UNIVERSITY OF CAPE COAST

MANAGEMENT ACCOUNTING PRACTICES AND FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS WITHIN THE VOLTA REGION, GHANA

LAWRENCE OHENE-ASARE

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MANAGEMENT ACCOUNTING PRACTICES AND FINANCIAL PERFORMANCE OF MANUFACTURING FIRMS WITHIN THE VOLTA REGION, GHANA

BY

LAWRENCE OHENE-ASARE

Dissertation submitted to the Department of Accounting of the School of Business, College of Humanities and Legal Studies, University of Cape Coast in partial fulfilment of the requirements for the award of Master of Business Administration degree in Accounting.

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original work and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature……..... Date……

Name: Lawrence Ohene-Asare

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision laid down by the University of Cape Coast.

Supervisor's Signature……..... Date…….

Name: Dr. James Tuffour

ABSTRACT

Management accounting practices are increasingly gaining dominance in modern business environments due to their ability to improve financial performance. However, this assertion remains unclear within the scope of Ghana's manufacturing industry with particular focus on firms within the Volta region. In view of this, the effects of management accounting practices (MAPs) on manufacturing firms' financial performance were investigated in the region. Using the PLS-SEM approach, the study specifically investigated the individual effects of bookkeeping, cost management, quality cost analysis and internal audit on financial performance. The quantitative approach, explanatory research design, structured questionnaires and the behavioural theory of a firm were all employed. The study processed valid data set of 123 via IBM SPSS Statistics (v. 26) and Smart-PLS. Based on the PLS-SEM output, the study revealed that all the four management accounting practices had significant positive effects on financial performance. It was concluded that cost management has the strongest significant effect on financial performance; thus, concluding that implementing these practices would lead to improvements in the financial performance of manufacturing firms in the Volta region. The study recommended that policy makers including government bodies, agencies and management of the manufacturing firms should strengthen their management accounting practices in the manufacturing industry in other to promote financial performance.

KEYWORDS

Management accounting practices

Financial performance

Manufacturing firms

Volta region

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DEDICATION

To my loving family especially, Elizabeth Dwamena (Mother), Philip Dwamena Boateng (Uncle) and my wife, Grace Aku Yevu.

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LIST OF ACRONYMS

CM	Cost Management
BK	Bookkeeping
QCA	Quality cost analysis
IA	Internal Audit
MAP	Management Accounting Practice
FP	Financial performance
GEA	Ghana Enterprise Agency
MSME	Micro, Small and Medium-sized Enterprises

CHAPTER ONE

INTRODUCTION

The manufacturing industry continues to make valuable contributions to the economic development of both emerging and advanced economies in areas of employment, gross domestic product, innovation, resource utilisation and value addition (Forrest, Liu, Martorell, Xu & Liu, 2021). Similarly, in Ghana, the industry plays crucial roles in national development; however, its financial performance levels have remained inconsistent over the past decades. This menace has largely been attributed to factors such as poor government support, pre-mature liquidation, lack of access to funds and uncertain customer demands (Association of Ghana Industries, 2020). Despite the fact that these assertions are unavoidable, the subject of management accounting requires immediate consideration. In line with the firm theory, this study explores the effects of management accounting practices on manufacturing firms' financial performance in Ghana with focus on Volta region.

Background to the Study

Manufacturing sectors contribute to immensely to the economic growth through generating income (taxes and gross domestic product [GDP]), job creation, innovation, and resource utilisation (Jaeger & Upadhyay, 2020; Xia & Walker, 2015). In highly industrialised economies such as China, Germany, and the United States, this industry provides over 30 percent of GDP annually (Chiarini, 2021). In fast-developing economies such as Nigeria, Brazil, India, and Kenya, the industry accounts for over 40% of GDP and employment (Okeke et al., 2022; Yadav, Kumar, Luthra, Garza-Reyes, Kumar & Batista,

2020). Similarly, the industry contributes about 25% of GDP and total jobs created in Ghana (Hou, Fu & Mohnen, 2022; Oduro & Haylemariam, 2019).

In Ghana, the manufacturing industry has sub-sectors such as plastic/rubber smelters, food and chemical processors, plastic/paper processors, metal smelters and water producer which convert raw materials into finished goods for further processing or consumption (Ghana Statistical Service, 2020). In carrying out their core mandates, manufacturing firms are continuously exposed to unhealthy competitions amid the industry's turbulent nature. This situation has called on firms to explore innovative and comprehensive ways to manage their performance and value creation levels (Sitienei & Memba, 2016). In view of this, some researchers (Bhimani, 2020; Hutahayan, 2020) have proposed the implementation of management accounting.

Bhimani (2020) noted that firms can attain higher performance and competitiveness by relying on management accounting. It is an aspect of management that focuses on identifying, generating, interpreting and using key information to communicate or share strategic decisions (Pedroso & Gomes, 2020). It also focuses on using information to formulate corporate strategies, design reward packages, determine capital structure and control business operations. Fuadah, Safitri, Yuliani and Arisman (2020) also revealed that management accounting play crucial roles in resource allocation, protecting intangible and tangible assets, establishing corporate governance procedures and ensuring risk management. It is primarily adopted to create reports, statements or documents to assist management in developing better decisions related to business performance.

Petera and Šoljaková (2020) found that management accounting ensures resource efficiency and internal control to improve value addition and competitive advantages. It is generally used internally to provide data and analyse it to aid meaningful discussions. Management accounting can never be effectively implemented without its practices; because, they represent the unique methods or systems that help firms to produce information to prepare budgets, reports and measure performance (Alvarez, Sensini, Bello & Vazquez, 2021). Management accounting practices (MAPs) are the various practices employed to manage costs to make effective managerial decisions. MAPs have grown in importance due to increased consumer demands, market unpredictability, market competition and cost management.

According to Alvarez et al. (2021), MAPs provide reliable data which serve as prerequisite for making key managerial decisions. Research has revealed several MAPs; however, every practice chosen is determined by the nature of the organisation and the industry as a whole (Madawaki et al., 2021; Nartey & van der Poll, 2021). Within the manufacturing sector, MAPs predominantly adopted include: bookkeeping, quality cost analysis, internal audit and cost management (Gonçalves & Gaio, 2021; Oladejo, Yinus, Shittu & Rutaro, 2021). These practices were also chosen for the study because they play valuable roles in obtaining the required data to inform management about their operational business metrics. Gonçalves and Gaio (2021) similarly noted that these practices are internally used to identify, measure, interpret and communicate financial information to management.

Bookkeeping, for instance, is the methodical and orderly recording of all business transactions for decision making purposes (Inasovilizuari &

Fontana, 2021). It essentially gives key information about a firm's financial health and current financial performance to management for key financial decisions (Williams, Susan & Mark, 2018). This indicates that bookkeeping represents an important MAP for gathering financial information about a firm to promote decision making. Also, quality cost analysis (QCA) focuses on analysing the costs associated with the production and distribution of quality products to consumers. This practice provides information on the costs associated with creating, detecting, preventing and repairing quality-related problems during production (Kalkhouran & Nedaei, 2017). Hence, QCA is instrumental for providing information required to make financial decisions.

Internal auditing, on the other hand, is an MAP that focuses on analysing and enhancing the efficacy of risk management, governance systems, and financial control in order to achieve certain objectives (Oladejo et al., 2021). It provides an impartial evaluation of a firm's data, financial statements and accounting records to ensure financial credibility. Finally, cost management is a well-thought-out MAP that has the ability to raise the cost/price, quality, and functionality of a product (Gonçalves & Gaio, 2021). It can be used by manufacturing firms to identify, control and monitor business costs or expenditures. Cost management offers the techniques or processes for ensuring effective cost planning, cost control and decision making. Wilson (2016) noted that manufacturing firms would struggle to properly manage their finances if they fail to effectively manage their costs through cost management.

Previous studies have, therefore, linked MAPs with firm's financial performance (Ahmad, 2014; Gichaaga, 2014; Shahzadi, Khan, Toor & ul Haq,

2018). Financial performance primarily measures a firm's overall success using monetary indicators including sales growth, return on assets, profit margin and operating costs (Galankashi & Rafiei, 2021; Hazaea, Tabash, Khatib, Zhu & Al-Kuhali, 2020). It also describes the extent to which manufacturing firms attain their set financial goals (Waal, 2021). According to Palaniappan (2017), financial performance of manufacturing firms can be measured using both subjective and objective indicators.

However, given the difficulties associated with objective measures such as access to up-to-date data, incomplete data and authenticity of data, several studies have relied on subjective indicators such as sales margin, profit margin, total assets, investment returns and operational costs (Galankashi & Rafiei, 2021; Manogna & Mishra, 2021; Pucheta-Martínez & Gallego-Álvarez, 2020). Arguably, these performance indicators in the manufacturing sector could improve if MAPs are properly implemented. This assumption is consistent with the firm theory, which states that in order to achieve operational excellence, management efficiency, and improved firm performance, businesses must adopt innovative methods such as MAPs. The theory posits that manufacturing firms seek profit-maximisation; arguably, attainable through cost management, bookkeeping and quality cost analysis.

In Ghana, manufacturing firms are widely dispersed; operating on micro, small, medium and large scales (MSMEs) (Opoku et al., 2020). These firms are largely concentrated in the regions like Greater Accra, Ashanti and Western regions respectively. In view of this, much attention has been given to manufacturing firms operating within these three regions with less attention on those in other regions like Volta region. According to Ghana Statistical Service

(2020) report, Volta region has over 100 manufacturing firms located there; hence, requires the needed attention. This is because, these firms' ability to operate successfully would be key to reducing the high unemployment rate, control rural-urban migration and improve the standard of living of dwellers.

Moreover, Volta region is among the 16 administrative regions in Ghana and its manufacturing firms are basically into the production or processing of cassava into starch, gari and ethanol; smelt aluminium/metals; rear and process different types of fish and package sachet and bottle water. These end-products are needed for human survival and, also serve as a wheel for manufacturing firms operating in other regions; hence, cementing the significance of the region's manufacturing firms. Although manufacturing firms operating the Volta region rely on MAPs like bookkeeping, cost management, quality cost analysis and internal audit, their effects on the firms' financial performance have not garnered the needed attention; thus, worthy of investigation.

Statement of the Problem

The manufacturing industry is a fundamental engine of industrial development; but, in the developing world, particularly in Africa, it has not yet attained sustainable performance (Mbogo, Jimmy & Olando, 2021). In Ghana, for instance, the industry's performance has been inconsistent; recording an unprecedented growth rate of -8 percent in 2015 (Adu-Gyamfi & Chipwere, 2020; Obed, 2016). The African Development Bank (2021) reported that the industry's growth rate between 2017 and 2019 exceeded 10%; however, reducing to 7.833% in 2021 (Trading Economics, 2021). Some researchers have generally attributed the sector's menace to poor technological changes,

lack of capital, inadequate government support, unhealthy competition and unstable power supply (Hongli et al., 2019; Oduro & Haylemariam, 2019).

In recent times, the adverse effects of the covid-19 pandemic have also contributed to the manufacturing sector's declining performance in Ghana (Aduhene & Osei-Assibey, 2021). During the pandemic between 2020 and 2021, Ghanaian manufacturing firms faced demand shocks by 92.7% which led to 93% of decline in sales (Ghana Statistical Service [GSS], 2021). Also, GSS (2021) reported a decrease in these firms' access to finance by 17.2%, cash flow problems by 78.2% and average decrease in sales by 65.3%. Although these assertions coupled with the adverse effects of the covid-19 can never be overruled, other researchers have attributed the sector's inconsistent financial performance to poor cost management, bookkeeping and quality cost analysis and internal auditing (Adu-Gyamfi & Chipwere, 2020; Amenyo, 2016; Musah, 2017; Zotorvie, 2017).

Poor adoption of the MAPs continues to threaten the financial performance of the manufacturing firms in Ghana. Adu-Gyamfi and Chipwere (2020) pointed out that poor adoption of MAPs leads to poor performance of Ghanaian manufacturing firms. However, they focused on all manufacturing firms in Ghana; raising questions as to whether same can be said of those specifically within the Volta region of Ghana. Although manufacturing firms in the region face similar performance issues, it remains unclear whether they can be attributed to MAPs or not; thus, justifying the need for this study. Focusing on the Volta region, manufacturing firms in the region are facing challenges such as excessive taxes, fees and levies, energy crisis, excessive

competitions, high utility prices and energy crisis, high interest rates and lack of funding (African Centre for Economic Transformation [ACET], 2020).

Given these documented challenges in the Volta region, various interventions have been made by both governmental and non-governmental institutions to address them. The Government of Ghana, for instance, allocated a portion of its budget to boost manufacturing activities across the country including the region. Also, Stanbic Bank Ghana, since 2008, has invested heavily into manufacturing firms operating in Volta region to help minimise the financial challenges facing them. The bank also provided loan facilities with low interest to bridge the access to finance gap. The Ministry of Agriculture also reported that it continues to provide free and subsidised farm input to farmers to help address issues associated with low raw material supply to manufacturing firms that focus on food processing. Despite these interventions, manufacturing firms in the region continue to face financial performance challenges.

Despite the consistent below-par financial performance of manufacturing firms operating within the Volta region and the entire country as a whole, existing literature has failed to pay attention to it. In Ghana, for instance, research related to management accounting practices and financial performance has been very scanty, especially within the context of its manufacturing industry. The few studies (Adu-Gyamfi & Chipwere, 2020; Amenyo, 2016; Zotorvie, 2017) on MAPs and manufacturing firms' performance in Ghana have focused on those in regions other than Volta region. Also, none of these studies have investigated the individual effects of cost management, bookkeeping, internal audit and quality cost analysis on

financial performance. It was, therefore, on the basis of these research gaps that the present study was carried out.

Purpose of the Study

The study investigated the influence of management accounting practices on the financial performance of manufacturing firms in Volta region, Ghana.

Research Objectives

The ensuing specific objectives were formulated to:

1. examine the effect of bookkeeping on financial performance of the manufacturing firms in the Volta region
2. investigate the effect of internal audit on financial performance of the manufacturing firms in the Volta region
3. examine the influence of cost management on financial performance of the manufacturing firms in the Volta region
4. examine the effect of quality cost analysis on financial performance of the manufacturing firms in the Volta region

Research Hypotheses

The following research hypotheses were proposed in accordance with the study's specific objectives:

H1: Bookkeeping has a significant positive effect on financial performance of the manufacturing firms in the Volta region

H2: Internal audit has a significant positive effect on financial performance of the manufacturing firms in the Volta region

H3: Cost management has a significant positive effect on financial performance of the manufacturing firms in the Volta region.

H4: Quality cost analysis has a significant positive effect on financial performance of the manufacturing firms in the Volta region.

Significance of the Study

The influence of management accounting practices on the financial performance of manufacturing firms in Ghana's Volta area was investigated. In view of this, the study's outcome would improve policy formulation and practices within the area of management accounting and financial performance. For instance, the study's outcome would provide a clear picture on the relevant MAPs that manufacturing firms in Ghana can adopt. This would assist key stakeholders such as the government, ministries and corporate bodies to develop comprehensive management accounting policies within the manufacturing industry of Ghana. The study's outcomes would also expose management of the manufacturing firms about the significance of implementing MAPs in order to expand their current financial performance and consequently help address their growing survival and competitiveness challenges.

The study's findings would also contribute to existing literature by minimising existing research gaps. For instance, given the inadequacy of literature on this topic within the scope of manufacturing firms in Ghana especially Volta region, this study would help address this literature gap. The study's outcome would also provide future researchers with relevant information and evidence to support and or reject their study's outcomes. Also,

the study offers suggestions for further research to guide future researchers with respect to the areas to consider when conducting similar studies.

Delimitations of the Study

The study was delimited to management accounting practices and how they affect the financial performance. As such, it excluded other predictive variables such as access to finance, internal control systems, debt/equity financing and accounting record keeping practice which have all been found to affect manufacturing firms' performance in Ghana. Furthermore, because the study focused solely on financial performance, other performance metrics such as operational, employee, and market performance were disregarded. Also, the study concentrated on owner and or managers of the firms within the Volta region of Ghana; thereby, excluding those within manufacturing firms outside this geographical area. Despite these delimitations, the study's outcomes would be useful to the entire manufacturing industry of Ghana.

Limitations of the Study

Given the nature of this research, some limitations were identified and addressed in order to maintain the study's quality. For instance, the methodologies employed in this study have general limitations which could consequently affect the study's quality if left unaddressed. For instance, the study adopted the quantitative approach where incorrect depiction of the target population could have significant influence on the study's findings. Simply put, collecting data from people who aren't real examples of the study's target group could have an impact on the study's results. Also, quantitative studies rely on the use of structured questionnaires during data collection and this could limit

the respondents' responses. More precisely, this instrument limits the respondents' opinions and suggestions because they are guided by the stipulated questions.

Also, due to the use of structured questionnaires, the researcher's inability to completely control the environment (respondents) may have an impact on the data collected and the conclusions reached. However, various steps were put in place to guarantee that these constraints were addressed and that the study's outcome was of high quality. For example, to ensure true representation of the target demographic, the researcher gathered information on all manufacturing enterprises in Ghana's Volta area through Ghana Enterprise Agency. Also, the questionnaire was drafted, reviewed and pretested numerous times before being utilized for the real data collecting. This was done to ensure that every question item was valid and truly measures what it is supposed to measure. Finally, ethical considerations such as confidentiality, anonymity and honesty, among others, were strictly adhered to ensure all the stakeholders' safety; thereby, minimising the possibilities of gathering inferior data.

Organisation of the Study

The study was divided into five Chapters: the first chapter focused on the study's background, problem statement, purpose, research aims and questions, as well as its organization. The literature study was divided into four sections in Chapter three: theoretical review, conceptual review, empirical review, and conceptual framework. The methodologies used in this study were discussed in Chapter three; covering areas such as the research approach, design, population, and data processing and analysis. The findings were

presented and discussed in Chapter four. In Chapter five, the study's key findings, conclusions, and recommendations to policymakers and future researchers were provided.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The previous chapter covered the study's background, problem statement, and research aims. This chapter looked at existing research on management accounting and financial performance. It also presented the theoretical review, conceptual review, empirical assessment of relevant studies, and established a conceptual framework.

Theoretical Review

This part looked at the behavioural theory of a firm because it was important in describing the study's concepts.

Behavioural theory of a firm

The behavioural theory of a firm, a key theory in describing human behaviours in management and organisational studies, was propounded by Cyert and March in 1963 (March & Simon, 1958; Ramos-Rodriguez & Ruiz-Navarro, 2004). It underlines the genuine human behaviours, specifically human decision-making, as opposed to the idealised perspectives of human behaviours. The theory's assumptions include:

- Bounded rationality: decisions are made with the best of intentions, yet they are limited by human and institutional limits;
- Organisations accumulate and utilize slack;
- Problemistic search: searches are carried out in response to issues;
- Scarce resources require attention;

- Firms are coalitions of persons and groups attempting to build dominant coalitions;
- The application of standard operating procedures and
- Firms need to perform at desirable levels which they modify over time based on experience (Cyert & March, 1963).

The behavioural theory of a firm comprises differing economic ideologies that describes and predict a firm's nature with respect to its structure, existence, behaviour and association to a given market (Argote & Greve, 2007; Kengatharan, 2019). According to Argandoña (2011), the behavioural theory of a firm is a microeconomic ideology which generally suggests that firms operate and make strategic decisions to maximise their profit levels by developing gaps between costs and revenues. zu Knyphausen-Aufseß and Santarius (2020) similarly stressed that the theory influences firms' decision-making in areas of resource allocation, pricing adjustments, production volumes and production techniques or methods.

The theory proposes that the aim of firms is to maximise profits, as such, they make decisions and utilise scarce resources to achieve this goal. It also posits that firms need to make decisions in areas of management accounting, resource utilisation, among others in order to be profitable in both short and long terms (Alvarez et al., 2021; Argote & Greve, 2007). However, some scholars (Foss & Klein, 2005; Gavetti, Levinthal & Ocasio, 2012) have criticised the theory for its short-sightedness (profit maximisation) as against focusing on long term goals such as firm growth and sustenance. According to Anderson (1982), for instance, firms that focus on profit maximisation alone,

are at risks of denting their reputations or goodwill if the public become susceptible about such intentions.

Foss and Klein (2005) similarly stressed that profit-oriented firms could lose customers' trust, loyalty and would struggle to maintain public relations. However, these criticisms have been addressed with Walker (2016) proposing that profit-oriented firms make decisions or utilise resources that would minimise costs, build strong customer relationships to achieve their profit maximisation targets. With reference to the study, the theory suggests manufacturing firms operate to maximise profits and this can be achieved when they make relevant managerial decisions by relying on management accounting. With management accounting, manufacturing firms can create profit maximisation goals by identifying, analysing and interpreting valuable information obtained from financial data (Rashid et al., 2020).

Moreover, MA ensures that these firms can prepare reports about their operations to make short and long-term decisions (Hutahayan, 2020). Thus, manufacturing firms can achieve their profit-maximisation goals by implementing management accounting practices (MAPs) such as bookkeeping, cost management, internal audit and quality cost analysis. These practices would help them to forecast cashflows, make future projections, understand performance variances and analyse return rates.

Conceptual Review

The section reviewed literature on the study's key concepts: management accounting, its practices and financial performance.

Concept of management accounting

Management accounting is an essential component of an organisation's strategic planning activities which help in generating valuable information for management teams. According to Hilton and Platt (2018), management accounting consists of processes to identify, measure, accumulate, analyse, prepare, interpret, and communicate information that enable managers realise the objectives of the organisation. Management accounting also refers to the application of appropriate concepts and tools in processing historical and predicted economic data of an institution to assist management to create a plan for attaining legitimate economic goals (Gichaaga, 2014).

It has also been defined as the process of identifying, examining, explaining and communicating valuable information to managers to attain set goals (Alleyne & Weekes-Marshall, 2018). MA refers to all accounting techniques that offer management with information about a company's operational data. It assists businesses in planning, leading, and controlling operating costs in order to increase profitability. Also, management accounting helps in environmental scanning to provide management with environmental information to attain competitive advantages, manage change and to help in decision making (Smith, 2009). McWatters (2019) noted that it helps firms to adapt to changes arising from globalisation, customer demands and technology.

Because of the global market’s competitiveness, many organisations have improved their management accounting practices comprising breakeven analysis, strategic analysis, bookkeeping, cost analysis and budgeting, among others (McWatters, 2019). These practices provide a set of approaches that

help firms make decisions, keep proper records, make future projections and strategically analysis their costs structures.

Management accounting practices

Management accounting practices (MAPs) are those practices designed and implemented to support organisations' management accounting processes and infrastructure (Ahmad & Zabri, 2015; Hutahayan, 2020). MAPs coordinate managerial operations, inspire behavioural patterns, support and promote the cultural values necessary to attaining an organisation's planned goals. These actions enable organizations to thrive in dynamic, competitive business environments (Ahmad & Zabri, 2015; Gichaaga, 2014). They also assist managers to gather appropriate data for informed decision-making, as well as allow businesses to compete in the marketplace and limit the risk of failure. Researchers have revealed MAPs; however, the study discussed the following: bookkeeping, internal audit, cost management and strategic cost analysis.

Bookkeeping dimension of management accounting

Bookkeeping is fundamental to the management of knowledge required for successful corporate operations. It refers to the orderly and systematic record of all business transactions; thus, a critical element of management accounting (Ademola, James & Olore, 2012). To prepare financial statements, book keeping is essential because it helps in identifying, classifying, storing, retaining and disposing-off financial records. Bookkeeping makes use of procedures, policies, operations, personnel and systems to manage financial records or information. It basically provides crucial information about a business' financial health and present performance (Williams, Susan & Mark, 2018). According to Eric and Gabriel (2012), bookkeeping acts as a financial

control tool that enables managers to comprehend the financial health of their organisations and put control measures into place to improve corporate performance.

Stakeholders such as regulators, investors, managers, suppliers and customers use the plethora of information provided by bookkeeping to make key decisions (Williams et al., 2018). With bookkeeping, managers can easily analyse their businesses' financial accounts to identify their financial strengths and weaknesses; thereby improve financial performance. As such, modern firms' success, competitiveness, and survival are dependent on bookkeeping. It would be challenging to determine the level of profitability and fraud vulnerability of a firm without keeping records. For any business to function properly, good recordkeeping is required (Ademola et al., 2012). If records are well kept throughout a given period, they provide clear pictures or frameworks to promote organizational change (Covin & Selvin, 2019). Recordkeeping proves that procedures were followed to meet company requirements and provides proof of how the transaction was handled (Reed, 2018).

Internal audit dimension of management accounting

Internal auditing is an independent, objective assurance and consulting process that benefits business operations (Hazaea et al., 2020). It is also a systematic and impartial assessment of an organization's data, operations, performance, financial statements and accounting records with the goal of ensuring their genuineness and credibility (Butcher, Harrison & Ross, 2013). According to Gramling (2017), internal audit is a general phrase that refers to a set of checks and controls used in a corporation to ensure effective operations. It is also seen as expressing the entire system of controls developed by

management in the operation of business through vigilance and guidance. It goes beyond concerns that are directly related to the functions of the accounting system. It particularly provides management with the needed tools to achieve operational efficiency to identify problems and correct lapse prior to their discoveries in external audit.

Internal audit is a methodical and disciplined technique used to evaluate and enhance the quality of risk management, governance frameworks, and financial control in order to accomplish particular objectives (Hazaea, Tabash, Zhu, Khatib & Farhan, 2021). It guarantees that the business's operations are carried out effectively and methodically, including the observance of management guidelines, asset protection, fraud and error detection and prevention, accuracy and completeness of account records, and prompt preparation of reliable financial information (Hazaea et al., 2021). It includes a method for imposing controls on recurring transactions that occur on a regular basis as part of a routine system, in which a person’s work is verified independently or in conjunction with another’s work to prevent and/or detect errors and fraud as soon as possible (Shahnawaz, 2016).

Cost management dimension of management accounting

Cost management (CM) is a key strategy employed by organisations to reduce costs in order to overcome sustainable profitability challenges (Shahnawaz, 2016). This practice encompasses the techniques required for proper cost planning, control and decision-making, through cost performance evaluation and interpretation. It is also described as cost-cutting strategy and quality planning that regulates costs prior to their occurrence. CM is a well-thought-out management accounting practice with the potential to increase a

product's cost/price, quality, and functionality (Wilson, 2016). It arises due to the presence of limited resources and ostensible ongoing competitions which induce organisations to properly manage their production costs by initiating proper budget systems, standard costing, cost information monitoring, and concentrating on value-added activities.

Cost management is the most significant managerial tool for increasing revenue for manufacturing organizations (Kumar & Shafabi, 2019). According to Fazel (2019), organisations that ensure CM are able to predict future expenditure to achieve sustainable financial performance. According to Smith (2017), CM uses proper accounting approaches to analyse historical and projected economic data in order to develop plans for achieving fair economic goals. Wilson (2016) defines CM as a process that attempts to offer information to managers in order to assist them in making better decisions and maintaining effective control over corporate resources. It offers timely and reliable information to identify, monitor and control business costs (Beng, 2014). It ensures that managers can ascertain total costs and deduce measures to minimise them in order to attain higher profit levels (Asgari, 2020).

Quality cost analysis dimension of management accounting

According to Guilding (2017), quality cost analysis (QCA) entails an examination of the four cost dimensions of prevention, appraisal, internal failure, and external failure. Costs connected with the creation, detection, prevention and repair of problems are identified and controlled under quality cost analysis. Product quality has become a need to succeed in the market, prompting businesses to seek out novel ways to reduce associated expenses. As a result of quality control, assessment, and internal and external failures, this

approach categorizes and monitors expenditures (Heagy, 2011; Kalkhouran & Nedaei, 2017). Consumer surveys, supplier assessments, field testing, and quality engineering are all examples of costs associated with preventing or reducing errors and failures.

Also, the costs of initially verifying a product's compliance to quality requirements, such as inspection and testing, are known as appraisal costs and it include product testing, quality audits, product inspection and process control monitoring (Biadacz, 2020; Yang, 2020Internal failure costs, on the other hand, are the expenses related to subpar quality that are found prior to the transfer of ownership from the supplier to the buyer. These expenses include the cost of faulty product disposal, rectification, and downtime because of product quality issues (Zhou & Li, 2020). External failure costs are the expenses incurred as a result of subpar quality discovered after ownership has been transferred from the supplier to the consumer.

Quality cost analysis also consists of the costs associated with product recalls, missed sales, processing of warranty claims and investigation of complaints (Pham, 2020). It describes the costs related to finding, preventing and correcting defective products or works. As such, this practice allows manufacturing organisations to identify the degree to which resources are utilised for activities that minimise poor quality arising from external and internal issues (Nixon, 2018).

Concept of financial performance

Financial performance (FP) is an expression of a company's monetary value performance in areas such as high growth rates, profitability, and increasing economic value (Xu & Liu, 2021). It reflects company performance

because it helps make financial resources available, as well as because it gives businesses opportunities to invest in a variety of fields and financial goals at the lowest feasible prices that satisfy stakeholders' needs and help them achieve their goals. It describes how well a firm meets its financial goals (Koopmans, 2018). Business enterprises notably manufacturing firms are established to achieve specific objectives including financial performance (Dikko & Alifiah, 2020).

Financial performance (FP), according to Wanjara (2014), is linked to a company's ability to run efficiently in order to achieve anomalous corporate profits, market share, and high returns on capital or investment. It also explains the degree to which business settings including manufacturing enterprises achieve set financial objectives such as profitability, sales volume and market share (Umar & Dikko, 2018). It further relates with the measurement of total business performance using monetary values such as investment returns, return on assets and return on equity (Raucci & Tarquinio, 2020). FP is generally measured using both objective and subjective indicators.

With the difficulties associated with obtaining objective performance indicators from manufacturing SMEs in Ghana especially those within the Volta region, this study measured financial performance using subjective indicators such as asset return, sales return, return on equity (RoE), profit margin, return on investment or capital (RoI) and production costs (Hegazy & Hegazy, 2012; Pîrlog & Balint, 2016; Vibhakar et al., 2020). Some researchers have similarly adopted these subjective elements in their studies on manufacturing firms (Ehiedu & Toria, 2022; Manogna & Mishra, 2021; Shabbir & Wisdom, 2020). The study relied on subjective financial

performance criteria like return on equity, operating expenses, investment returns, sales returns, and profit margin.

Empirical Review

In this part, the literature on the impact of management accounting practices (MAPs) on firm performance was reviewed. To make sure there was enough research to support or contradict the study's findings, this review was done. To support the need for the study's existence, research gaps were also identified using the empirical review.

For example, Adler et al. (2018) investigated the impact of MA on business performance using New Zealand manufacturing enterprises. The judgemental sampling technique was used to sample management accountants from 165 manufacturing firms. The findings revealed that key MAPs such as standard costing, direct costing, and complete costing, were more commonly used by New Zealand manufacturing enterprises than advanced MAPs. The study concluded that MAPs play crucial roles in improving the manufacturing firms' performance levels. Although the study concluded that MAPs improve firm performance, it was, however, surprising to find that the authors adopted the judgemental sampling technique in a quantitative study. This type of sampling tool is suitable for qualitative research, hence, its adoption in such a quantitative study is flawed.

Ndege (2018) also examined the financial ratios and performance of Kenyan commercial banks. The study identified the variables that influence bank performance as indicated by ratios of return on equity and return on assets. During the inquiry, it was learned that ROA and ROE can be used to assess the financial performance of Kenyan banks. The activities and

recommendations of internal auditing have a long-term effect on an organisation's operations since they serve as the foundation of the business and determine whether it succeeds or fails. Its acceptance and effectiveness should be emphasized at all levels, especially management, to increase its viability.

Also, the impact of MAPs on decision-making in Kuwaiti industrial businesses was explored by Al-Khalidi (2019). The study looked at how management accounting approaches and related variables (balanced scorecard, activity-based costs, target costs, activities-based management system, on-time production system) influence decision-making in Kuwaiti industrial enterprises. Linear regression, as well as analysis of variance (ANOVA) tests, were used to evaluate the study's hypotheses. The study's outcomes revealed a statistically significant link between management accounting approaches and the variables mentioned above in Kuwaiti industrial enterprises' decision-making processes. The findings also demonstrated that managerial accounting methods benefited in the speeding up of the decision-making process.

Cletus and ThankGod (2020) looked into the connection between standard costing and cost control in the Nigerian oil and gas industry. A literature review was conducted, and hypotheses were created. The population of the study consisted of petroleum marketing companies listed in the 2012 Nigerian Stock Exchange Factbook. Both primary and secondary data collection techniques were used to compile the information for this investigation. The primary data came from a questionnaire with a 5-point Likert scale, and the secondary data came from the 2011 Nigerian Stock Exchange Factbook. It has been demonstrated that standard costing and cost control improve corporate performance in Nigeria's oil and gas sector.

Adu-Gyamfi et al. (2020) investigated whether MAPs influence the manufacturing firms' performance in Ghana. Based on the quantitative approach, the study gathered primary data from 200 randomly sampled managers of manufacturing enterprises. The data obtained was analysed using the multiple regression approach and it was found that management accounting practices such as information for decision making, performance evaluation system, budgetary system, costing system and strategic management have significant positive effects on the manufacturing firms' performance. The study concluded that manufacturing firms in Ghana can achieve higher performance targets by implementing management accounting practices.

Dang et al. (2021) investigated whether strategic management accounting (SMA) affects the business performance of Vietnam's Sugar enterprises. Employing the mixed research approach, primary data was obtained from 350 managers and accountants of the firms. A total of 306 questionnaires were distributed, collected, and analysed. The study's findings demonstrated that SMA, notably quality costing and value chain, have a favourable impact on sugar businesses' commercial performance. The results of the SEM demonstrate that the correlations between SMA and business performance are acceptable (p 0.05), with SMA having a significant impact on both financial and non-financial performance of Vietnamese enterprises.

Jariya and Velnampy (2022) looked into the MAPs and performance of manufacturing enterprises in Sri Lanka, with the complexity of the manufacturing process acting as a moderator. Using a quantitative technique and an explanatory research design, the researchers investigated the effects of management accounting methods on company performance. The study

discovered that these approaches had a considerable and favourable impact on manufacturing companies' organizational performance. As a result, it was determined that management accounting plays an important role in boosting the performance of manufacturing enterprises in Sri Lanka.

In line with this study, Ogundajo and Nyikyaa (2022) investigated management accounting practices and their effects on Nigeria's listed manufacturing firms' performance. using the survey approach, primary data through structured questionnaires were gathered from 425 employees of 20 selected manufacturing firms. The regression study found that management accounting procedures like budgeting and total quality management enhanced performance significantly, whereas performance evaluation and cost analysis had little effect. As a result, the consequences of these techniques on business performance are mixed. It is to note that, the study concentrated on manufacturing firms listed on Nigerian stock exchange, hence, restricting its generalisation across manufacturing firms in Ghana.

Mayr et al. (2021) also revealed that management accounting positively affects SMEs' financial performance. They concluded that if SMEs fail to pay attention to management accounting, their financial performance would be negatively affected. Khalid and Kot (2021) also linked management accounting with business performance and concluded that the former significantly and positively affect the latter. Dahal et al. (2020) similarly noted that management accounting has a significant positive effect on SMEs performance. They concluded that management accounting services such as performance analysis, stock control, budgeting, standard costing analysis and cost volume-profit analysis significantly improve the performance of SMEs.

Deductively, these studies reveal that management accounting is crucial to expanding the performance of firms.

More recently, Gyamera et al. (2023) established the moderating role of information technology in the link between management accounting services and SMEs' financial performance. The study adopted the quantitative approach and randomly sampled 365 managers from 4000 registered SMEs in Ghana. It was underpinned by the agency theory and the technology acceptance model. Also, structured questionnaires were used to collect data from the respondents and analysed via the PLS-SEM technique. The result revealed that MA significantly and positively affects SMEs' financial performance in Ghana. Despite this outcome, the study focused on SMEs other than manufacturing firms; hence, creating a geographical gap that requires attention.

Lessons Learnt

It could be deduced from the extensive papers reviewed that studies abound on MAPs and firm performance; however, their focus on manufacturing firms have generally been scanty. In Ghana, for instance, Adu-Gyamfi et al. (2020) investigated this subject by focusing on manufacturing enterprises in Ghana, however, attention was not given to those located in the Volta region. Aside the geographical gap, the study failed to investigate the individual effect of MAPs like bookkeeping, quality cost analysis, internal auditing and cost management on the financial performance of manufacturing firms in Ghana. These are indications that, the study found both geographical gap and literature gap which are worthy of investigation.

Also, Gyamera et al. (2023) focused on management accounting services and financial performance of SMEs in Ghana. Regardless of its

findings, the study was also limited in scope because it focused on only SMEs without focusing on manufacturing firms. On the other hand, the study failed to focus on the MAPs adopted in this study; hence, creating gaps for further research. Focusing on papers from other countries, those directly focusing on the stud''s selected practices remain woefully inadequate. Given these research gaps, the study investigated MAPs and financial performance of manufacturing enterprises in the Volta region of Ghana.

Conceptual Framework of the Study

In this study, management accounting practices such as book keeping, internal audit, cost management and quality cost analysis represented the endogenous variables and financial performance signified the outcome variable. The framework was developed based on the variables (see Figure 1).

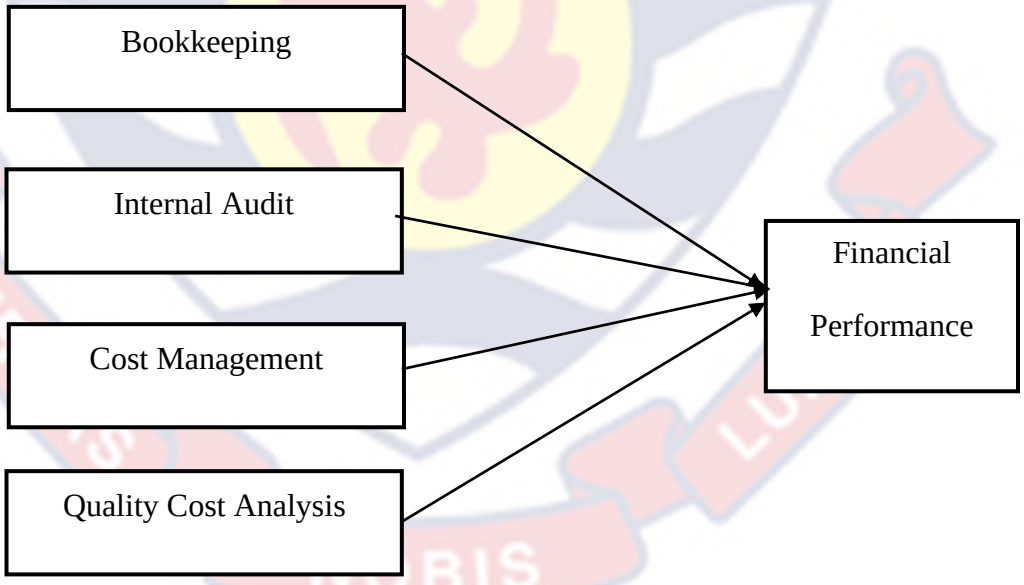

Figure 1: Conceptual framework of the Study
Source: Author's construct (2022)

From Figure 1, MAPs consisted of four dimensions: cost management (CM), internal audit (IA), bookkeeping (BK) and quality cost analysis (QCA)

while, financial performance (FP) was measured in terms of return on investment, sales margin, operational costs, total assets and profit margin. Figure 1 depicted four arrows pointing from the independent factors to the dependent variables, implying that these variables have a direct relationship. More specifically, the paradigm implies that the four MAPs and FP have a causal relationship; hence, a unit change in any of the practices could have a direct impact on FP. However, the framework does not indicate whether the link between the variables is significant or not; but it suggests that MAPs could improve FP of the manufacturing firms studied.

Chapter Summary

This chapter discussed the key facts that were required to understand the study's objectives. It included conceptual and empirical reviews, as well as a conceptual framework, and the theories that drive the study. The study used and investigated behavioural theory of a firm and stewardship theory since they explicitly linked management accounting practices with financial performance. Furthermore, the empirical review section revealed major study gaps, which impacted the quality of previous results. Finally, the conceptual framework gave a clear picture of the study's hypotheses, which helped with testing and discussion. The next chapter presented the research methods, techniques and procedures for achieving the study's target.

CHAPTER THREE

RESEARCH METHODS

Introduction

This section discussed the techniques or methods employed in relation to MAPs and FP. The sections discussed important methodologies that this study relied on.

Research Approach

Research approach includes the elements, strategies and processes for carrying out a given research (Ghauri, Grønhaug & Strange, 2020; Ivankova & Greer, 2015); thus, a vital aspect of every scientific study. This study was underlined by the quantitative approach despite the presence of research approaches such as qualitative approach and mixed methods approach. The qualitative approach, for instance, focuses on gathering first-hand information to address unknown or unclear situations (Täuscher & Laudien, 2018). Data collection tools such as interviews, observations and focus groups are predominantly used to gather data from a relatively small group (i.e., < 30). It also does not make use of rigorous statistical analysis and as such not favourable for studies that aim at analysing cause and effect relationships.

The mixed methods approach, on the other hand, relies on both qualitative and quantitative approaches; thus, makes use of interviews, observations and questionnaire in gathering data (Denscombe, 2017). It is employed when the researcher intends to do a comprehensive analysis of a given situation to draw concrete outcomes. However, it was not applicable to this study because of its adoption of qualitative research. In view of this, the

quantitative approach was employed because it has the ability to use statistical methods to clarify what is expected to be understood through detailed investigation (Creswell & Plano Clark, 2011).

The quantitative approach is also important for learning about the cause-and-effect relationships between the constructs being studied. It offers the best guidelines for investigating how variable(s) affect(s) another. In this scenario, the approach is the most appropriate in explaining the casual linkage between MAPs and financial performance. Also, the approach draws inferences about a population using either descriptive or inferential analytical tools or both (Creswell, 2014). It also gathers and converts data into numerical form, which is then processed using software and carefully analysed to provide scientific and concrete outcome (Saunders & Lewis, 2012). In view of this, the quantitative approach was employed to specifically investigate the influence of quality cost analysis, cost management, bookkeeping and internal audit on manufacturing firms' financial performance.

Research Design

With reference to the study's quantitative nature, the explanatory research design was employed amid other designs like exploratory design and descriptive design. The exploratory design, for instance, is adopted to investigate events or situations where the researcher has no or very little information about (Creswell, 2014). It also plays a crucial role in exploring a research problem when there exist little or no earlier studies to rely upon to predict a given outcome. The design is subjective in nature and applied in qualitative research. The descriptive design, on the other hand, is suitable for gathering information about a specific phenomenon or group. It provides an

accurate and detailed picture of the behaviours and characteristics of a particular subject or population.

The descriptive plays an instrumental role in describing events or situations. Hence, it is mostly used when the researcher intends to describe a particular concept or event without necessarily focusing on establishing cause-and-effect relationships. Therefore, the descriptive design is not suitable for examining causal relationships, as is the case in this research. Given the limitations in the other designs, the explanatory design was considered appropriate. The design is used in explaining a situation in conditional terms (i.e., if A, then B) (Creswell & Creswell, 2017). Precisely, it is used to examine the effect that a particular variation could have on existing assumptions and norms. Social scientists, therefore, rely on this design to seek causal understanding of an event through hypothesis testing.

Creswell and Clark (2017) stressed that the explanatory research design is relevant when the researcher(s) need(s) to draw valid conclusions on findings related to correlation between/among variables of interest. It also helps researchers to understand why real-world events occur the way they do through the process of drawing a causal link between variables while eradicating other possibilities. Zina (2021) posited that this design promotes replication of a study and instil greater confidence among readers. It is, thus, the most appropriate design to investigate MAPs and financial performance.

Study Area

The research was conducted in Volta region, Ghana. Ho is the capital of the region, which is one of the country's sixteen administrative regions. The Volta area is located in the west of Togo, with Lake Volta in the east. The

region has 25 administrative districts with multi-ethnic groups comprising Guans, Ewes and Akans. In 2018, the incumbent government carved the region out of the Volta region; thereby, forming the Oti region. The region is dominated by the Ewe ethnic group with about 68.5 percent of the population. This ethnic group consists of sub-groups like the Anlo and Tongu Ewe, Avenor Ewe and Wedome.

Volta region is currently run by the Regional Coordinating Council. The region boosts of numerous manufacturing firms that operate on micro, small, medium and large scales. Under the one district one factory initiative of the incumbent government, Volta region currently has 138 manufacturing firms operating on micro, small, medium and large-scales (Ghana Enterprise Agency, 2020). These firms are into the processing and production of raw materials like cassava into carbon dioxide, ethanol, gari and starch. Some of these firms are also into aquaculture, food processing and agro processing. However, it remains unclear the future of these firms since of the previously established ones have either been liquidated or collapsed. The study, therefore, investigates the FP of these firms in the region.

Population

A study's population, as indicated by Creswell (2014), is made up of a set of entities with distinct features. As a result, the study's participants were owners or managers of manufacturing enterprises currently operating in the Volta region. The target population specifically consisted of manufacturing firms that are currently registered with Ghana Enterprise Agency (GEA) and operate in the Volta region of Ghana. A 2020 report obtained from GEA revealed that 138 manufacturing firms are currently registered with them and

are in full operation in the region. These firms operate on either micro, small, medium or large scales. Therefore, 138 owners or managers of the registered manufacturing enterprises in Ghana's Volta area made up the target group.

Sampling Procedure

Given the target population's adequate size, the census technique was chosen for this research. The census technique is used when all units of a target population are involved in a data collection. This method ensures that the conclusions of a study are more reliable and accurate. This is because, incorporating all members of a target population aids in the collection of enormous amounts of data that may be used to derive useful findings and generalisations. With this technique, data was gathered from each representative of the 138 manufacturing firms within the Volta region, Ghana.

Data Collection Instrument

The most ideal instrument for collecting primary data in any quantitative research is a structured questionnaire. With this instrument, each respondent answers the same set of questions in a predefined order (Creswell & Clark, 2017). Structured questionnaire also aids in gathering diverse opinions about the same subject matter from a large population (i.e., > 100) at relative ease and minimised costs. It can be used to collect pertinent data for future analysis that requires descriptive or inferential statistical methods. According to Creswell (2017), questionnaires place a lower cognitive load on responders by reducing the amount of thinking required to complete a task. They offer easier route to gathering multiple responses, and analyse them within a reasonable time frame.

The questionnaire was drafted with question items which were put on "a five-point Likert-like scale (1-5), with 1 signifying least agreement and 5 represented highest agreement". This scale was used to determine the respondents' agreement levels with each statement indicated in the questionnaire. The scale is also appropriate when inferential tools like linear regression are needed to analyse data. The questionnaire was specifically divided into three sections (A to C), with 35 question items. Section A, for instance, consisted of eight (8) items designed to elicit demographic information from the respondents. With five (5) question items each, Section B assembled information on the four MAPs comprising bookkeeping, internal audit, quality cost analysis and cost management. Finally, Section C consisted of seven (7) question items to measure financial performance. The question items were adapted from related literature and can be found in Appendix A.

Validity and Reliability

Validity and reliability suggest how well the study's instrument assesses the parameters it was designed to measure (Creswell, 2017). Validity, for instance, relates to how well an idea can be quantified. It also describes how well a technique or method measures something with accuracy. Validity is carried out through peer review, expert review, involvement of practitioners and pre-testing of an instrument (i.e., questionnaire) (Berkowitz et al., 2012; Thornhill et al., 2009). In line with the study, the first draft of the questionnaire was given to three research inclined peers for thorough review. After addressing all their issues raised with respect to grammatical errors, unclear sentences, ambiguous statements, among others, the revised draft was sent to three practitioners in the manufacturing industry for further review.

The practitioners were involved to ensure that each question item was directly related to the manufacturing sector. As such, all irrelevant question items were highlighted by the practitioners and they were reviewed and removed or modified where necessary. Finally, the researcher's supervisor was handed the completed questionnaire to evaluate and approve. The instrument was, therefore, deemed valid and thus accurate after approval from the supervisor. The researcher then checked for reliability which describes a measure or instrument's consistency. According to Best and Khan (2016), reliability focuses on the degree to which the application of a scale yields dependable outcomes when repeated steps are made. It was determined by pre-testing the instrument using a 30-data set obtained from manufacturing firms within the Oti region.

The Oti region was chosen for pre-testing due to similarities in geographical settings. The data obtained was then processed and analysed using the reliability test in order to show whether the instrument is reliable or not. The rule suggests that, reliability is achieved if a construct's Cronbach's alpha (α) is ≥ 0.70 (Thornhill et al., 2012). The researcher specifically run the reliability test and reported its outcome using the Cronbach values. The overall score from the test was 0.926 (i.e., > 0.70); confirming the reliability of the question items. Table 1 provided the reliability result of each construct.

Table 1: Reliability Analysis

Item	Item loading	A
Bookkeeping	5	.882
Quality cost analysis	5	.873
Internal audit	5	.901
Cost management	5	.851
Financial performance	7	.892
All items	27	.926

Source: Field Survey (2022)

Data Collection Procedure

By following established processes or procedures, the primary data was gathered the respondents in the study area. More precisely, the Department of Accounting provided an introductory letter outlining the study's purpose and research objectives. Copies of the letter were made and attached to each questionnaire prior to their distribution. This was done to inform the respondents that the exercise was solely for academic purposes, and that no information they provided would be made public. Due to the difficulties associated with data collection, two research assistants were trained and well-resourced to provide the needed assistance to the respondents.

To maintain focus and ensure the gathering of high-quality data, all essential explanations and assistance were given to respondents who had difficulties. Due to the dispersed structure of the manufacturing enterprises, some respondents' unwillingness to participate in the exercise, and the necessity to clarify some questions to respondents who had difficulties, the exercise took one month to complete (7th January to 6th February, 2022).

Despite the fact that some of the respondents were hesitant to participate in the exercise during the initial stages due to personal reasons, some of them eventually participated after clarifications and assurances. In view of this, the exercise was a huge success, with a valid response rate of 87 percent which represented 120 valid responses out of the 138 distributed questionnaires.

Ethical Considerations

Ethical considerations describe the norms or criteria required to distinguish between good and unacceptable standards (Connelly, 2014). As a result, in order to improve the trustworthiness and acceptance of a study's findings, conclusions, and recommendations, researchers must follow basic ethical guidelines. “Honesty, right to privacy, voluntary involvement, anonymity, secrecy, and dealing with plagiarism issues were among the ethical issues explored in the research” (Connelly, 2014, p.21). All precautions were taken to guarantee that all ethical concerns were handled. Anonymity, for instance, was achieved when the researcher did not allow for the acquisition of personal information from respondents (Richard et al., 2009). This was done to avoid the responders disclosing their personal contacts, which could jeopardise their anonymity.

The respondents were also guaranteed of the security of the information they provided in terms of confidentiality. As a result, they received assurances that their personal information would be kept private and not used against them or made public. Selected participants were invited to complete the questionnaires at their own pace and to leave questions that needed clarification unanswered in order to minimize privacy concerns. Plagiarism was also addressed by including suitable citations to information collected

from papers and other scholars. To avoid relying too much on word-for-word quotes, the information gathered was appropriately paraphrased and also a Turnitin report was generated with a minimum plagiarism score of 19%. All other ethical concerns were addressed, allowing the findings of the study to be used for policymaking and other decision-making.

Data Processing and Analysis

The primary data acquired during the data collection was thoroughly screened and edited to avoid missing values resulting from incomplete data or improperly answered questions. After that, IBM SPSS v. 26 software and Smart-PLS 3 were used to process the valid data. Using descriptive statistics, the information on the respondents' demographic traits was described via percentages, frequencies. The research objectives were then analysed using the clever PLS software's linear regression method, partial least square-structural equation modelling (PLS-SEM). More precisely, the PLS-SEM was used to investigate the influence of the MAPs on financial performance. Thus, all the four hypotheses were tested using this analytical tool.

The PLS-SEM model is commonly used to examine all dependent variables' variation (Samani, 2016; Hair et al., 2014). It can help reduce the residual variances of endogenous variables that are used to calculate parameter estimations (Hair et al., 2021; Vinzi et al., 2010). The PLS-SEM can also handle multivariate normality, and it does not necessitate making any firm assumptions about the distributional characteristics of the raw data (Hair et al., 2014). The PLS-SEM tool analyses a situation’s structural theory using a confirmatory (hypothesis-testing) approach (Babin, Hair & Boles, 2008). As a result, it is critical in establishing causal correlations between variables of

interest, such as MAPs and financial performance in this example. In Chapter 4, the findings were presented in tables and figures, which were then analysed.

Chapter Summary

From the above discussion on the research methods of the study, it was seen that the quantitative approach and explanatory design considering the purpose of the study was the most acceptable. In order to collect primary data, self-administered questionnaires were used and quantitative methods notably the inferential statistic (i.e., linear regression) was used to analyse the data. The next chapter presented the results and discussion of the study.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter contained the study's results and discussion in line with the study objectives. It described the respondents' socio-demographic indicators and also discussed all the four research objectives with respect to how management accounting practices individually affect financial performance.

Respondents' Socio-Demographic Features

The socio-demographic characteristics of the respondents—including their sex, age, level of education, employment status, and years of experience—were reported in this section. The 123 valid responses that were acquired after a total of 138 questionnaires were distributed were used to describe the respondents. According to Table 2, the bulk of responders (65%) were men, while 35% were women. According to this finding, men are more likely to be the owners or managers of manufacturing companies. In terms of age, the majority of respondents (33.3%) are between the ages of 31 and 40; 30.1% are between the ages of 41 and 50; 24.4% are between the ages of 18 and 30; and 12.2% are beyond the age of 50. Consequently, the majority of owners and/or management. Table 2 presented the socio-demographic features of the respondents who were actively involved in the data collection.

Table 2: Socio-demographic Characteristics of Respondents

Item	Frequency	Percent (%)
Sex		
Male	80	65.0
Female	43	35.0
Age		
18-30	30	24.4
31-40	41	33.3
41-50	37	30.1
Over 50	15	12.2
Level of Education		
No formal education	28	34.1
HND or lower	41	52.8
Degree	30	13.0
Job Position		
Owner	28	22.8
Owner/Manager	59	48.0
Manager	36	29.3
Number of Years Worked		
Below 5 years	23	18.7
5– 10 years	37	30.1
11 – 15 years	33	26.8
16 – 20 years	14	11.4
Over 20 years	16	13.0
Total	113	100.0

Source: Field Survey (2022)

Also, from Table 2, majority (52.8%) of the respondents have hod HND or lower in terms of highest level of education. The result was followed by 34.1 percent of respondents with no formal education and finally, 13 percent of them were degree holders. It could be seen that some of the respondents had no formal education, as such, adequate support was given to

them during the data collection exercise. Also, Table 2 revealed the respondents' job position and it was found that 48 percent of them play owner/manager roles in the manufacturing firms. Also, 29.3 percent of the respondents are managers while 22.8 percent of them are the owners of the manufacturing firms in the study area.

The respondents' total number of years spent working for manufacturing companies was also shown in this section. Table 2 showed that the majority of them (37%) had worked for between five and ten years; (26.8%) had worked for between eleven and fifteen years; (18.7%) had worked for less than five years; (13%) had worked for more than twenty years; and (11.4%) had worked for between sixteen and twenty years. This shows that the majority of the respondents have a significant amount of work experience, and as a result, have the knowledge and skills necessary to handle problems with management accounting procedures and financial performance.

Discussion of Results

The section showed the study's results based on the PLS-SEM output. The model was first assessed and after attaining the quality requirements, the hypotheses were then tested and their findings were discussed extensively.

Model Assessment

Prior to the actual hypotheses testing, the qualities of the PLS-SEM were first assessed under the following dimensions: item loadings, reliability (indicator, construct), validity (convergent, discriminant) and multicollinearity using inner VIF values. Scholars have discovered that model attributes are evaluated and reported in order to make sense of structural model outcomes

(Hair et al., 2019; Matthews et al., 2018). These assessments are done to also ensure that the model's outcomes can be relied upon to influence policies and practices of manufacturing firms in Ghana especially those in the Volta region.

Item Loadings (Structural and Measurement)

The item loadings for the variables that were used to build the model were presented in this section. More precisely, the model was developed using four exogenous variables: bookkeeping (BK), cost management (CM), internal auditing (IA) and quality cost analysis (QCA); whereas, financial performance represented the dependent variable. The model's structure which comprised the study's constructs and their indicator loadings were shown in Figure 2.

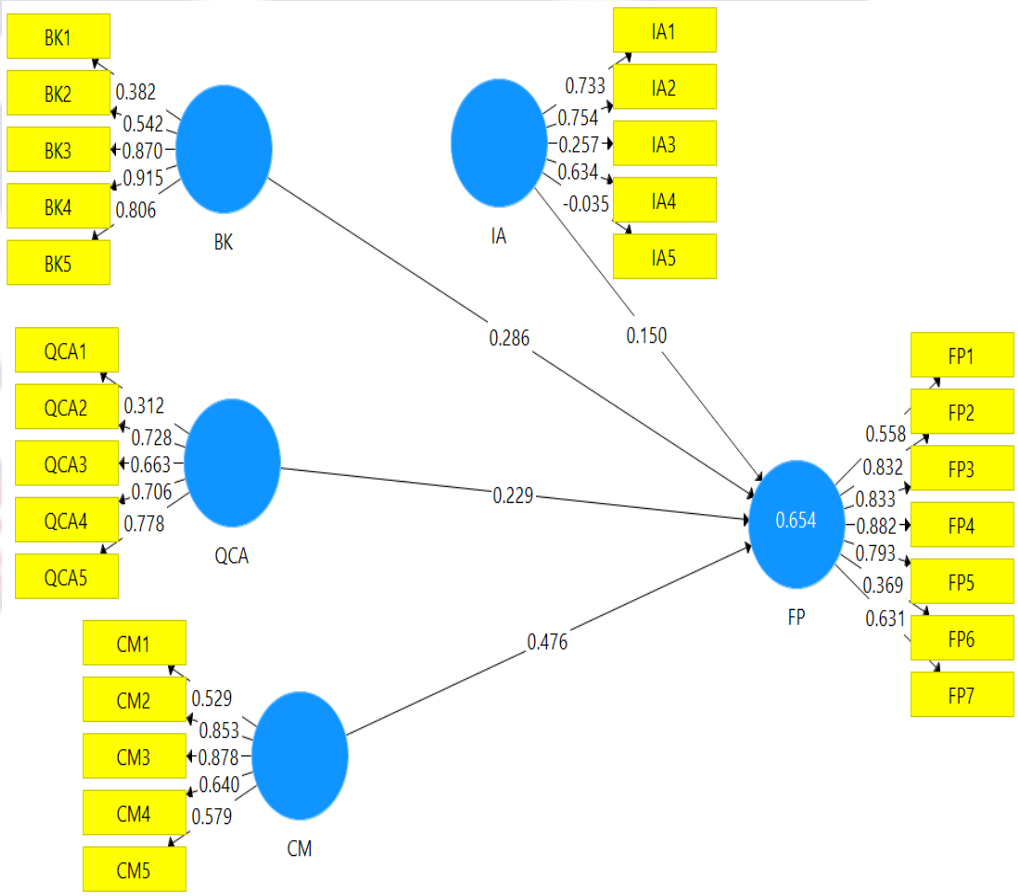

Figure 2: Inner and Outer Model Output
Source: Field Survey (2022)

Figure 2 revealed that each exogenous construct had five indicators or items; while, the endogenous construct had seven (7) measurement indicators. More precisely, bookkeeping (BK) comprised BK1, BK2, BK3, BK4 and BK5; cost management (CM) comprised CM1, CM2, CM3, CM4 and CM5; quality cost analysis (QCA) comprised QCA1, QCA2, QCA3, QCA4 and QCA5; internal audit (IA) also had IA1, IA2, IA3, IA4 and IA5 and finally, financial performance had loadings comprising FP1, FP2, FP3, FP4, FP5, FP6 and FP7. As such, the five constructs together with their indicators were used to draw four paths using arrows to signify relationships.

From Figure 2, the four arrows moved from the endogenous variables and pointed at the outcome variable to show that CM, QCA, IA and BK are related with FP; however, the arrows do not imply that the relationships are automatically significant. As such, the model's item loadings were assessed by ensuring that each item's value is > 0.70 as suggested by Hair et al. (2017, 2021). According to Hair et al. (2021), measurement indicators with loadings < 0.70 suggests that they are not true and quality measures of their constructs within the context of the study; thus, should be removed. In view of this, the constructs' item loadings were assessed and those with values < 0.70 were duly removed because they were assumed to be inferior measures of their assigned constructs with respect to this study.

Figure 3 then presented the final model structure after all the indicators with loadings < 0.70 were removed.

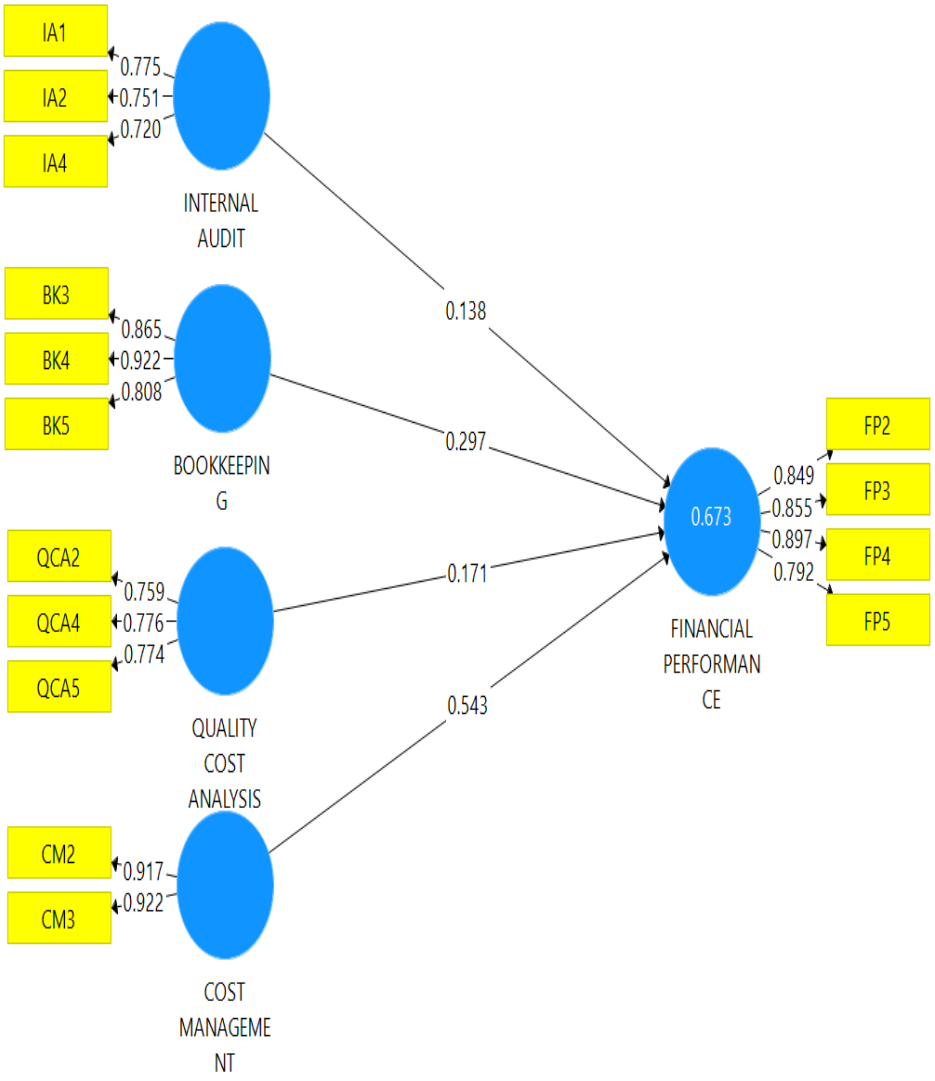

Figure 3: Final Model Structure
Source: Field Survey (2022)

From Figure 3, all the constructs' indicators had item loadings > 0.70. because items with poor loadings were eliminated from the initial model. This was done to ensure that all the constructs' indicators are quality and true measures in order to obtain quality and accurate outcomes. More specifically, IA had IA3 (0.257) and IA5 (-0.035) removed; BK had BK1 (0.382) and BK2 (0.542) removed; QCA also had QCA1 (0.312) and QCA3 (0.663) removed; CM had CM1 (0.529), CM4 (0.640) and CM5 (0.579) removed and finally, FP

had FP1 (0.558), OP6 (0.369) and FP7 (0.631) removed respectively. This implies that the study's hypotheses testing was based on the model structure.

Assessment of Measurement Model

Table 3 presented the model quality output comprising reliability tests (indicator [IR] and construct [CR]), validity (convergent [CV] and discriminant [DV]) and multicollinearity (variance inflation factor values).

Table 3: Model Assessment using Reliability, Validity and VIF Values

Items	rho_A	CR	CV	Inner VIF values
BK	0.878	0.900	0.750	1.050
CM	0.819	0.917	0.846	2.574
FM	0.878	0.912	0.721	
IA	0.712	0.793	0.561	1.011
QCA	0.757	0.814	0.593	2.488

"IR (rho_A), CR, CV (AVE scores) and multicollinearity (VIFs)"
Source: Field Survey (2022)

Indicator Reliability (IR)

Table 3 first presented the indicator reliability (IR) of the model using the rho_A scores. Hair et al. (2017) noted that IR describes the segment of an indicator's adjustment that is explained by its associated latent construct. it basically offers a vital tool for evaluating the uni-dimensionality of scale items to ensure reliability (Wong, 2019). Scholars (Hair et al., 2014; Wong, 2019) have revealed that both Cronbach Alpha and rho_A scores can be used to describe IR; however, this study preferred the latter. This is because, rho_A provides a much better and reliable outcome; thus, its reliability scores can be relied upon (Matthews et al., 2018). The rule suggests that rho_A values should be ≥ 0.70 (Hair et al., 2017). From Table 3, all the constructs' rho-A

scores had values > 0.7; thus, suggesting reliability. More precisely, BK had the highest value of 0.834 while IA had the lowest score of 0.709.

Construct Reliability (CR)

The construct reliability (CR) scores of each construct were also reported in Table 3. CR explains the degree to which a construct is well measured when its assigned indicators are combined. According to Hair et al. (2014), attaining CR means that a construct's indicators have strong correlations among them. The rule suggests that a construct's CR value should be ≥ 0.70 (Ringle et al., 2012). From Table 3, all the constructs CR values were > 0.70; where CM (0.917), FP (0.912), BK (0.900), QCA (0.814) and IA (0.793) respectively. This result implies that all the indicators assigned to their constructs had strong correlations; thereby, have composite reliability.

Convergent Validity (CV)

The model's convergent validity (CV) output was also presented in Table 3 and discussed. CV denotes how closely the new scale relates to other variables and construct measurements (Hair et al., 2014). It is evaluated using the AVE values, which demonstrate how well the latent construct captures the variance of an indicator relative to the total of variance and measurement error. The study complied with the rule that all AVE values should be ≥ 0.50 for CV to occur (Bagozzi & Yi, 1988). Deductively, All the constructs' AVE scores were > 0.50 with the lowest value of 0.561 (IA) and the highest value of 0.846 (CM). Simply put, the model's validity was convergent; thus, meets the quality criteria.

Multicollinearity

Table 3 also reported the inner VIF scores to specifically help in testing for possible multicollinearity. Multicollinearity is assessed to check if the path coefficients are bias-free, according to Hair et al. (2021). It also ensures that the significant levels of possible collinearity among the exogenous variables are minimised drastically. The rule suggests that all VIF values should be < 10 (Pallant, 2007). According to Pallant (2007), multicollinearity exists when the VIF scores > 10 and this could affect the model's quality. Deductively, all the VIF scores were well below 10 suggesting absence of multicollinearity. More precisely, the VIF values ranged between 1.011 (IA) and 2.574 (CM) to show no multicollinearity among the constructs.

Discriminant Validity (DV)

The model's quality was further checked for discriminant validity (DV) to reveal whether collinearity issues exist in the model or not (Hair et al., 2017). Wong (2019) revealed that DVs which are discriminantly valid mostly lacks significant levels of collinearity. Previous studies (Fornell & Larcker, 1981; Hair et al., 2017; Wong, 2019) have, therefore, offered three major approaches for checking for DV in PLS-SEM. These approaches included Fornell and Larcker (1981), cross loading and Heterotrait-Monotrait (HTMT) ratio, but the study adopted the HTMT approach because it shows superior output in easily detecting absence of DV in basic research.

Table 4: Heterotrait-Monotrait (HTMT) Ratio

	BK	CM	FP	IA	QCA
BK					
CM	0.242				
FP	0.496	0.784			
IA	0.177	0.138	0.300		
QCA	0.145	0.652	0.824	0.168	

Source: Field Survey (2022)

The rule of thumb for assessing the HTMT ratio is the correlation values among the constructs should be < 0.90 (Wetzels et al., 2009). Simply put, DV is achieved if the model's HTMT values are < 0.90. From Table 4, all the HTMT values for the relationships among the constructs are < 0.90 with the with the association between CM and FP having the highest value of 0.784 while the link between CM and IA had the lowest score of 0.138. This result suggests that the constructs are clearly different from each other.

Explanation of Target Endogenous Variable Variance

The model was further assessed by explaining the variance of the target endogenous variables (i.e., predictive relevance) under three key dimensions: predictive relevance (Q^2), coefficient of determination (R^2), and effect size (f^2) (Hair et al., 2019). The output of these dimensions was shown in Table 5 and discussed. These elements were evaluated to see if the constructs are model quality measures and, as a result, the model's output can be trusted to make factual inferences.

Table 5: Explanation of Target Endogenous Variable Variance

L.V	R^2	f^2	Q2
BK		0.257	0.408
CM	0.673	0.349	0.383
FP			0.465
IA		0.058	0.452
QCA		0.036	0.460

"Note: L.V. = latent variable, R^2 = R squared, f^2 = effect size, Q^2 = predictive relevance"
Source: Field Survey (2022)

Coefficient of Determination

The model's predictive relevance was first assessed using the R^2 value. Hair et al. (2017) suggested that the R^2 represents the combined contributions of the predictors (CM QCA, CM and IA) to the dependent construct (FP). Simply put, R^2 suggests the change in FP that is linearly accounted for by combining the four management accounting practices (MAPs). According to Henseler et al. (2009, 2012), R^2 values <0.29, 0.29 - 0.67 and >0.67 represent weak, moderate and strong contributions of the predictor constructs to the exogenous construct. From Table 5, the R^2 value was 0.673; suggesting that combining the four MAPs would linearly account for 67.3% of variation in the financial performance of the manufacturing firms. Simply put, for any change in financial performance, MAPs comprising IA, CM, QCA and BK combine to strongly account for 67.3 percent of such change.

Effect Size (f^2)

Table 5 also reported the effect size (f^2) of each independent construct by adopting Cohen's (1988) impact criterion which suggested that values of 0.02 signify small, 0.15 signify medium and 0.35 indicates large f^2

respectively. From the table, CM had the highest f^2 value of 0.349; followed by BK with 0.257; IA had 0.058 and QCA had 0.036 respectively. Based on Cohen's (1988) criterion, CM had a large f^2; and BK had a medium f^2 while both IA and QCA had small f^2. These results suggest that when the four SMAs are implemented, cost management would have the largest effect on the manufacturing firms' financial performance while quality cost analysis will have the lowest effect.

Predictive Accuracy (Q^2)

The model's predictive accuracy was assessed based on Stone-Geisser's (Q^2) test (Hair et al., 2014). Q^2 is analysed by removing a construct from the data matrix, analyse the model and predict the removed construct based on the estimations (Roldán & Sanchez-Franco, 2012). Chin (2010) suggested that Q^2 is achieved if its values are > 0. Henseler et al. (2009) further proposed that, "$0.02 \leq Q^2 < 0.15$ shows weak effect, $0.15 \leq Q^2 < 0.35$ indicates moderate effect and $Q^2 > 0.35$ signifies strong effect". Deductively, all the Q^2 values were > 0 suggesting that the predictors can relevantly predict the endogenous variable in the model. However, QCA had the highest Q^2 of 0.460; followed by IA (0.452), BK (0.408) and CM (0.383) respectively. Although QCA had the smallest effect size, it plays a better role by predicting FP better than the others.

Significance of Path Coefficients

After meeting the quality assessment of the PLS-SEM, the study finally reported the hypotheses results. The model specifically tested the effects of BK, IA, QCA and CM on FP of manufacturing firms within the Volta region.

The hypotheses scores were reported to show whether significant effects exist among these relationships. This section also discussed the strengths and directions of the proposed relationships using 5000 bootstraps in the model as proposed by Hair et al. (2017). Table 6 presented the results after testing the hypotheses and it contained four columns representing structural paths, path coefficients, p-values, t-stats and decision rule of each hypothesis.

Table 6: Structural Equation Model Output and Decision Rule

Structural Path	(β)	t-stats	p-values	Decision Rule
BK ➔ FP	0.297	4.364	0.000	H_1 (supported)
IA ➔ FP	0.138	2.489	0.013	H_2 (supported)
CM ➔ FP	0.543	5.690	0.000	H_3 (supported)
QCA ➔ FP	0.171	2.065	0.039	H_4 (supported)

Note: * = t > 1.96; p < 0.05
Source: Field Survey (2022)

According to Hair et al. (2017) and Ringle and Sarstedt (2016), hypotheses in PLS-SEM are tested using the t-stats where their values should be > 1.96. More precisely, the rule for checking whether a relationship is significant or not is that the model's t-stat should be > 1.96 ($p<0.05$) (Hair et al., 2017; Henseler et al., 2012). This rule means that the directional hypothesis (as shown in the study) is supported if its t-stat is > 1.96; indicating that the correlation between the variables is significant. The results of the hypotheses were reported and discussed in four sections based on the study's objectives.

Effect of Bookkeeping on Financial Performance

The study first hypothesised that bookkeeping (BK) has a significant positive effect on financial performance (FP) which was tested using the t-stat value. From Table 6, a t-stat of 4.364 ($p<0.05$) was obtained and it indicated

that the hypothesis can be supported. The result specifically means that the correlation between BK and FP is significant; thus, BK can directly predict FP. Given a β score of 0.297, it can be reported that BK has a positive effect on FP. Also, about 29.7 percent of change in FP of the manufacturing firms is contributed by BK. Simply put, manufacturing firms within the Volta region that keep records of their business transactions would witness about 29.7 percent of improvement in their financial performance.

The result clearly indicate that bookkeeping plays an important role in helping manufacturing firms achieve about 29.7 percent of their financial performance targets. Thus, poor bookkeeping could be costly and negatively impact these firms' financial performance by 29.7 percent. The study's finding was in line with that of Adler et al. (2018) who concluded that management accounting practices including record keeping play crucial roles in expanding the performance of manufacturing enterprises in New Zealand. Similarly, Ndege (2018) stressed that implementing management accounting practices could help Kenyan firms to achieve higher financial performance in areas of return on equity and return on assets. Adu-Gyamfi et al. (2020) concluded that the performance of Ghana's manufacturing firms could be improved if MAPs such as bookkeeping are implemented and continuously improved.

Effect of Internal Audit on Financial Performance

The study's hypothesis two was tested to ascertain whether internal audit (IA)) significantly and positively affect financial performance (FP). From Table 6, a t-stat of 2.489 (i.e., >1.96) was obtained, thereby supporting the hypothesis. This result means that IA occupies a significant position when improving the manufacturing firms' FP within the Volta region is concerned.

The model also produced a β value of 0.138 to suggest a positive but weak effect of IA on FP. The implication is that IA plays a significant, positive but weak role in the firms' FP. Thus, for any variation in IA, FP would be directly affected by 13.8 percent. This is an indication that implementing IA as part of manufacturing firms' MAPs are likely to improve their financial performance.

Internal audit guarantees that the activities of a firm are conducted efficiently and effectively by adhering to management norms, protecting assets and eliminating fraudulent activities (Hazaea et al., 2021). It also ensures that account records are correct and complete whereas financial performance are credible and timely provided (Hazaea et al., 2020). These are clear indications that proper internal audit could play a valuable role in improving firm performance including financial stability. Moreover, Adu-Gyamfi et al. (2020) concluded that management accounting practices including internal audit plays a crucial role in achieving the performance targets of manufacturing firms in Ghana. Inun et al. (2021) similarly concluded that MAPs such as internal audit is key to expanding manufacturing firms' performance in Sri Lanka. They concluded that manufacturing firms that embrace internal audit and properly implements it are likely to enjoy good performance outcomes.

Effect of Cost Management on Financial Performance

The study's hypothesis three which stated that cost management (CM) significantly and positively affect financial performance was tested and its output was shown in Table 6. The t-stat was 5.690 ($p=0.00<0.05$) with β of 0.543; indicating support for the hypothesis. The result specifically reveals that CM has a substantial and positive effect on FP. It also means that any unit change in CM would lead to a unit change in FP by 54.3 percent. This outcome

suggests that the effect of CM on FP was significant, positive and moderate. Deductively, CM plays a significant and moderate role in causing a change in FP; thus, manufacturing firms that properly manage all their business costs (i.e., direct and indirect) would enjoy higher financial performance.

Cost management is an important and comprehensive management accounting approach that has the potential to minimise a product's cost/price, functionality and quality. It emerges as a result of a firm's need to manage its limited financial resources in order to survive and remain competitive. Cost management is associated with ensuring proper budget systems, monitoring costs, and focusing on value-added activities in order to correctly control production costs. These are clear indications that when manufacturing firms are able to implement cost management, they are highly likely to witness improved financial performance. The finding is supported by Al-Khalidi (2019) who concluded that management accounting practices including cost management is key to improving the performance of industrial firms in Kuwait. Similar findings were also obtained by Cletus and ThankGod (2020) and Dang et al. (2021).

Effect of Quality Cost Analysis on Financial Performance

The study finally tested whether a significant and positive association exist between quality cost analysis (QCA) and financial performance (FP). Table 6 revealed a t-stat of 2.065 (i.e., >1.96) indicating support for the hypothesis. This result means that a statistically significant linkage exists between QCA and FP. Table 6 also revealed a β value of 0.171 to indicate that the relationship between QCA and FP is positive but weak. The result also indicates that QCA significantly contributes about 17.1 percent of any change

in FP; thus, for any unit change in QCA, FP significantly changes by 17.1 percent. This implies that manufacturing firms within the Volta region would be able to improve financial performance by 17.1 percent if they implement QCA as part of their MAPs.

With respect to the study's finding, it was found that other researchers produced similar outcomes. For instance, Kalkhouran and Nedaei (2017) claimed that implementing MAPs including quality cost analysis is key to improving the performance of Malayian SMEs. They concluded that practices including QCA play valuable roles in attaining positive firm performance and competitive advantage. Biadacz (2020) added that quality cost analysis is an important tool for determining firm performance. Yang (2020) added that firms can easily detect any cost associated with producing quality products and could be crucial to attaining higher overall performance outcomes. QCA, according to Masoudi and Shahin (2021), assists organisations in identifying, evaluating, and preventing failure costs in order to become competitive by providing quality products and services at competitive prices.

Deductively, all the four management accounting practices considered in this study had significant and positive effects on the financial performance of the manufacturing firms within the Volta region of Ghana. However, cost management (CM) had the highest significant effect on financial performance (FP) which was followed by bookkeeping (BK), quality cost analysis (QCA) and internal audit (IA) respectively. The results imply that when these four MAPs are implemented, CM would have the most effect on FP while IA would have the weakest effect. As such, the study's outcomes would be key to

assisting management of the manufacturing firms identify which MAP to prioritise so far as attaining high financial performance is concerned.

Chapter Summary

After testing the hypotheses using the PLS-SEM, the results were discussed in this chapter. The model was initially evaluated for quality, and the results were thoroughly discussed. The hypotheses were examined after meeting all of the quality criteria, and it was discovered that all four MAPs (CM, IA, BK and QCA) had substantial and favourable effects on the FP of the manufacturing firms under study. The study's summary of key findings and recommendations were reported in the next chapter.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The chapter focused on the final sections of the study by specifically discussing the summary of key findings and conclusions drawn. The chapter also presented the study's recommendations to policy formulation and some proposals to future researchers

Summary of the Study

The study investigated the effect of management accounting practices on the financial performance of manufacturing firms in Volta region of Ghana. It specifically examined the effects of bookkeeping, quality cost analysis, cost management and internal audit on financial performance. The study was underpinned by the behavioural theory of a firm and adopted the quantitative approach and explanatory research design. Using the census technique, the study gathered primary data through structured questionnaires from 138 owners/managers of manufacturing firms in the region. The study processed a valid data set of 123 using IBM SPSS Statistics (v. 26) and Smart-PLS3 and further analysed it using the PLS-SEM analytical tool.

Summary of Key Findings

The results were presented in Chapter four and the key findings were:

The study first analysed how bookkeeping affects the financial performance of manufacturing firms within the Volta region of Ghana. The result revealed that bookkeeping has a direct and positive effect on the firms' financial performance. This implies that manufacturing firms would experience

improved financial performance when they prepare and maintain proper records of their firms' transactions. In view of this, the study found bookkeeping to positively predict any change in the financial performance of the manufacturing firms in the region studied.

Research objective two analysed the effect of internal audit (IA) on manufacturing firms' financial performance (FP). after analysing the data using the PLS-SEM technique, the study revealed a direct positive and weak effect of IA on the firms' FP. This result implies that manufacturing firms within the Volta region can enjoy better financial performance if they implement internal audit as part of their MAPs. Thus, the more the firms emphasise on internal audit, the higher their financial performance. Thus, it was found that internal audit plays a weak role in predicting any change in financial performance.

Also, the influence of cost management on the financial performance of the manufacturing firms was studied. The result revealed that CM is critical to improving firms' FP; implying that owners/managers who find ways of managing their total business costs stand a better chance of achieving stronger financial performance. Simply put, the study found CM as the most important MAP because it had the highest effect on the financial performance of the manufacturing firms within the Volta region of Ghana.

Finally, objective four examined the effect of quality cost analysis (QCA) on the financial performance (FP) of the manufacturing firms. According to the findings, QCA has a strong positive but little effect on FP. This means that any rise in QCA will result in a considerable yet minor increase in the financial performance of the firms. Thus, QCA plays a key role

in achieving better financial performance when it is adopted as part of the firms' MAPs. The study, thus, found that QCA plays a role in expanding the financial performance of manufacturing firms within the Volta region, Ghana.

Conclusions

The study examined how MAPs comprising QCA, CM, BK and IA affect the FP of manufacturing firms within the Volta region of Ghana. To achieve this, the study tested four hypotheses which were largely achieved. In terms of objective one, the study found BK to significantly and moderately improve the firms' financial performance in the study area. This finding was largely supported by related studies that suggested that BK which emphasises on proper preparation and maintenance of accounting records play a valuable role in improving manufacturing firms' financial performance. Thus, proper bookkeeping is synonymous to higher financial performance of the manufacturing firms studied. In this regard, the study concluded that bookkeeping plays a crucial role in improving financial performance.

With respect to research objective two, the study found internal audit to improve the financial performance of manufacturing firms within the Volta region of Ghana. This finding has largely been supported by related studies which found that internal audit plays a vital role in ensuring that the activities of firms are properly assessed, monitored and evaluated to detect and eliminate fraud and other financial malpractices. These activities, in turn, lead to improved financial performance. The study, therefore, concluded that internal audit leads to a significant improvement in manufacturing firms' financial performance if they are implemented.

Additionally, the third management accounting practice (i.e., cost management) also had a significant positive and strong effect on the manufacturing firms' financial performance. This result has largely been in line with previous studies which found that firms are likely to experience improved financial performance if they continue to adopt the cost management practice to attaining better costs identification, analysis and control. In view of this, the study concluded that cost management has the strongest significant effect on the financial performance of manufacturing firms within the Volta region of Ghana if it is implemented.

The study finally found QCA to significantly but weakly improve the FP of these firms. This finding is supported by empirical research that show QCA emphasizes the discovery and avoidance of expenses associated with product or service quality issues. They explained that QCA is used to identify and prevent costs connected with repairing defective works in order to reduce total actual costs while maintaining product and service quality. As a result, the study concluded that using quality cost analysis to lower actual costs can help manufacturing firms to improve upon their financial performance in terms of sales margin, return on investment, profitability, and operational costs.

Generally, the study concluded that management accounting practices significantly and positively predict changes in the financial performance of manufacturing firms within the Volta region of Ghana. This indicates that manufacturing firms that adopt practices such as bookkeeping, quality cost analysis, cost management and internal auditing experience improvements in the financial performance levels. The study's outcomes offer new insights into management accounting practices and financial performance of manufacturing

firms within the Volta region of Ghana. Hence, the outcomes would be key to improving policies and contribute to literature on this subject.

Recommendations

The research presented the following recommendations on the conclusions' strengths:

In terms of objective one, this study recommended that policy makers such as the Ministry of Trade and Industries and Ghana Enterprise Agency should amend existing policies to make proper bookkeeping (i.e., basic or complex) mandatory for manufacturing firms, regardless of firm size and location. This would induce the owners and or managers to either equip themselves with the necessary bookkeeping skills or employ qualified professionals to assist them achieve this goal. Also, this policy should be fairly and strictly implemented and this would invariably improve transparency, bring clarity to the firms' financial statements and also help them to easily detect fund misappropriation and invariably improve financial performance.

The study also recommended that management of the manufacturing firms studied should continue to emphasise on internal audit in a bid to improve upon their performance outcomes. Although, internal audit had the weakest effect on financial performance, its implementation would be crucial to easily detecting financial malpractices such as fraud, bribe, corruption and theft; thereby, help protect and promote the financial stability of the manufacturing firms. This can be achieved by recruiting and equipping internal auditors to regularly audit the firms' financial statements and help achieve better financial performance.

The study also recommended that owners and managers of manufacturing firms within the Volta region of Ghana should place much emphasis on cost management in order to attain better financial performance. This is because, the study found cost management to have the strongest effect on the financial performance of the manufacturing firms in the region. More precisely, manufacturing firms should invest heavily in this management accounting practice in order to attain stronger financial performance. For instance, the firms should invest in technologies that aim at easily identifying, assessing and managing costs in order to attain higher financial performance. Also, owners and or managers should understand the relevance of this management accounting practice to their employees.

Finally, quality cost analysis had a significant effect on manufacturing firms' financial performance; as such, the study recommended that policy makers including financial analysists and practitioners should organise training programmes for the owners and or managers in order to help them understand the relevance of this management accounting practice. The educational programmes should concentrate on helping the owners and or managers to understand the need to embrace quality cost analysis whenever attaining higher financial performance is concerned. This would, therefore, go a long way to help the manufacturing firms implement this practice and in turn minimise their actual business costs without compromising FP objectives.

Suggestions for Further Research

This study explored the effects of MAPs on FP of manufacturing firms. Although the study's objectives were largely achieved, it was limited in geography and methodology. More precisely, the study concentrated on only

manufacturing firms within the Volta region of Ghana; as such, further studies could consider other regions such as Greater Accra, Ashanti and Central regions. Adopting this broad-based approach would help improve generalisation of findings across the manufacturing sector of Ghana. Also, because the study used a quantitative approach, future researchers could use a combined approach to gain both qualitative and quantitative results in order to improve existing findings. Future researchers should also consider other MAPs such as strategic costing, activity-based costing, among others to expand existing studies on this subject matter.

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APPENDICES

QUESTIONNAIRE

Dear Sir/Madam,

I am a Master student at the College of Distance Education, University of Cape Coast and I am carrying out my dissertation work on the topic, "**Accounting management practices and financial performance of manufacturing firms within the Volta region, Ghana.** Your views are very much important to the study. Every information you provide would remain highly confidential. Thank you for accepting to participate in the study.

Kindly tick in the box

PART A: SOCIO-DEMOGRAPHIC INFORMATION

1. Sex: Male [ ] Female [ ]
2. Age: 18- 30 years [ ] 31-40 years [ ] 41-50 years [ ]
   Over 50 years [ ]
3. Highest Level of education
   No formal education [ ] HND or lower [ ] Degree [ ]
   Other [ ], please specify.....
4. Employment status:
   Owner [ ] Owner/Manager [ ] Manager [ ]
5. How long have you been operating?
   < 5 years [ ] 5-10 years [ ] 11-15 years [ ]
   16-20 years [ ] > 20 years [ ]

PART B: MANAGEMENT ACCOUNTING PRACTICES

7. On a scale of 1 – 5, please rate the extent to which you agree with each statement. **With 1 – Least agreement and 5 – Highest Agreement**

No.	Factors	1	2	3	4	5
Bookkeeping						
1	My firm keeps records of its financial affairs					
2	My firm ensures that its records document is up-to-date					
3	My firm ensures that its financial transactions are well organised on a daily basis					
4	My firm prepares accounts to track financial transactions					
5	My firm keeps proper records to provide valuable information to key stakeholders					
Quality Cost Analysis						
1	My firm identifies and controls costs associated with products or service defects					
2	My firm ensures that costs are allocated to improving product and service quality at all times					
3	My firm is attentive to quality issues related to its products or services that could lead to unnecessary costs					
4	The firm is ready to incur costs in pursuit of quality for customers					
5	My firm incurs quality costs to prevent poor quality and other costs associated with product failure					
Cost management						
1	My firm has well-documented ways and methods of estimating its business costs					
2	My firm has structured plans to minimise its overall business costs					
3	The firm ensures cost control at all times					
4	My firm carries out proper cost analysis before spending					
5	My firm evaluates all available resources prior to their allocation and utilisation					
Internal Audit						
1	My firm regularly carries out internal audits					
2	My firm internally audits its accounts to address possible weaknesses					
3	My firm takes necessary actions after every audit					
4	My firm adopts extensive ways to auditing its accounts internally					
5	My firm frequently improves the existing procedures used for auditing					

PART C: FINANCIAL PERFORMANCE

On a scale of 1 – 5, please rate the extent to which you agree with each statement. **With 1 – Least agreement and 5 – Highest Agreement**

Statement	1	2	3	4	5
The firm's market share has increased since its establishment					
The firm enjoys increased sales margins					
The firm has received higher returns on its invested capital					
The firm's profit levels has increased overtime					
The firm's return on equity has improved overtime					
The firm's total asset base has increased					
The firm's overall production costs have reduced					

THANK YOU FOR PARTICIPATING