

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

INSTITUTE OF DISTANCE LEARNING

**DETERMINANTS OF FINANCIAL PERFORMANCE OF LISTED
MANUFACTURING FIRMS IN GHANA**

BY

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MASTER OF SCIENCE DEGREE IN ACCOUNTING AND FINANCE**

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DECLARATION

I hereby declare that this submission is my own work towards the award of the MSc Accounting and Finance and that, to the best of my knowledge, it contains no material previously by another person or any material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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DEDICATION

I dedicate this thesis to my parent, who have been my source of inspiration, support and encouragement, to my mentor Yao Anaglate for his motivation and inspiration, to Roy Kyei for his endless Love and support and to all my friends and love ones for their encouragements throughout the process of this work.

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ABSTRACT

This study examined the determinants of financial performance of manufacturing firms in Ghana. The theoretical underpinnings of the research was the pecking order theory, agency

theory and the theory of comparative advantage. The research design for this study is quantitative. The study sampled 12 manufacturing firms on the Ghana stock exchange covering the period 2010 - 2021. The data was analysed using fixed effect regression. The study found that an increase in cash holdings is associated with an increase in the performance of manufacturing firms. The study revealed that an increase in the cost of debt leads to a decrease in the performance. The study highlighted that an increase in openness to trade leads to a decrease in the performance of manufacturing firms. The study does not find a significant effect of exchange rate volatility on the performance of manufacturing firms. Manufacturing firms should continuously monitor market trends, industry dynamics, and macroeconomic factors that may influence their performance. This allows firms to proactively identify opportunities and challenges, adjust their strategies, and make informed decisions to stay competitive. Regular performance evaluations, benchmarking against industry peers, and staying informed about regulatory changes can help firms adapt and thrive in a dynamic business environment.

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

The financial performance of manufacturing firms is a crucial aspect in assessing their overall health and competitiveness in the market (Sade, Esther, Oladipo, and Adedokun, 2021). When a manufacturing firm demonstrates high financial performance, it typically signifies that the company is efficient in its operations, has a solid market position, effectively manages costs, generates healthy profits, and maintains a strong financial position. This can enable the firm to invest in research and development, expand its production capacity, innovate, attract investors, and pursue growth opportunities (Eddine 2020).

Financial performance is the evaluation of a company's financial results in relation to its predetermined goals and objectives (Alharthi, 2022). Financial performance is commonly measured using various indicators, such as profitability, liquidity, solvency, and efficiency ratios. These measures provide insights into a firm's ability to generate profits, manage resources, meet financial obligations, and optimize operations (Salim, Sudjono and Suratno, 2022; Morara and Sibindi, 2021; Msomi, 2023). Financial performance indicators, including liquidity ratios and solvency ratios, evaluate a firm's ability to meet its short-term and long-term financial obligations (Morara and Sibindi, 2021). Maintaining adequate liquidity ensures that manufacturing firms can cover their day-to-day expenses, manage working capital, and handle unexpected financial challenges. Additionally, a strong solvency position demonstrates the firm's ability to meet its long-term debt obligations and

indicates financial stability (Zhang and Lee, 2021). Financial performance is directly linked to a firm's long-term sustainability and ability to attract investments. Financial performance is crucial for manufacturing firms as it directly affects their profitability and long-term sustainability. Positive financial performance indicates that the company is generating profits, covering its costs, and effectively utilizing its resources. It enables firms to remain competitive, invest in growth opportunities, and attract potential investors (Bekhet, Alhyari and Yusoff, 2020).

Both internal and external factors can significantly impact the financial performance of manufacturing firms (Rocca and Cambrea, 2019; Ally, 2022; Sade, Esther, Oladipo, and Adedokun, 2021). Internally, cash holdings and cost of debt are important factors that can impact a firm's financial performance. If a firm has inadequate cash reserves, it may struggle to meet its obligations and may have to rely on expensive forms of financing to cover its costs. On the other hand, if a firm holds too much cash, it may be missing out on potential investment opportunities that could increase its profitability (Rocca and Cambrea, 2019). The cost of debt is influenced by a variety of factors, such as prevailing interest rates, a firm's creditworthiness, and the perceived risk of the investment. Firms that can secure lower interest rates on their debt will have lower financing costs, which can improve their financial performance (Abdullah, Hashmi, Mateen, Badshah and Iqbal, 2022).

Externally, exchange rate volatility and trade openness can have a significant impact on a firm's financial performance. Manufacturing firms that operate in global markets are particularly susceptible to exchange rate risk, as changes in currency values can affect the

prices of their products and the cost of their inputs. This can impact a firm's profitability and financial performance (Ally, 2022). Access to global markets can provide manufacturing firms with opportunities to expand their customer base and increase their revenues. However, it also exposes firms to greater competition, which can lead to pricing pressure and reduced profitability. Trade policies and regulations can also impact a firm's ability to compete in global markets, which can have a significant impact on its financial performance (Sade, Esther, Oladipo, and Adedokun, 2021).

Studies by Rocca and Cambrea (2019) and Dimitropoulos, Koronios, Thrassou, and Vrontis (2019) found a positive relationship between cash holdings and financial performance. Abdullah, Hashmi, Mateen, Badshah and Iqbal (2022) found that cost of debt negatively impacts financial performance. Ally (2022) and Gunawardhane, Wijesinghe, and Kavinda (2022) found a negative link between exchange rate volatility and financial performance. Studies such as Dewi, Tan Lian Soei, and Surjoko (2019) concluded that openness to trade do not influence financial performance. Based on the above the study examines the determinants of financial performance of manufacturing firms in Ghana.

1.2 Statement of the Problem

Manufacturing plays a crucial role in driving economic growth. When manufacturing firms perform well financially, it leads to increased production, job creation, and overall economic activity. Higher revenues and profits can stimulate investments in new technologies, research and development, and expansion, which further contribute to economic growth (Prempeh, Sekyere and Amponsah Addy, 2018). Manufacturing firms are

often major employers in economies. When these firms experience positive financial performance, they are more likely to expand their operations, invest in new facilities, and hire additional workers. Job creation in the manufacturing sector has a multiplier effect, as it supports employment in related industries such as raw materials, logistics, and services, thereby boosting overall employment levels and reducing unemployment rates (Edwin Cheng, Kamble, Belhadi, Ndubisi, Lai and Kharat, 2022). It can be inferred from the above that financial performance of manufacturing firms is crucial to the development of an economy.

However, empirical evidence on the determinants of financial performance of manufacturing firms is limited in Ghana. Majority of the studies have focused on the financial sector (Batoool and Sahi, 2019; Gyamfi Gyimah, Addai, and Asamoah, 2021; Owusu-Antwi, Mensah, Ahmed and Nâ, 2021). Other studies focused on all firms on the Ghana stock exchange (Lee and Poku, 2022; Dodoo, Donkor and Appiah, 2021). Prempeh, Sekyere, and Amponsah Addy (2018) focused on manufacturing firms in Ghana. However this study is different from their study in several ways. First this study employs gross profit margin as firm performance measure compared to ROA, ROE and Tobin's Q that has been employed in previous studies. Also previous studies employed firm specific factors such as firm size, liquidity, tangibility, leverage and age. This study considers cash holdings and cost of debt as the firm specific determinants of financial performance which has not been examined by previous studies in Ghana. Also in terms of macro-economic variables, previous Ghanaian studies employed inflation, interest rate and GDP as determinants of financial performance. This study rather employs trade openness and exchange rate

volatility as macro-economic determinants which has been ignored in the Ghanaian context. This study therefore fills the gaps in the Ghanaian literature by examining the determinants of financial performance of manufacturing firms in Ghana.

1.3 Research Objectives

The general objective is to find out the determinants of financial performance of manufacturing firms in Ghana. These are specific objectives.

1. To examine the effect of cash holdings on the financial performance of manufacturing firms
2. To examine the effect of cost of debt on the financial performance of manufacturing firms
3. To examine the effect of trade openness on the financial performance of manufacturing firms
4. To examine the effect of exchange rate volatility on the financial performance of manufacturing firms

1.4 Research Questions

1. What is the effect of cash holdings on the financial performance of manufacturing firms?
2. What is the effect of cost of debt on the financial performance of manufacturing firms?
3. What is the effect of trade openness on the financial performance of manufacturing firms?

4. What is the effect of exchange rate volatility on the financial performance of manufacturing firms?

1.5 Significance of the Study

Understanding the determinants of financial performance can help management teams make data-driven decisions to enhance the company's financial health. By identifying the key drivers of financial performance, management can focus on improving those areas, allocate resources effectively, set realistic goals, and devise strategies to optimize profitability and growth. This knowledge enables management to make informed decisions that can positively impact the company's financial performance and value creation.

Stakeholders, such as investors and shareholders, closely monitor the financial performance of manufacturing firms. They rely on financial indicators to assess the company's profitability, growth potential, and overall financial health. A study on the determinants of financial performance provides investors and shareholders with insights into the factors that influence the company's financial outcomes. This information allows them to make informed investment decisions, evaluate the company's risk profile, and assess the potential for returns on their investments.

Understanding the determinants of financial performance helps lenders evaluate the creditworthiness of the company, set appropriate lending terms, and manage credit risk effectively. A strong financial performance enhances the company's credibility and increases its access to financing at favourable terms. By studying the determinants of

financial performance, companies can identify areas for improvement, optimize operations, and enhance profitability. This can lead to a more stable and prosperous work environment for employees, fostering job security, career advancement prospects, and potential rewards such as bonuses or profit-sharing programs.

Suppliers and business partners of manufacturing firms rely on their financial performance to assess the company's stability and ability to fulfil its commitments. A study on the determinants of financial performance helps suppliers evaluate the company's financial strength, manage credit risk, and ensure a stable business relationship. A financially sound manufacturing firm is more likely to attract reliable suppliers and establish long-term partnerships.

Government agencies and regulatory authorities monitor the financial performance of manufacturing firms to ensure compliance with regulations and assess the overall health of the economy. Understanding the determinants of financial performance helps regulatory authorities identify potential risks, develop appropriate policies, and promote a stable and sustainable business environment. It also assists governments in formulating policies to support the growth and competitiveness of the manufacturing sector, which can have positive impacts on job creation, economic development, and overall prosperity.

1.6 Scope of the Study

The study covers manufacturing firms in Ghana. The data is based on annual reports and covers several years which makes the study a panel data. Also the macro-economic data is source from world development indicators from the world bank database.

1.7 Summary of Methodology

The design for the study is quantitative due to the numerical nature of the variables. The independent variables are cash holdings, cost of debt, exchange rate volatility and trade openness. The dependent variable is firm performance. The data covers the period 2010-2021 and twelve manufacturing firms making it a panel data. The method of data analysis is the panel regression and based on the Hausman test results, the fixed effect model was used.

1.8 Limitations of Study

The findings of the study may not be generalizable to other industries in the country. The study only focuses on manufacturing firms in Ghana using purposive sampling hence the finding can only apply to manufacturing firms sampled for the study.

1.9 Organization of Study

There are five subtopics for the study. The research's opening chapter provided context for the remainder of the study as well as state the study's goals, formulate research questions, discuss the project's significance, outline its scope, and outline any limitations. In the second chapter, the study discussed the theoretical literature, conceptual framework, and empirical literature. In the third chapter, the methodology was laid out. In the fourth section, the study dived into the analysis, interpretation, and discussion of the data we collected. In the final chapter, the study presented a summary of the study's findings, a conclusion, and some suggestions for future investigation.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter sheds deep insight by reviewing several literature on determinants of financial performance. The conceptual review is explored in this section. In addition, theoretical and empirical reviews are also presented. A conceptual framework completes the chapter.

2.1 Conceptual Review

2.1.1 Financial Performance

Profitability and the augmentation of stakeholder value are two indicators of a corporation's fiscal achievement. The financial metrics and indicators discussed encompass a range of important aspects, including revenue growth, profitability ratios, return on investment, and cash flow. To assess the financial performance of a business, it is imperative to consider the metrics outlined by Ahinful, Boakye, and Osei Bempah (2023) as indicators of its overall success. The revenue growth rate serves as a reliable indicator of a company's capacity for long-term development. The gross profit margin and net profit margin are two profitability ratios utilised to assess a company's capacity to generate profits. The assessment of a company's profitability for its owners can be determined by examining its return on investment (ROI). The capacity of a business to generate and manage its cash flow is a fundamental determinant of its sustainability and expansion.

Financial performance analysis involves the examination and comparison of a company's realised financial outcomes with its intended objectives. The analysis of financial health

necessitates the examination of various financial documents, including but not limited to the income statement, balance sheet, and cash flow statement. The aim is to determine whether the company is meeting its financial targets and to identify areas for improvement (Alharthi, 2022). For example, if a company sets a specific target for revenue growth, financial performance evaluation would assess whether the company has achieved that target. It would also consider factors such as profitability, liquidity, and solvency, comparing them against predefined benchmarks or industry standards. By evaluating financial performance in relation to predetermined goals, the company can identify areas where it is excelling or falling short and make necessary adjustments to its strategies and operations.

Financial performance refers to the measurement and assessment of a company's financial results, efficiency, and effectiveness in utilizing resources to generate profits. It involves analysing financial ratios and metrics to evaluate aspects such as revenue growth, profit margins, asset utilization, return on investment, and financial stability. The focus is on evaluating the company's financial performance in comparison to industry peers, historical performance, and benchmarks (Msomi, 2023). For example, analysing revenue growth and profit margins provides insights into the company's ability to generate profits and achieve efficiency in cost management. Asset utilization ratios, such as inventory turnover or asset turnover, measure how effectively the company utilizes its resources to generate sales. Return on investment (ROI) and return on equity (ROE) assess the company's ability to generate returns for shareholders in relation to the capital invested.

2.1.2 Significance of Financial Performance

Financial performance analysis helps stakeholders, including management, investors, lenders, and shareholders, make informed decisions regarding the company. By evaluating financial metrics and trends, decision-makers can assess the company's financial position, identify areas of strength or weakness, and make strategic choices to improve performance (Dabylova, Faizulayev and Syzdykov, Z2023). For example, management can use financial performance indicators to determine investment opportunities, allocate resources, and set financial targets.

Management: Financial performance analysis is essential for management to make informed decisions about the company's operations, strategies, and resource allocation. By evaluating financial metrics and trends, management can assess the company's financial position, profitability, and liquidity. This information helps them identify areas of strength or weakness, enabling them to make strategic choices to improve performance (Salim, Sudjono and Suratno, 2022). For example, management can use financial performance indicators such as profitability ratios (e.g., gross profit margin, net profit margin) to evaluate the company's pricing strategy, cost structure, and efficiency. They can identify products or business segments that are driving profitability and those that may require adjustments. This analysis aids in allocating resources effectively and focusing on areas that generate higher returns. Financial performance analysis also helps management identify investment opportunities. By assessing financial metrics such as return on investment (ROI) or return on equity (ROE), management can evaluate potential projects,

acquisitions, or expansion plans. They can prioritize investments based on their potential impact on financial performance and align them with the company's strategic objectives (Bondinuba, Bondinuba, Opoku, Owusu-Manu and Mittal, 2022).

Investors: Financial performance analysis is crucial for investors, whether they are individual investors, institutional investors, or venture capitalists. Investors rely on financial information to evaluate the financial health, growth potential, and risk profile of a company before making investment decisions (Mawad, Athari, Khalife and Mawad, 2022). By analysing financial statements and performance metrics, investors can assess the company's profitability, revenue growth, and cash flow generation. They can gauge the company's ability to generate returns and the potential risks associated with the investment. Financial performance analysis helps investors identify companies with strong financial performance, attractive valuations, and potential for capital appreciation (Morara and Sibindi, 2021).

Lenders: Financial performance analysis is also significant for lenders, such as banks or financial institutions, when considering providing loans or credit facilities to a company. Lenders evaluate the financial health of a company to assess its ability to repay the borrowed funds (Zhang and Lee, 2021). By examining financial performance indicators, such as debt ratios, interest coverage ratios, or cash flow patterns, lenders can assess the company's creditworthiness and determine the terms of financing. A company with a strong financial performance is more likely to obtain favourable financing terms, lower interest rates, or higher credit limits.

Shareholders: Financial performance analysis is important for shareholders as it helps them evaluate the returns they receive on their investment. By examining financial statements and performance metrics, shareholders can assess the company's profitability, dividend payouts, and overall financial well-being (Salim and Djausin, 2020). Financial performance analysis helps shareholders make decisions regarding holding, buying, or selling their shares. Positive financial performance and growth prospects can attract new shareholders and potentially drive share price appreciation. Conversely, poor financial performance may lead shareholders to question the company's strategy or consider divesting their holdings.

Forecasting and Planning: Financial performance analysis provides a basis for financial forecasting and planning. By examining historical financial data and trends, companies can make informed projections about future performance, revenue growth, expenses, and profitability. Financial forecasts help guide budgeting, resource allocation, and strategic decision-making, enabling companies to align their operations with anticipated financial outcomes (Bekhet, Alhyari and Yusoff, 2020). Financial performance analysis plays a key role in these processes by providing a basis for projecting future financial outcomes. Here's an elaboration on how financial performance analysis aids forecasting and planning:

2.3 Drivers of Financial Performance

Revenue Growth: Revenue growth is a fundamental driver of financial performance. Increasing sales and expanding the customer base can directly impact a company's financial health. Factors that can drive revenue growth include effective marketing strategies,

product innovation, market expansion, customer retention, and competitive pricing (Liu, Tang and Zhao, 2022). Implementing effective marketing strategies is crucial for driving revenue growth. Companies need to identify their target market, understand customer needs and preferences, and develop marketing initiatives to reach and attract potential customers. Effective marketing can enhance brand awareness, generate leads, and convert them into sales. This can involve various marketing activities such as advertising, public relations, digital marketing, social media campaigns, content marketing, and strategic partnerships. By effectively promoting products or services, companies can increase customer interest, engagement, and ultimately, revenue (Liu, Tang and Zhao, 2022). Introducing innovative products or services can drive revenue growth by attracting new customers and expanding the existing customer base. Innovation can involve developing new features, improving functionality, enhancing quality, or introducing entirely new offerings that address market needs and provide unique value to customers. Companies that continuously invest in research and development, stay ahead of industry trends, and adapt to changing customer demands are better positioned for revenue growth. Innovation can create differentiation, competitive advantage, and the ability to command higher prices, leading to increased sales and revenue (Eddine 2020).

Debt Management: Effective debt management is crucial for financial performance as it relates to the company's borrowing activities. Maintaining a balanced mix of equity and debt in the company's capital structure is important. A balanced capital structure ensures that the company can meet its financial obligations and manage interest expenses without excessive risk (Bekhet, Alhyari and Yusoff, 2020). Monitoring and managing interest rates

on debt can significantly impact profitability and cash flow. Companies may explore options such as refinancing debt at lower rates, negotiating favourable terms with lenders, or using interest rate hedging instruments to mitigate interest rate risks. Prudent borrowing practices involve carefully evaluating borrowing needs, conducting financial analysis, and considering the cost and risks associated with taking on additional debt. This helps ensure that the company can comfortably manage its debt obligations and maintain financial stability (Liu, Tang and Zhao, 2022). Monitoring debt-related ratios, such as the debt-to-equity ratio and interest coverage ratio, provides insight into the company's debt position and its ability to meet interest payments. These ratios help assess the company's leverage and solvency levels.

Market and Industry Factors: Financial performance can be significantly influenced by external factors such as market conditions, industry trends, and competitive dynamics. Monitoring and understanding market conditions, including economic factors, customer behaviour, and demand patterns, helps companies make informed decisions. Adapting to market shifts, identifying emerging opportunities, and addressing potential threats are crucial for maintaining financial performance (Alharthi, 2022). Keeping up with industry trends allows companies to stay competitive and seize growth opportunities. This includes staying informed about technological advancements, changes in consumer preferences, regulatory developments, and emerging business models within the industry.

Understanding the competitive landscape and the actions of competitors is essential.

Assessing competitors' strategies, pricing models, product offerings, and marketing tactics helps companies position themselves effectively and differentiate their products or services (Salim and Djausin, 2020).

Management and Leadership: Effective management and leadership are critical drivers of financial performance. Strong leadership drives strategic decision-making that aligns with the company's financial goals and long-term vision. This includes setting clear objectives, evaluating investment opportunities, and allocating resources effectively. Effective management practices ensure efficient and streamlined operations across the organization. This includes optimizing processes, managing costs, implementing effective controls, and leveraging technology to improve productivity (Mawad et al., 2022). Fostering a culture of performance and innovation encourages employees to excel and contribute to the company's financial success. This includes promoting accountability, providing opportunities for skill development, and rewarding innovation and high performance.

Cost Management: Effective cost management is essential for maintaining financial performance. It involves monitoring and controlling expenses to ensure they are aligned with the company's revenue generation and profitability goals. Fluctuations in the prices of raw materials can impact a company's cost structure (Ellahi, Kiani, Awais, Affandi, Saghir and Qaim, 2021). Monitoring and managing raw material costs through strategic sourcing, supplier relationships, and hedging strategies can help mitigate cost fluctuations. Labour costs, including wages, benefits, and training expenses, are a significant component of many companies' cost structures. Managing labour costs through productivity improvements, workforce optimization, and effective compensation strategies can enhance financial performance. Overhead expenses, such as rent, utilities, administrative costs, and insurance, should be carefully managed to avoid unnecessary expenditures. Identifying

cost-saving opportunities, optimizing resource allocation, and leveraging technology can help reduce overhead expenses. Managing inventory levels and ensuring efficient turnover is important for minimizing carrying costs and improving cash flow. Slow-moving or obsolete inventory should be identified and addressed to avoid tying up capital (Nirmala and Pavithra, 2021).

2.2 Theoretical Framework

The present study's theoretical framework is grounded on Pecking Order Theory, Agency Theory, and the Theory of Comparative Advantage.

2.2.1 Pecking Order Theory

The Pecking Order Theory, formulated by Myers and Majluf (1984), serves as a framework for understanding the decision-making process employed by companies in determining the prioritisation of funding options. Differences in information levels between management and external investors necessitate the establishment of a prioritised sequence of financing sources for businesses. The Pecking Order Theory posits that firms exhibit a preference for utilising internal cash reserves to finance their investments and operational activities, prior to resorting to less favoured external sources of funding. The preferred order is as follows:

Internal Funds (Cash Holdings): Internal funds refer to the cash flow generated by the company's operations, such as retained earnings or accumulated cash reserves. Companies prefer to use their internal funds as the first choice for financing because these funds do not involve any information asymmetry or agency costs. Internal funds are readily available to

the company without incurring any transaction costs or the need to disclose sensitive information to external investors (Simatupang, Purwanti and Mardiaty, 2019).

Debt: If internal funds are insufficient to meet the financing needs, companies may consider using debt as the next source of financing. Debt is generally perceived as a less preferred option compared to internal funds because it involves potential costs and risks. However, debt financing is still preferred over other external options, such as equity issuance, due to its lower information asymmetry. Debt can take the form of bank loans, bonds, or other forms of borrowing (Kadek and Bagus, 2019).

Equity: Equity financing, such as issuing new shares or raising capital from investors, is considered the least preferred option according to the Pecking Order Theory. This is because equity financing involves higher information asymmetry and agency costs compared to debt. When companies resort to equity financing, they need to disclose more information to external investors, which can lead to a potential undervaluation of the company's shares and dilution of ownership. The preference for internal funds and debt over equity arises from the idea that companies aim to minimize the costs associated with information asymmetry and agency conflicts. By relying on internal funds and debt financing, companies can avoid potential adverse selection problems that may arise when external investors have limited access to company-specific information (Agyei, Sun and Abrokwah, 2020).

Higher levels of cash holdings can indicate better financial performance under the Pecking Order Theory. When a company has sufficient internal funds, it suggests that it generates

positive cash flow from its operations and is less dependent on external financing. This financial independence and flexibility can be seen as a positive signal to investors and may be associated with better financial performance.

2.2.2 Agency Theory

Agency theory examines the interplay between principals, such as shareholders or owners, and agents, such as managers, as well as the possibility of conflicts of interest arising from this relationship. The cost of debt can be influenced by the dynamic between debt holders, who act as principals, and shareholders, who act as agents, as posited by agency theory (Jensen and Meckling, 1976).

In an agency relationship, shareholders delegate decision-making authority to managers to act on their behalf. However, conflicts of interest can arise because managers may prioritize their own interests over those of the shareholders. Managers may make decisions that are not aligned with maximizing shareholder wealth or may engage in actions that benefit themselves at the expense of the company's financial performance (Herlambang, Murhadi and Andriani, 2020). When it comes to the cost of debt, higher debt levels can increase agency costs between debt holders and shareholders. Higher levels of debt increase the company's risk of financial distress. Debt holders have a priority claim on the company's assets and cash flows, and in the event of financial distress, they may exert control and influence over the company's operations to protect their interests. This can limit the discretion of management in making decisions that benefit shareholders' wealth maximization. Additionally, the costs associated with financial distress, such as bankruptcy

costs and potential loss of reputation, can negatively impact the company's financial performance (Tripathi, 2019).

Monitoring and Bonding Costs: Debt holders may incur costs to monitor the actions of managers and ensure that their interests are being protected. This includes assessing the company's financial health, monitoring its compliance with debt covenants, and evaluating the company's investment decisions. These monitoring costs are borne by the debt holders and can reduce the company's financial performance (Ullah, Pinglu, Ullah, Zaman and Hashmi, 2020).

Suboptimal Investment Decisions: Managers may face incentives to undertake suboptimal investment decisions to mitigate the risk of financial distress. They may choose to invest in less risky but lower-return projects to ensure the stability of cash flows and meet debt obligations. This can lead to missed investment opportunities with higher potential returns, impacting the company's long-term financial performance (Tripathi, 2019).

Agency Conflicts: Debt holders and shareholders may have conflicting interests regarding the use of company resources. Debt holders prefer conservative financial policies to ensure the repayment of debt and protect their interests, while shareholders may prefer riskier strategies to maximize returns. This conflict can affect the company's financial performance, as management needs to strike a balance between the expectations and demands of both debt holders and shareholders.

Overall, higher agency costs associated with higher debt levels can hinder a company's financial performance. It can limit managerial discretion, increase monitoring costs, lead to suboptimal investment decisions, and create conflicts of interest between debt holders and shareholders. To mitigate these agency costs, companies can implement mechanisms such as effective corporate governance structures, debt covenants, and performance-based compensation packages for managers, which align the interests of managers with those of shareholders and debt holders.

2.2.3 Theory of Comparative Advantage

According to Ricardo's (1817) theory of comparative advantage, nations can achieve economic advantages through engaging in trade by specialising in the production of goods in which they possess a comparative advantage. Purwono, Sugiharti, Handoyo, and Esquivias (2022) emphasise the significance of trade openness and its potential implications for economic prosperity.

Increased Market Access: Trade openness expands market access for firms by allowing them to engage in international trade and reach customers in foreign markets. When a country embraces trade openness, firms gain opportunities to export their products or services to new markets. The ability to tap into larger customer bases can result in increased sales volumes, revenue growth, and enhanced financial performance. Access to foreign markets through trade agreements, reduced trade barriers, and globalization enables firms to expand their customer reach and capitalize on international demand (Lechthaler and Mileva, 2019).

Competitive Dynamics: Trade openness exposes domestic firms to competition from foreign competitors. This competitive pressure can act as a catalyst for firms to improve their competitiveness, efficiency, and innovation. In order to maintain or gain a competitive edge, firms need to continually enhance their productivity, upgrade their technology, and innovate their products or services. By embracing trade openness and engaging in global competition, firms are motivated to strive for higher levels of performance, which can positively impact their financial performance (Shayanewako, 2018).

In summary, the theory of comparative advantage suggests that trade openness allows countries to capitalize on their comparative advantages, leading to specialization, increased market access, competitive dynamics, and knowledge spillovers. These factors can positively influence the financial performance of firms by improving efficiency, expanding revenue opportunities, fostering innovation, and enhancing competitiveness. By leveraging trade openness effectively, firms can harness the potential benefits and improve their overall financial performance.

2.3 Empirical Review

2.3.1 Cash Holdings and Financial Performance

In their study, Hussain, Hassan, Bakhsh, and Abdullah (2020) examined the impact of business financial activities on the dimensions of cash assets, namely size, age, and exchange rate fluctuations. The analysis employs various methodologies, including pooled ordinary least squares (OLS), random effects, and fixed effects models, to examine static panel data. The investigation also examined the interrelation between exchange rates by

applying factors derived from the cash transfer cycle to their respective values. The data collected during the specified time period indicate a robust inverse correlation between return on investments and fluctuations in the exchange rate. The presence of negative cash on hand has a detrimental impact on the overall return on investments. Conversely, the age and growth of a firm exhibit a significant and positive impact on the return on assets, with statistical significance observed at the 1% level.

In their study, Rocca and Cambrea (2019) examined the relationship between cash on hand and success in Italy over a period of 36 years. In light of the existence of contradictory perspectives regarding the significance of holding cash, which can potentially yield either favourable or unfavourable outcomes, it is imperative to thoroughly examine the mitigating factors that could potentially alter the magnitude of this association. Based on the findings of the study, it can be observed that the presence of adequate cash reserves positively impacts a company's overall performance, provided that certain prerequisites are fulfilled. However, it is noteworthy that surpassing a specific threshold of cash on hand can lead to adverse consequences for the company's success.

Turkson and Ahmed (2021) conducted a study to examine the impact of macroeconomic variables on the profitability of banks in Ghana. The empirical investigation revealed that inflation, currency exchange rates, and GDP growth exerted significant influence on the profitability of banks, whereas interest rates exhibited a relatively negligible impact. The study conducted by Owusu-Frimpong Bokpin (2021) in Ghana examines the impact of transfers on banks' profitability. The findings of the study indicated that bank transfers had

a positive impact on profitability, particularly in relation to return on assets and return on equity.

2.3.2 Cost of Debt and Financial Performance

The study conducted by Abdullah, Hashmi, Mateen, Badshah, and Iqbal (2022) examined the impact of tax boldness, loan costs, and government ties on corporate performance. This study contributes to the existing body of knowledge by examining the potential impact of political affiliations on the relationship between tax policy boldness or debt cost and the performance of businesses. Based on a robust empirical investigation, it is evident that companies that engage in tax avoidance exhibit inferior performance, whereas companies with affiliations to governmental entities demonstrate superior performance, assuming all other factors remain constant. Additionally, the study demonstrates that enterprises burdened with substantial debt expenses exhibit poorer performance.

In their study, Yeboah and Afari (2018) employed a dynamic panel model to examine the financial performance of public banks in Ghana. The study reveals a positive correlation between the expansion of banks, the availability of cash, the quality of loans, and the efficiency of business operations, all of which contribute to enhanced financial performance. Nevertheless, a negative correlation exists between the adequacy of capital and financial performance.

The study conducted by Obu-Cann, Yawson, and Agyapong (2020) examined the impact of non-performing loans (NPLs) on the financial well-being of banks in Ghana. Based on the findings of the study, non-performing loans (NPLs) have a detrimental impact on a

bank's profitability and capital adequacy, while concurrently bolstering the bank's liquidity position.

2.3.3 Trade Openness and Financial Performance

In their study, Dimitropoulos, Koronios, Thrassou, and Vrontis (2019) examined the impact of cash on the financial performance and viability of small and medium-sized enterprises (SMBs) in Greece, both prior to and subsequent to the occurrence of the Greek national debt crisis. During the period from 2003 to 2016, the researchers examined a diverse selection of small and medium-sized enterprises (SMEs) as well as large corporations operating in Greece. Panel regression analysis was conducted both prior to and during the Greek debt crisis. The availability of liquid assets is crucial for a company's financial success and sustainability, aligning with the prudent concept of Greek cash reserves. Prior to the economic downturn, cash was advantageous for businesses of all sizes, including both large corporations and small enterprises. Nevertheless, large corporations have become increasingly cognizant of the significance and indispensability of cash.

The study conducted by Sade, Esther, Oladipo, and Adedokun (2021) examines the impact of trade freedom on production within the factory sector across a sample of 12 West African countries. This research employs econometric techniques such as Dynamic Ordinary Least Squares (DOLS) and Fully Modified Ordinary Least Squares (FMOLS) to assess panel data. The findings indicate that there is a significant positive correlation

between trade openness and the performance of the manufacturing sector. Conversely, inflation is found to have a substantial negative impact on the output of the sector.

2.3.4 Exchange Rate Volatility and Financial Performance

In her study, Ally (2022) conducted an examination of the impact of the Tanzanian economy on the financial performance of private banks operating within the country. The primary objective of this study is to examine the impact of interest rates, inflation rates, and currency instability on the financial performance of banks. Between the years 2010 and 2019, a comprehensive collection of secondary data was undertaken, followed by a meticulous analysis utilising descriptive and association techniques. The findings indicate a significant correlation between macroeconomic factors and financial performance. There exists a robust negative correlation (74.99%) between interest rates and returns on assets, indicating that an increase in returns leads to a decrease in interest rates. There exists a positive correlation of 59.22% between return on assets and inflation rates, indicating that higher inflation rates are associated with improved financial performance. The research study additionally reveals a statistically significant negative correlation (65.52%) between the volatility of exchange rates and the profitability of assets. This implies that fluctuations in currency exchange rates have a negative impact on financial prosperity.

The study conducted by Gunawardhane, Wijesinghe, and Kavinda (2022) employed a panel regression approach to examine the impact of company-specific and macroeconomic factors on the financial and market performance of insurance companies in Sri Lanka.

Between the years 2010 and 2019, a collective of nine insurance companies, all of which are publicly traded, were incorporated into the aforementioned group. The company possesses distinct characteristics such as its capital framework, capital capacity, cash situation, and business size. Market-specific factors to consider include fluctuations in the exchange rate and increases in GDP. The assessment of financial success encompassed the evaluation of key performance indicators such as net profit margin, return on assets, return on equity, and earnings per share. The measurement of market performance was conducted through the utilisation of market value-added (MVA). The study revealed significant correlations between various factors and the financial and market performance of insurance enterprises. The capital framework and capital sufficiency exert a significant influence on the financial performance of a company. Conversely, the magnitude of a corporation is associated with favourable financial and market performance. The GDP growth rate is inversely correlated with a company's financial performance. The findings of MVA indicate a positive correlation between exchange rate volatility and market performance.

According to Ansong and Ansah (2017), the financial performance of Ghanaian banks is negatively impacted by inflation and fluctuations in currency exchange rates. In contrast, the study conducted by Gyamfi and Ofori-Sasu (2018) revealed a positive relationship between inflation, exchange rate fluctuations, and the financial performance of banks in Ghana.

In their study, Andoh and Owusu (2019) employed panel data analysis to examine the impact of bank-specific factors and global variables on the profitability of Ghanaian banks.

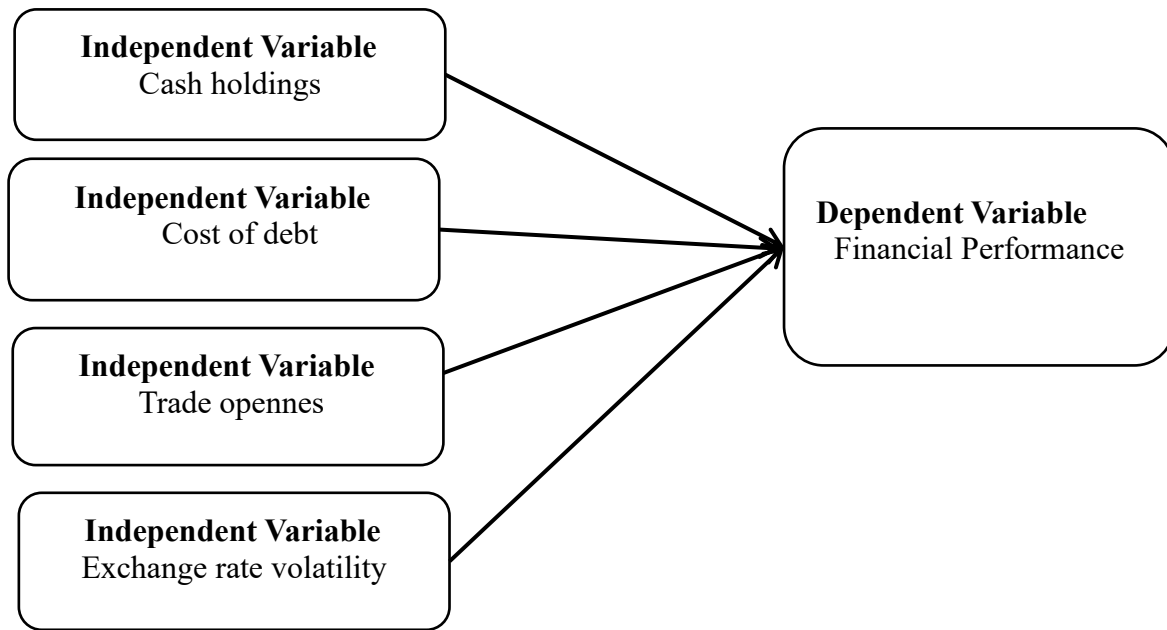
The dataset encompassed 20 banks operating in Ghana over the period from 2008 to 2017. The results of the study revealed that asset quality, capital balance, and liquidity emerged as the primary determinants of a bank's profitability. Moreover, it was observed that global phenomena such as inflation and volatile exchange rates significantly impacted the profitability of Ghanaian banks.

In their study, Dewi, Tan Lian Soei, and Surjoko (2019) examined the impact of macroeconomic variables on the performance of enterprises. The researchers devoted particular focus to the impact of inflation rate, population growth, GDP, and the exchange rate on the Return on Asset (ROA) ratio. This study examines data pertaining to fastmoving consumer goods companies that were publicly traded on the Indonesia Stock Exchange (IDX) between the years 1998 and 2016. The findings indicate that the profitability of a company is influenced by each individual factor, as evidenced by the ROA ratio. However, the results of partial t-tests indicate that the variable with a significant impact on company profits is solely the Gross Domestic Product (GDP) size. Three additional macroeconomic factors that have an impact on business profits include the inflation rate, population growth, and the exchange rate.

2.4 Conceptual Framework

Figure 2.1 presents the conceptual framework. The framework shows that the independent variables are cost of debt, cash holdings, trade openness and exchange rate volatility has a direct influence on the dependent variable (financial performance).

Figure 1: Conceptual framework



Source: Author construct (2023)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

Research methodology is a crucial aspect of any study, as it provides a systematic framework for addressing research questions and achieving research objectives. This chapter addresses the research design and the firms that make up the population. Further the method to arrive at the sample is explained and the type of data utilised for the study. The method of analysis is explained in this chapter as well as the variables of the study. The validity and reliability of the study is also explained.

3.2 Research Design

The term "research design" is used to describe the comprehensive methodology employed by a researcher to conduct a study. The term "research methodology" pertains to the overarching approach or framework that guides the researcher in the collection and analysis of data with the aim of addressing the research inquiries (Islam and Aldaihani, 2022). The research design employed in this study is descriptive and adopted the quantitative research approach. The rationale behind this study lies in the investigation of the determinants of firm financial performance through the utilisation of quantitative data derived from annual reports and macroeconomic indicators. Furthermore, this study utilised panel regression analysis, a commonly employed statistical method in quantitative research, to examine the relationships between the independent variables (determinants) and the dependent variable (financial performance).

3.3 Population

As per the scholarly work of Mishra and Alok (2022), the term "population" is employed to denote the comprehensive collection of individuals, events, or entities that satisfy the predetermined criteria for inclusion in a study. The population for this study consisted of manufacturing companies that are listed on the Ghana Stock Exchange. Ghana possesses a total of 14 publicly traded manufacturing enterprises.

3.4 Sample and Sampling Technique

The sample for the study was 12 manufacturing firms. The sample was determined using purposive sampling. According to Islam and Aldaihani (2022), purposive sampling is a non-probability sampling technique that allows researchers to select participants based on

specific criteria or characteristics relevant to the study. Hence manufacturing firms were selected based on data availability. Due to the limited time of the research, the study gathered annual reports from 12 manufacturing firms from 2010 - 2021. The 12 year period was used since most the data the researcher gathered fell within this range.

3.5 Data Collection Instrument

The data for the study was secondary data. The term "secondary data" refers to information that has been gathered, assembled, and analysed in the past by a third party for a purpose that is distinct from the one for which it is now being utilised (Pandey and Pandey, 2021). In this study annual report from the sampled firms were used. Annual reports for research is generally classified as secondary data because the information contained in these reports has already been collected and compiled by the banks for a different purpose, which is to provide information to its shareholders, investors, and other stakeholders. Also macroeconomic data was gathered from world development indicators. The data were compiled into an excel sheet which was used for analysis.

3.6 Data Analysis

The software used for the study was Eviews 10. The data for the study was classified as panel data for the purpose of analysis. Panel data is a type of longitudinal data that is collected on the same unit of analysis over a period of time (Pentang and Pentang, 2021). The data for the study covers 12 manufacturing firms from 2010 to 2021 which is classified as panel data because it contained observations on multiple units (manufacturing firms) over time.

In econometric analysis and other forms of research, panel data is often used to investigate changes in variables over time and to analyse the impact of various factors on the result of interest. Other types of research may also make use of panel data. Researchers are able to adjust for unobserved heterogeneity (differences across units) using panel data, as well as account for time-varying variables that may impact the result of interest (Pentang and Pentang, 2021).

The pooled OLS method makes the assumption that all of the individuals in the panel have the same connection between the dependent variable and the independent variables. Additionally, it does not take into account any individual-specific effects or changes in behaviour over time. When there are substantial disparities between individuals, this might lead to estimates that are skewed in a certain direction (Lo, Rey-Martí and Botella-Carrubi, 2020).

Fixed effect: Although they take into account individual-specific effects that remain the same over time, fixed effects models operate under the assumption that the relationship that exists between the dependent and independent variables is the same for every single individual. This is helpful in situations in which there are elements at the individual level that impact the result of interest (Ghauri, Grønhaug, and Strange, 2020).

Random effects models make the assumption that there is a universal link between the dependent variable and the independent factors. However, these models provide room for

individual-specific effects that are uncorrelated with the independent variables. This is helpful in situations in which the independent variables do not adequately represent all of the individual-level elements that influence the result of interest (Lo et al., 2020).

The Hausman test is often used in panel data analysis to determine whether a fixed effects model or a random effects model should be utilised. This test examines the potential relationship between the independent variables and the individual-level effects by comparing the coefficients of the fixed effects and random effects models (Dhall, 2019). If the individual-level effects are independent of the independent variables, then the random effects model should be used. If the individual-level effects are related to the explanatory variables, then the fixed effects model should be used. The test examines whether there is a statistically significant difference in the coefficients of the two models. If the difference is statistically significant, the fixed effects model should be used.

3.6.1 Diagnostic Tests

Homoscedasticity: Panel regression assumes that the variance of the errors is constant across time and individuals (Pentang and Pentang, 2021). To test this assumption, the white test was utilised.

Autocorrelation: Panel regression assumes that the errors are not correlated across time and individuals (Pentang and Pentang, 2021). To test this assumption, the Durbin Watson statistics was utilised.

No multicollinearity: Panel regression assumes that the independent variables are not highly correlated with each other. To test this assumption, the study calculated the variance inflation factor (VIF) for each variable and check if it is above a certain threshold. VIF measures how much the variance of the estimated coefficient is inflated due to multicollinearity (Ghauri et al., 2020). A VIF greater than 10 is generally considered to be high, indicating that the variable may be too highly correlated with other variables in the model.

3.7 Econometric Model

The regression model for the study is presented in this section. This model follows the study of Gunawardhane, Wijesinghe, and Kavinda (2022) and Hussain, Hassan, Bakhsh and Abdullah (2020).

$$FP_{it} = \alpha + \beta_1 CSHD_{it} + \beta_2 COD_{it} + \beta_3 TRO_{it} + \beta_4 EXRVT_{it} + \varepsilon_{it} \dots (1)$$

FP: financial performance, CSHD: cash holdings, COD: cost of debt, TRO: trade openness, EXRVT: Exchange rate volatility.

3.8 Variables and Measurement

The independent variables are cost of debt, cash holdings, trade openness and exchange rate volatility. The dependent variable for the study is financial performance.

3.8.1 Exchange Rate Volatility

Exchange rate volatility refers to the fluctuations in the value of one currency relative to another. Manufacturing firms that rely on exporting their products may be affected by

exchange rate fluctuations. A volatile exchange rate can impact the competitiveness of exported goods. When the local currency strengthens, it can make exports more expensive, potentially reducing demand and affecting revenue and profitability (Gyamfi and Ofori-Sasu, 2018).

3.8.2 Trade Openness

Trade openness refers to a country's degree of participation in international trade and the absence of trade barriers. Increased trade openness provides manufacturing firms with access to a larger customer base and potential export markets. Access to international markets can drive revenue growth and financial performance (Sade, Esther, Oladipo, and Adedokun, 2021).

3.8.3 Cost of Debt

The cost of debt pertains to the expenses incurred by a company when acquiring capital through debt instruments. It specifically denotes the interest rate that the company is obligated to pay on its existing debt. The cost of debt is determined by multiple factors, including the prevailing interest rates, the creditworthiness of the company, the prevailing market conditions, and the specific terms of the debt. Manufacturing firms often rely on debt to finance their operations, investments, and expansion. A higher cost of debt means higher interest expenses for the firm, which can impact its profitability and cash flow. High interest expenses can reduce the funds available for investment in production, research and development, and other business activities (Abdullah, Hashmi, Mateen, Badshah and Iqbal, 2022).

3.8.4 Cash holdings

Cash holdings refer to the total value of cash and cash equivalents that a corporation possesses at a given point in time. Cash holdings encompass tangible forms of currency, including banknotes and coins, as well as readily convertible assets with high liquidity, such as bank deposits and short-term investments with maturities of three months or less. Cash plays a critical role in ensuring the operational continuity of a manufacturing company by providing the necessary liquidity for its day-to-day activities. Adequate cash reserves facilitate the company in meeting its immediate financial obligations, including supplier payments, operational expenses, and the management of short-term fluctuations in cash flow. Cash holdings contribute to financial stability by providing a buffer against unexpected events or economic downturns (Rocca and Cambrea, 2019).

3.8.5 Dependent Variable

Financial performance is a measure of how well a firm is doing in terms of generating profits, managing risks, and fulfilling its obligations to customers, investors, and regulators (Khan, 2022). It was measured using gross profit margin.

Table 3.1: Summary of variables

Variables	Measurement	Source
Dependent Variable		
Financial performance	Gross profit divided by revenue (Gross profit margin)	(Khan, 2022)
Independent Variables		
Cash holdings	Cash and cash equivalent divided by total assets	(Rocca and Cambrea, 2019)
Cost of debt	Interest expenses divided by the interest-bearing debt	(Abdullah, Hashmi, Mateen, Badshah and Iqbal, 2022).
Exchange rate volatility	Standard deviation of the changes in exchange rate between Ghana cedi and US dollar	(Gyamfi and Ofori-Sasu, 2018)
Trade Openness	The sum of exports and imports, divided by the GDP	(Sade, Esther, Oladipo, and Adedokun, 2021)

Source: Author construct (2023)

3.9 Reliability and Validity

Validity refers to the extent to which a study accurately measures what it is intended to measure (Pentang and Pentang, 2021). In this study, the validity of the data was ensured by using data from audited annual reports of 12 firms, which provided accurate and reliable information on the banks' financial performance. Additionally, the use of macroeconomic

data from the World Development Indicators ensured that the data was from a reliable source and represented a broad range of economic factors that could affect banks' financial performance. The measurement of financial performance, asset quality, capital adequacy, liquidity, and macroeconomic variables was also adopted from previous studies, ensuring that these variables were well-established measures of their respective constructs.

Reliability refers to the consistency and stability of the data over time (Pentang and Pentang, 2021). In this study, the reliability of the data was ensured by using annual reports and macroeconomic data covering a period of 12 years, from 2010 to 2021. Additionally, diagnostic tests were performed to check for multicollinearity, heteroscedasticity, and autocorrelation, which are potential threats to the reliability of panel regression analysis. These tests ensured that the data was reliable and could be used to draw accurate conclusions.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

This chapter focuses on interpreting and discussing the results in the context of the research objectives and existing literature. It involves a critical analysis of the findings, comparing them with previous studies, and offering explanations to the results.

4.1 Descriptive Statistics

Table 4.1 shows that the average firm performance of 13% indicates that, on average, manufacturing firms in the sample earn a profit equivalent to 13% of their sales. The relatively wide standard deviation of 0.55 suggests that there is significant variation in profit margins among the manufacturing firms in the sample. Some firms may have consistently high profit margins, while others may experience lower or even negative profit margins. The presence of negative profit margins, as indicated by the minimum value of -2.79, suggests that some manufacturing firms are operating at a loss or facing financial difficulties. Negative profit margins can be a sign of inefficiency, excessive costs, pricing issues, or challenges in generating sufficient revenue to cover expenses. The maximum value of 1.42 indicates that some manufacturing firms in the sample have achieved relatively high profit margins. High profit margins can be an indicator of competitive advantages, effective cost management, successful pricing strategies, or product differentiation.

The average trade openness for Ghana during the observed period is 70.42. This indicates that, on average, the value of Ghana's exports plus imports as a percentage of its gross domestic product (GDP) is 70.42%. The standard deviation of 12.56 suggests some variation in the level of trade openness for Ghana over the years. This indicates that Ghana's trade openness has experienced fluctuations, with some years exhibiting higher levels of trade openness and others lower levels. The minimum value of 38.52 represents the lowest level of trade openness observed in Ghana during the given period. This suggests that there have been times when Ghana's trade openness was relatively lower, indicating a smaller

proportion of exports and imports contributing to its GDP. The maximum value of 93.17 represents the highest level of trade openness observed in Ghana during the given period. This indicates that there have been times when Ghana's trade openness was relatively higher, with a larger proportion of exports and imports contributing to its GDP.

Table 4.1: Descriptive statistics

Variable	OBS	Mean	Std. Dev.	Min	Max
FP	125	0.13	0.55	-2.79	1.42
TRO	125	70.42	12.56	38.52	93.17
EXRVT	125	0.16	0.09	0.02	0.38
CASHD	125	0.08	0.11	0.00	0.89
COD	125	0.34	1.58	0.00	16.60

Source: Author construct (2023), FP: financial performance, CSHD: cash holdings, COD: cost of debt, TRO: trade openness, EXRVT: Exchange rate volatility.

The average exchange rate volatility in Ghana, measured as the volatility between the Ghanaian cedi and the US dollar, over the period from 2010 to 2021 is 0.16. This indicates a moderate level of volatility in the exchange rate between the two currencies. The standard deviation of 0.09 suggests some variation in the level of exchange rate volatility in Ghana. This means that there have been fluctuations in the exchange rate over the observed years, with some periods experiencing higher volatility than others. The minimum value of 0.02 represents the lowest level of exchange rate volatility observed in Ghana during the given period. This suggests that there have been times when the exchange rate between the Ghanaian cedi and the US dollar was relatively stable. The maximum value of 0.38

represents the highest level of exchange rate volatility observed in Ghana during the given period. This indicates that there have been periods of increased volatility in the exchange rate between the Ghanaian cedi and the US dollar.

The average cash holdings of 0.08 suggest that, on average, cash represents 8% of total assets for the manufacturing firms. Cash holdings play a crucial role in a firm's liquidity management and financial health. The standard deviation of 0.11 indicates a considerable variation in cash holdings among the manufacturing firms. This suggests that different firms have different strategies and preferences when it comes to cash management. The minimum and maximum values of 0.00 and 0.89, respectively, suggest that the manufacturing firms in the sample had varying levels of cash reserves. Some firms may have minimal or no cash holdings, while others may have a substantial amount of cash on hand.

The average cost of debt of 0.34 implies that, on average, manufacturing firms incurred a debt cost equivalent to 34% of their gross profit. The cost of debt represents the interest expense and other costs associated with borrowing funds. The standard deviation of 1.58 indicates significant variation in the cost of debt among the manufacturing firms. This suggests that different firms have different levels of risk, creditworthiness, and borrowing terms, leading to variations in their cost of debt. The minimum and maximum values of 0.00 and 16.60, respectively, suggest a wide range of debt costs across the observed firms. Some firms may have accessed debt financing at low or even zero interest rates, while

others may have faced high interest rates, potentially indicating higher risk or less favourable borrowing conditions.

4.2 Correlation Matrix

Table 4.2 shows the pairwise correlation. The table shows that the relationship among the independent variables have low correlation. The highest correlation is between TRO and EXRVT at 0.27. This value is below 0.8 suggesting low collinearity. Additionally the VIF values are all below 5 further confirming that the independent variables are not highly correlated.

Table 4.2: Pairwise correlation

	FP	TRO	EXRVT	CASHD	COD	VIF
FP	1					
TRO	0.1151	1				1.14
EXRVT	-0.0651	-0.2698***	1			1.08
CASHD	0.0056	0.1999**	-0.0164	1		1.04
COD	-0.1751	-0.1288	-0.0015	-0.036	1	1.02

Source: Author construct (2023), FP: financial performance, CASHD: cash holdings, COD: cost of debt, TRO: trade openness, EXRVT: Exchange rate volatility.

4.3 Diagnostic Tests

The Hausman test in Table 4.3 shows that p-value is significant at the 1% level. This means that the null hypothesis is rejected in favour of the alternate hypothesis confirming the fixed effect model is appropriate.

Table 4.3: Diagnostic test

		Husman	Durbin Watson test	White test
Euation 1	Statistics	11.05	2.15	219.11
	p-value	0.00***		0.00***

Source: Author construct (2023)

The Durbin-Watson statistic measures the presence of autocorrelation in the residuals. A value between 0 and 4 is considered, where a value of 2 indicates no autocorrelation. In this case, the value of 2.15 suggests no autocorrelation. The white test is use to test for heteroskedasticity. The p-value of 0.00 confirms the presence of heteroskedasticity. This problem is controlled using the panel corrected standard errors.

4.4 Presentation of Results

Based on the findings presented in Table 4.4, it can be observed that the R-squared value suggests that the independent variables incorporated in the model account for approximately 61.6% of the variability observed in the dependent variable, which is firm performance. The aforementioned value denotes the degree to which the regression model accurately fits the data. The F-statistic is employed to assess the overall significance of the regression model. The p-value associated with the F-statistic is 0.00, suggesting that the overall regression model exhibits statistical significance. The constant term represents the

intercept or baseline level of firm performance when all independent variables are zero. The coefficient of 0.133606 suggests a positive baseline level of firm performance. The tStatistic of 2.766259 indicates that this baseline performance is statistically significant at the 5% significance level (p-value of 0.01).

Table 4.4: Fixed effect regression on the determinants of financial performance

FP	Coefficient	Std. Error	t-Statistic	Prob.
CASHD	0.213234	0.092762	2.298724	0.02**
COD	-0.045623	0.014343	-3.180868	0.00**
EXRVT	0.000702	0.000588	1.193364	0.24
TRO	-0.321182	0.084824	-3.78644	0.00**
Constant	0.133606	0.048299	2.766259	0.01***
R-squared	0.61563			
F-statistic	124.8009			
Durbin-Watson stat	2.15			

Source: Author construct (2023), FP: financial performance, CSHD: cash holdings, COD: cost of debt, TRO: trade openness, EXRVT: Exchange rate volatility, **: 5% significance level, ***: 1% significance level

4.4.1 Effect of Cash Holdings on the Financial Performance of Manufacturing Firms

The coefficient of CASHD represents the estimated effect of cash holdings on firm performance. In Table 4.4, a positive coefficient of 0.213234 suggests that an increase in cash holdings is associated with higher firm performance. The t-statistic of 2.298724 indicates that the coefficient is statistically significant at the 5% significance level (p-value of 0.02). The finding relates to the study of Rocca and Cambrea (2019).

The finding can be explained by the fact that cash holdings provide a firm with financial flexibility and a cushion against unexpected expenses or financial difficulties. Having sufficient cash on hand allows a company to seize investment opportunities, navigate economic downturns, or fund strategic initiatives. This financial flexibility can contribute to improved firm performance. Firms with higher cash holdings may have better operational efficiency. They can take advantage of cash discounts, negotiate better terms with suppliers, and maintain smoother operations without facing liquidity constraints.

Improved operational efficiency can positively impact firm performance.

The discovery provides empirical evidence in support of the pecking order theory. The Pecking Order Theory posits that companies exhibit a preference for utilising internal sources of funding, such as cash reserves, as opposed to external sources, owing to the presence of information asymmetry and agency costs. According to the Pecking Order Theory, firms exhibit a preference for internal financing in order to mitigate the agency costs that are typically associated with external financing. By utilising cash reserves,

manufacturing firms reduce the need for external borrowing, thereby lowering potential conflicts of interest between managers and external stakeholders (shareholders, lenders). This alignment of interests and reduced agency costs can positively impact firm performance because they can make investment decisions without being constrained by external financing conditions, interest rates, or covenants imposed by external lenders. This allows firms to pursue investment opportunities promptly, respond to market changes, and adapt to competitive pressures more effectively. The ability to act independently and swiftly can positively impact firm performance.

4.4.2 Effect of Cost of Debt on the Financial Performance of Manufacturing Firms

From Table 4.4, the negative coefficient (-0.045623) of COD implies that an increase in cost of debt is associated with lower firm performance. The t-statistic of -3.180868 indicates that this relationship is statistically significant at the 1% significance level (pvalue of 0.00). A higher cost of debt means that manufacturing firms incur greater interest expenses on their debt obligations. This increased financial burden can negatively impact profitability and cash flow, reducing overall firm performance. This finding confirms the study of Abdullah, Hashmi, Mateen, Badshah and Iqbal (2022).

The finding can be explained by the fact that higher interest payments can divert financial resources away from productive investments or operational activities. Manufacturing firms may need to allocate a significant portion of their earnings towards interest payments, leaving fewer resources available for research, development, marketing, or other valueenhancing initiatives. This diversion of resources can negatively impact firm

performance. Also High COD implies that manufacturing firms have limited access to affordable debt financing options. This limited financial flexibility can constrain their ability to invest in growth opportunities, research and development, or capital expenditures, which in turn can hinder firm performance.

The finding relates to the theory of agency. The agency theory primarily centres on the inherent conflicts of interest that arise among various stakeholders within a firm, with a specific emphasis on the dynamic between shareholders, who serve as principals, and managers, who act as agents. The agency theory also elucidates the potential divergence of interests between shareholders and creditors. A firm with a higher COD signifies a heightened dependence on debt financing, thereby augmenting the potential for financial distress or default. In order to mitigate the risk associated with lending, creditors have the ability to impose more stringent conditions or request elevated interest rates. To avoid the negative consequences of financial distress, managers may adopt more conservative strategies, limiting investments or growth initiatives that could enhance firm performance.

4.4.3 Effect of Trade Openness on the Financial Performance of Manufacturing Firms

From Table 4.4, the negative coefficient (-0.321182) of TRO indicates that higher trade openness is associated with lower firm performance. The t-statistic of -3.78644 suggests that this relationship is statistically significant at the 1% significance level (p-value of 0.00). The finding relates to the study of Sade, Esther, Oladipo, and Adedokun (2021).

This finding is explained by the fact that trade openness leads to price pressure on domestic manufacturing firms. Import competition may result in lower prices for similar products in the domestic market, reducing profit margins for domestic manufacturers. In an effort to remain competitive, firms may be forced to lower their prices, which can negatively impact their financial performance. Also, trade liberalization can lead to the displacement of certain domestic industries or sectors as consumers shift their preferences towards imported goods. Manufacturing firms operating in industries that face strong import competition may experience reduced market share and decreased financial performance. Openness to trade allows for greater market access and competition from both domestic and international competitors. Manufacturing firms that are more open to trade may face increased competition from foreign firms with lower production costs or superior technologies. This intensified competition can put pressure on the financial performance of domestic manufacturing firms, leading to lower profitability and overall performance.

This finding also relates to the theory of comparative advantage. The theory of comparative advantage suggests that countries should specialize in producing goods or services in which they have a lower opportunity cost compared to other countries. This specialization allows countries to allocate their resources efficiently and maximize overall productivity and output. When countries open up to trade, they tend to focus on industries or sectors where they have a comparative advantage. This means that they prioritize producing and exporting goods or services in which they can produce at a lower opportunity cost compared to other countries. As a result, domestic manufacturing firms in industries with

a lower comparative advantage may face challenges when competing with foreign firms that have a comparative advantage in those industries.

4.4.4 Effect of Exchange Rate Volatility on the Financial Performance of Manufacturing Firms

According to Table 4.4, the coefficient of 0.000702 for EXRVT suggests a positive relationship between exchange rate volatility and firm performance, but the t-Statistic of 1.193364 indicates that this relationship is not statistically significant at conventional significance levels (p-value of 0.24). Therefore, the effect of exchange rate volatility on firm performance may not be substantial. This finding relates to Dewi, Tan Lian Soei, and Surjoko (2019) study.

Manufacturing firms may have pricing strategies or long-term contracts that allow them to pass on exchange rate fluctuations to customers or suppliers. For example, if a firm's contracts are denominated in a specific currency or have built-in mechanisms to adjust prices based on exchange rate changes, the direct impact of volatility on firm performance may be minimized.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary of the key findings, conclusions drawn from the research, and their implications. It highlights the contributions of the study to the field and may suggest avenues for future research.

5.1 Summary of Findings

The study found that an increase in cash holdings lead to an increase in the performance of manufacturing firms. This was confirmed with a coefficient of 0.213234 and a p-value 0.02.

It was also discovered that, an increase in the cost of debt lead to a decrease in the performance of manufacturing firms. This was confirmed with a coefficient of -0.045623 and a p-value of 0.00.

The study further found that a increase in openness to trade lead to decrease in the performance of manufacturing firms. This was confirmed with a coefficient of -0.321182 and a p-value of 0.00

Finally, exchange rate volatility did not show any significant effect on the performance of manufacturing firms. This was confirmed with a coefficient of 0.000702 and a p-value of 0.24.

5.2 Conclusion

This study examined the determinants of financial performance of manufacturing firms in Ghana. The theoretical underpinnings of the research was the pecking order theory, agency theory and the theory of comparative advantage. The research design for this study is quantitative. The study sampled 12 manufacturing firms on the Ghana stock exchange covering the period 2010 - 2021. The data was analysed using fixed effect regression.

The study found that an increase in cash holdings is associated with an increase in the performance of manufacturing firms. Cash holdings provide a financial cushion, reducing the reliance on external financing and minimizing financial constraints, which positively impacts firm performance. As firms maintain adequate cash reserves, they are better positioned to navigate uncertainties, capitalize on strategic opportunities, and ultimately enhance their overall financial health. This study emphasizes the nuanced interplay between financial decisions and performance outcomes within the manufacturing sector.

The study revealed that an increase in the cost of debt leads to a decrease in the performance of manufacturing firms because firms with high debt costs may face challenges in meeting their financial obligations, which can hinder their overall performance. Effective cost of debt management emerges as a key factor influencing a firm's profitability and sustainability. This study underscores the importance of strategic financial decisions in optimizing the balance between leveraging financial resources and ensuring long-term financial viability within the dynamic landscape of manufacturing industries.

The study highlighted that an increase in openness to trade leads to a decrease in the performance of manufacturing firms because increased competition can lead to reduced market share, pricing pressures, and decreased profitability for domestic manufacturing firms. Firms that embrace global trade opportunities tend to experience enhanced financial performance, benefiting from expanded market access and diverse revenue streams. This study underscores the strategic importance of a proactive approach to international trade, highlighting its potential to contribute substantially to the overall financial well-being of manufacturing entities.

The study does not find a significant effect of exchange rate volatility on the performance of manufacturing firms because exchange rate volatility may be managed effectively through hedging strategies, international business practices, or other factors that mitigate its adverse effects. Firms operating in environments with heightened exchange rate volatility face increased financial uncertainty, impacting their overall performance. This study highlights the importance of risk management strategies to mitigate the adverse effects of currency fluctuations and ensure the financial resilience of manufacturing enterprises in an increasingly interconnected global economy.

In conclusion, the study provides insights into the relationship between cash holdings, cost of debt, trade openness, exchange rate volatility, and the performance of manufacturing firms. The findings suggest that maintaining adequate cash reserves, managing debt costs efficiently, and navigating the challenges of open trade environments are crucial for enhancing firm performance.

5.3 Recommendation

Based on the findings of the study, the following recommendations are made to manufacturing firms:

Manufacturing firms should strive to maintain adequate cash reserves. This enables them to better navigate financial uncertainties, seize growth opportunities, and make strategic investments. Effective cash management practices, such as optimizing working capital, controlling expenses, and implementing efficient cash flow forecasting, can help firms build and maintain sufficient cash reserves. Regularly reassessing and adjusting cash reserves can enhance financial flexibility, enabling firms to seize strategic opportunities and navigate uncertainties effectively. This dynamic approach to cash management may contribute to sustained financial performance and resilience in the competitive landscape of the manufacturing sector.

Manufacturing firms should carefully evaluate their borrowing decisions and manage debt costs efficiently. High debt costs can impose financial burdens and hinder firm performance. Firms should explore options to optimize their capital structure, such as refinancing existing debt at favourable terms, negotiating better borrowing rates, or seeking alternative financing sources to reduce the cost of debt. Exploring opportunities to refinance at favorable rates and diversifying debt instruments can contribute to improved financial performance. Additionally, maintaining open communication with creditors and staying informed about market trends can empower firms to make informed decisions,

ensuring a balanced and cost-effective approach to debt that aligns with long-term financial goals.

Manufacturing firms operating in industries with high trade openness need to focus on enhancing their competitiveness. This can be achieved by investing in research and development, technology adoption, product innovation, and process efficiency. By continuously improving their products, services, and operational capabilities, firms can better position themselves in competitive markets and mitigate the potential negative effects of increased trade openness. Fostering strategic partnerships, understanding regulatory frameworks, and adapting to cultural nuances can enhance the effectiveness of international engagement. By prioritizing a global perspective in their business strategies, manufacturing firms can leverage the identified positive relationship between trade openness and financial performance, ultimately fostering sustained growth and competitiveness in the international market.

Manufacturing firms should continuously monitor market trends, industry dynamics, and macroeconomic factors that may influence their performance. This allows firms to proactively identify opportunities and challenges, adjust their strategies, and make informed decisions to stay competitive. Regular performance evaluations, benchmarking against industry peers, and staying informed about regulatory changes can help firms adapt and thrive in a dynamic business environment. Additionally, fostering agility in response to changing market conditions and staying informed about geopolitical events can aid in anticipating and navigating currency risks. By proactively addressing exchange rate

volatility, manufacturing firms can enhance financial stability, minimize uncertainties, and safeguard overall financial performance in the global marketplace

5.4 Suggestions for Further Studies

Future studies could extend the time frame of the study to analyse the long-term effects of cash holdings, cost of debt, trade openness, and exchange rate volatility on manufacturing firm performance. A longer time period can provide a more comprehensive understanding of the dynamics and trends in these relationships. Also future studies can conduct a comparative analysis across different industries or sectors within the manufacturing sector. This can help identify specific industry factors that influence the relationships between cash holdings, cost of debt, trade openness, exchange rate volatility, and firm performance. Comparing firms operating in different industries can shed light on sector-specific challenges and opportunities.

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