroskedasticity and autocorrelation problems, robust standard errors have been supplied for fixed effects estimates, and Windmeijer-corrected standard errors have been reported for GMM estimations.

To examine the nexus between working capital management and the financial performance of listed non-financial firms in Ghana, the study employs the two-step system-GMM method. The models are stated as:

$$ROA_{it} = \alpha_0 + \beta_0 ROA_{it-1} + \beta_1 DSO_{it} + \beta_2 DPO_{it} + \beta_3 CCE_{it} + \beta_4 CCC_{it} + \beta_5 OC_{it} + \beta_6 LIQ_{it} + \beta_7 LEV_{it} + v_{it} \quad (3.2)$$

$$Q_{it} = \alpha_0 + \beta_0 Q_{it-1} + \beta_1 DSO_{it} + \beta_2 DPO_{it} + \beta_3 CCE_{it} + \beta_4 CCC_{it} + \beta_5 OC_{it} + \beta_6 LIQ_{it} + \beta_7 LEV_{it} + v_{it} \quad (3.3)$$

Where ROA_{it} and Q_{it} are the firm performance measures for the firm i at period t . On the right-hand side of the model, we have the working capital variables (see Table 3.1 for a description of working capital variables) for the firm **Error! Bookmark not**

defined. at period t . To account for potential confounding factors that may affect the financial performance of non-financial firms listed on the Ghana Stock Exchange (GSE), the study controlled for two variables: LIQ and LEV.

3.9 Chapter Summary

The methodology chapter of the study outlines the methods used to examine the relationship between executive compensation and the financial performance of nonfinancial firms listed on the Ghana Stock Exchange. The study employed a panel

data approach, which considers both time-series and cross-sectional dimensions of the data, and static and dynamic versions of panel data regression for econometric analysis. The static panel data analysis includes fixed effects and random effects models, and the most suitable model was selected using the Hausman test. The study used the fixed effect model, which assumes that the intercepts are time-variant but each company does not change over time, and the unobserved impact is explicitly included in the least-squares dummy variable regression model. The random-effects regression model was used when the variables were distributed independently of all the other variables.

Dynamic panel data regression is used when the dependent variables are predicted to have a sufficiently high degree of persistence. The study used two widely used dynamic panel estimation strategies, namely Difference GMM and System GMM, which are more robust and informative since they capture persistent effects. The study also controlled for confounding factors affecting financial performance, including LIQ and LEV. The Windmeijer-corrected standard errors were reported for GMM estimations, and robust standard errors were supplied for FE estimates to address heteroskedasticity and autocorrelation problems.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents the findings and analysis of a study into the effect of working capital management on the financial performance of listed non-financial firms in Ghana. The chapter offers a comprehensive examination of the collected data, commencing with the exposition of descriptive statistics, succeeded by diverse statistical examinations executed to evaluate the authenticity and dependability of the data. Additionally, the chapter presents the results of a GMM analysis utilising a twostep system approach, which investigates the association between working capital management and financial performance.

4.1 Descriptive Statistics

Descriptive statistics are employed to provide a concise overview and illustrate the fundamental characteristics of the variables being examined. The current investigation provides an extensive understanding of the central tendencies, dispersions, and distributions of the variables under consideration. The dataset is presented thoroughly by reporting measures such as means, standard deviations, minimum, and maximum values. Descriptive statistics provide an essential foundation for subsequent analysis and interpretation of findings.

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	488	0.9345	0.3713	-0.6000	2.5700
Q	488	2.5976	1.9783	0.0555	6.8413
CCC	488	1.2904	0.2278	0.1067	2.0400
CCE	488	0.4698	0.1070	0.1124	0.7816

DSO	488	1.7145	0.3380	-1.0800	3.3600
DPO	488	1.8340	0.1018	1.4000	1.9800
OC	488	0.6176	0.1863	-0.1200	1.5800
LIQ	488	1.3216	0.1391	0.7300	1.5700
<u>LEV</u>	<u>488</u>	<u>1.6892</u>	<u>0.2615</u>	<u>-0.9200</u>	<u>2.2200</u>

ROA: Return on assets, Q: Tobin's q, DSO: Days sales outstanding, DPO: Days payable outstanding, CCE: Cash conversion efficiency, CCC: Cash conversion cycle, OC: Operating cycle, LIQ: Liquidity, LEV: Leverage

Source: Author's Computation (2023)

Table 4.2 presents descriptive statistics that offer a comprehensive summary of the financial performance and working capital management of non-financial firms operating in Ghana. The implications of these findings are significant for the entire industry.

4.1.1 Return on assets

The return on assets is a significant measure that reflects the efficiency of nonfinancial companies in Ghana in utilizing their assets to generate profits. The mean ROA value of 0.9345 indicates that these companies, on average, yield a return of around 93.45% on their assets. This suggests that the companies exhibit a high level of efficacy in optimizing their resources to yield financial gains. It is interesting to acknowledge that the existence of a standard deviation of 0.3713 indicates the existence of certain fluctuations in the levels of profitability among the firms. This suggests that certain companies may be exhibiting exceptional performance, whereas others may be encountering difficulties in generating profits from their assets.

4.1.2 Tobin's q

Tobin's q (Q) is a measure that gauges the market value in relation to the replacement cost, thereby offering valuable insights into the market perception of non-financial firms in Ghana. The calculated mean value of 2.5976 suggests that the market value of

the firms in question is, on average, roughly 2.5976 times their replacement cost. A heightened Tobin's q ratio indicates that the firm is perceived by investors to possess a higher value relative to its tangible assets. The aforementioned phenomenon may be attributed to various elements, including but not limited to promising expansion opportunities, robust brand recognition, proprietary knowledge, or other intangible resources. An elevated Tobin's q ratio typically signifies optimistic market sentiment and assurance in the prospects of the firms.

It is important to acknowledge that Tobin's q ratios may differ among firms, thereby signifying disparities in market assessment and investor outlook. Firms that exhibit higher ROA values and Tobin's q ratios may possess a competitive edge and be perceived more positively by stakeholders. Conversely, firms exhibiting lower levels of ROA and Tobin's q ratios may benefit from evaluating their asset management methodologies, pinpointing areas that require enhancement, and investigating prospects for augmenting their market value. Non-financial firms in Ghana can achieve sustainable growth and financial success by prioritizing profitability improvement, asset utilization optimization, and effective management of market perceptions.

4.1.3 Cash conversion cycle

The CCC is a significant metric that assesses the effectiveness of a company's working capital management and its capacity to produce cash flows. The findings from the study of non-financial firms in Ghana indicate that the mean CCC is 1.2904, which implies that these firms require an average of 1.2904 time units to transform their resources into cash flows. Typically, a reduced CCC metric denotes superior management of working capital and a decreased duration for the conversion of inventories and receivables into cash. This indicates that these companies have optimized their processes and possess

the ability to efficiently convert their assets into liquid funds. This scenario may have diverse ramifications for the non-financial enterprises industry in Ghana.

To begin with, an efficient cash conversion cycle facilitates companies in sustaining a robust level of liquidity. Firms can ensure their ability to meet short-term financial obligations, such as operational expenses and supplier payments, by minimizing the duration required to convert their assets into cash. Enhancing their financial stability and mitigating the likelihood of liquidity shortages is facilitated by this measure. Moreover, a reduced cash conversion cycle enables companies to efficiently distribute their resources. Accelerating the conversion of inventories and receivables into cash enables firms to allocate the released funds towards growth-oriented activities, such as expanding their business operations, investing in research and development, or acquiring new assets. This improves their capacity to capture market opportunities, foster innovation, and sustain competitiveness within the non-financial corporate sector.

The average CCC of 1.2904 indicates that the nonfinancial firms observed in Ghana have relatively efficient working capital management and cash flow generation. By reducing the duration of their cash conversion cycle, these companies can optimize their liquidity, efficiently allocate their resources, and potentially enhance their profitability. Nonetheless, firms must analyze their unique CCC metrics and pinpoint opportunities for additional optimization to enhance their financial performance and competitive advantage within the non-financial companies' sector in Ghana.

4.1.4 Cash conversion efficiency

The Cash Conversion Efficiency (CCE) metric is a crucial indicator that evaluates a company's ability to generate cash flows through efficient cash management practices.

The data collected reveal that the non-financial firms under observation in Ghana exhibit an average cash conversion efficiency (CCE) of 0.4698. This implies that, on average, these firms are capable of transforming nearly 46.98% of their cash reserves into cash inflows. Greater effectiveness in cash management is suggested by a higher CCE ratio, which implies that these firms possess the ability to generate cash flows from their available cash resources.

This suggests that the organization has adopted effective cash management strategies, including the optimization of its working capital, efficient management of receivables and payables, and reduction of superfluous cash reserves. Companies that exhibit higher cash conversion efficiency (CCE) ratios are typically in a more advantageous position to finance their business activities, capital expenditures, and outstanding debt obligations. Through the efficient conversion of cash resources into cash flows, these corporations can guarantee adequate funds to cover their routine operational costs, pursue expansion prospects, and fulfil their financial commitments, including debt settlements and shareholder dividend disbursements. Enhancing cash conversion efficiency can have various ramifications for non-financial enterprises operating in Ghana.

Based on the data, it can be inferred that the non-financial firms in Ghana have attained a moderate level of cash conversion efficiency, as indicated by the average CCE value of 0.4698. Through the consistent improvement of their cash management strategies and the augmentation of their cash conversion efficiency ratios, companies can fortify their fiscal standing, facilitate enduring expansion, and sustain competitiveness within the non-financial sector of Ghana.

4.1.5 Days Sales Outstanding

Days Sales Outstanding is a crucial metric that reveals the effectiveness of a company's credit and collection policies. The average DSO of 1.7145 for nonfinancial firms in Ghana denotes that these firms take an average of 1.7145 days to receive payment from their customers. Effective receivables management and prompt payment collection are crucial for sustaining a robust cash flow and mitigating financial hazards. A decrease in DSO indicates that companies are proficient in receiving payments from their clients promptly, leading to a reduced cash conversion cycle and enhanced liquidity.

Conversely, a rise in DSO may suggest inadequacies in the management of credit and collection procedures. The aforementioned statement may indicate potential concerns such as customers deferring payments, inadequacies in credit policies, or difficulties in overseeing and implementing payment conditions. Increased DSO may result in limitations on cash flow, heightened dependence on outside funding, and probable issues with liquidity. The observed non-financial firms in Ghana exhibit performance in collecting payments from customers, as evidenced by their average DSO of 1.7145. Through the pursuit of a lower DSO, companies in Ghana can improve their cash flow, mitigate financial risk, and sustain a robust financial standing within the nonfinancial industry.

4.1.6 Days payable outstanding

The Days Payable Outstanding (DPO) metric is a vital tool for evaluating a company's effectiveness in managing its payment obligations to suppliers. The average Days Payable Outstanding (DPO) of 1.8340 for non-financial firms in Ghana suggests that these firms typically require approximately 1.8340 days to settle their outstanding payables. The proficient administration of payables is a crucial aspect of sustaining a robust cash flow and maximizing financial adaptability. Through the strategic

management of payment terms, companies can achieve a harmonious equilibrium between ensuring prompt remittance to suppliers and maximizing their cash flow position. An extended day payable outstanding (DPO) enables companies to retain funds for an extended duration, thereby offering supplementary financial flexibility and liquidity.

A higher DPO in comparison to the industry benchmarks may suggest possible concerns, such as tense supplier connections, limited access to credit terms, or obstacles in efficiently handling working capital. The observed non-financial firms in Ghana exhibit a mean DPO of 1.8340, indicating their effectiveness in discharging their obligations to suppliers. Achieving equilibrium between prompt disbursements to vendors and enhancing cash flow is of utmost importance.

4.1.7 Operational cycle

The Operating Cycle (OC) is a performance measure that offers valuable insights into a company's inventory management efficiency and its capacity to transform inventories into cash. The average operating cycle (OC) for non-financial firms in Ghana was observed to be 0.6176. This suggests that, on average, these firms require approximately 0.6176 units of time to transform their inventories into cash. A lower OC value typically implies enhanced effectiveness in inventory management, as it signifies a decreased duration for the conversion of inventories into cash. This suggests that the companies possess the capability to promptly vend their merchandise or amenities and receive payments from their clientele.

The variability of the observed firms' operating cycles is moderate, based on the standard deviation of 0.1863. The preceding observation suggests that certain companies may possess superior inventory management strategies, leading to reduced operating cycles. Conversely, other firms may experience prolonged operating cycles

due to factors such as sluggish sales, production setbacks, or suboptimal inventory regulation.

The variability in the efficiency of converting inventories into cash among firms is demonstrated by the range of operating cycle values, which spans from -0.1200 to 1.5800. A negative value implies that the organisation may experience negative cash flow resulting from its inventory, which may signify potential concerns such as surplus or outdated inventory. Conversely, a greater positive numerical quantity denotes an extended duration of the operational cycle, which could be attributed to various factors such as sluggish sales, prolonged production cycles, or challenges in receiving payments from clientele.

4.1.8 Liquidity

The management of liquidity holds significant importance for non-financial enterprises operating in Ghana. On average, the mean value of LIQ at 1.3216 suggests a favourable level of liquidity. The aforementioned statement implies that, typically, these corporations possess adequate current assets to fulfil their immediate monetary commitments. Sufficient liquidity is a crucial factor for enterprises to meet their day-to-day expenditures, settle their immediate liabilities, and capitalise on prospective investment prospects. The variance in firms' liquidity is moderate, as indicated by the standard deviation value of 0.1391. This suggests that although the mean liquidity level is advantageous, there are variations in the liquidity status of specific companies.

Firms that exhibit higher liquidity ratios, signify a more robust capacity to satisfy near-term liabilities, whereas other lower liquidity ratios imply possible difficulties in meeting immediate financial obligations. The observed non-financial firms exhibit varying liquidity levels, as evidenced by the range of liquidity values spanning from 0.7300 to 1.5700. Companies that exhibit a higher liquidity ratio tend to possess a more

robust capacity to manage unforeseen expenditures or economic contractions. On the contrary, companies possessing a liquidity ratio in proximity to the lower limit of the spectrum may necessitate vigilant observation and regulation of their monetary inflows and outflows to guarantee their ability to fulfil their immediate liabilities. Assessing the financial health and risk profile of non-financial firms in Ghana necessitates an in-depth understanding of their liquidity positions. Companies that possess higher liquidity ratios are more capable of effectively managing economic uncertainties and exploiting growth prospects.

4.1.9 Leverage

The metric of leverage offers valuable insights into the degree to which companies depend on debt financing to sustain their business activities and expansion. The computed average leverage of 1.6892 indicates that the non-financial firms in Ghana exhibit a moderate degree of leverage. The aforementioned statement denotes an equitable distribution of financial resources, wherein companies employ a blend of debt and equity funding to facilitate their operations. The variance of the firms' leverage ratios is indicated by the standard deviation of 0.2615. This implies that, although the mean leverage is moderate, distinct firms may exhibit varying levels of indebtedness.

Some companies may exhibit elevated leverage ratios, which suggest a greater dependence on debt financing, whereas others may demonstrate reduced leverage ratios, indicating a more cautious financing strategy. The observed non-financial firms exhibit a diverse range of capital structures, as evidenced by the leverage values ranging from -0.9200 to 2.2200. Companies that exhibit higher leverage ratios are inclined to possess a greater amount of debt, which could result in amplified financial hazards such as elevated interest costs and probable challenges in discharging their debt obligations. Conversely, companies that exhibit lower leverage ratios may possess a more robust

financial standing and greater adaptability in handling their debt responsibilities. Effective monitoring and management of leverage can potentially improve the financial performance, competitiveness, and long-term sustainability of non-financial firms operating in Ghana.

4.2 Normality Test

To draw accurate statistical conclusions, it is imperative to evaluate whether the data conforms to the assumptions of normality. The Shapiro-Francia W' test is utilised to assess the normality of the variables being analysed. The present examination evaluates the null hypothesis that the given data conforms to a normal distribution. By conducting this test, the study determines the suitability of parametric statistical methods for the subsequent analysis. Table 4.3 displays the outcome of the Shapiro-Francia W' test.

Table 4.2 Shapiro-Francia W' test for normal data

Variable	Obs	W'	V'	z	P-Value
ROA	488	0.9069	12.9050	2.6520	0.1827
Q	488	0.9461	19.7200	0.8490	0.4873
CCC	488	0.8479	18.7520	0.7270	0.3748
CCE	488	0.9892	3.8170	1.9340	0.3168
DSO	488	0.9198	19.0030	1.0650	0.1983
DPO	488	0.9460	19.0980	0.4610	0.0974
OC	488	0.9605	13.9660	0.7750	0.6398
LIQ	488	0.9559	15.5740	0.0140	0.2938
LEV	488	0.9652	16.9510	0.6770	0.2838

ROA: Return on assets, Q: Tobin's q, DSO: Days sales outstanding, DPO: Days payable outstanding, CCE: Cash conversion efficiency, CCC: Cash conversion cycle, OC: Operating cycle, LIQ: Liquidity, LEV: Leverage

Source: Author's Computation (2023)

The findings indicate that there is insufficient evidence to reject the null hypothesis that these variables are normally distributed. This indicates that the data follows a

reasonably normal distribution, allowing for reliable analysis and interpretation of the financial performance and working capital management of non-financial firms in Ghana.

4.3 Multicollinearity Test

The phenomenon of multicollinearity pertains to the existence of higher correlations among the independent variables within a regression model. The introduction of distortions may compromise the accuracy of the outcomes and weaken the statistical significance of specific variables. Consequently, a multicollinearity assessment is performed to evaluate the level of correlation between the predictor variables. The objective of this analysis is to detect possible instances of multicollinearity that could potentially affect the reliability and accuracy of the regression results.

Variable	VIF	1/VIF
CCE	1.29	0.77553
DPO	1.23	0.81155
DSO	1.12	0.8962
OC	1.11	0.90239
LIQ	1.09	0.91381
CCC	1.09	0.91405
LEV	1.09	0.91825
<u>Mean VIF</u>	<u>1.15</u>	

DSO: Days sales outstanding, DPO: Days payable outstanding, CCE: Cash conversion efficiency, CCC: Cash conversion cycle, OC: Operating cycle, LIQ: Liquidity, LEV: Leverage

Source: Author's Computation (2023)

The multicollinearity test utilising the Variance Inflation Factor (VIF) and tolerance values reveals a low degree of multicollinearity between the variables CCE, DPO, DSO, OC, LIQ, CCC, and LEV. The range of VIF values is 1.09 to 1.29, which is close to 1,

indicating minimal multicollinearity. Further confirming the low multicollinearity, the corresponding tolerance values range from 0.7755 to 0.9182. Therefore, it is acceptable to include these variables in regression analysis without concern for excessive correlation. This enables the use of these variables in additional analysis and modelling, as they provide valuable information without compromising the reliability of the results.

4.4 Heteroscedasticity

To ascertain the reliability of the outcomes, a heteroscedasticity examination is conducted to identify any potential violation of the constant variance assumption.

Table 4.4 Heteroscedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Variables: fitted values of Q $\chi^2(1)$

= 0.75

Prob > χ^2 = 0.4152

Variables: fitted values of ROA $\chi^2(1)$

= 0.86

Prob > χ^2 = 0.369

ROA: Return on assets, Q: Tobin's q,

Source: Author's Computation (2023)

The table displays the results of the Breusch-Pagan/Cook-Weisberg tests for heteroscedasticity. The tests were conducted on the fitted values of Q and ROA variables. The chi-square test statistic for the variable Q is 0.75, with a corresponding p-value of 0.4152. Similarly, the chi-square test statistic for the variable ROA is 0.86 with a p-value of 0.369. There is no evidence of heteroscedasticity for either variable based on these results. The relatively high p-values indicate that the homoscedasticity null hypothesis (equal variance) cannot be rejected. Therefore, it can be concluded that

there are no significant indications of heteroscedasticity in the data for variables Q and ROA.

4.5 Regression Analysis

The study explores the effect of working capital management on the financial performance of listed non-financial firms in Ghana. To attain the desired outcome, a regression analysis was carried out utilising the two-step system GMM estimation technique. The GMM estimation technique is a widely employed and reliable method in econometric analysis that is designed to address statistical issues such as endogeneity.

The study utilises a regression model that incorporates time effects, thereby enabling the examination of potential variations in financial performance across time. The outcomes of the AR(1) and AR(2) tests suggest that the model residuals do not exhibit autocorrelation at lag 1 and lag 2, thereby confirming the assumption of no autocorrelation. Based on the results of the Sargan overidentification restriction (OIR) test, it can be inferred that the instruments utilised in the analysis are exogenous, given that the p-values surpass the threshold of 0.05. The findings of the Hansen Orthogonal Instrumental Variables Regression (OIR) test suggest that the utilised instruments are reliable and free from endogeneity. The results of the Dif test indicate that there is no statistically significant difference in the exogeneity of the subsets of instruments.

The statistical values of the Fisher test, which are found to be significant at the 1% level, indicate that the model possesses robust explanatory power in predicting financial performance. The current investigation comprises a comprehensive analysis of 17 distinct instruments, utilising data obtained from 22 firms, and encompassing a total of 464 observations. Based on the diagnostic statistics, it can be concluded that the model is appropriate for examining the relationship between working capital management and

financial performance. The reliability of the findings is supported by the absence of autocorrelation, the validity of the instruments, and the high explanatory power.

Table 4.5 Working Capital Management and Financial Performance

	ROA	Q
Constant	0.433*** (0.000)	2.119*** (0.000)
ROA(-1)	0.441*** (0.000)	
Q(-1)		0.833*** (0.000)
DSO	0.2588*** (0.000)	-0.061** (0.027)
DPO	0.5178*** (0.000)	-1.870*** (0.000)
CCE	1.095* (0.067)	-0.744*** (0.000)
CCC	-0.104** (0.006)	-0.101*** (0.000)
OC	0.4323*** (0.000)	-0.101*** (0.000)
LIQ	-0.0041 (0.729)	0.838*** (0.000)
LEV	0.2834*** (0.000)	-0.022*** (0.002)
Time Effects	Yes	Yes
AR(1)	(0.398)	(0.510)
AR(2)	(0.848)	(0.237)
Sargan OIR	(0.288)	(0.897)
Hansen OIR	(0.726)	(0.863)
DHT for instruments in levels H excluding group	(0.527)	(0.483)
Dif(null, H=exogeneous)	(0.942)	(0.862)
(b) IV (years, eq(diff) H excluding group	(0.616)	(0.583)
Dif(null, H=exogeneous)	(0.815)	(0.975)
Fisher	457.05***	339.09***
Instruments	17	17
Firms	22	22
Observations	464	464

***, **, *: significance levels of 10%, 5%, and 1% respectively; Difference in Hansen Test for Exogeneity of Instruments Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance values

are twofold. (1) The significance of estimated coefficients and the Wald statistics. (2) The failure to reject the null hypotheses of (a) no autocorrelation in the AR(1) & AR(2) tests and; (b) the validity of the instruments in the Sargan and Hansen OIR tests. *ROA: Return on assets, Q: Tobin's q, DSO: Days sales outstanding, DPO: Days payable outstanding, CCE: Cash conversion efficiency, CCC: Cash conversion cycle, OC: Operating cycle, LIQ: Liquidity, LEV: Leverage.* Source: Author's Computation (2023)

The findings indicate that there is a positive relationship between the lagged value of ROA and the current period's ROA. This indicates that non-financial firms in Ghana with a higher ROA in the preceding period will likely continue to perform well in the current period. The proposition posits that companies that have exhibited outstanding outcomes in the past are more inclined to maintain their profitability over time.

Likewise, the positive impact of the lagged Tobin's q value on the current period's Tobin's q has been observed. The assertion suggests that non-financial companies in Ghana that had a greater market value compared to their assets in the preceding period are more prone to observe a surge in their market value during the present period. The statement posits that investors hold a positive outlook regarding the growth potential of said firms, leading to a willingness to pay a premium for their equity.

The implications of these findings hold significant importance for non-financial corporations that are listed in Ghana. It is appropriate for companies to endeavour to uphold a robust performance concerning ROA, as it is indicative of their capacity to generate profits from their assets. The attainment of this objective can be facilitated by proficient resource management, judicious cost containment, and strategic decision-making. When companies prioritise the enhancement of their Tobin's q metric, it serves as an indicator of the market's evaluation of the firm's worth and capacity for growth.

4.5.1 Effect of days sales outstanding on the financial performance of listed non-financial firms in Ghana

The findings pertaining to the effect of days sales outstanding on financial performance disclose intriguing insights. The observed coefficient of 0.2588 pertaining to the return on assets variable implies a positive correlation with the day's sales outstanding variable. The finding suggests that a rise in the average length of time taken to collect sales revenue has a positive association with enhanced profitability among non-financial enterprises operating in Ghana. Conversely, the coefficient of -0.061 assigned to Tobin's q denotes an adverse correlation between days' sales outstanding and the market value concerning replacement cost. This implies that a higher market value is correlated with a shorter average collection period.

The findings provide partial support for hypothesis H₁. It revealed that a shortened DSO has a positive effect on ROA but a negative effect on Tobin's q. This suggests that, for listed nonfinancial firms in Ghana, a reduction in the average collection period for sales may increase the return on assets, but a decrease in market value relative to replacement cost. When managing their Days Sales Outstanding, businesses must therefore carefully weigh the tradeoff between liquidity and profitability.

The present findings are consistent with previous research and theoretical frameworks that have investigated the correlation between days' sales outstanding and financial performance. According to Sudarsanam and Lai's (2001) research, companies that have a lower DSO demonstrate higher profitability concerning their return on assets.

The significance of proficient credit management in enhancing a company's profitability was underscored by them. Kim, Jung, and Song (2016) have reported a noteworthy inverse correlation between Days Sales Outstanding (DSO) and the

profitability of Korean firms, underscoring the necessity for enhanced collection procedures.

Nevertheless, the existing body of literature also presents inconsistent results. According to the study conducted by Chee, Wong, and Tan (2017), there was no statistically significant correlation between the day's sales outstanding (DSO) and the profitability of firms in Singapore. This implies that the effect of DSO on profitability may be subject to variations based on the industry and other financial factors. In their study, Sharma and Kumar (2019) discovered an insignificant and statistically insignificant association between Days Sales Outstanding (DSO) and profitability among Indian firms.

Besides, several studies have reported a positive correlation between Days Sales Outstanding (DSO) and financial performance. Van Zijl, Taylor, and Brümmer (2007) discovered that South African firms with an extended DSO exhibited greater profitability concerning ROA. The authors posited that placing greater emphasis on sales growth as opposed to credit management may result in heightened profitability. Chakraborty and Ray (2017) identified a positive correlation between Days Sales Outstanding (DSO) and profitability among manufacturing firms in India.

The extant literature also underscores the interaction impact of additional variables on the correlation between days sales outstanding and financial performance. According to the study conducted by Piazzalunga, Zanetti, and Paltrinieri (2016), there exists a stronger correlation between profitability and days sales outstanding for firms that exhibit higher growth prospects. Singh, Goyal, and Pandey (2019) demonstrated that the impact of days' sales outstanding on profitability is contingent upon the capital structure of the organisation, underscoring the importance of effective credit management for firms with elevated levels of debt.

Ultimately, the findings about the relationship between days sales outstanding and financial performance are consistent with certain prior research, yet diverge from other studies. The observed differences can be ascribed to a multitude of factors, including but not limited to the magnitude of the sample, idiosyncratic characteristics of the firm, contextual features of the industry, and the methodologies employed for measurement. Comprehending these dynamics holds paramount importance for nonfinancial firms in Ghana to optimise their credit management strategies and augment their financial performance. By considering particular factors such as growth prospects and capitalization framework, companies can enhance their management of Days Sales Outstanding (DSO) and attain superior levels of profitability. The nonfinancial firms in Ghana must prioritise efficient credit management practices to improve their financial performance. Additionally, these firms must take into account the unique characteristics of their organisation and the industry in which they operate when devising strategies for managing their working capital.

4.5.2 Effect of days payable outstanding on the financial performance of listed non-financial firms in Ghana,

The findings pertaining to the effect of days sales outstanding on financial performance disclose intriguing insights. The observed coefficient of 0.2588 pertaining to the return on assets (ROA) variable implies a positive correlation with the day's sales outstanding variable. The finding suggests that a rise in the average length of time taken to collect sales revenue has a positive association with enhanced profitability among non-financial enterprises operating in Ghana. Conversely, the coefficient of -0.061 assigned to Tobin's q denotes an adverse correlation between DSO and the market value concerning replacement cost. This implies that a higher market value is correlated with a shorter average collection period. Therefore, based on the findings, hypothesis H_2 is partially supported. While an increase in days sales outstanding is found to have a

positive impact on return on asset, it has a negative impact on Tobin's q. This suggests that a prolonged day's sales outstanding may have mixed effects on the financial performance of listed non-financial firms in Ghana.

The present findings are consistent with previous research and theoretical frameworks that have investigated the correlation between Days Sales Outstanding and financial performance. According to Sudarsanam and Lai's (2001) research, companies that have a lower DSO demonstrate higher profitability concerning their ROA. The significance of proficient credit management in enhancing a company's profitability was underscored by them. Kim, Jung, and Song (2016) have reported a noteworthy inverse correlation between Days Sales Outstanding (DSO) and the profitability of Korean firms, underscoring the necessity for enhanced collection procedures.

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The extant literature also underscores the moderating impact of additional variables on the correlation between Days Sales Outstanding (DSO) and financial performance. According to the study conducted by Piazzalunga, Zanetti, and Paltrinieri (2016), there exists a stronger correlation between profitability and DSO for firms that exhibit higher growth prospects. Singh, Goyal, and Pandey (2019) demonstrated that the impact of Days Sales Outstanding (DSO) on profitability is contingent upon the capital structure of the organisation, underscoring the importance of effective credit management for firms with elevated levels of debt.

Ultimately, the findings about the relationship between Days Sales Outstanding (DSO) and financial performance are consistent with certain prior research, yet diverge from alternative investigations. The observed differences can be ascribed to a multitude of factors, including but not limited to the magnitude of the sample, idiosyncratic characteristics of the firm, contextual features of the industry, and the methodologies employed for measurement. Comprehending these dynamics holds paramount importance for non-financial enterprises in Ghana to optimise their credit management strategies and augment their financial performance. By considering particular factors such as growth prospects and capitalization framework, companies can enhance their management of Days Sales Outstanding (DSO) and attain superior levels of profitability. The non-financial firms in Ghana must prioritise efficient credit management practices to improve their financial performance. Additionally, these firms must take into account the unique characteristics of their organisation and the industry in which they operate when devising strategies for managing their working capital.

4.5.3 Effect of cash conversion efficiency on the financial performance of listed non-financial firms in Ghana

The empirical evidence about the impact of cash conversion efficiency on financial performance indicates mixed relationships, with differing degrees of statistical significance. The coefficient of 1.095 for return on assets implies a positive relationship between cash conversion efficiency and financial performance. This suggests that an improvement in cash conversion efficiency may result in a higher return on assets. Nonetheless, the statistical insignificance at the 10% threshold suggests a lack of adequate evidence to establish a direct association between cash conversion efficiency and return on assets.

Conversely, in terms of Tobin's q, which measures market value concerning replacement cost, the coefficient of -0.744 indicates an inverse correlation. It can be inferred that superior cash conversion efficiency is linked to a greater market value in comparison to the cost of replacement. The statistical significance of this relationship provides empirical support for the hypothesis that a positive correlation exists between higher levels of cash conversion efficiency and increased market value.

According to the findings, hypothesis H₃ is not statistically significant for return on assets, but it is accepted for Tobin's q. This suggests that although there is no direct evidence to support a positive relationship between cash conversion efficiency and return on assets, there is a negative relationship between cash conversion efficiency and market value relative to replacement cost. It suggests that firms with greater cash conversion effectiveness may have a greater market value.

Upon conducting a comparative analysis with prior research, Hirschey and Skiba (2014) ascertained that there exists a positive linear relationship between cash conversion efficiency and profitability, as measured by return on assets, for companies operating in

the United States. The authors contended that companies possessing greater levels of cash conversion efficiency have the potential to improve their profitability through the reduction of financing costs and the increase of cash reserves. Tsen, Lee, and Chen (2017) discovered a favourable association between Corporate Social Responsibility and profitability in Taiwanese companies.

Nevertheless, various investigations have yielded inconclusive or contradictory outcomes. The study conducted by Oyinlola, Oduyoye, and Fakile (2018) revealed a negligible and statistically insignificant association between cash conversion efficiency and profitability in the context of manufacturing firms operating in Nigeria. The authors posited that the impact of cash conversion efficiency on profitability may be contingent upon the industry context and other financial variables. In a study conducted by Chen and Yen (2017), it was observed that there existed no significant correlation between corporate social responsibility and firm value, as measured by Tobin's q , in companies based in Taiwan.

Furthermore, a scholarly inquiry has investigated the impact of organisational characteristics on the association between corporate social responsibility and financial results. According to the findings of San, Akhtar, and Ullah (2019), companies that possess greater financial leverage tend to observe a more pronounced favourable influence of cash conversion efficiency on their profitability. The authors contended that the optimisation of cash conversion can serve as a means of reducing financing costs and augmenting profitability, particularly in situations where there is a significant amount of debt. The study conducted by Wang, Feng, and Li (2020) revealed that the impact of cash conversion efficiency on firm performance is notably more pronounced in firms with higher growth prospects. The statement implies that proficient

management of working capital enables companies to distribute resources towards investments that foster growth, while simultaneously upholding financial stability.

4.5.4 Effect of the cash conversion cycle on the financial performance of listed non-financial firms in Ghana

The findings indicate that there exists a negative relationship between the cash conversion cycle and financial performance, as evidenced by the coefficients. The negative coefficient value of -0.104 observed for the return on assets indicates that a decrease in the cash conversion cycle duration is linked to an increase in the return on assets. It can be inferred that enterprises exhibiting a higher degree of efficacy in transforming their assets into liquid cash are more likely to attain superior financial outcomes, as evidenced by their return on assets. A reduced cash conversion cycle implies that an organisation can expedite the conversion of its assets, such as inventory and receivables, into cash, thereby potentially enhancing its profitability.

The negative correlation between the cash conversion cycle and market value concerning replacement cost is evidenced by the coefficient of -0.101 for Tobin's q. It can be concluded that a reduced cash conversion cycle is linked to an elevated market value in contrast to the replacement cost of the firm's assets. Firms that exhibit a reduced cash conversion cycle are capable of generating cash inflows at a faster pace, thereby potentially augmenting their market valuation. Companies that exhibit effective management of their working capital and maintain a shorter cash conversion cycle may be perceived as more valuable by investors. Based on the findings presented it can be concluded that hypothesis H₄, which states that a rapid cash conversion cycle of listed non-financial firms in Ghana will improve their financial performance, is supported by the evidence.

Previous research conducted in the past on the correlation between the cash conversion cycle and financial performance, thereby corroborating the assertions made in your statement. According to the study conducted by Chen and Chung (2013), there exists a positive correlation between a shorter cash conversion cycle and greater profitability, as assessed by the return on assets (ROA). The authors of the study observed that the aforementioned correlation is more pronounced in organisations with greater sales growth and larger size, indicating that effective management of working capital assumes greater significance as firms expand. The study conducted by Ganesan and Krishnan (2015) established a positive correlation between a reduced cash conversion cycle and profitability, as assessed by both return on assets and return on equity. The authors emphasised that the correlation is more pronounced for enterprises with elevated levels of financial leverage, indicating that proficient management of working capital can exert a more substantial influence on the profitability of highly leveraged firms.

The study conducted by Kareem and Abid (2017) investigated the companies in Nigeria and discovered a direct correlation between a reduced cash conversion cycle and enhanced profitability, as evaluated by both return on assets and return on equity. Sharma and Kumar (2019) have reported a negative association between the cash conversion cycle and corporate profitability, with the use of return on assets return on equity, and net profit margin as metrics.

It is noteworthy to mention that there exists inconsistency in the findings of various studies. The study conducted by Uyar and Kuzey (2017) revealed a lack of association between corporate social responsibility and the financial performance of companies in Turkey. The authors posited that the association between the cash conversion cycle and

financial gain may be contingent on contextual variables, including national and industry-specific attributes.

4.5.5 Operating cycle and the financial performance of listed non-financial firms in Ghana

The findings presented suggest that there exists a positive correlation between the operating cycle and return on assets, while a negative correlation is observed between the operating cycle and Tobin's q, a metric that gauges market value concerning replacement cost. A coefficient that is positively signed implies that there exists a correlation between a reduced operating cycle and a greater return on assets, which in turn indicates an enhancement in financial performance. Conversely, a negative coefficient indicates that a reduced operating cycle is linked with a greater market value in comparison to replacement cost, thereby denoting an augmented market assessment. Hypothesis H₅ positing that the financial performance of listed non-financial firms in Ghana can be enhanced by shortening the operating cycle is supported by empirical evidence indicating a positive correlation between a shorter operating cycle, higher return on assets, and higher market value relative to replacement cost (Tobin's q). The findings provide evidence in favour of the proposed hypothesis, suggesting a favourable correlation between the operating cycle and financial performance within the non-financial sector of Ghana.

Prior research has offered validation for the discoveries and principles that form the basis of the present investigation. The studies conducted by Raheman and Nasr (2007) and Akhtar and Ahmed (2013) revealed comparably favourable correlations between a reduced operating cycle and profitability metrics, including return on assets, return on equity, and market valuation. The authors posited that effective management of working

capital, as evidenced by a reduced operating cycle, results in expedited cash flows and heightened financial efficacy.

Nevertheless, there exist divergent results in the literature. The study conducted by Chittenden, Hall, and Hutchinson (1996) revealed a curvilinear correlation between profitability and the operating cycle. The results indicated that shorter and longer operating cycles were linked to reduced profitability, while moderate operating cycles were associated with increased profitability. This proposition implies the existence of a potentially ideal interval for the operational cycle, which could result in the highest possible level of profitability.

Additionally, scholarly research has investigated the influence of industry context and firm-specific factors on the correlation between the operating cycle and financial performance. According to Zhang, Chen, and Ma's (2019) study, there exists a stronger positive correlation between profitability and a shorter operating cycle for firms with higher asset turnover. This suggests that efficient working capital management can provide greater benefits to firms with higher asset turnover. Bokpin and Isshaq (2017) discovered that firms with higher financial leverage experience a greater negative effect on profitability due to a longer operating cycle. This is because holding high levels of inventories and receivables can result in higher financing costs.

The outcomes of the study hold significance for non-monetary corporations operating in Ghana. Reducing the duration of the operating cycle has the potential to enhance financial performance by augmenting the return on assets and elevating the market value. The effective management of inventories and receivables can facilitate the acceleration of cash flows for firms, thereby augmenting their perceived efficiency and efficacy. The ideal operational cycle can differ based on industry attributes and company-specific factors, such as financial leverage and asset turnover.

4.5.6 Liquidity and leverage and the financial performance of listed non-financial firms in Ghana

The analysis of coefficients indicates divergent associations between liquidity (LIQ) and various financial performance metrics. Initially, it was observed that the Return on Assets (ROA) exhibited a coefficient of -0.0041 for LIQ. This finding suggests that there exists no statistically significant correlation between liquidity and return on assets. The findings indicate that alterations in liquidity levels in isolation do not exert a significant influence on the profitability of non-financial corporations operating in Ghana. This discovery is consistent with prior research that has similarly observed restricted or negligible impacts of liquidity on return on assets.

Tobin's Q model reveals that the coefficient attributed to LIQ is 0.838, and it has been established to be statistically significant. This statement suggests that there exists a favourable correlation between the liquidity and market value concerning the replacement cost. The correlation between elevated levels of liquidity and increased market value suggests that companies possessing substantial liquidity are deemed more financially secure and appealing to stakeholders. The correlation between liquidity and market value is per theoretical predictions and corroborated by prior research, exemplified by the investigation conducted by Daskalakis and Psillaki (2008) which established a favourable correlation between liquidity and firm value in European enterprises.

In general, the findings indicate that although the effect of liquidity on return on assets may not be substantial, it does have an impact on determining the market value of the cost of replacement. Sustaining elevated levels of liquidity has the potential to bolster investor assurance and foster an augmented market appraisal for non-financial enterprises in Ghana. Achieving sustainable growth and investor appeal requires firms

to maintain a delicate equilibrium between liquidity and other financial performance metrics. The findings are consistent with prior research that has similarly documented inconclusive or restricted impacts of liquidity on return on assets while revealing a favourable correlation between liquidity and market value.

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CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary, conclusion, and policy recommendations based on the study's findings. This chapter offers a comprehensive overview of the main findings, their implications, as well as policymaker recommendations and suggestions for future research in this field.

5.1 Summary of Findings

This study examines the effect of working capital management on the financial performance of Ghanaian non-financial firms that are publicly traded. This study focuses on the effects of days sales outstanding, days payable outstanding, cash conversion efficiency, cash conversion cycle, operating cycle, liquidity, leverage, and Tobin's q on return on assets. The research was quantitative, and positivism served as its guiding research philosophy. The study employed a causal research design to establish the connection between working capital management and the financial performance of Ghanaian non-financial companies listed on stock exchanges. The study employed cross-sectional and time-series secondary panel data. From 2001 to 2021, secondary data was collected from the financial statements and annual reports of all 22

non-financial companies listed on the Ghana Stock Exchange. The research employed a two-step GMM model.

5.1.1 Effect of days sales outstanding on the financial performance of listed nonfinancial firms in Ghana

The study reveals that there is a positive correlation between days sales outstanding and return on assets. This implies that a longer average collection period is associated with improved profitability for non-financial firms in Ghana. However, there is a negative correlation between days sales outstanding and Tobin's q , indicating that a higher market value is linked to a shorter collection period. These findings partially support a hypothesis, suggesting that firms need to carefully manage their days' sales outstanding to balance liquidity and profitability.

5.1.2 Effect of days payable outstanding on the financial performance of listed non-financial firms in Ghana

The study shows that there is a positive correlation between days payable outstanding and return on assets, indicating that a longer payment period to suppliers is associated with higher profitability. However, there is a negative correlation between DPO and Tobin's q , suggesting that a shorter payment period is linked to a higher market value relative to replacement cost. These findings partially support hypothesis, highlighting the mixed effects of days payable outstanding on the financial performance of listed non-financial firms in Ghana.

5.1.3 Effect of cash conversion efficiency on the financial performance of listed non-financial firms in Ghana

The empirical evidence reveals mixed relationships between cash conversion efficiency and financial performance indicators. While there is a positive correlation between cash conversion efficiency and return on assets, the statistical significance is not adequate to establish a direct association. Conversely, there is a negative correlation between cash

conversion efficiency and Tobin's q, indicating that higher levels of cash conversion efficiency are associated with increased market value. These findings suggest that firms with greater cash conversion effectiveness may have a higher market value. The hypothesis is statistically insignificant for return on assets but accepted for Tobin's q.

5.1.4 Effect of the cash conversion cycle on the financial performance of listed non-financial firms in Ghana

The findings indicate a negative relationship between the cash conversion cycle and financial performance indicators. A shorter cash conversion cycle is associated with higher returns on assets, implying that firms that efficiently transform their assets into cash are more likely to achieve superior financial outcomes. Similarly, a shorter cash conversion cycle is linked to a higher market value relative to replacement cost (Tobin's q). These findings support hypothesis, suggesting that a rapid cash conversion cycle improves the financial performance of listed non-financial firms in Ghana.

5.1.5 Operating cycle and the financial performance of listed non-financial firms in Ghana

The study reveals a positive correlation between the operating cycle and return on assets, indicating that a shorter operating cycle is associated with higher return on assets and improved financial performance. Conversely, there is a negative correlation between the operating cycle and Tobin's q, suggesting that a shorter operating cycle is linked to a higher market value relative to replacement cost. These findings provide empirical support for the hypothesis, indicating that shortening the operating cycle can enhance the financial performance of listed non-financial firms in Ghana.

5.1.6 Liquidity and leverage and the financial performance of listed non-financial firms in Ghana

The analysis shows that liquidity has no statistically significant correlation with return on assets (ROA). This suggests that changes in liquidity levels alone do not significantly impact the profitability of non-financial firms in Ghana. However, there is a significant positive correlation between liquidity and market value relative to replacement cost, indicating that higher liquidity is associated with a higher market value. These findings align with theoretical predictions and previous research, supporting the hypothesis that liquidity positively influences market value.

5.2 Conclusion

This study examined the effect of working capital management on the financial performance of non-financial companies listed on the Ghana Stock Exchange. The findings offer valuable insights into the relationships between working capital management and the financial performance of non-financial firms in Ghana. The study concludes that a prolonged average days sales outstanding is associated with increased profitability for non-financial firms in Ghana. There was, however, a negative correlation between days sales outstanding and Tobin's q , indicating that a higher market value is associated with a shorter collection period. These findings emphasise the importance of balancing liquidity and profitability through prudent days of sales outstanding management. It was also concluded that a prolonged payment period to suppliers is associated with greater profitability. There was, however, a negative correlation between days payment outstanding and Tobin's q , indicating that a shortened payment period is associated with a higher market value relative to replacement cost. These findings highlight the contradictory effects of days payment outstanding on the financial performance of publicly traded non-financial firms in Ghana.

Also, cash conversion efficiency has mixed relationships, with a positive but statistically insignificant correlation with profitability and a negative correlation with market value. Thus, companies with greater cash conversion efficiency may have a higher market value. In addition, a shortened cash conversion cycle was associated with a greater return on assets, indicating that firms that efficiently convert their assets into cash are more likely to achieve exceptional financial results. A shortened cash conversion cycle was also associated with a higher market value relative to replacement cost (Tobin's q). The absence of a statistically significant correlation between liquidity and return on assets suggests that variations in liquidity levels do not substantially affect the profitability of nonfinancial firms in Ghana. However, a significant positive correlation was found between liquidity and market value relative to replacement cost, indicating that increased liquidity is associated with a higher market value. This study contributes to a better comprehension of working capital management and its influence on the financial performance of non-financial firms in Ghana. The findings emphasise the significance of managing working capital variables meticulously to achieve an equilibrium between liquidity and profitability. When making judgements about working capital management, businesses should weigh the trade-off between liquidity and financial performance.

5.3 Recommendations

Based on the findings of the study, the following recommendations are proposed:

It is recommended that non-financial enterprises operating in Ghana prioritise the optimisation of their days' sales outstanding through the implementation of efficient credit and collection policies, enhancement of invoicing and payment procedures, and establishment of robust customer relations. The reduction of the average collection period has the potential to improve the financial performance and profitability of firms.

In the management of days payable outstanding, firms must maintain a strategic balance between extending payment periods to suppliers to enhance cash flow and liquidity and taking into account the potential impact on financial performance. The act of negotiating advantageous payment terms with suppliers and guaranteeing prompt payments can effectively sustain amicable relationships while managing days payable outstanding.

To optimise their financial performance, non-financial enterprises ought to give precedence to enhancing their cash conversion efficiency. Efficient operational processes, optimised inventory management, and the implementation of effective cash flow forecasting techniques are key factors in achieving this objective. Firms can potentially increase their market value and profitability by diminishing the duration required for the conversion of assets into cash.

It is imperative to endeavour towards the reduction of the cash conversion cycle through efficient management of inventory, receivables, and payables. The reduction of the cash conversion cycle can be facilitated by enhancing operational efficiency, minimising lead times, and adopting lean inventory management methodologies. Consequently, this can result in enhanced fiscal outcomes and a heightened market valuation in comparison to the cost of replacement.

The management of working capital in non-financial firms necessitates a meticulous evaluation of the balance between liquidity and profitability. The attainment of adequate liquidity is a crucial aspect of ensuring financial stability. However, firms ought to strive for an equilibrium that optimises both liquidity and profitability. Systematic observation and evaluation of operational capital indicators can assist enterprises in making well-

informed judgements in this regard, guaranteeing the retention of ideal levels of solvency while simultaneously optimising profitability.

Non-financial firms need to implement a system that enables ongoing monitoring and analysis of their working capital management practices and financial performance indicators. This allows individuals to recognise and analyse trends, patterns, and opportunities for enhancement. Consistent financial reporting and analysis of performance aid in decision-making and enable the implementation of proactive strategies for managing working capital. By remaining vigilant and proactive in their surveillance and analysis, businesses can make opportune adjustments and optimise their working capital management for long-term success.

5.4 Suggestions for Future Research

This study paves the way for future research on working capital management and financial performance. Future research could investigate the influence of industry-specific variables, market conditions, and macroeconomic variables on the connection between working capital management and financial performance. In addition, qualitative research methodologies, such as interviews and case studies, could provide a deeper understanding of the practises and difficulties encountered by non-financial firms in Ghana.

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