UNIVERSITY OF CAPE COAST

FINANCIAL LITERACY AND PERFORMANCE OF SMALL AND

MEDIUM-SIZE ENTERPRISES IN THE ACCRA METROPOLITAN

AREA OF GHANA

OSMAN MAHAMA DRAMANI
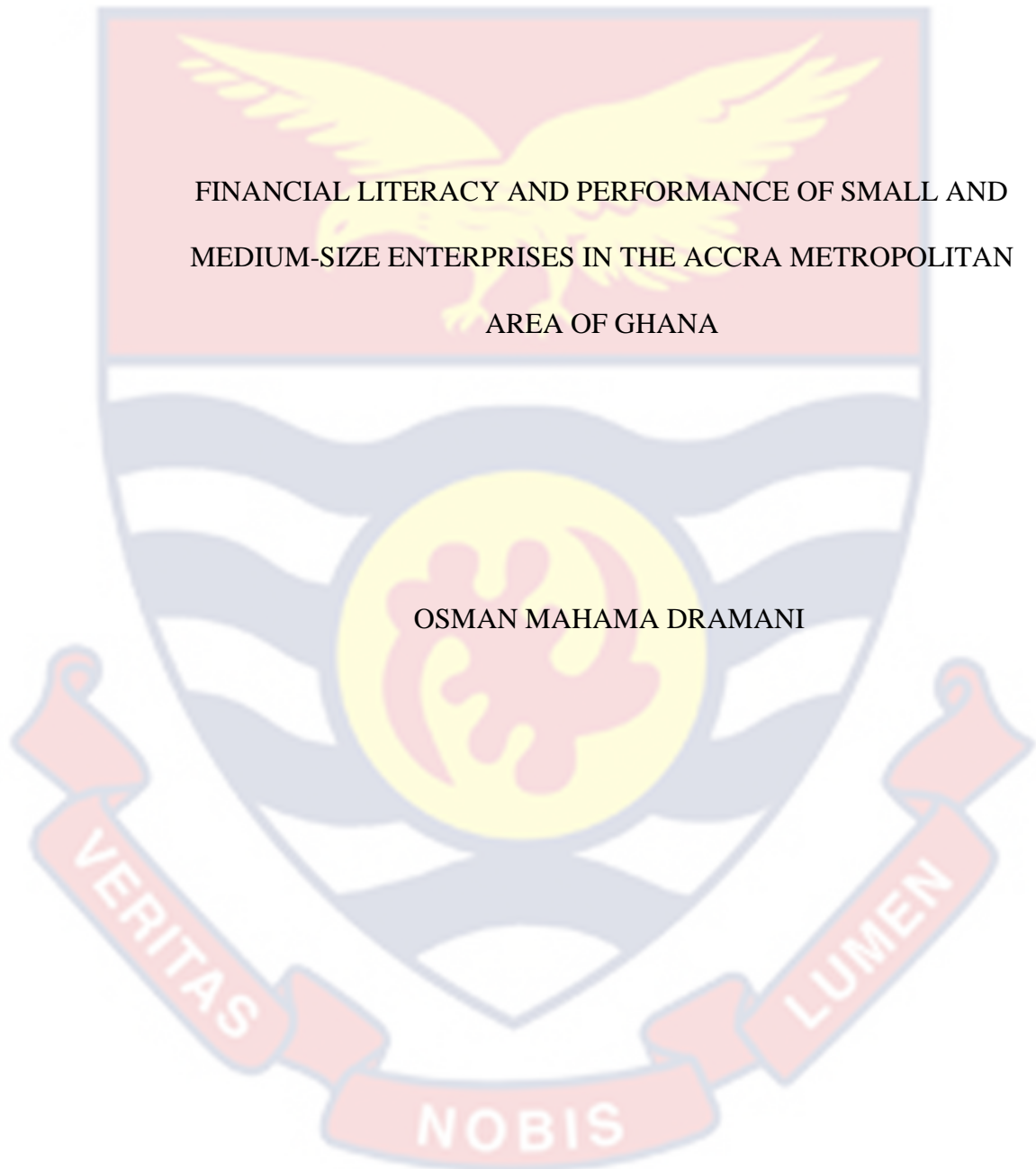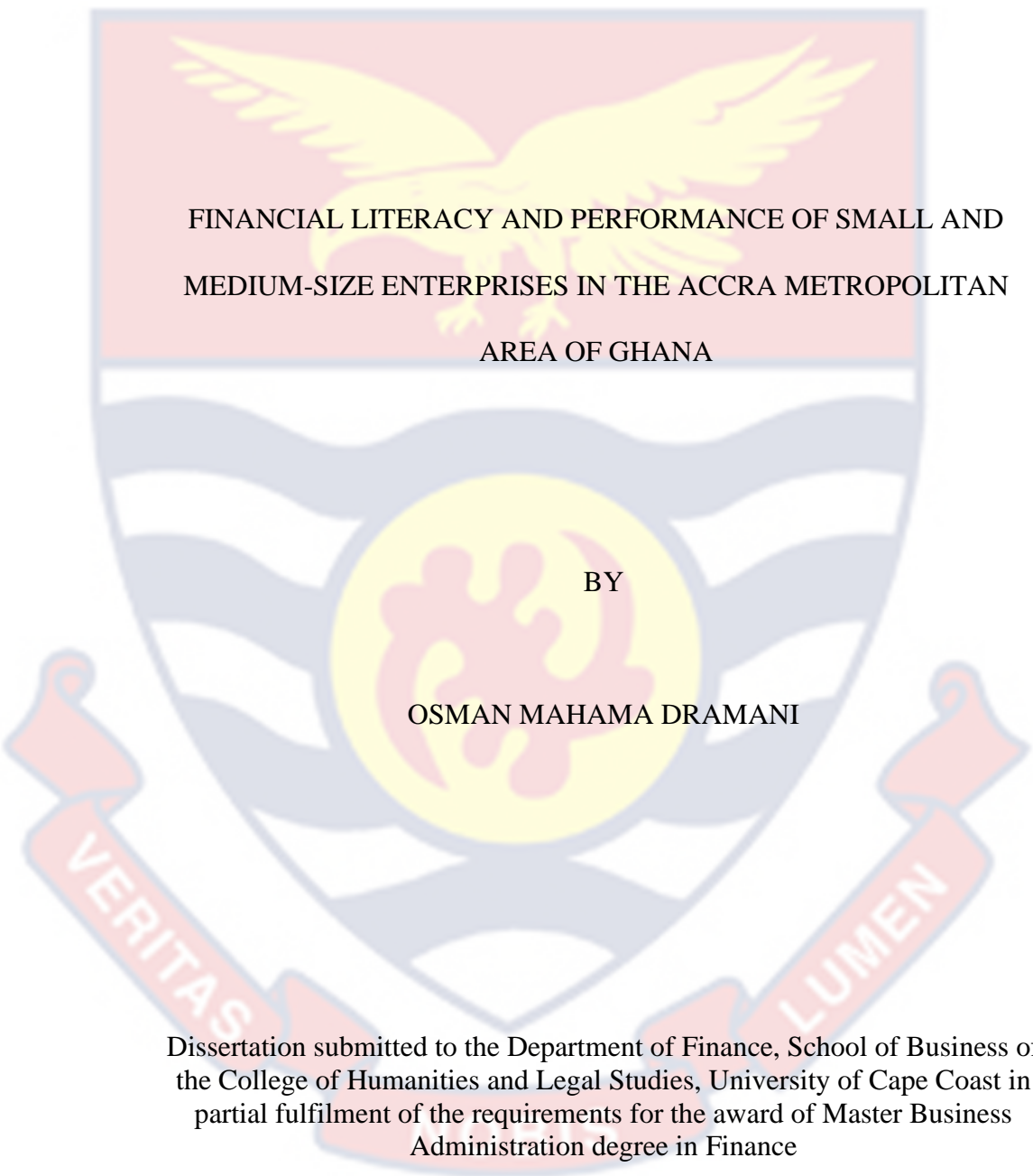
2023

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MEDIUM-SIZE ENTERPRISES IN THE ACCRA METROPOLITAN

AREA OF GHANA

BY

OSMAN MAHAMA DRAMANI

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

MAY 2023

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research

and that no part of it has been presented for another degree in this university or

elsewhere.

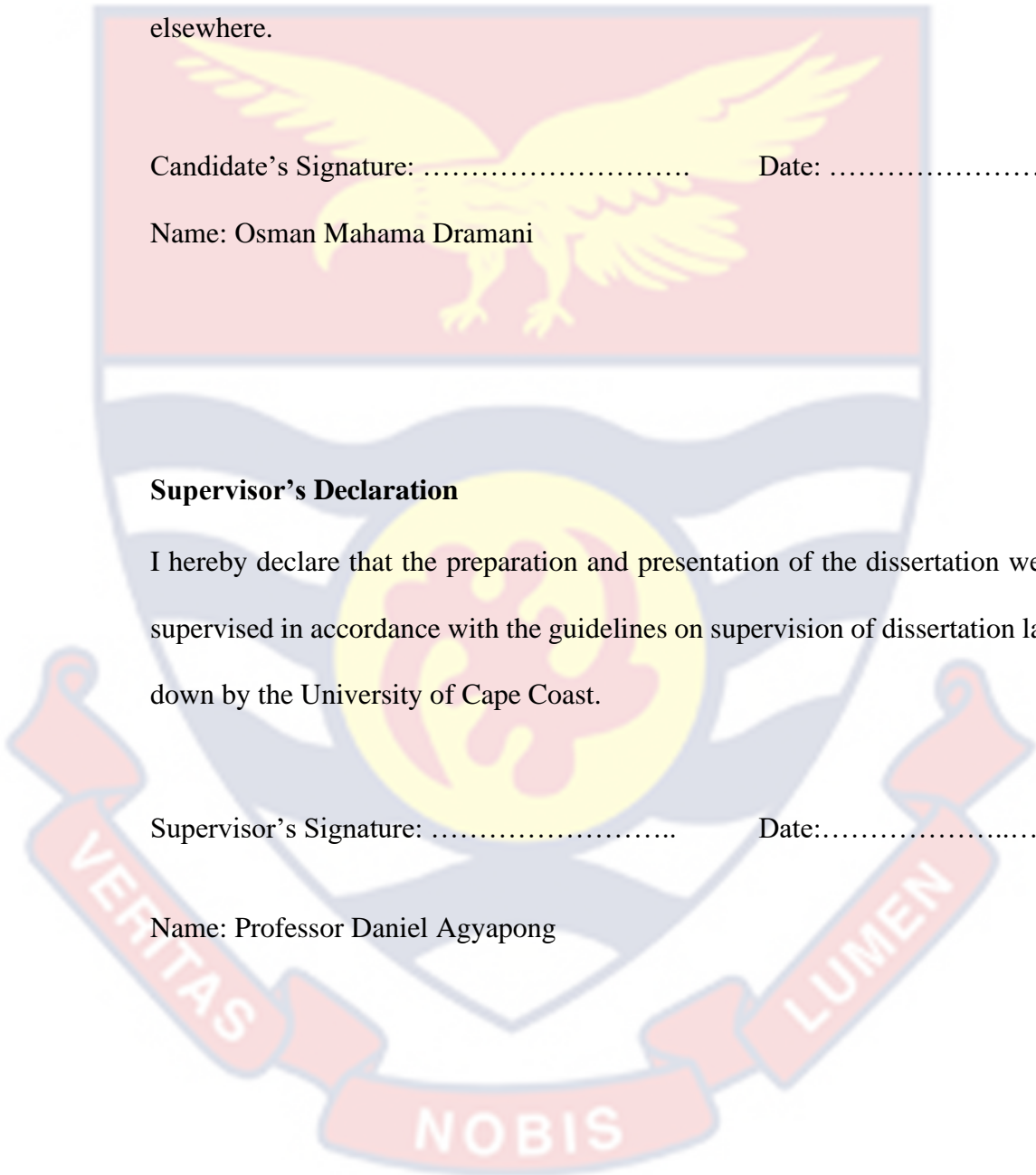Candidate's Signature: ……………………….   Date: ……………………

Name: Osman Mahama Dramani

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were

supervised in accordance with the guidelines on supervision of dissertation laid

down by the University of Cape Coast.

Supervisor's Signature: …………………….. .   Date:………………..…....

Name: Professor Daniel Agyapong

ii

ABSTRACT

The clarion call for the need to equip small and medium-sized enterprise (SME) with appreciable financial know-how amidst the continuous fall of such enterprises in emerging markets shows that financial literacy is a primary factor capable of influencing performance. The study sought to establish how financial knowledge, financial awareness, and financial attitudes, affect performance of SMEs in an emerging market. The quantitative study was promised on the positivist paradigm and executed under the descriptive design. The study population comprised 780 SMEs operating at the Accra Metropolitan Area of Ghana. A simple random sampling technique was adopted to sample 258 SMEs operating in the study area using a structured questionnaire. However, a survey conducted using 61 selected SMEs at the Adenta Municipal Area as a measure to assess instrument reliability and validity. Software such as IBM SPSS Version 21, SmartPLS4 (newest version), and Microsoft Excel were used to analyze the quantitative data using both descriptive statistical analysis (frequencies and percentages) and inferential statistical analysis with a focus on PLS-SEM. The study found a significant positive relationship between financial knowledge and SME performance. The study also found a significant positive relationship between financial awareness and SME performance. Regarding how financial attitudes relates to SME performance, the study uncovered an insignificant positive relationship. The study recommends the government to invest in enhancing the financial literacy level of medium scale enterprise owners through trainings and incorporating financial literacy issues in formal education.

KEYWORDS

Financial Literacy

Financial Awareness
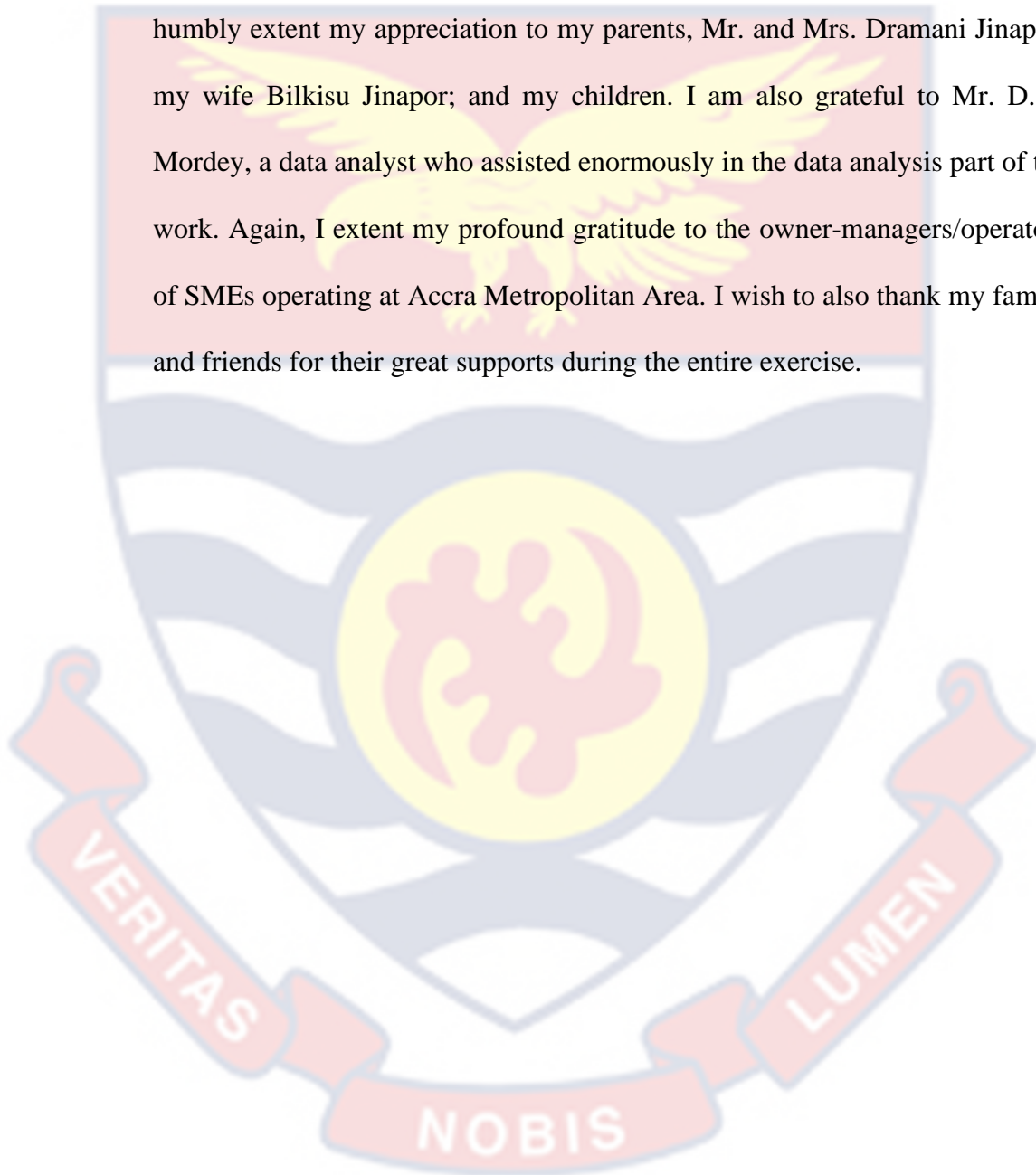
Financial Knowledge

Financial Attitude

SME Performance

ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to my supervisor, Professor Daniel Agyapong, for their professional guidance, advice, encouragement and the goodwill with which they guided this work. I am really very grateful. I also humbly extent my appreciation to my parents, Mr. and Mrs. Dramani Jinapor; my wife Bilkisu Jinapor; and my children. I am also grateful to Mr. D. Y Mordey, a data analyst who assisted enormously in the data analysis part of the work. Again, I extent my profound gratitude to the owner-managers/operators of SMEs operating at Accra Metropolitan Area. I wish to also thank my family and friends for their great supports during the entire exercise.

DEDICATION

To my parents, Mr. and Mrs. Dramani Jinapor

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

GDP	Gross Domestic Product
GEA	Ghana Enterprise Agency
GSS	Ghana Statistical Service
NBSSI	National Board for Small-Scale Industries
PLS-SEM	Partial Least Square Structural Equation Modelling
RBV	Resource-based View
SME	Small and Medium-sized Enterprises
SSA	Sub-Saharan Africa
VRIN	Valuable, Rare, Inimitable, and Non-Substitutable
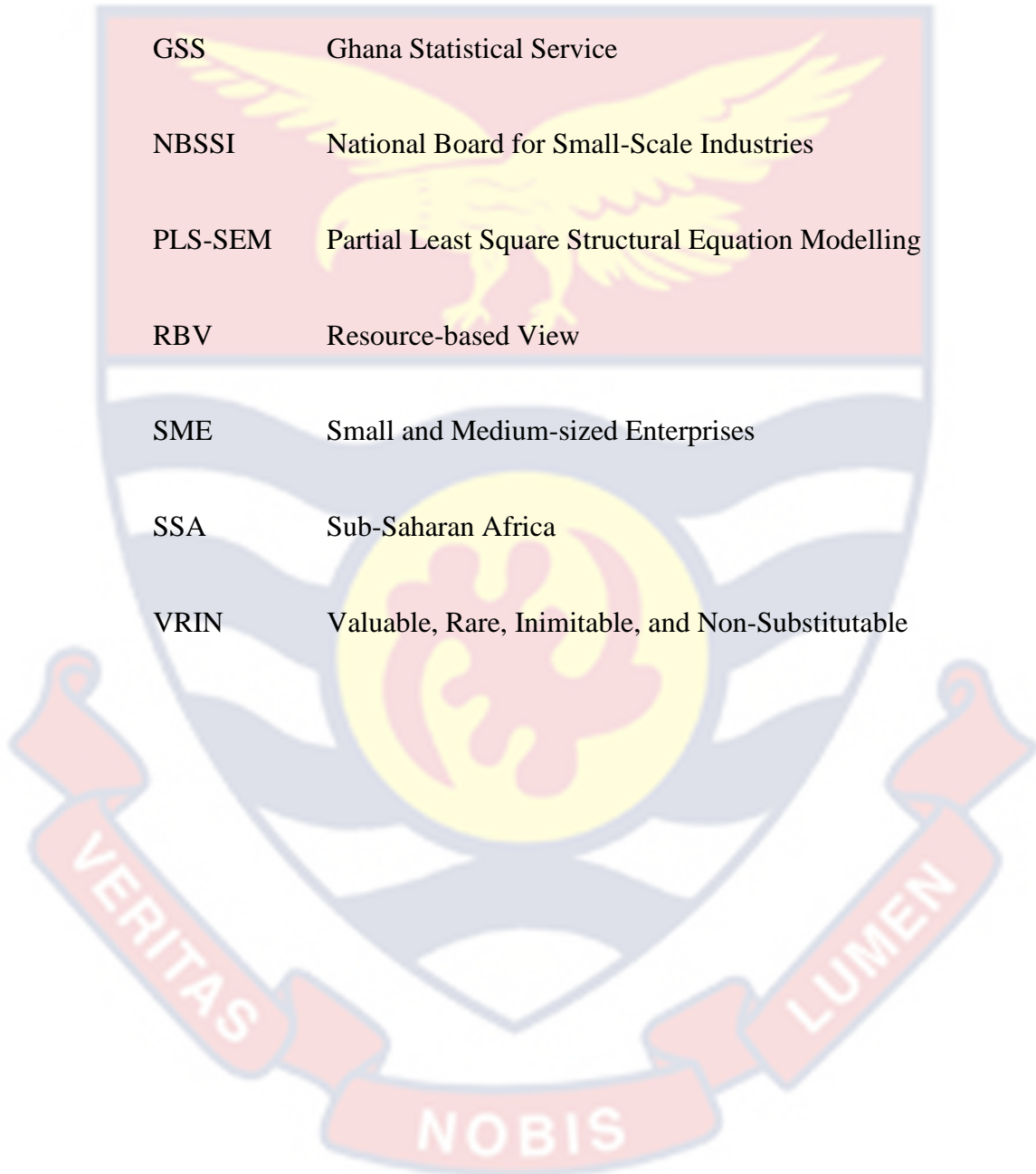
CHAPTER ONE

INTRODUCTION

Financial literacy has thus been acknowledged as a fundamental instrument for organizational development, individual financial stability, and advancement (Agyapong & Attram, 2019). Managers are typically regarded as the creative force behind every successful company. Owners or managers must therefore possess the necessary understanding to handle a range of commercial problems (Agyapong & Attram, 2019). Managers should have faith in the financial choices they make for expansion and improvement. Owners or managers will be unable to handle the financial affairs of their companies if they do not possess the necessary financial knowledge regarding their firms' finances (Agyei, Adam, & Agyemang, 2019). This study therefore examine financial literacy and performance of Small and Medium-Sized Enterprises (SMEs).

Background of the Study

Small and medium-sized businesses (SMEs) are essential to many worldwide economies. SMEs are viewed as the economic, job-creation, and human development engine of the world, particularly in emerging nations (Tuffour, Amoako & Amartey, 2022). According to Fjose, Grünfeld and Green (2010) and Kamunge, Njeru and Tirimba (2014), SMEs make up more than 90 percent of all firms and provide almost 50 percent of the continent's GDP. More than 95 percent of businesses in the Sub-Saharan Africa region are SMEs (Abisuga-Oyekunle, Patra & Muchie, 2020).

SMEs play a larger role in Ghana than in other countries, where they make up 92 percent of formal enterprises, account for 70 percent of GDP, and provide over 80 percent of all jobs for Ghanaians (Quartey, Turkson, Abor, &

1

Iddrisu, 2017; Donkor, Donkor, Kankam-Kwarteng, & Aidoo, 2018). Quartey et al. contends that SMEs are crucial to Ghana's efforts to reduce poverty. Small businesses contribute to the creation of jobs that raise the income of individuals, particularly in towns and villages. People have the chance to seek out better healthcare and education thanks to the financial prospects, and they have the power to choose to escape poverty (Quaye, Mensah & Amoah-Mensah, 2018).

Additionally, the expansion of the businesses fosters the development of human capital by providing employment opportunities. Amoah and Amoah (2018) assert that the employment opportunities provided by the industry enhance people's wellbeing, standards of living, income levels, and social stability. The sector also aids in the utilization of resources, such as undesired raw materials that would not provide significant export revenue for the nation. In addition, the industry contributes to the strengthening of industrial interlinkages and integration by producing intermediate products for use in large-scale industries (Carsamer & Abbam, 2023). Stakeholders, employees, customers, and employers all gain from the thriving, effective, and SMEs industry (Ahiawodzi & Adade, 2012; Tuffour, Akuffo, Kofi, Frimpong, & Sasu, 2018).

Small businesses are typically the main source of new employment. Compared to larger businesses, they employ more people per unit of labor because they are labor-intensive. Thus, the economy generates additional jobs. Despite these contributions, the SME sector still faces a number of difficulties, such as financing restrictions, human resource management, and financial literacy and management (Stanaway *et al.,* 2018; Oduro & Nyarku, 2018). Both developing and established economies have begun to pay more attention to the

2

need of financial literacy in the quest to help the performance of SMEs. This is as a result of how it influences financial judgment (Tuffour, Amoako, & Amartey, 2022).

A number of academics have underlined the importance of financial literacy. For instance, a research in Ghana found that the North had a financial literacy level of 38 percent, the Middle Belt had a level of 44 percent, and the South had a level of 51 percent (Twumasi, Jiang, Adhikari, Gyamfi, & Asare, 2021). While some choices among owner-managers of SMEs can be made based on experience, age, and other characteristics, some choices are more complex and call for financial literacy, which includes knowledge, awareness, skills, and an attitude toward sound financial management in order to attain performance results (Agyei, 2018). According to the definition of financial literacy, it is the capacity of a person to make wise judgments about the use and management of financial resources (Owusu, Ismail, Osman, & Kuan, 2019). As was already mentioned, understanding finance is crucial for both individuals and businesses.

Financial literacy has thus been acknowledged as a fundamental instrument for organizational development, individual financial stability, and advancement (Agyapong & Attram, 2019). Managers are typically regarded as the creative force behind every successful company. They must therefore possess the necessary understanding to handle a range of commercial problems (Agyapong & Attram, 2019). Managers should have faith in the financial choices they make for expansion and improvement. Owner managers will be unable to handle the financial affairs of their companies if they do not possess the necessary financial knowledge regarding their firms' finances (Agyei,

3

Adam, & Agyemang, 2019). Therefore, any managerial choice made within the company could have an impact on how well the company performs.

Statement of the Problem

A lack of financial literacy among people worldwide has resulted in business failure, according to studies on the impact of financial literacy on performance in terms of profitability and growth of SMEs (Bunyaminu, Tuffour, & Barnor, 2019; Tuffour, Amoako & Amartey, 2022). One can make decisions with more assurance and certainty if they are financially literate. It also helps people analyze broad financial situations like inflation, the collapse of financial markets, and interest rates of the economy that may affect their business and respond skillfully to changes that affect their daily financial well-being (Sekyere, 2020).

The apparent reliance on experience in validating managers of SMEs, however, suggests that there is still skepticism regarding the extent to which financial literacy may deliver long-term development in business (Amoah & Mungai, 2020). Thus, the underlying assumption that financial literacy is the primary factor influencing corporate performance has been questioned. The performance of small-scale firms in Ghana must be supported by research to demonstrate the significance of financial literacy among managers (Tuffour et al., 2022). Despite the significance of small business in many economies, significant research has largely concentrated on personal finance issues up to this point, leaving a gap in the understanding of how financial literacy among managers affects the success of small-scale firms (Donkor et al., 2018; Carsamer & Abbam, 2023).

4

According to Atkinson and Messy (2012), governments all over the world are more interested in identifying practical ways to raise financial literacy among their citizens. This is accomplished by creating financial education techniques with the primary goal of offering varied learning opportunities. This helps its citizens overcome financial obstacles in their enterprises. According to Quartey et al. (2017), financial penetration significantly boosts economic growth. Numerous studies have been done on aspects of small businesses without considering financial literacy, such as challenges that are encountered along the entire value chain of operational areas (Abisuga-Oyekunle, Patra & Muchie, 2020; Ayyagari et al., 2007; Quartey et al., 2017); competition (Appiah et al., 2018; Bouazza, Ardjouman, & Abada, 2015); entrepreneurial abilities (Bouazza et al., 2015); dimensions of human capital in SMEs (education, knowledge, experience, and skills) (Charoenrat & Harvie, 2017), and managerial talents (Quartey et al., 2017). The present study tackles the need to close this gap in the literature on Ghana by examining the effect of financial literacy on the performance of SMEs in Accra.

Purpose of the Study

The study examines the relationship between financial literacy and performance of SMEs in the Accra Metropolitan Area of Ghana.

Research Objectives

Precisely, the study sought to:

1. assess the effect of financial knowledge on the performance of SMEs,

2. examine the effect of financial awareness on the performance of SMEs, and

3. analyze the effect of financial attitude on the performance of SMEs.

5

Research Questions

The study had the following research questions.

1. What is the effect of financial awareness on the performance of SMEs?

2. What is the effect of financial knowledge on the performance of SMEs?

3. What is the effect of financial attitude on the performance of SMEs?

Significance of the Study

This study provides insights into contribution of financial literacy among SMEs in Ghana. It proposes some vital components of financial literacy, namely financial awareness, knowledge and attitude. The study established how these variables could boost the performance of SMEs. In theory, the study aims at bringing the aspect of how various components of financial literacy explains the ability of an SME to enhance its performance. The results of this research also expected to contribute towards knowledge for scholars, as study materials and references for other research in the future related to financial literacy among SMEs in Ghana. Finally, the study also aims at equipping SMEs owner-managers, investors and other stakeholders with knowledge on how to make best investments strategies and policy decisions or regulations that are meant to facilitate and maintain optimum performance of the enterprise.

Delimitations

The study focused on financial literacy and performance of SMEs in Accra. Specifically, the study considered financial awareness, knowledge and attitude as the measurement construct for SME financial literacy. Quantitative approach was employed and the research design was descriptive. The study only considered SMEs that could accessible during the data collection exercise. The

6

study did not categorize the SMEs in terms of their business rather it adopted a generic approach.

Limitations

The study's cross-sectional design is clearly a drawback. It is prudent to proceed with caution when drawing firm conclusions about the causality implied by the modeling. As a result, by evaluating models using longitudinal data, strong causal conclusions might be made. Additionally, the study has only used quantitative data gathering and analysis methods, excluding qualitative procedures, which offer more in-depth and comprehensive perspectives. Future research should therefore consider a hybrid strategy, which combines the two approaches to give studies of this kind a wider breadth and an all-encompassing perspective. Future study topics are made possible by these.

Organization of the Study

The research is organized into five chapters as follows; the first chapter focused on general introduction including background of the study, statement of the problem, objectives, questions, significance of the study, delimitations, limitations, and organization of the study. The second chapter deals with literature review which involves the theoretical and empirical reviews. This gives a general understanding and in-dept knowledge of financial literacy processes and concept of different studies. The third chapter presents the research methods used in gathering data for the study. It describes and justifies the methodological approach which has been used to collect and analyze the data for the research. The fourth chapter presents data, analyses and discuss the results on the effect of financial literacy on the effect of performance of SMEs.

The fifth chapter includes the summary, conclusions, recommendations, and suggestions for future research.

8

CHAPTER TWO

LITERATURE REVIEW

Introduction

Chapter two presents review of related literature on the subject matter under investigation. The study sought to examine financial literacy and performance of SMEs operating at the Accra Metropolitan Assembly. The study specifically looked to: assess the effect of financial knowledge on performance of SMEs, examine the effect of financial awareness on performance of SMEs, and analyze the effect of financial attitude on performance of SMEs. The themes underpinning the literature review include Review of related Concepts, Underlying Theories, Empirical Review, and Conceptual Framework and Hypotheses.

Theoretical Review

This section presents the theoretical framework underlying the study. It entails theories relevant to important variables in the study's specific objectives. The study used the Resource-based View (RBV).

The Resource-based view

The RBV, pioneered in 1959 by E. T Penrose and fully theorized by Birger Wernerfelt in 1984, is built on the concept that resources and capabilities are not heterogeneous across other organizations, and through the utilization of this concept the success rate variations between organizations can be explained. Penrose maintained that each firm's distinctive character is determined by the variety, not the uniformity, of the productive services accessible from its resources. The RBV is founded on the concept of firm resource heterogeneity. With Wernerfelt (1984) ground-breaking essay, the importance of the resource

9

viewpoint as a new approach in strategic management was widely acknowledged. Wernerfelt proposed that analyzing companies based on their resources can yield insights that differ from typical viewpoints. Kraaijenbrink, Spender and Aard (2010) used Barney's (1991, 2001) claim that a firm must acquire and control valuable, rare, inimitable, and non-substitutable (VRIN) resources and capabilities in order to establish a position of sustainable competitive advantage. Here, a resource must fulfill 'VRIN' criteria in order to provide competitive advantage and sustainable performance.

According to Barney (1986), a useful resource must enable a company to accomplish things and act in ways that result in more sales, lower expenses, higher margins, or other financial benefits. Resources are useful, according to Barney (1991), when they allow a company to develop or implement strategies that increase its efficiency and effectiveness. The RBV assists managers in comprehending why competencies are viewed as a firm's most valuable asset while also appreciating how those assets can be utilized to increase company success. The firm's RBV recognizes that prior experiences, organizational culture, and competencies are crucial to the firm's success (Campbell & Luchs, 1997; Hamel & Prahalad, 1996).

The firm's resources include financial (liquid and illiquid), human (knowledge, skills and competencies), technological, marketing and physical resources. These resources are what the RBV describes as a firm's characteristics that derive its profitability, growth and ultimately survival. The view in this theory is that such resources should be valuable, rare and imitable (Dierickx & Cool 1989; Barney et al., 2001). However, for the firm to achieve competitive advantage, Grant (1991) suggests managers analyze resources,

10

appraise capabilities, analyze competitive advantage, select strategy and identify resource gaps.

The RBV has implications for both the performance of businesses and the problem of financial literacy. Financial expertise and knowledge affect how a company chooses, employs, manages, and disposes of financial assets (Agyapong & Attram, 2019). The degree of financial literacy a management has also reflects the depth of financial information he or she has learned through time (Gustman, Steinmeier, & Tabatabal, 2012). Such information (resource) has significance for the success of the business's financial decisions and strategies. This is particularly true for SMEs, since the owner-manager frequently has the last say when making strategic choices. One of the most important choices owner-managers have had to make in managing their companies' finances. The results of these choices have a big influence on the success, expansion, and longevity of their businesses.

According to Eniola and Entebang (2016), SMEs rely on unique, immovable tangible and intangible resources as the foundation for their capacity to maintain a competitive edge that results in better performance. Financial capital (such as stock, debt, and retained earnings) and physical capital are examples of tangible resources (e.g., machinery and buildings). Entrepreneurial expertise, abilities, experiences, organizational practices, and reputation are examples of intangible resources.

According to the hypothesis, a firm's inability to innovate due to a lack of resources (financial, human, organizational, and technical) might have an impact on how well its products and services are delivered as well as its overall performance (Hewitt-Dundas, 2006). Ironically, prior research (Amornkitvikai

11

& Harvie 2018; Sibanda, Hove-Sibanda & Shava 2018; Hossain, 2018) has tended to place more emphasis on the availability or lack thereof of financing than on the owner-managers' level of financial literacy. This study closes this gap by examining the effects of owner-managers' financial literacy on the performance of businesses of this kind.

In relation to this study, the RBV helps us understand that financial awareness, financial knowledge, and financial attitude are intangible resources and capabilities that SMEs can develop and leverage to gain a competitive advantage. When SMEs possess and effectively deploy these resources, they are better equipped to make informed financial decisions, optimize resource allocation, manage financial risks, and adapt to changing financial conditions. Consequently, this enhanced financial performance contributes to the overall success and competitiveness of SMEs in their respective markets.

Conceptual Review

This section of the work worked on the concept of small and medium-sized enterprises.

Financial literacy

Financial literacy is described as having a working comprehension of the most important financial ideas and words (Huston, 2010). Regardless of the topic, having a solid understanding of finances is crucial when making decisions. In comparison to those with little or no financial knowledge, those with financial expertise on the core concerns of their field of specialization are likely to be more competent. In other words, it enables them to manage financial issues pertaining to the operation of their organization. Financial literacy refers to the ability to apply knowledge of basic financial concepts to

12

manage one's finances in the workplace (Eniola & Entebang, 2017). Financial literacy is also defined as being knowledgeable about financial matters (Lusardi & Michell, 2006) and competent in using that knowledge (Hung, Parker, & Yoong, 2009; Huston, 2010). The methodology is based on the literature review.

Performance of small and medium-size enterprises

Performance is the ability to complete activities accurately and competently in order to attain the desired result (Carson Marr, Pettit & Thau, 2019). The performance of small businesses comprises expansion in sales activities or in the assets employed to produce profitability. Typically, the business's success is at issue (Chatterjee & Das, 2016). How well financial goals have been achieved is referred to as financial performance. It is the process of calculating the monetary value of the outcomes of a firm's policies and operations. Profit, sales, growth, and market share are all included. Performance is the assessment of an organization's results as a result of resource management decisions and their implementation (Liden, Wayne, Liao & Meuser, 2014). Performance evaluations help organizations better manage their resources (Tuffour et al., 2022). On the other hand, non-financial performance refers to qualitative indicators like customer happiness, competitiveness, and innovation that cannot be stated in monetary terms.

There are many ways to gauge company performance because it has so many different aspects. The targeted industry and the particular stakeholder interests have an impact on the applicable measures. Financial and non-financial (operational) measures make up firm performance measurements (Marie, Ibrahim & Al Nasser, 2014; Rylková, 2015). Generally speaking, the group of

financial performance measurements can be divided into accounting-based and market-based measures. The accounting-based performance metrics include cost-to-income ratio, return on equity, net interest margin, and return on assets (Alshatti, 2015; Faleye & Krishnan, 2017). Market-based measurements of performance reflect how capital markets assess a company's operations in relation to its estimated economic or accounting value (Faleye & Krishnan, 2017). Tobin's Q ratio and the market-to-book ratio are the two most frequently employed substitutes for market-based measurements (Badu & Appiah, 2017).

A comprehensive and balanced picture is provided by the combined use of non-financial and financial performance measurements, which also enables businesses to understand and cater to the informational needs and financial interests of diverse stakeholder constituencies. Customer service standards, customer happiness levels, staff satisfaction levels, and environmental and social contributions are all examples of non-financial performance indicators (Kaymak & Bektas, 2017; Marie et al., 2014). Improved firm effectiveness and financial success can be eventually influenced by non-financial performance measures (Eccles, Ioannou & Serafeim, 2014).

Small and medium-sized enterprises in Ghana

There does not appear to be a universally accepted definition of SMEs. Every nation and industry have a different definition (Quartey *et al.,* 2017; Nyathi, Nyoni, Nyoni, & Bonga, 2018). Many authors defined SMEs as the number of employees or the total assets of the revenue generated by the business (Perera & Chand, 2015; Sitharam & Hoque, 2016). Three main variables are considered in the SME definition provided by the European Commission. These three factors are the amount of employment, the turnover rate, and the size of

the balance sheet. The term "micro-enterprises" refers to businesses with up to nine employees and a balance sheet total of €2 million or less annually. Small businesses are those that have a balance sheet or annual turnover of less than €10 million and employ up to 49 people. But the most common evaluation standard is based on the number of employees (Muller et al., 2015).

The Ghana Enterprise Agency (National Board for Small-Scale Industries [NBSSI]), the organization responsible for regulating SMEs in Ghana, uses both the fixed asset and employee count criteria to categorize and define small-scale businesses. In Ghana, the majority of SMEs are classified depending on the number of employees they employ (Kayanula & Quartey, 2000). The number of employees determines how classifies establishments. There are three types of businesses: micro-sized, which employs no more than five people; small-sized, which employs six to 30 people; and medium-sized, which employs between 31 and 100 individuals.

However, the Ghana Enterprise Agency in Ghana considers both the number of employees and physical assets to determine what SMEs are in Ghana. SMEs are defined as businesses with less than 29 people and plant and machinery valued at less than 10 million Ghana Cedis (excluding land, buildings, and cars). The definition of GSS is used in the current investigation (2017). Since the study merged micro and small businesses, it categorised those companies as small businesses with up to 30 employees.

15

Empirical Review

This section of the chapter presented on the review of literature pertaining to the study objectives.

Financial knowledge and performance

Financial Knowledge is defined as having a working comprehension of the most important financial ideas and words (Huston, 2010). Regardless of the topic, having a solid understanding of finances is crucial when making decisions. In comparison to those with little or no financial knowledge, those with financial expertise on the core concerns of their field of specialization are likely to be more competent. In other words, it enables them to manage financial issues pertaining to the operation of their organization. Financial literacy refers to the ability to apply knowledge of basic financial concepts to manage one's finances in the workplace (Eniola & Entebang, 2017).

Financial literacy is also defined as being knowledgeable about financial matters (Hossain, 2018) and competent in using that knowledge (Hung, Parker, & Yoong, 2009). The methodology is based on the literature review.

Financial awareness and performance

According to Tezel (2015), financial awareness is the capacity to recognize the overall effects of financial decisions on one's situations and to take the appropriate precautions and opportunities for budgeted planning. Financial literacy promotes profitable decision-making by enabling one to understand and be aware of the appropriate decisions to make and their impact on business performance (Damayanti et al., 2018). It also has to do with

16

knowing how to handle different financial plans and knowing where to find financial service providers (Eniola & Entebang, 2017; Lusardi & Tufano, 2009).

Financial attitude and performance

Financial attitude is the use of financial principles in decision-making and effective resource management to create and preserve value (Tuffour, Amoako & Amartey, 2022). Performance is aided by financial attitudes including risk aversion, time management, social environment, and training. Small-business managers' eagerness to learn more about handling their finances will boost their performance and provide more value to profitability. It has been proposed that having a sound understanding of finances is a necessary prerequisite for a manager to have a favorable financial outlook (Hathaway & Khatiwada, 2008). The ability to evaluate novel and emerging financial products is a financial attitude (Eniola & Entebang, 2017).

Conceptual Framework

The study's conceptual framework depicts in graphic form how financial literacy affects performance of SMEs. Financial literacy is a component of human capital that is made up of financial awareness, knowledge, and attitude (Eniola & Entebang, 2017; Dar & Mishra, 2019). The independent variables are financial awareness, financial knowledge and financial attitude. The dependent variable is the performance of SMEs. The framework is depicted in Figure 1.

Independent Variables

| Financial Knowledge |

Dependent Variable

| Financial Awareness |

| SME Performance |

| Financial Attitudes |

| Access to Finance |

Control Variable
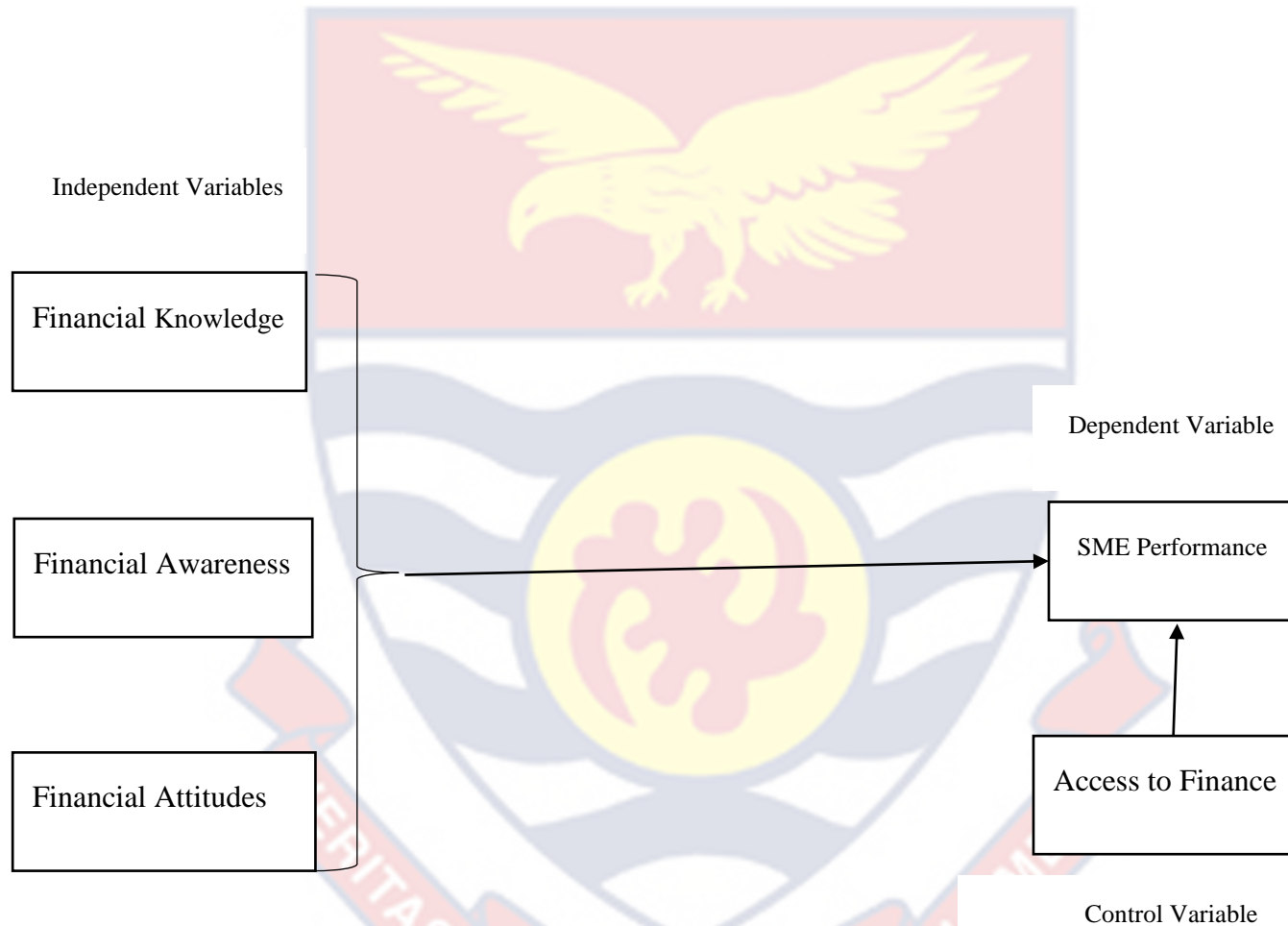
Figure 1: The Conceptual Framework

Source: Author's construct (2023)

The conceptual model serves as the empirical model for the investigation. The framework demonstrates how financial knowledge, financial awareness, and financial attitude affect the performance of SMEs.

Chapter Summary

This chapter worked on the theoretical underpinning of the study. It further did both conceptual and empirical reviews. Reviews were done per each of the study objectives. A conceptual framework was drawn after the theoretical and empirical review.

CHAPTER THREE

RESEARCH METHODS

Introduction

This section provides the proposed research methodology suitable for this empirical study. It covers research design, study area, population, sampling procedure, data collection instruments, data collection procedure, ethical consideration, and data processing and analysis. The study sought to examine financial literacy and performance of SMEs operating at the Accra Metropolitan Assembly. The study specifically looked to: assess the effect of financial knowledge on performance of SMEs, examine the effect of financial awareness on performance of SMEs, and analyze the effect of financial attitude on performance of SMEs.

Research Paradigm

In all scientific research, the research paradigm is crucial (Creswell, 2014). Research premise, knowledge, and nature are developed by research philosophy (Saunders, Lewis & Thornhill, 2015). When used, the scientific research philosophy is a technique that enables scientists to transform concepts into knowledge in the context of their studies. The positivist, interpretivist, pragmatist, and realistic research philosophies are the four major currents in this field. The study employed the positivist concept, which maintains that only knowledge obtained from observation and measurement, including measurement itself, is reliable.

Saunders, Lewis and Thornhill (2015) went on to say that the researcher's function in positivism is restricted to gathering data and interpreting it objectively, and that most study findings are observable and quantifiable.

Additionally, the researcher is not affiliated with the study, and there are no safeguards for human interests in it. Quantifiable observations that result in statistical analysis are necessary for positivism. Additionally, it has been highlighted that positivism is consistent with the empiricist position that knowledge derives from human experience, which holds an atomistic, ontological perspective of the world (Collins, 2018). According to Collins (2018), positivism consists of discrete, observable elements and events that interact in a predictable, predictable, and regular way. Because positivism is built on the idea that anything that exists can be proved through experiments and observation, the study adopted this philosophy in regard to its goals.

Research Approach

The quantitative research approach was taken into consideration based on the concept. A research approach is a strategy or process for a study that covers everything from general hypotheses to specific techniques for gathering, analyzing, and discussing data (Creswell, 2014). With a quantitative approach, it is possible to describe the study's major difficulties using quantitative techniques like descriptive and inferential statistics (Patten, 2016).

Research Design

The study utilised an explanatory research design based on the quantitative approach. Explanatory research is characterised by the testing hypothesis that specifies the nature of the relationship amongst variables. Also, it deals with the causes and effects through testing of hypothesis to help understand the problem efficiently. The purpose of an explanatory design is to increase the understanding of a phenomenon by providing detailed information.

21

It provides the flexibility in accessing sources such as published articles and gaining new insights on the occurrence and generalisation of findings (Creswell & Creswell, 2017).

Population

According to Creswell (2017), population is a complete group of entities sharing particular features or characteristics. The study population comprised 780 SMEs operating at the Accra Metropolitan Area, out of the 6,000 in Greater Accra region and registered under the National Board for Small Scale Industries (NBSSI) now Ghana Enterprise Agency (GEA) (GEA, 2020). The unit of analysis was the owner-managers/operators of these SMEs.

Sample and Sampling Technique

With a total population of 780 SMEs, the sample size of the study was 258 SMEs. This was determined using the Krejcie and Morgan (1970) sample size determination formula. The simple random sampling technique of the probability sampling method was adopted in response to the study objectives. This form of sampling design helps the investigator to provide an equal opportunity for every item in the population to participate without being biased (Bhattacherjee, 2012).

Data Collection Instrument

Based on the research objectives and approach to the study, a structured questionnaire as a primary data collection instrument was employed to collect data from respondents. A structured questionnaire is a method of data collection in which each member is asked to respond to the same set of questions in a prearranged order (Saunder & Lewis, 2015). It is the major collection

22

instrument used in quantitative study and thus is the most appropriate as compared to the others such as observation and interviews which are appropriate for qualitative study. It is to note that, the questionnaire was self-constructed from reviews of related literature in relation to the study's objectives.

The questionnaire was basically structured in four (4) sections with section A gathering information on the respondents' demographic characteristics. Section B contained question items on financial literacy in terms financial awareness, knowledge and attitude. Section C contained question items on performance of SMEs. Finally, section D covers items measuring access to finance as a control variable in the study. It is to note that, respondents were asked to rate their level of agreement to each of the question items on a five-point Likert scale with 1 representing least agreement and 5 representing highest agreement.

Data Collection Procedure

An introduction letter was acquired from the head of the Department of Finance prior to the data gathering exercise. This was done to obtain permission from the appropriate management to carry out the data collection exercise. Upon obtaining permission, the questionnaires were then distributed to the respondents. The data collection exercise span from May 2022 to June 2022. However, there were several significant difficulties with the exercise, such as some respondents' refusal to participate because of privacy concerns or rigid schedules.

Additionally, some of the respondents cited strong organizational standards and ethical codes of conduct as reasons why they chose not to participate in the experiment. These difficulties were minimised by providing

assurances that the exercise was purely for academic purposes only. Also, respondents who requested to fill the questionnaires in their own conveniences were allowed to do so. These measures were put in place to encourage the respondents to partake in the exercise as their involvement is key to informing the study's outcome.

Data Processing and Analysis

The data processing and analysis entailed screening questionnaires, entering and analyzing the data, transcribing interview reports, and identifying common themes. The study collected the quantitative data using a questionnaire. Software such as IBM SPSS Version 21, SmartPLS4 (newest version), and Microsoft Excel were used to processed the data and the quantitative data was analysed using both descriptive statistical analysis (frequencies and percentages) and inferential statistical analysis with a focus on PLS-SEM.

Validity and Reliability

Validity deals with the degree to which an instrument measures what it intends to measure. The validity of the instrument for this study was ensured through peer review, expert review, and literature review. On the other hand, reliability is dependability of the instrument; that is the ability of the instrument to produce similar results are different times. Reliability of the instrument was checked through a pre-test that was conducted among thirty (61) Owner/managers of SMEs in Adenta Municipal Area. The pilot study results showed that the Cronbach's reliability coefficients are above 0.7 threshold and considered reliable to proceed with the main data collection.

24

Table 1: Pretesting Survey Outcome

Constructs	Items	Cronbach's Alpha
Financial Knowledge	FK1	.92
	FK2	
	FK3	
	FK4	
Financial Awareness	FA1	.94
	FA2	
	FA3	
	FA4	
Financial Attitudes	FAT1	.88
	FAT2	
	FAT3	
	FAT4	
Access to Finance	AF1	.82
	AF2	
	AF3	
	AF4	
	AF5	
SME Performance	FP1	.92
	FP2	
	FP3	
	FP4	

Source: Field data (2023)

Ethical Considerations

According to Dooly, Moore and Vallejo (2017), the major ethical issues that need to be considered in every research comprise voluntary participation, right to privacy, anonymity and confidentiality of information. As such, all efforts were geared towards ensuring that all these ethical issues are attended to. For instance, all respondents would be permitted to engage voluntarily in the data collection process. Additionally, by allowing respondents to complete the questionnaires on their own, potential difficulties with the right to privacy will be realized. Additionally, respondents will be advised to omit any ambiguous answers in order to get clarification through a convenient medium of their

25

choosing. By prohibiting respondents from including their names and contact information on the questionnaire, the issue of anonymity will be addressed.

As a result, respondents can rest certain that neither their names nor any other personal information will be disclosed to the public or utilized in the study for any other reason. The study ensured confidentiality of information by assuring respondents that all information provided would be kept confidential. Respondents will also be guaranteed that none of their information would be disclosed to the public or used against them. Finally, in order to avoid an ethical problem of plagiarism, all pertinent materials acquired for the study will be properly referenced. All significant ethical concerns and issues will be addressed in the study in light of them.

Chapter Summary

The chapter discussed the research methods employed to achieve the study's purpose. The chapter explicitly covered the following study-related factors: design, population, sampling size and technique, data collection tool, etc. Because of the study's goal and chosen methodology, a descriptive research design was chosen. In order to analyze the data and attempt to provide answers to the study's research objectives, both descriptive and inferential statistical tools, such as percentages, frequencies, means, standard deviations, and multiple regression, were employed.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

Chapter four presents findings and discussion emanating from the study. The study seeks to examine financial literacy and performance of SMEs operating at the Accra Metropolitan Assembly. The study specifically looked to: assess the effect of financial knowledge on performance of SMEs, examine the effect of financial awareness on performance of SMEs, and analyze the effect of financial attitude on performance of SMEs. The findings covers preliminary analysis, demographic characteristics, pilot survey outcome, descriptive statistics, measurement model, and structural model, all leading to answering the study questions. The Chapter also presents discussions emanating from the results.

Demographic Profile of Participants

The demographic features of the participating SMEs as well as their firm-specific characteristics. The study examines financial literacy and performance of 258 SMEs operating at the Accra Metropolitan Assembly. The demographic characteristics of interest include gender, age, educational attainment, marital status, and experience, while those of firm-specific information covers ownership type, business sector, number of employees, annual sales, and age of business.

Table 2 reports findings on demographic characteristics of the study participants.

27

Table 2. Background Information of Respondents

Characteristics		Frequency N=258	Percent
Gender	Male	155	60.08
	Female	103	39.92
Age	18-30	69	26.74
	31-40	100	38.76
	41-50	65	25.19
	51+	24	9.30
Educational Attainment	Primary Education	14	5.43
	Junior High School	53	20.54
	Secondary/Vocational/Technical	133	51.55
	Tertiary	58	22.48
Marital Status	Single	82	31.78
	Married	149	57.75
	Divorced	13	5.04
	Separated	10	3.88
	Widowed	4	1.55
Experience	Less than 1 year	5	1.94
	1-3 years	24	9.30
	3-5 years	22	8.53
	5-7 years	121	46.90
	More than 7 years	86	33.33

Source: Field data (2023)

The gender distribution of the respondents presents 155 (60.08%) and 103 (39.92%), respectively, for male and female, implying male domination of the study. With respect to age, the study reports 100 (38.76%), 69 (26.74%), and 65 (25.19%) for 31-40, 18-30, and 41-50 age groups, respectively. It can be established that most of the owner-managed SMEs sampled for the study are youths. The education level distribution of the respondents records 133 (51.55%), 58 (22.48%), and 53 (20.54%), respectively, for secondary/vocational/technical education, tertiary, and junior high school qualifications. The findings show that most of the owner-managed SMEs have appreciable level of education.

About the respondents' marital status, the study reports that 149 representing 57.75 percent of the participants are married following by singles

and divorcees with 82 (31.78%) and 13 (5.04%) distributions, respectively. The findings in this regard suggests that married couples mainly dominate the research participants. It also emerged that about 121 participants representing 46.90 percent and 86 of them also accounting for 33.33 percent, respectively have 5-7 and more than 7 years working experience in the affair of the business, implying possession of considerable knowledge about the operations of the firm.

Firm Characteristics

Table 3 presents the firm specific characteristics of the selected owner-managed SMEs in the study area. The areas of interest to this empirical determination include type of business ownership, type of business sector, number of employees and size of business in terms of annual sales. The author enquired from the participating owner-managers about the features of their respective businesses in order to ascertain their relevance in the quest of the current study.

29

Table 3: Firm-Specific Characteristics

	Characteristics	Frequency N=258	Percent
Ownership Type	Sole	204	79.07
	Partnership	37	14.34
	Company	17	6.59
Business Sector	Manufacturing	39	15.12
	Construction	21	8.14
	Service	50	19.38
	Trade	75	29.07
	Agriculture	73	28.29
Number of Employees	1-6	173	67.05
	7-30	64	24.81
	30+	21	8.14
Annual Sales	Less than GH₵10,000	35	13.57
	GH₵10,000-GH₵20,000	52	20.16
	GH₵20,000-GH₵50,000	119	46.12
	GH₵50,000-GH₵100,000	28	10.85
	Greater than GH₵100,000	24	9.30
Age of Business	Less than 1 year	5	1.94
	1-3 years	24	9.30
	3-5 years	22	8.53
	5-7 years	121	46.90
	Greater than 7 years	86	33.33

Source: Field data (2023)

Measurement Model Assessment

This section reports on the measurement model (outer model) evaluation. The outer model assessment covers the associations between constructs and their respective indicators (Benitez-Amado, Henseler, & Castillo, 2017; Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). As SEM provides researchers with the ability to measure one variable using multiple indicators to enhance the accuracy of the measure (Hair, Hult, Ringle, &

Sarstedt, 2017), it is crucial to address the reliability and validity of the used indicators in multivariate analysis (Hair, Black, Babin, & Anderson, 2014). The measurement model techniques for reliability and validity include indicator reliability (loadings), construct reliability (Cronbach's Alpha and Composite reliability), convergent validity (AVE-Average variance extracted), and discriminant validity (Cross loadings, Fornell-Larcker criterion, and HTMT-Heterotrait-Monotrait Ratio). Table 4 presents findings of the measurement model assessment extracted from the PLS-SEM algorithm with 3,000 iterations, following the deletion of suspicious items during the first-round analysis (see Appendix B).

Table 4: Results of Measurement Model Assessment

Constructs	Items	Factor Loadings	Cronbach Alpha	Composite Reliability	AVE
Financial Knowledge	FK1	0.904	0.886	0.929	0.814
	FK2	0.903			
	FK3	0.900			
Financial Awareness	FA1	0.887	0.841	0.904	0.759
	FA2	0.867			
	FA4	0.859			
Financial Attitudes	FAT1	0.874	0.759	0.859	0.671
	FAT2	0.834			
	FAT3	0.744			
Access to Finance	AF1	0.909	0.745	0.886	0.796
	AF3	0.876			
SME Performance	FP1	0.824	0.707	0.838	0.634
	FP2	0.704			
	FP3	0.853			

Source: Field data (2023)

31

Indicator Reliability

Indicator reliability is measured by outer loadings (factor loadings). In general, values no less than 0.70 are considered adequate for assessing internal consistency of variables (Chin, 1998). Table 4 presents factor loadings higher than the 0.70 threshold, generated from the second-round PLS algorithm technique. The first-round PLS-SEM algorithm results (see Appendix B) in poor loadings for FK4 (Financial Knowledge); FA3 (Financial Awareness); FAT4 (Financial Attitudes); AF2, AF4, AF5 (Access to Finance); and FP4 (SME Performance), necessitating their deletions.

Construct Reliability

Assessing the reliability of the measurement model is crucial as the lack of reliability may lead to biased results in the structural model evaluation (Hair, Sarstedt, Ringle, & Mena, 2012). Reliability refers to the indicators' internal consistency and their ability to generate the same findings under the same situations (Field, 2013). Generally, construct reliability is established using two tests namely composite reliability and Cronbach's alpha, to evaluate internal consistency of measures. A reliability value of 0.7 for both composite reliability and Cronbach's alpha indicates acceptable reliability and 0.8 indicates good reliability (Sekaran & Bougie, 2016). The first-round PLS-SEM algorithm produced poor composite reliability value for Access to Finance (0.481) and Cronbach's alpha score for Access to Finance (0.451), Financial Attitude (0.694), and Financial Awareness (0.586), as a result of the poor outer loadings reported (see Appendix B). Table 4 report more than 0.70 composite reliability and Cronbach's alpha scores for the four constructs, suggesting greater reliability.

Convergent Validity

Convergent validity means that indicators represent the same constructs. Convergent validity is achieved when the outer loading of each indicator is above 0.7 and AVE of each construct is 0.5 or above (Benitez-Amado et al., 2017; Hair et al., 2017). The AVE refers to the grand mean of the squared loadings of the indicators of a construct. When the AVE of a construct is 0.5 or above, more than the half of the variance of the construct's measures is explained (Chin, 1998). Table 4 shows that AVE values exceed 0.5 demonstrating the convergent reliability of the four constructs, using the results from the second-round PLS-SEM algorithm.

Discriminant Validity

Discriminant validity comprises the degree to which a particular construct demonstrates differences as opposed to other construct (Hair, Ringle, & Sarstedt, 2013). In other words, each construct should have more correlation with its indicators than with the indicators of the other constructs (Hair et al., 2017). The discriminant validity was established using cross loadings, Fornell-Larcker criteria, and HTMT ratio.

Table 5 presents findings of the cross loadings generated from the second-round PLS-SEM algorithm. The cross loading technique demands that the outer loading of an indicator on its construct should be higher than its cross loadings on the other constructs (Hair et al., 2017; Hair, Ringle, & Sarstedt, 2011). The results of the cross loadings assessment provide evidence of discriminant validity.

33

Table 5: Results of Cross Loadings

Items	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
AF1	**0.909**	0.427	0.441	0.249	0.431
AF3	**0.876**	0.372	0.349	0.210	0.372
FA1	0.348	0.535	**0.887**	0.662	0.532
FA2	0.382	0.508	**0.867**	0.566	0.517
FA4	0.430	0.560	**0.859**	0.627	0.596
FAT1	0.461	**0.874**	0.570	0.492	0.535
FAT2	0.261	**0.834**	0.442	0.486	0.424
FAT3	0.370	**0.744**	0.498	0.389	0.324
FK1	0.203	0.465	0.590	**0.904**	0.506
FK2	0.274	0.521	0.697	**0.903**	0.573
FK3	0.219	0.527	0.632	**0.900**	0.560
FP1	0.372	0.365	0.478	0.466	**0.824**
FP2	0.343	0.415	0.481	0.433	**0.704**
FP3	0.364	0.496	0.546	0.543	**0.853**

Source: Field data (2023)

Another method to assess the discriminant validity is the one suggested by Fornell and Larcker (1981) who suggested that the square root of a construct's AVE should be larger than its correlation with other constructs. Table 6 shows that the square root of each construct's AVE, presented on the diagonal line, are larger than the construct's correlation with other constructs, using estimated from second-round PLS-SEM algorithm. According to Fornell-Larcker criteria, the constructs maintain discriminant validity.

34

Table 6: Fornel-Larcker Criterion Outcome

Constructs	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
Access to Finance	0.892				
Financial Attitudes	0.449	0.819			
Financial Awareness	0.446	0.615	0.871		
Financial Knowledge	0.259	0.561	0.711	0.902	
SME Performance	0.452	0.538	0.632	0.607	0.796

Source: Field data (2023)

Table 7 presents findings on one recent method for measuring the discriminant validity in PLS-SEM, the HTMT, which was developed by Henseler, Ringle, and Sarstedt (2015). HTMT represents the estimate for the construct's correlation with the other constructs, that should be smaller than one (Henseler, Hubona, & Ray, 2016). A correlation closer to one shows a lack of discriminant validity. The authors suggest a threshold of 0.90 when the constructs are conceptually similar and 0.85 when the constructs are conceptually different. The results of HTMT assessment from the second-round PLS-SEM algorithm fall below 0.85, indicating the discriminant validity of the constructs.

Table 7: Heterotrait-Monotrait Ratio

Constructs	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
Access to Finance					
Financial Attitudes	0.586				
Financial Awareness	0.556	0.764			
Financial Knowledge	0.315	0.674	0.819		
SME Performance	0.622	0.708	0.816	0.763	

Source: Field data (2023)

Structural Model Assessment

The structural model, also known as inner model, refers to the relationships between the constructs themselves, and its assessment includes evaluating the relationships between the constructs in the model (Hair et al., 2011; Henseler & Sarstedt, 2013). The structural model assessment covers the following: collinearity, path coefficients, variance explained, model predictive relevance, and goodness-of-fit. Following the elimination of the seven (7) poorly loaded items and the established of reliability and validity during the second-round PLS-SEM algorithm, the author proceeded to run the bootstrapping of 5,000 sub-samples and arrived at the various estimates towards the realization of the study specific objectives.

Test for Collinearity

According to Hair et al. (2011), when evaluating structural equation modeling, be sure to confirm that the problem of collinearity has been

36

eliminated. When the Variance Inflation Factor (VIF) is greater than 5, it means that there may be a collinearity problem between the dimensions (Hair et al., 2011). The VIF values from the second-round PLS-SEM reported in Table 8, is less than 5, indicating no collinearity among the study dimensions.

Table 8: VIF Values

Items	VIF
AF1	1.545
AF3	1.545
FA1	2.320
FA2	2.151
FA4	1.752
FAT1	1.586
FAT2	1.622
FAT3	1.439
FK1	2.732
FK2	2.471
FK3	2.456
FP1	1.656
FP2	1.193
FP3	1.681

Source: Field data (2023)

Path Coefficients

The path estimates generated from the bootstrapping of 5,000 sub-samples are presented in this sub-section. The study specifically looked to: assess the effect of financial awareness on performance of SMEs, examine the effect of financial knowledge on performance of SMEs, and analyze the effect of financial attitude on performance of SMEs. The assessment was done using the following hypotheses: H_1 (*There exists a positive relationship between Financial Knowledge and SME Performance), H_2 (There exists a positive*

37

relationship between Financial Awareness and SME Performance), H_3 (*There exists a positive relationship between Financial Attitude and SME Performance*), H_4 (*There exists a positive relationship between Access to Finance and SME Performance*). The key criteria for assessing the structural model in PLS-SEM are the significance of the path coefficients. The structural model path coefficients were checked against the rule of thumb from t values and the p values. The critical t values for two tailed tests are 1.65 (significance level 10%, *), 1.96 (significance level 5%, **) and 2.57 (significance level 1%, ***). When p values are considered, if the significance level is 5 percent, the p values must be smaller than 0.05 to consider the relationship significant. Figure 2 depicts the structural paths from the bootstrapping outcome.

Figure 2: The Structural Model

Source: SEM output (2023)

The path coefficients of the PLS-SEM bootstrapping are presented in Table 9. The study fails to reject the hypothesis H_1 that "*There exists a positive relationship between Financial Knowledge and SME Performance*". The PLS structural path coefficient is significant ($p < 0.05$) in the hypothesized direction. The significant positive relationship between financial knowledge and performance implies that SMEs' with higher knowledge in finance capable of increasing output. Here, financial knowledge can be seen as performance prospects in the SME sector.

The study also fails to reject the hypothesis H_2 that "*There exists a positive relationship between Financial Awareness and SME Performance*". The PLS structural path coefficient is significant ($p < 0.05$) in the hypothesized direction. The significant positive relationship between financial awareness and performance implies both variables move in the same direction.

The study also fails to support the hypothesis H_3 that "*There exists a positive relationship between Financial Attitudes and SME Performance*". From the results the PLS structural path coefficient confirm that this path is insignificant at ($p > 0.05$). Here, the result suggests that financial attitudes play less role in the performance of small businesses in the study area.

Table 9: Path Analysis

Hypotheses	Paths	Coefficients	T Values	R Square	Results
H_1	Financial Knowledge -> SME Performance	0.314**	3.622	0.503	Accepted
H_2	Financial Awareness -> SME Performance	0.243**	2.817		Accepted
H_3	Financial Attitudes -> SME Performance	0.118	1.501		Rejected
H_4	Access to Finance -> SME Performance	0.209***	3.798		Accepted

Note: Significance levels: n/s = not significant; * 0.05, **0.01, ***0.001
Source: Field data (2023)

With respect to the control variable, the study fails to reject the hypothesis H_1 that "*There exists a positive relationship between Access to Finance and SME Performance*". The PLS structural path coefficient is significant ($p < 0.05$) in the hypothesized direction. The significant positive relationship between financial access and performance implies that SMEs' with greater funding are capable of increasing output. Here, access to finance can be seen as performance prospects in the SME sector.

Variance Explained

This section presents the variance explained (coefficient of determination) in the structural model. Coefficient of determination refers to the effect of independent variables on the dependent latent variables, which is one of the quality measures of the structural model (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). It is often measured by R^2, the amount of changes in the target variable, explained by the predictors. Chin (1998) suggest that R^2 of 0.19, 0.33, or 0.67 are low, moderate, or high, respectively. Table 9 reports a moderate R^2 of 0.503, suggesting that financial knowledge, financial awareness, financial attitudes, and access to finance, all together explained about 50.3 percent variance in SME performance.

Predictive Relevance of Structural Model

The prediction accuracy of the PLS structural model as assessed by Q^2 is reported in this sub-section. Cross-validated redundancy (Q^2) assesses the predictive relevance of the structural model (Hair, Hult, Ringle, & Sarstedt, 2017). The Q^2 values greater than 0.00, 0.25, and 0.50, respectively, indicate that the PLS-path model has a small, medium, or large predictive relevance (Hair, Risher, Sarstedt, & Ringle, 2019). Table 10 reveals 0.471 Q^2 for SME

performance. The statistics suggest medium predictive relevance for the outcome variable.

Table 10: Predictive Relevance of the Structural Model

Endogenous Constructs & Items	Q^2 predict
SME Performance	0.471
FP1	0.271
FP2	0.256
FP3	0.360

Source: Field data (2023)

Goodness-of-Fit

This sub-section presents the structural model's goodness-of-fit. The goodness-of-fit refers to how well a model fits the empirical data (Hair, Hult, Ringle, & Sarstedt, 2017). This study adopted standardised root mean square residual (SRMR) and normed fit index (NFI) as the measures for structural model's goodness of fit. Researchers (Hair et al., 2017; Henseler, Hubona, & Ray, 2017) recommended a cut-off point suggested by Hu and Bentler (1998) of 0.08 in order to indicate that the model has a good fit. The examination of the current model fit as reported in Table 11 demonstrates that the SRMR is equal to 0.069 indicating that the model had a good fit. The range of the NFI value is between 0 and 1. The larger the value of NFI, the better performance it obtains. When NFI is near 0.9, it indicates that the model fits well.

Table 11: Results of Goodness-of-Fit

Model Fit	Criteria	Scores
SRMR	<0.08	0.069
NFI	near 0.90	0.768

Source: Field data (2023)

Discussions

The study seeks to establish how financial knowledge, financial awareness, and financial attitudes, affect performance of SMEs in a developing economic setting using the PLS-SEM technique. This section presents the discussions of the findings in response to the three specific study objectives. The discussions are themed as follows:

Effect of financial knowledge on performance

In response to how financial knowledge relates to SME performance, the study found that there exists a significant positive relationship between financial knowledge and SME performance. The significant positive relationship between financial knowledge and performance implies that SMEs' with higher knowledge in finance capable of increasing output. Practically, financial knowledge can be seen as a performance prospect in the SME sector. This reveals that owners/operators of SMEs are found knowledgeable in advance level of finance and able to transform such capabilities into improved performance.

This finding is consistent with the findings in the extant literature (Agyapong & Attram, 2019; Agyei, 2018; Jemal, 2019; Menike, 2019; Tuffour, Amoako, & Amartey, 2022), in which they found a positive relationship between financial knowledge and SMEs performance, which is consistent with the RBV. The study was partly premised on the RBV. The theory emphasizes on how critical resources (including financial skills and competencies) are used by the firm to attain competitive advantage. It is expected that the capacity of the owner-manager to use source, use, manage and dispose funds is improved through financial knowledge (Agyapong & Attram, 2019). This would

42

invariably impact on their ability to manage their business risk and ultimately performance.

Effect of financial awareness on performance

About to how financial awareness relates to SME performance; the study supports the notion that there exists a significant positive relationship between financial awareness and SME performance. The significant positive relationship between financial awareness and performance implies both variables move in the same direction. According to (Dahmen & Rodriguez, 2014), adequate financial education can partially decrease financial difficulties, while inability to predict and understand the business environment can lead to business failure (Dawuda, 2015). Therefore, the establishment of a significant positive relationship between financial awareness and performance has beneficial implications for the SME sector in the developing well.

The finding in this regard corroborate several others (Buchdadi et al., 2020; Khan et al., 2022; Tuffour et al., 2020). For instance, Tuffour et al. (2020) found a significant positive effect of financial awareness on both financial and non-financial performance. Theoretically, the financial literacy theory postulates that individuals with high levels of financial literacy may exhibit behaviors that are influenced by intuition and cognition, two thinking modalities that aid in making decisions about timely bill payment, prudent debt management to support economic growth, and a stable financial system, all which are capable of cumulating into resilient SME growth and development.

Effect of financial attitudes on performance

Regarding how financial attitudes relates to SME performance, the study uncovered an insignificant positive relationship between financial attitudes and

43

SME performance. The result suggests that financial attitudes play less role in the performance of small businesses in the study area which contracts predictions in several other studies (Dahmen & Rodriguez, 2014; Dawuda, 2015; Tuffour et al., 2020). Tuffour et al. (2020) report that there is a significant positive effect of financial attitude on financial performance for the SMEs. In addition, they also found that financial attitude has a significant positive effect on non-financial performance. However, Menike (2019) found that financial attitude exerts statistically insignificant relationship with firm performance as in the current study.
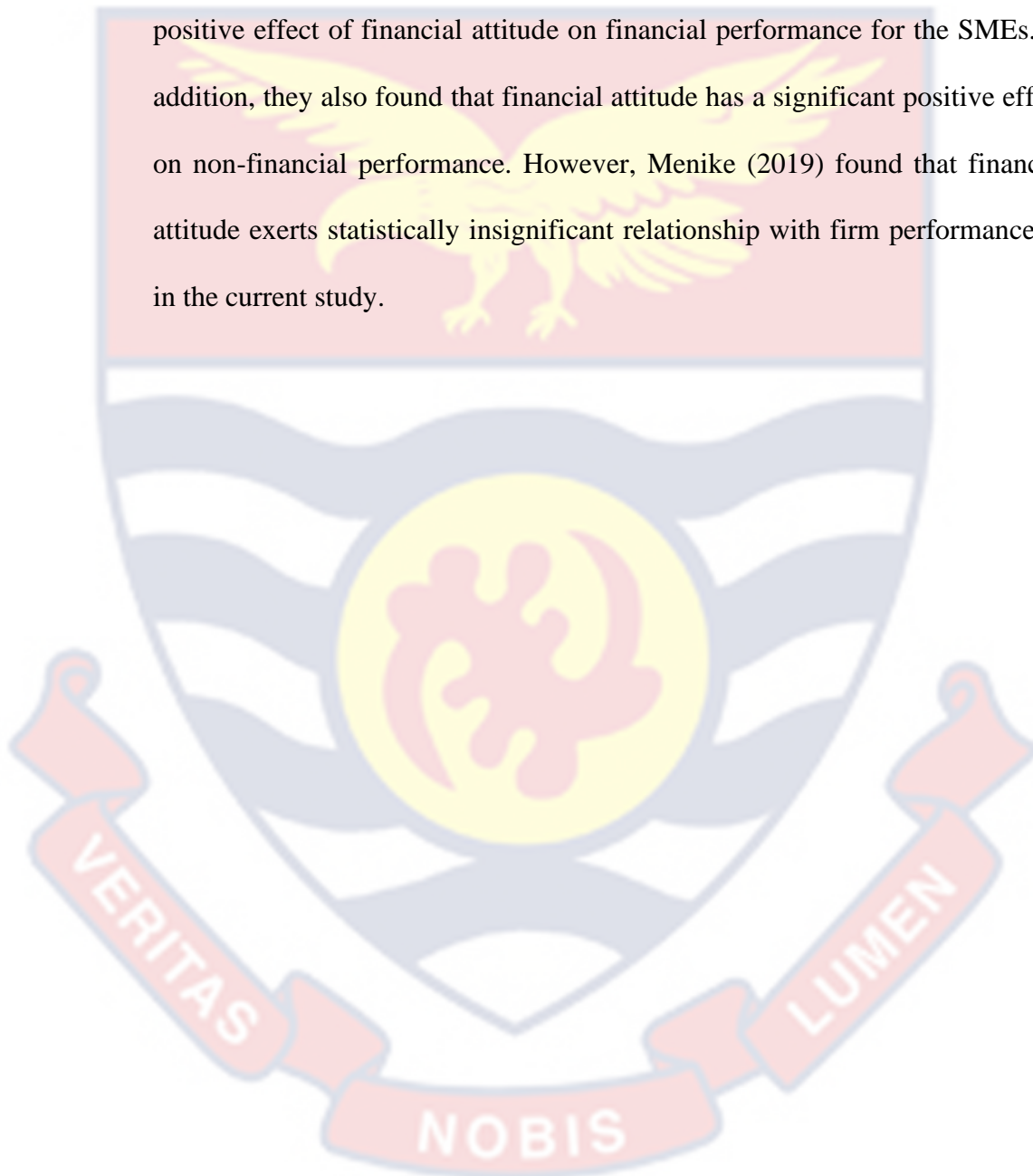
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

Chapter five presents summary, conclusions, and recommendations emanating from the study. The study seeks to examine financial literacy and performance of SMEs operating at the Accra Metropolitan Assembly. The study specifically looked to: assess the effect of financial knowledge on performance of SMEs, examine the effect of financial awareness on performance of SMEs, and analyze the effect of financial attitude on performance of SMEs.

Summary

The study seeks to establish how financial knowledge, financial awareness, and financial attitudes, affect performance of SMEs in a developing economic setting. The quantitative study was promised on the positivist paradigm and executed under the descriptive design. The study population comprised 780 SMEs operating at the Accra Metropolitan Area, out of the 6,000 in Greater Accra region and registered under the National Board for Small Scale Industries (NBSSI). The unit of analysis was the owner-managers/operators of these SMEs that could accessible by the researcher. A simple random sampling technique was adopted to sample 258 SMEs operating in the study area using a structured questionnaire. However, a pilot survey conducted using 61 selected SMEs at the Adenta Municipal Area as a measure to assess instrument reliability and validity. Software such as IBM SPSS Version 21, SmartPLS4 (newest version), and Microsoft Excel were used to analyze the quantitative data using both descriptive statistical analysis (frequencies and percentages) and inferential statistical analysis with a focus on PLS-SEM.

45

Key Findings

In response to how financial knowledge relates to SME performance, the study found that there exists a significant positive relationship between financial knowledge and SME performance. The significant positive relationship between financial knowledge and performance implies that SMEs' with higher knowledge in finance capable of increasing output. Here, financial knowledge can be seen as performance prospects in the SME sector.

About to how financial awareness relates to SME performance; the study supports the notion that there exists a significant positive relationship between financial awareness and SME performance. The significant positive relationship between financial awareness and performance implies both variables move in the same direction.

Regarding how financial attitudes relates to SME performance, the study uncovered an insignificant positive relationship between financial attitudes and SME performance. Here, the result suggests that financial attitudes play less role in the performance of small businesses in the study area.

Conclusions

The study provides appropriate response to how financial literacy dimensions such as financial knowledge, financial awareness, and financial attitudes, associate with the performance of SMEs in a developing setting.

The study concludes that there is a strong positive effect of financial literacy on the performance of SMEs. Financial knowledge and financial awareness have a positive influence while finance attitudes could not show any statistically significant impact on SMEs performance. The results reveal that SMEs that are more successful are run by entrepreneurs who are financially

46

literate and understand key financial concepts that include debt management, record keeping, and budgetary skills. Financial literacy of the owners regarding the budgeting skills and planning assist in reducing the SMEs running costs while increasing the profits thereby enable them to proper planning on loan repayment.

In addition, directions on financial matters empowers managers/operators to improve their financial literacy skills that the ability to read, analyze, manage and write about financial conditions of the firm to do better cash management to ensure a proper channeling of resources towards credit management. Financial literacy facilitates accumulating savings, diversifying assets, and purchasing insurance, decision making processes such as payment of bills on time, proper debt management which improves the creditworthiness of potential borrowers to expand, grow, and develop. It can be concluded that financially literate SMEs tend to be more successful than those with a low level of financial knowledge.

Recommendations

The study recommends that owner-managers/operators of SMEs should consider building a positive attitude towards financial literacy and undertake basic financial literacy programs to enhance their capabilities. Considering the fact that majority of SMEs in the informal sectors of the developing world scored poorly in performance and financial literacy, governments in such markets needs to ensure that all SMEs have the basic financial literacy through training and education. This is very important owing to the fact that, SMEs plays a paramount role in economy and growth in this sector means growth in economy.

Book keeping skills require a longer duration for trainees to master the skills. Accordingly, the authorities charged with the mandate to do capacity building of SMEs should in collaboration with stakeholders should promulgate appropriate measures to enhance the financial literacy capacities of the owner-managers and operators. Governments in the developing world should also incorporate financial education in the school curriculum from Primary level so that individuals are financially informed early in life.

48
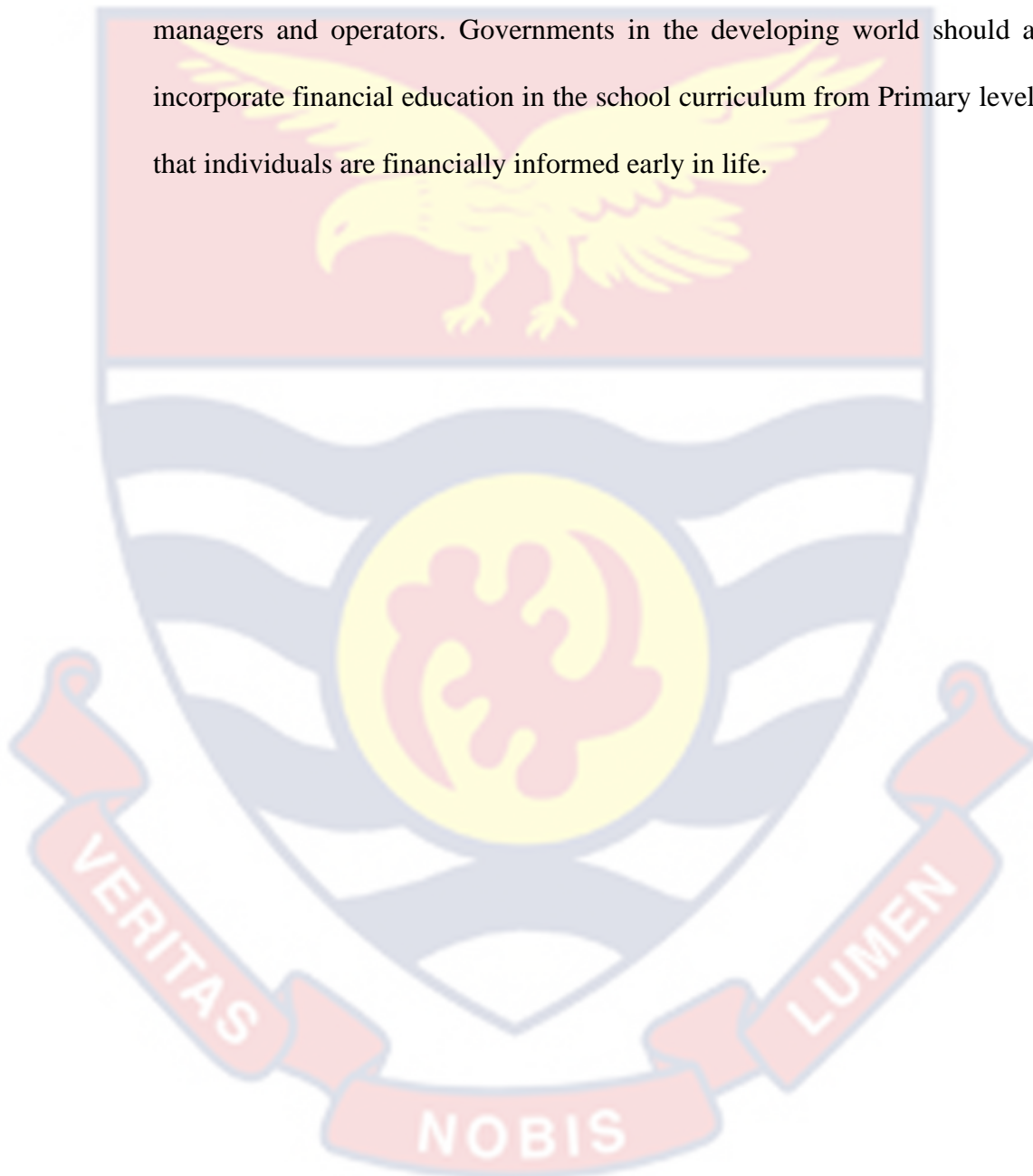
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APPENDICES

Appendix A: Questionnaire

UNIVERSITY OF CAPE COAST

QUESTIONNAIRE FOR OWNER-MANAGED SMEs

TOPIC: FINANCIAL LITERACY AND PERFORMANCE OF SMALL AND MEDIUM-SIZE ENTERPRISES IN ACCRA

The study aims to investigate financial literacy and performance of SMEs operating at the Accra Metropolitan area. Your responses to the questions below will aid the researcher to achieve the objectives of the study.

SECTION A: BACKGROUND INFORMATION

Please tick (√) the appropriate response or where there is the need to fill or respond to YES or NO.

1. *Gender*

   Male [ ]

   Female [ ]

2. *Age Group*

   18-30 [ ]

   31-40 [ ]

63

41-50 [ ]

51+ [ ]

3. *Level of Education*

Primary Education [ ]

Junior High School [ ]

Secondary/Vocational/Technical Education [ ]

Tertiary Education [ ]

Others, please specify…………………………..

4. *Marital Status*

Single [ ]

Married [ ]

Divorced [ ]

Separated [ ]

Widowed [ ]

5. *Number of years managing the business*

Less than 1 year [ ]

1-3 years [ ]

3-5 years [ ]

5-7 years [ ]

More than 7 years [ ]

6. *Type of Business Ownership*

Sole [ ]

Partnership [ ]

Company [ ]

Others, please specify………………….

7. *Business Sector*

Manufacturing [ ]

Construction [ ]

Service [ ]

Trade [ ]

Agriculture [ ]

Others, please specify……………………

8. *Number of Employees*

1-6 [ ]

7-30 [ ]

30+ [ ]

9. *Size of business in terms of sales per year (Ghana Cedi, GH₵)*

Less than GH₵10,000 [ ]

GH₵10,000-GH₵20,000 [ ]

GH₵20,000-GH₵50,000 [ ]

GH₵50,000-GH₵100,000 [ ]

Greater than GH₵100,000 [ ]

10. *Age of Business*

Less than 1 year [ ]

1-3 years [ ]

3-5 years [ ]

5-7 years [ ]

Greater than 7 years [ ]

SECTION B: FINANCIAL LITERACY LEVEL

The following statements describe the dimensions of financial literacy expected from owner-managers of SMEs. The variables are measured using a Likert scale showing seven response categories starting from a scale of 1 to 5: (5) Strongly Disagree (SD), (4) Disagree (D), (3) Neutral (N), (2) Agree (A), (1) Strongly Agree (SA).

65

No.	Statement	SD	D	N	A	SA
	Financial Knowledge					
11.	I understand basic financial concepts	1	2	3	4	5
12.	I prepare monthly company financial statements (income statement and balance sheet)	1	2	3	4	5
13.	I review monthly financial statements and conduct financial analysis	1	2	3	4	5
14.	I have an understanding of the company's gross profit ratio and its contribution to the overall profit	1	2	3	4	5
	Financial Awareness					
15.	I am capable of understanding and handling inventory	1	2	3	4	5
16.	I am aware of the important of working capital	1	2	3	4	5
17.	I am aware of the need to maintain existing assets	1	2	3	4	5
18.	I am aware of the important of maintain a sound cash flow	1	2	3	4	5
	Financial Attitudes					
19.	I find it more satisfying to spend money than to save it for the long term	1	2	3	4	5
20.	I tend to live for today and let tomorrow take care of itself	1	2	3	4	5
21.	I am prepared to risk some of my own money when saving or making investments	1	2	3	4	5
22.	I have a tendency to initiate and act proactively	1	2	3	4	5

SECTION C: SME PERFORMANCE

The following statements explain SMEs' thoughts on how their businesses are performing. Kindly tick your position on the issues.

No	Statement	SD	D	N	A	SA
23.	I have new abilities to create more profit for this business	1	2	3	4	5

66

24.	My business has gown with my ability to identify new opportunities	1	2	3	4	5
25.	This firm has improved quality of her product/service to my satisfaction	1	2	3	4	5
26.	There is improvement in sales performance of this business.	1	2	3	4	5

SECTION D: FINANCIAL ACCESS (CONTROL VARIABLE)

The following statements depicts SME access to external finances from financial and non-financial institutions. Kindly tick your position on the issues.

No	Statement	SD	D	N	A	SA
27.	The loan products offered us are needed	1	2	3	4	5
28.	The terms and conditions of bank loans are in our favour	1	2	3	4	5
29.	Savings products offered by banks are safe for our businesses	1	2	3	4	5
30.	We have formal insurance for our businesses	1	2	3	4	5
31.	We prefer to make loans in cooperatives rather than in banks	1	2	3	4	5

God bless you abundantly!

Appendix B: Outer Loadings without Item Elimination

Constructs	Items	Factor Loadings	Cronbach Alpha	Composite Reliability	AVE
Financial Knowledge	FK1	0.874	0.832	0.891	0.676
	FK2	0.901			
	FK3	0.873			
	FK4	0.604			
Financial Awareness	FA1	0.887	0.586	0.779	0.575
	FA2	0.870			
	FA3	-0.166			
	FA4	0.856			
Financial Attitudes	FAT1	0.851	0.694	0.808	0.531
	FAT2	0.817			
	FAT3	0.765			
	FAT4	0.381			
Access to Finance	AF1	0.886	0.451	0.481	0.319
	AF2	-0.195			
	AF3	0.863			
	AF4	0.141			
	AF5	0.080			
SME Performance	FP1	0.750	0.730	0.831	0.553
	FP2	0.751			
	FP3	0.801			
	FP4	0.667			

Source: Field data (2023)

Appendix C: Cross Loadings without Item Elimination

Items	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
AF1	**0.886**	0.454	0.437	0.261	0.432
AF2	**-0.195**	-0.159	-0.191	-0.212	-0.130
AF3	**0.863**	0.411	0.345	0.252	0.364
AF4	**0.141**	0.099	0.076	0.066	0.060
AF5	**0.080**	0.034	0.032	-0.069	0.014
FA1	0.377	0.534	**0.887**	0.653	0.556
FA2	0.397	0.513	**0.870**	0.559	0.554
FA3	0.013	-0.040	**-0.166**	-0.103	-0.049
FA4	0.456	0.567	**0.856**	0.642	0.617
FAT1	0.482	**0.851**	0.567	0.502	0.553
FAT2	0.296	**0.817**	0.443	0.487	0.445
FAT3	0.378	**0.765**	0.497	0.385	0.348
FAT4	0.365	**0.381**	0.212	0.166	0.182
FK1	0.236	0.459	0.589	**0.874**	0.516
FK2	0.310	0.522	0.697	**0.901**	0.599
FK3	0.239	0.526	0.631	**0.873**	0.568
FK4	0.281	0.310	0.371	**0.604**	0.390
FP1	0.373	0.367	0.477	0.484	**0.750**
FP2	0.353	0.424	0.478	0.440	**0.751**
FP3	0.384	0.493	0.545	0.561	**0.801**
FP4	0.262	0.380	0.462	0.398	**0.667**

Source: Author, 2022

Appendix D: Fornell-Larcker Criterion without Item Elimination

Constructs	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
Access to Finance	0.565				
Financial Attitudes	0.509	0.729			
Financial Awareness	0.470	0.618	0.759		
Financial Knowledge	0.321	0.563	0.711	0.822	
SME Performance	0.465	0.562	0.661	0.638	0.744

Source: Field data (2023)

Appendix E: Heterotrait-Monotrait Ratio without Item Elimination

Constructs	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
Access to Finance					
Financial Attitudes	0.730				
Financial Awareness	0.692	0.819			
Financial Knowledge	0.492	0.695	0.862		
SME Performance	0.604	0.740	0.845	0.809	

Source: Field data (2023)

Appendix F: Outer VIF without Item Elimination

Items	VIF
AF1	1.557
AF2	1.009
AF3	1.577
AF4	1.724
AF5	1.710
FA1	2.327
FA2	2.152
FA3	1.019
FA4	1.753
FAT1	1.586
FAT2	1.623
FAT3	1.577
FAT4	1.128
FK1	2.732
FK2	2.685
FK3	2.466
FK4	1.264
FP1	1.661
FP2	1.612
FP3	1.712
FP4	1.492

Source: Field data (2023)

Appendix G: Outer Weights with Item Elimination

Items	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
AF1	0.591				
AF2	-0.178				
AF3	0.497				
AF4	0.081				
AF5	0.020				
FA1			0.368		
FA2			0.367		
FA3			-0.033		
FA4			0.409		
FAT1		0.472			
FAT2		0.381			
FAT3		0.298			
FAT4		0.155			
FK1				0.300	
FK2				0.348	
FK3				0.330	
FK4				0.227	
FP1					0.334
FP2					0.326
FP3					0.386
FP4					0.293

Source: Field data (2023)

71

Appendix H: Outer Weights without Item Elimination

Items	Access to Finance	Financial Attitudes	Financial Awareness	Financial Knowledge	SME Performance
AF1	0.600				
AF3	0.519				
FA1			0.371		
FA2			0.361		
FA4			0.416		
FAT1		0.504			
FAT2		0.399			
FAT3		0.305			
FK1				0.342	
FK2				0.387	
FK3				0.379	
FP1					0.403
FP2					0.392
FP3					0.460

Source: Field data (2023)

72
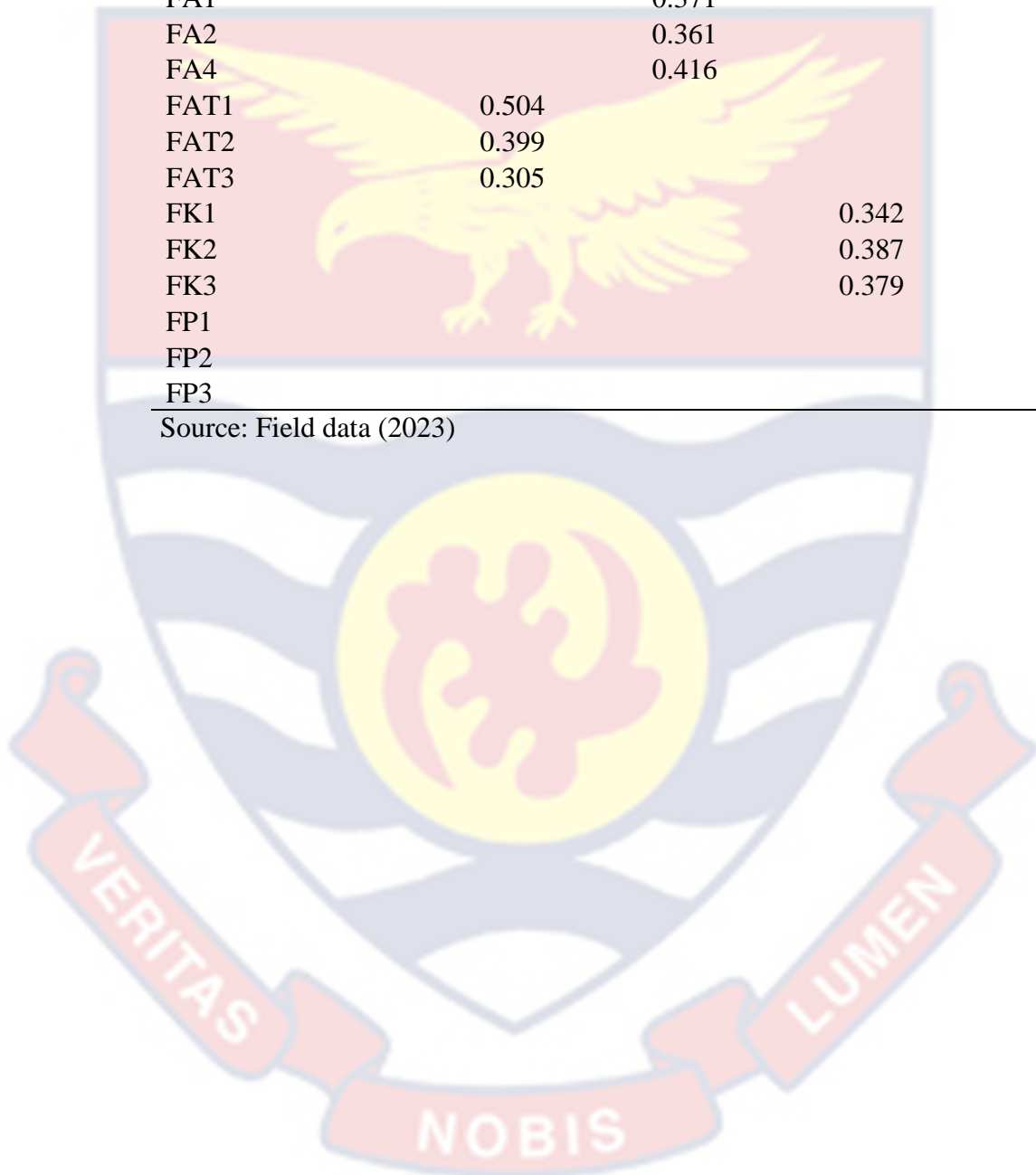
Appendix I. Krejcie and Morgan (1970) Sample Size Determination Table

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size   Source: Krejcie & Morgan, 1970