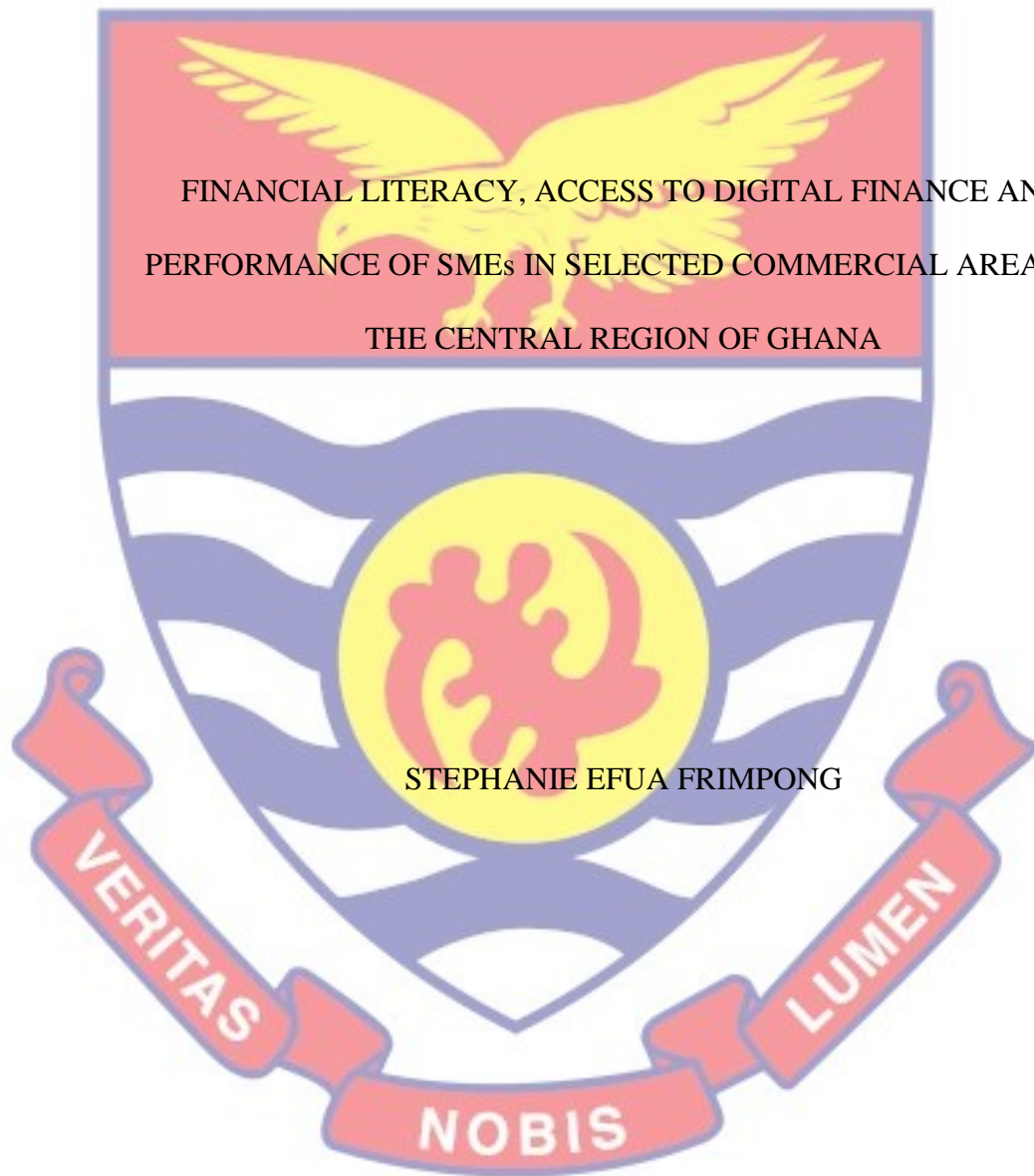


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FINANCIAL LITERACY, ACCESS TO DIGITAL FINANCE AND  
PERFORMANCE OF SMES IN SELECTED COMMERCIAL AREAS IN  
THE CENTRAL REGION OF GHANA

BY  
STEPHANIE EFUA FRIMPONG

A thesis submitted to the Department of Finance of the School of Business,  
College of Humanity and Legal Studies, University of Cape Coast, in partial  
fulfilment of the requirement for the award of Master of Commerce degree in  
Finance

APRIL, 2022

## DECLARATION

### Candidate's Declaration

This thesis is an original research result of mine and no part of it has been submitted for another degree at the institution or elsewhere.

Signature of the Candidate: ..... Date.....

Name: Stephanie Efua Frimpong

### Supervisor's Declaration

I hereby declare that the preparation and presentation of this thesis was supervised in accordance with the University of Cape Coast's thesis supervision criteria.

Supervisor's Signature..... Date .....

Name: Professor Daniel Agyapong.



## ABSTRACT

The study assessed the relationship between financial literacy, digital finance and SMEs' performance in commercial areas of the Central Region. The specific objectives were to analyse the level of knowledge and use of digital platforms by SMEs; assess the relationships between financial literacy and access to digital finance; assess to digital finance and performance of SMEs. It was also to analyse the mediating effect of access to digital finance on the relationship between financial literacy and performance of SMEs. Using a quantitative research approach data was gathered from 400 SMEs in Cape Coast, Mankessim, Assin Fosu, Agona Swedru and Kasoa. Self-administered questionnaires were shared and a purposive sampling technique was employed. Using SPSS to test descriptive statistics, results from objective one indicates that, managers of SMEs in the study areas have more knowledge and utilize Mobile Money more than any of the country's digital platforms. The relationships between financial literacy, access to digital finance and SMEs' performance were assessed using PLS-SEM. Financial literacy was found to have a positive and significant impact on access to digital finance and access to digital finance also had a positive and significant impact on performance. Lastly access to digital finance partially mediates the relationship between financial literacy and SMEs' performance. This means, access to digital finance is just as important as having financial knowledge in terms of improving performance, therefore using digital platforms to trade would enhance firm performance. Digital trading platform providers should enhance their advertising and focus on making their platforms easy to use for the average consumer.

**KEYWORDS**

Access to Digital Finance

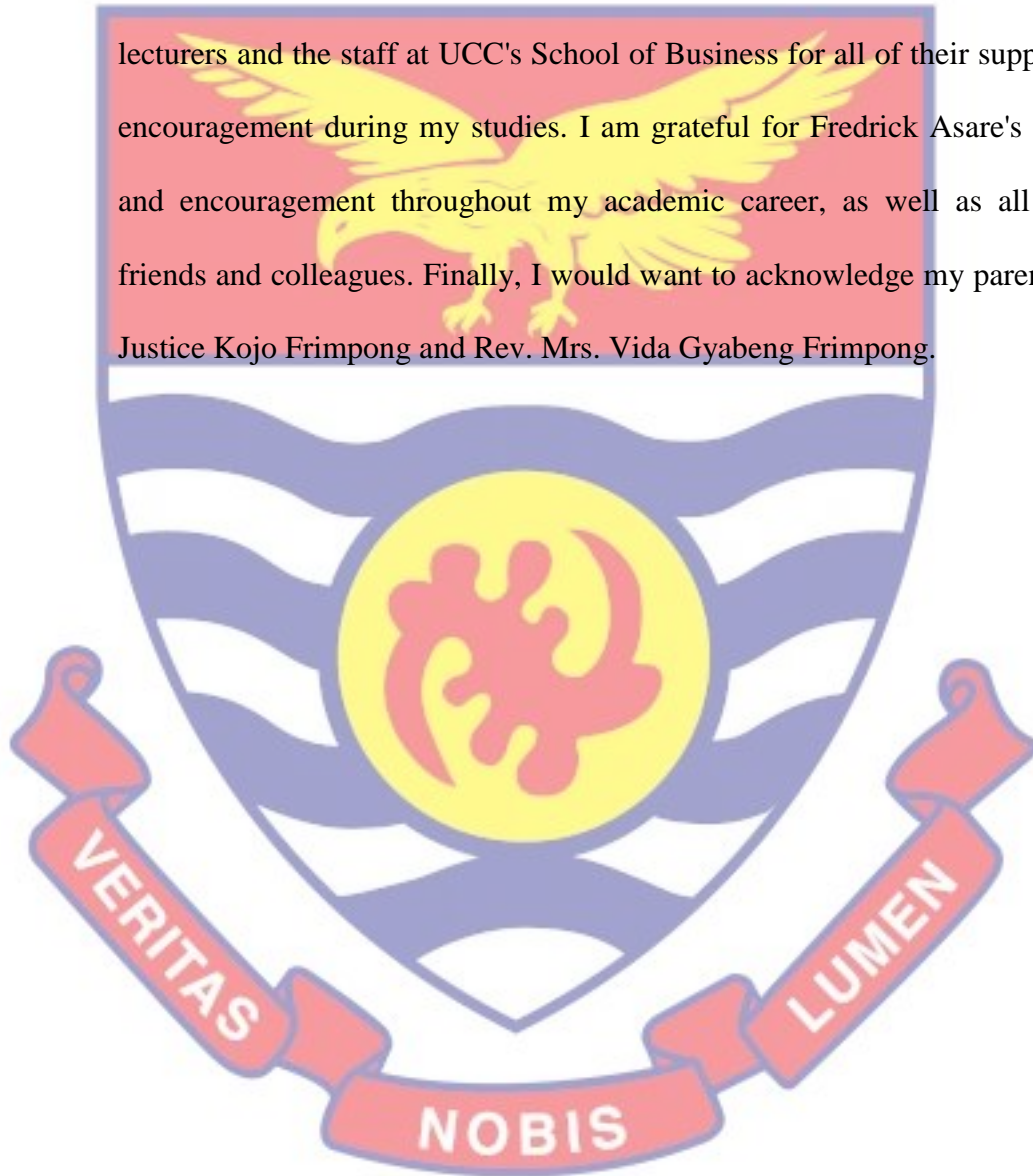
Financial Literacy

Performance of Small Medium Enterprises



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## DEDICATION

To my parents and siblings



## TABLE OF CONTENTS

Contents	Page
DECLARATION	ii
ABSTRACT	iii
KEYWORDS	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xi
LIST OF FIGURES	xii
LIST OF ACRONYMS	xiii
<b>CHAPTER ONE: INTRODUCTION</b>	
Background to the Study	1
Statement of the Problem	9
Purpose of the Study	12
Research Objectives	12
Research Hypotheses	12
Significance of the Study	12
Delimitation	13
Limitations	13
Definition of Terms	14
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
Introduction	15
Overview of SMEs in Ghana	15
Resource-Based Theory	16



Evolutionary Theory of Economic Changes	19
Conceptual Review	21
Financial Literacy and Access to Digital Finance	28
Access to Digital Finance and Performance of SMEs	29
Financial Literacy, Access to Digital Finance and Performance of SMEs	30
Research Gaps	32
Conceptual Framework	33
Chapter Summary	35
<b>CHAPTER THREE: RESEARCH METHODS</b>	
Introduction	36
Research Paradigm	36
Research Approach	36
Research Design	37
Study Area	38
Population	38
Sample and Sampling Procedure	38
Data Collection Instrument	39
Pre-Testing	40
Data Collection Procedure	41
Data Processing and Analysis	41
Structural Equation Modelling	42
Mediating Procedures in SEM	44
Validity and Reliability of the Model	45
Internal Consistency Reliability	45
Convergent Validity	46

Discriminant Validity	46
Assessment of the Structural Model	46
Ethical Consideration	48
Chapter Summary	48

#### CHAPTER FOUR: RESULTS AND DISCUSSION

Introduction	49
Demographic Characteristics	49
Knowledge and Frequency of Use of Digital Platforms	51
Assessment of the PLS-SEM	55
Specifying the Structural and Measurement Model	55
SEM For Dependent and Independent Variables	56
Assessment of Measurement Models for the Study	57
Assessing Internal Consistency Reliability	57
Assessing Discriminant Validity	58
Assessing Indicator Loadings	60
Assessing the Structural Model	61
Assessing Coefficient of Determination and Predictive Relevance	62
Financial Literacy, Access to Digital Finance and Performance of SMEs	63
Mediating Role of Access to Digital Finance on Financial Literacy and Performance of Small and Medium Enterprises	65
Chapter Summary	69

#### CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction	70
Summary	70

Key Findings	71
Conclusions	72
Recommendations	72
Further Research Suggestions	73
REFERENCES	75
APPENDICES	88



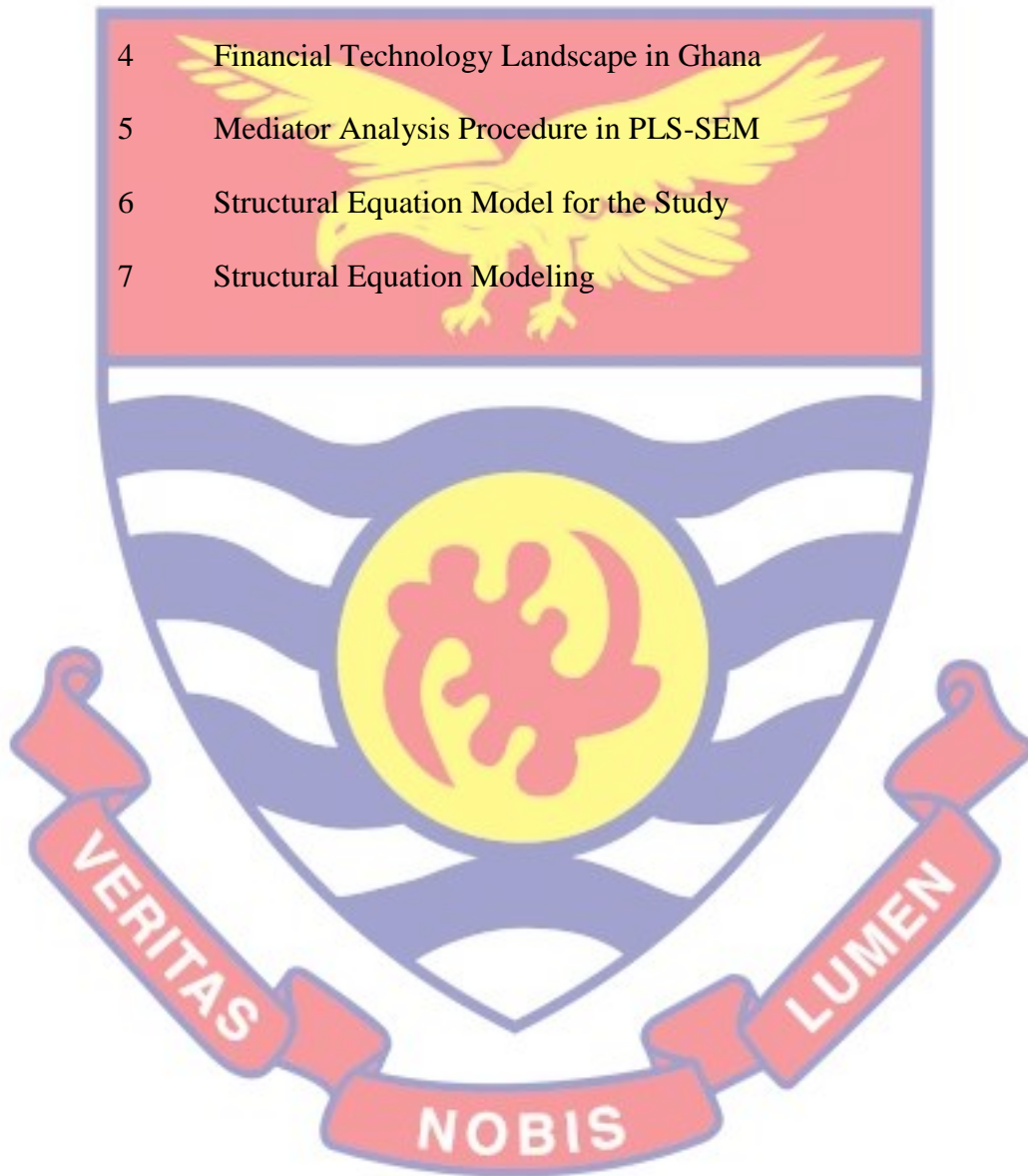
**LIST OF TABLES**

Table	Page
1 Level of Knowledge on of Digital Platforms by Managers of SMEs	51
2 Frequency of use of Digital Platforms by Managers of SMEs	53
3 Validity and Reliability	58
4 Fornell-Lacker Criterion	59
5 Cross Loading of Variables	60
6 Collinearity amongst Constructs	61
7 Coefficient of Determination and Predictive Relevance Table	62
8 Path Estimation Results for Financial Literacy and Access to Digital Finance	63
9 Path Estimation Result of Access to Digital Finance and Performance of SMEs	64
10 Total Mediating Effect	66
11 Coefficient of Determination and Relevance Model on Dependent Variable	67
12 Indirect Relationship	67



## LIST OF FIGURES

Figure		Page
1	Number of Mobile Money Service Per Country	5
2	Conceptual Framework	33
3	Net additions to registered accounts	22
4	Financial Technology Landscape in Ghana	25
5	Mediator Analysis Procedure in PLS-SEM	45
6	Structural Equation Model for the Study	56
7	Structural Equation Modeling	57



## LIST OF ACRONYMS

GSMA	Groupe Speciale Mobile Association
PLS	Partial Least Square
PLS-SEM	Partial Lease Square-Structural Equation Modelling
SEM	Structural Equation Mode
SMEs	Small Medium Enterprises
SPSS	Statistical Package for Social Science



## CHAPTER ONE

### INTRODUCTION

Small businesses are becoming increasingly important in Ghana and they contribute considerably to the country's economy. They are recognized for, among other things, creating jobs, aiding with company developments and earning revenue. As a result, Ghana's economy is unquestionably one of the most productive economies in West Africa (International Trade Centre [ITC], 2019). According to recent studies on the performance of small businesses in Ghana, despite their important contributions to the economy, these firms face severe challenges that hinder their development and success (ITC, 2019; Rural Enterprises Program [REP], 2017).

Because the firms are considered high-risk, it is difficult to obtain funding. As a result, many businesses find it difficult to acquire funding due to high loan rates, collateral requirements and complicated processes. Poor management processes, lack of technology, lack of institutional capacity, lack of management skills and training and a slew of other problems afflict these small businesses (REP, 2017). With so much emphasis on digitization in recent financial developments, it's critical to grasp how digitally acquiring funds may assist SMEs to improve their performance while decreasing their financing acquisition expenses. The research focused on Agona Swedru, Kasoa, Assin Fosu, Mankessim and Cape Coast, five significant commercial towns in Ghana's central region.

#### **Background to the Study**

Businesses are truly interested in improving their performances. With this, it is critical to understand and track performance in a continuously

changing environment. As a result, academics and practice managers are debating how to assess business success in the current economic climate. Researchers have spent a lot of effort attempting to figure out how to assess a business's performance in numerous ways. Small and medium-sized enterprises are seen as important to a country's economic development (Jevwegaga, *et al.*, 2018). Due to this, their performance is seen as the ultimate indicator of their success. This could be empirically and theoretically supported (Roxas, Ashill, & Chadee, 2015). Governments, academics and practitioners are all interested in a firm's performance because it is such an essential part of any corporation (Hashim, Raza, & Minai, 2018).

Various empirical studies based on the Resource-Based Theory have revealed that financial literacy and access to finance are crucial for business performance (Agyapong & Attram, 2019; Gathungu & Sabana, 2018). The Resource-Based Theory provides a framework for identifying which strategic resources a firm may employ to obtain a sustainable competitive advantage leading to performance. Some of these resources accessible are financial, legal, human, organizational, informational and relational. According to the resource-based approach, improving capabilities and resources results in a long-term competitive advantage and performance. Also, in the theory, a firm cannot function effectively if it has limited access to necessary resources. The bulk of these resources, such as human, legal and other resources, can only be obtained with adequate funding (Eniola, Entebang, & Law, 2016). As a result, one of the most pressing challenges facing small businesses is financial resources, which if not available, can stifle their growth and performance.



Financial literacy has become more important in both emerging and developed economies because it has a substantial impact on financial decisions (Hussain, Salia, & Karim, 2019). The way a company distributes, spends and manages its cash, according to Agyapong and Attram (2019), is crucial to its performance. This means that a firm's financial resources must be allocated, utilized and managed properly and efficiently by its management. A manager's knowledge acquisition has been a matter of debate all over the world. Although other empirical evidence showed the reverse, many scholars think that business owners and managers must have some level of financial expertise or a good educational background to enable managers to make more efficient and effective use of limited resources by establishing efficient and effective financial management systems (Agyapong, & Attram, 2019; Hussain, Salia, & Karim, 2019; Amerteifio & Agbeblewu, 2017; Agbenyo, 2015; Prempeh, 2015).

According to Hussain, Salia and Karim (2019), financial literacy may help managers to be more inventive in their use of credit and debt, budgeting, cash acquisition and timely resource acquisition, among other things. Hussain *et al.* (2019) went on to state that better financial literacy is needed so that managers and/owners of firms can offer relevant and timely financial data to enhance capital acquisition. According to a study released by the ITC report, some financial institutions that help SMEs may earn returns on equity of 15% to 30%. These returns can be achieved by financial institutions that can reduce operating costs through innovative distribution models, gain a better understanding of SMEs through innovative credit risk scoring mechanisms

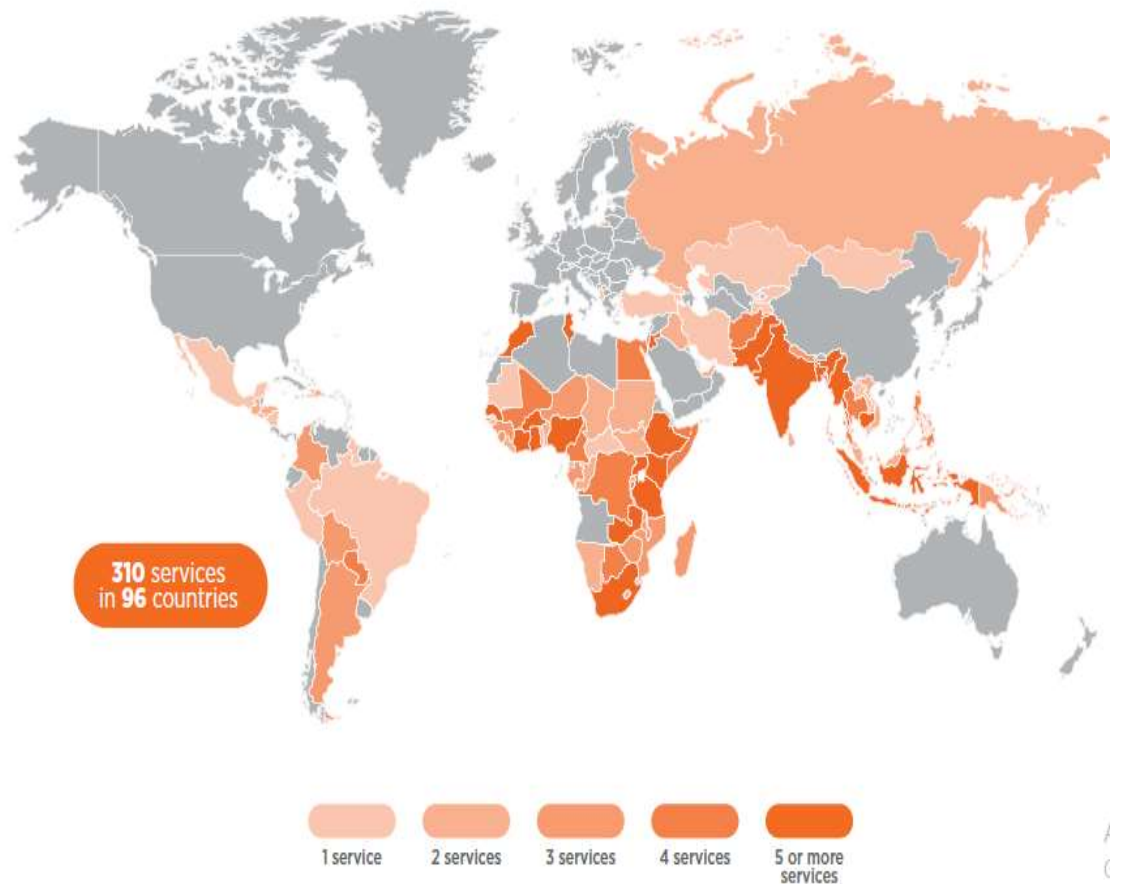
(such as aptitude testing) and assist their SME clients in achieving success through financial literacy and business training.

In the aforementioned ITC study, the need for financial literacy is highlighted as one required by a manager of an SME. Despite the importance of financial literacy for managers, one aspect of literacy that should be investigated is the application of knowledge to the usage of digital financial platforms. Digitization has become a major emphasis in the economy and an understanding of key aspects of it has become essential. By providing individuals, small, medium and large businesses with simple access to a wide range of financial goods and services, digital finance has the potential to improve GDP in digitized and also improve economic stability and financial intermediation for both clients and the economy (Ozili, 2018).

According to a study by Andersson-Manjang and Naghavi (2021), the most significant obstacle to enterprises and individuals accessing digital financial services is the lack of account ownership with a recognized financial institution. Universal access to financial services has never been more important in this setting. There was plenty of evidence of the advantages of digital financial services, such as increased financial inclusion and faster GDP development. Mobile money was considerably more accessible than any other sort of digital financial service (including app-based platforms), especially outside of urban centres, when compared to all other digital platforms. Mobile money is now available in most places where financial services are limited, with 310 active services in 96 countries (see Figure 1).

Figure 1

Number of mobile money services per country, 2020



*Figure 1: Number of Mobile Money Service Per Country*  
Source: State of the Industry Report on Mobile Money (2021)

Andersson-Manjang and Naghavi (2021) reported that the number of registered mobile money accounts worldwide increased by 12.7% in 2020, with over 136 million new accounts acquired in only one year. This increase was twice as fast as projected, exceeding the previous year's prediction by 6.4 percentage points, bringing the total number of registered accounts to 1.21 billion worldwide. This impressive acceptance, according to the same report, was attributed to regulators creating more flexible Know Your Customer processes and simplified onboarding regulations, in addition to a change in consumer behaviour.

In comparison to other digital platforms, understanding Mobile Money has not proven to be a significant barrier for its users (GSMA, 2015). Agents, rather than Automated Teller Machines (ATM), banks, or other financial institutions, are the physical backbone and face of Mobile Money, digitizing and disbursing cash, accounting for more than 90.5% of the cash-in and cash-out footprint. Agent commissions account for 54.4% of the top 10 providers' income, making it a major expense of doing business. The financial inclusion landscape is being reshaped by mobile money (GSMA, 2015). In 2015, 37 markets had ten times as many registered agents as bank branches, while registered client accounts globally rose by 31% to 411 million (GSMA, 2015).

Mobile money providers handled slightly over a billion transactions in December 2015, which is more than double the number processed by other platforms. According to the GSMA (2015), active mobile money customers completed an average of 11.2 transactions per month and have a median account balance of US\$ 4.70, both of which are up from 2014 and the bulk of them are assisted by Mobile Money agents. Not all digital services require considerable knowledge before usage. When utilizing Mobile Money, for example, one may transact business without needing to be conversant with the system because an agent is ready to help. Using this logic, we can show that a large number of individuals, including corporate customers, have access to digital platforms (Andersson-Manjang, & Naghavi, 2021).

Mobile Money Transfer is the most used digital platform in Ghana (Airtel Tigo Cash, Vodafone Cash, MTN MOMO) (National Communications Authority, 2015). In 2015, Ghana had a mobile data penetration rate of about 65%, with the youth (around 57%) dominating the population and doing

almost everything with their phones (National Communications Authority, 2015). There were 2,153,079 mobile data (4G) subscribers in November 2019. There were 26,661,592 2G/3G mobile data subscribers over the same period, indicating an 88.49% penetration rate (National Communications Authority, 2019). This way of sending, receiving and making payments has become the most popular among individuals, households and enterprises because of its convenience and quickness.

In Ghana, the Cell Money application is used by almost all mobile networks (Ministry of Finance, 2018). The ministry reported that cell money application is now the largest digital payment and receipts platform in the country. That is with 3, 16,919 licensed agents, MOMO accounts totalled GHS 29.99 million in 2018. In 2017, 981.84 billion transactions were totalling GHS 155.84 billion (US\$35.29 billion). In the year 2018, a total transaction volume of GHS 104.6 billion and a total transaction value of GHS 655.0 million were recorded in the first half. While some financial decisions can be made based on experience, age and other factors, others, such as where to raise funds, how to raise funds and what to do with funds to achieve the best results, are more complex and require financial literacy. Financial literacy is defined as the knowledge, awareness, skills and attitude toward proper financial management to achieve performance outcomes (Hussain, Salia, & Karim, 2019).

In terms of consumer preferences for digital payments, Direct Credit (the electronic transfer or deposit of money by a payer straight into a payee's bank account) and debit cards come in second and third, respectively (Ministry of Finance, 2017). When compared to other payment streams in 2017, Direct

Credit transactions were fairly strong (6.1 million by volume and GH24.3 billion by value), while debit cards were also quite robust (60.4 million transactions valued at GH17.8 billion). Despite the continued use of cash and checks, Ghana is following global trends and increasing its use of digital financial services. Appendix 3 reveals that towards the end of 2016, the number of registered users of online banking had increased by 14% over 2015, while transactions had increased tripled.

Data from 2017 shows a 43.7 percent increase in value over 2016. Meanwhile, mobile banking users increased by 50%, while transactions increased by 25%. It's worth noting that, although business payments drive most online banking transactions, retail payments made by consumers drive most mobile banking transactions. Over the two-year period 2015–2017, other electronic payments (such as debit cards, credit cards, and e-zwich) saw a growth in both number and value of transactions. As various banks and fin-techs launch marketing initiatives to encourage awareness and usage of their digital payment systems, growth is projected to continue. Furthermore, several official announcements encouraging the usage of digital payments are expected to influence the public's mentality and behaviour when it comes to making payments (Ministry of Finance, 2017).

The capacity of managers to adapt to computerized financial systems is very important in today's world (Agyapong & Attram, 2019). With so much attention on financial literacy among small business owners, it's critical to evaluate how financial digitization is impacting access to capital and how this can enhance the impact of financial literacy on small business performance. In today's culture, whether or not a manager's adaptation to digital systems can

enhance their knowledge and abilities to offer greater performance is critical and this necessitates a great deal of attention.

Previous studies have linked poor management systems, technical underdevelopment, a lack of corporate strategy, access to financing, higher taxes, low demand/sales and financial literacy to these performance setbacks (ITC, 2016; Asare, Amankwah, & Ankoma, 2019; Agbenyo, 2016; Boah, 2018). These and other studies mostly focused on financial literacy and capital access with little highlight on the need for SMEs to enhance their financial systems to keep up with the current financial development, which is based on digitization. Most activities, including trade, are now digital in today's society, which is moving toward cashless systems. In their desire for financial knowledge, small businesses must accept these developments.

#### **Statement of the Problem**

Ghana's informal sector, which is dominated by small businesses, employs around 70% of the country's workers (Rural Enterprise Program, 2017). Small and Medium-sized Enterprises (SMEs) play an essential role in the development of Ghana's rural economy by providing money for family support and supporting education for children and students across the country. According to research conducted by the ITC (2019), boosting SMEs can help achieve the Sustainable Development Goals (SDGs) through influencing people, corporate practices, sectors and the national economy.

SMEs in developing countries make a substantial contribution to the economy and society, but they are confronted with various challenges (ITC, 2019). Some of these challenges are access to finance, lack of technology, high transaction costs, high default risk in comparison to larger competitors,

interest rate caps, low-quality credit, bureau information, lack of suitable collateral and poor management according to the ITC. In addition, poor management, lack of cash, lower volume per customer and lack of adequate SME insurance, according to the Rural Enterprise Programme (2017), prevent SMEs from developing and functioning successfully. Enterprises collapse when firm performance is substantially harmed, unemployment grows and children who rely on their parents who work in such businesses suffer greatly.

In an attempt to solve these performance setbacks, numerous studies have been conducted to arrive at factors that could positively influence the performance of these businesses. Some of these factors are financial literacy, training and workshops, access to funds, good corporate governance, venture capital etc., (Tuffour, Amoako, & Amartey, 2020; Agyapong & Attram, 2019; Salia & Karim, 2019; Gathungu & Sabana, 2018; Hussain, Mabula, & Ping, 2018). Even though some of these aforementioned studies focused on financial literacy which could lead to possible access to funds, they overlooked the significance of digitization which could possibly lead to an increase in the acquisition of funds by the business through, online savings, online trading, internet banking where loans could be acquired easily by using online.

Financial literacy now extends beyond the preparation and presentation of financial statements and valuation of business for fund seeking, given the current status of the financial world (Gomber, Koch, & Siering, 2017). Manager's capacity to enhance access to funds through digitization has gotten less attention in research on financial literacy, access to finance and business performance. For the purpose of this study, inclusion of access to digital



finance as a mediating variable is motivated by the current financial and economic development which focuses on digitisation.

There are a lot of studies on how important a digitalized system is for economies and how it helps companies perform better financially (Agyapong, 2020; Ozili, 2018; Gomber, Koch, & Siering, 2017). To explain the effects of technology, particularly the digital economy, on economic growth and development, Myovella, Karacuka and Haucap (2020) offered an innovation-based theory of economic development. Firms must understand that by allowing all types of permitted digital systems access, they may be able to attract more clients, resulting in increased cash flow.

From the perspectives of Ghana and also for SMEs, there is currently no available literature on the relationships between financial literacy, access to digital finance and performance of SMEs and how digital finance mediates the relationship between financial literacy and SMEs' performance. Agona Swedru, Kasoa, Assin Fosu, Mankessim, Cape Coast, Dunkwa On-Offin, Twiffo Praso and Jukwa are all heavily commercialized towns in Ghana's Central Region (Boadi-Kusi, Kyei, Asare, Owusu-Ansah, Awuah, & Darko-Takyi, 2016). These communities are well-known for their contributions to regional economic data. Based on this context, the researcher looked at how digital access to finance mediate the relationship between financial literacy and SME performance in selected commercial towns in Ghana's Central Region, such as Agona Swedru, Kasoa, Mankessim, Cape Coast and Assin Fosu.

### **Purpose of the Study**

The study examined the mediating effect of access to digital finance on the relationship between financial literacy and the performance of SMEs in the Commercial areas in the Central Region of Ghana.

### **Research Objectives**

The objectives of the study were to:

1. Assess the level of knowledge and frequency of use of digital platforms by managers of SMEs in Agona Swedru, Kasoa, Mankessim, Cape Coast and Assin Fosu.
2. Examine the relationship between financial literacy and access to digital finance and the performance of SMEs in these areas.
3. Examine the role of access to digital finance in mediating the relationship between financial literacy and SMEs' performance.

### **Research Hypotheses**

- H1. There is a positive relationship between financial literacy and access to digital finance in these areas.
- H2. There is a positive relationship between access to digital finance and performance of SMEs in these areas.
- H3. There is a mediating effect of access to digital finance on the relationship between financial literacy and performance of SMEs in the Commercial areas in the Central Region of Ghana.

### **Significance of the Study**

The study is useful to SMEs in the commercial areas in the Central Region of Ghana. The outcome the study is expected to inform managers of SMEs the need to enhance their financial literacy to fulfil current financial

demands and make more informed financial decision to help their business performance. It will also give them insight into the benefit of trading with various digital platforms accessible in the country to enhance the performance of their businesses. Policymakers such as the government, regulators of digital financial services, the Ministry of Trade and Industries and other lawful policymakers will establish legislation to accommodate different legal forms of digital financial services to boost the performance of SMEs. The research will also add to the body of knowledge by highlighting the significance of digitized finance in the relationship between financial literacy and SMEs' success in Ghana.

#### **Delimitation**

The study focused on the relationship between financial literacy, access to digital finance and performance of SMEs. The study areas were five selected commercial towns in the central region of Ghana namely Agona Swedru, Kasoa, Cape Coast, Mankessim and Assin Fosu. The sole performance indicator considered in this study was financial performance. Participants include managers and/or owners of SMEs from these selected towns. The research employed quantitative techniques to perform its analysis by distributing questionnaires.

#### **Limitations**

To avoid bias responses by some respondents due to social desirability, the objectives of the study were clearly explained to them. This was to encourage honesty in giving responses. A cross-sectional survey was used to gather data for the study. However, the longitudinal study methodology could

have revealed a more accurate measurement of these organizations' performance.

### **Definition of Terms**

Financial Literacy - the ability to prepare, present good and acceptable financial statements, keep up with new financial developments (a digitized form of trade), proper allocation of financial resources and also be able to invest in both long and short-term assets.

Access to Digital Finance - the ability of a firm to include in its trading, digital platforms for payments and receipts of cash, deposit and withdrawals of cash using mobile banking, etc.

Performance of SMEs - increased sales, lower expenses or lower cost of production, low employee turnover, shorter cash cycle.

### **Organisation of the Study**

This study is structured in five chapters. Chapter one comprised the background, problem statement, objectives, research questions, significance of the study and research limitations. Chapter two focused on the review of theoretical and empirical literature relevant to the subject matter. Chapter three explained the methodology employed to achieve the objectives. The presentation of findings and discussion is captured in chapter four. Chapter five presented the summary of the discussions, conclusions and recommendations.

## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

The chapter reviewed the theoretical and empirical literature on the relationship between financial literacy, access to digital finance and small business performance. The first part looked at both the theoretical, conceptual and empirical literature. Based on the theoretical and empirical review, a conceptual framework was developed for the study in the second part.

#### Overview of SMEs in Ghana

The number of employees employed by a firm is the most prevalent criterion used to define SMEs in Ghana. Small-scale businesses with fewer than ten (10) employees were classed as such by the Ghana Statistical Service in 2005, while medium-sized businesses with more than ten employees were classified as such. Kayanuala and Quartey (2000) used fixed asset value to calculate the size of a firm. Organizations like the Ghana Statistical Service and the National Board for Small Scale Industries define SMEs as firms with less than 30 employees. This information was supplied by Fuseni (2015).

According to the Ghana Statistical Service industrial census of 1987, micro-and small-scale enterprises employed up to nine people, medium-scale businesses employed 10 to 29 persons and large-scale businesses employed 30 or more (Fuseni, 2015). The National Board for Small Scale Industries defines Micro and Small Enterprises depending on the number of employees and the value of fixed assets. That is, micro companies employ fewer than five people and have fixed assets worth less than US\$10,000. Small companies, excluding

land and buildings, employ 6-29 people and have fixed assets of less than US\$100,000. Small enterprises are those with less than 29 employees.

SMEs are divided into three categories by Osei et al (1993). They include; Micro (< 6 employees, Very Small (employing 6 to 9 employees) and Small – between 10 and 29 staff. Teal (2002) used the definition provided by the Regional Project on Enterprise Development Ghana in his research. Firms were categorized as small businesses with fewer than five employees; small businesses with 5-29 employees; medium-sized business (30-99 employees); businesses with 100 or more employees were classified as large.

### **Theoretical Review**

The study was drawn on two theories. They are; the resource-based theory and the evolutionary theory of economic change.

### **Resource-Based Theory**

The resource-based theory was propounded by Wernerfelt, (1984). The theory argues that resources are the most important factors for improving firm performance and to stay highly competitive (Wernerfelt, 1984; Prahalad & Hamel, 1990; Barney, 1991). These resources include financial (liquid and illiquid), human (competencies), technology, marketing and physical resources. Combining these resources with organizational processes and characteristics the firm achieves corporate strategy (Andrews, Christensen, Guth, & Learned, 1965; Daft, 1983; Barney, 1991; Mata, Fuerst, & Barney, 1995).

These resources according to the Resource-Based Theory are the aspects of a firm that influence its profitability, progress and performance. Such resources, according to this theory, should be in high demand, scarce and

not easily reproducible (Dierickx & Cool, 1989; Barney, 2001). Digital finance in this modern world has become a new development. There have been constant reforms in the use of these digital platforms where usage has become very simple and fast to use. This has caused digitization to be in high demand among households and firms. Including digital finance in trading will bring more users (customers) to the business resulting in high sales of the firm's product.

Scarcity of a resource in this context may mean that operating with digital platforms to source funds should be dynamic (Dierickx & Cool, 1989; Barney, 2001). It should be used in a way that the business will solely benefit from and also suit its operations. For example, SMEs could have a digital platform where getting access to their products and prices would be very accessible to more customers. These platforms could also facilitate payments and delivery of their products. Lastly, digital platforms are easily reproducible. Where one access exhausts its life span, new forms could be developed with a better upgrade.

Resource-Based Theory explains that resources have a great impact on performance. Given that the human resources of the firm are financially literate, choosing, utilizing, managing and disposing of financial assets, would be done strategically (Agyapong & Attram, 2019). This will improve the performance of the business. Financial choice is one of the most significant decisions made by managers in the management of their firms. These decisions have a substantial impact on the profitability, growth and long-term survival of a firm.

The resource-based theory states that the possession, use and commitment of resources are strategically important for value creation. That is, internal resources (human resources) when fully used could help attract additional opportunities to create more value for the business (Minola & Cassia, 2012). Thus, training management to advance in their financial knowledge will be able to obtain access to digital funds, learn about their uses and how to acquire them, as well as the dangers connected with their acquisition.

The Resource-Based Theory also states that a firm will perform well when all required resources are available to such a firm. Financial resources enable organizations to get other forms of resources that are useful in their operations (Stacey, 2011). To clarify, obtaining skills in terms of technological upgrades and all areas of the business would be straightforward if the management of SMEs had sufficient financial resources. Accommodating low-cost digital platforms such as Mobile Money will increase sales. An increase in profit due to high sales would help in acquiring other resources that the business needs. The Firm's performance would also improve if all of these resources are obtained (Agyapong & Attram, 2019).

The Resource-Based theory literature has largely believed that a firm's performance is influenced by the proper combination of its resources and abilities. The Resource-Based Theory is a strategy for improving corporate performance by using available resources to gain or retain a competitive advantage over time. Businesses produce value through managing resources for customers to enjoy their offerings, according to the idea (Henard & McFadyen, 2012; Wernerfelt, 1984). According to this study, organizations



with access to digital finance may be able to match current economic trends. This will improve their efficiency and creditors who supply cash via digital ways, as well as consumers who do business via digitized methods, will benefit. Adoption of digital systems by SMEs will enhance their cash in hand if adequate measures are taken to account for all hazards (Stacy, 2011).

In contrast to Information-Based Theory, which focuses solely on the utilization of information as a critical resource to drive organizational performance, the resource-based approach defines resources as both tangibles and intangibles. One of the major drawbacks of the resource-based approach is that research studies tend to focus on economic capital (financial capital, physical capital) rather than human capital and organization (Ireland, Sirmon, & Trahms, 2012; Barney *et al.*, 2011). This is especially true when it comes to the application of intangible resources like knowledge (financial literacy with this study).

Because there have been few comprehensive studies of how specific knowledge resources, such as financial literacy, affect SMEs' long-term viability, this study added to the literature by focusing on financial literacy and access to digital finance, investigating the mechanisms by which financial literacy and access to digital finance can improve SMEs' performance.

### **Evolutionary Theory of Economic Changes**

The evolutionary theory of economic changes states that the economy is always in the process of change. This emphasized the need of seeking out innovative ways to improve company performance (Nelson, 2009). Adoption of digitized systems to trade indicates that you are innovative as a business. As the economy is always in the process of change, there is a need as a business

to also evolve around. The digitized form of trade is the new financial development and that SMEs should incorporate them in their operations. This will increase their customer base, increase their sales and eventually improve performance. This theory was utilized to explain the impact of digital finance on SME performance in this study.

The theory also states that successful development involves the co-evolution of technologies employed, firm and industry structure and broader economic institutions. Small businesses react to technology developments in a variety of ways. For example, SMEs with poor technological literacy rely on antiquated practices, whereas those with strong technological literacy put their knowledge to good use in dealing with technology developments (Ramsey, Ibbotson, & McCole, 2008). Furthermore, SMEs policy decisions are influenced by technological competence, which may limit their access to digital financial practices (Kapurubandara & Lawson, 2017). From this perspective, some internal characteristics, such as access to digital finance practices may be dependent on the evolution of technology by firms.

Strong digital finance practices would be crucial in making organizational decisions, especially when it comes to long-term planning and strategy implementation. Managers with a better level of technological literacy may set up and execute sophisticated organizational access to digital financial systems, which has a positive impact on strategic decision-making, cost reduction and operations, all of which contribute to the success of small businesses (Meidell & Kaarbe, 2017). As a result, having access to digital finance options would be advantageous.

## Conceptual Review

The concept of the study was to assess the relationship between the variables namely; financial literacy, access to digital finance and performance of SMEs. Based on literature review, the concepts of the variables in relation to the study are explained below

### Financial Literacy of SMEs

The current study highlights the important role of financial literacy which extends to digital literacy. Increasing the use of digital platforms such as Mobile Money, Mobile Banking, Internet Banking, Cryptocurrency and others in enterprises will promote knowledge accumulation. A study by Atakora (2013) on financial literacy among traders revealed that the level of financial literacy of traders increases as one matures in his or her field of work. However, his study did not relate the issue of getting access to digital finance to being financially literate. Agyapong and Attram (2019) in their study found a relatively low level of financial literacy among SMEs in the Cape Coast Metropolis.

Financial technology is used in different areas of the finance industry, including banking, insurance, capital markets, non-banking organizations and almost all payment settlement mediums (Agyapong, 2021). Even with all of this in place, a large portion of financial market activities still needs human document processing. Nonetheless, information technology has changed the character of financial service delivery in the country with the advent of digital financial commodities and procedures (Agyapong, 2021). The researcher was able to conclude that digital financial services are still underused, as evidenced

by the survey, but he was unable to report on how frequently these services were used in the country.

### Access to Digital Finance

As projected in the State of the Industry report on Mobile Money usage, Africa's registered accounts (MTN Vodafone, Tigo Airtel Zeepay, Paypal and others) surpassed the half-billion mark (Andersson-Manjang & Naghavi, 2021). Andersson-Manjang and Naghavi reported that Sub-Saharan Africa has been at the forefront of the mobile money market for more than a decade and it will continue to account for the majority of growth. In their study, Africa in 2020 had 548 million registered accounts, with over 150 million of them active every month. Even though West and East Africa had the greatest absolute growth rates, Southern Africa grew at the quickest pace of 24% year over year. Figure 2 shows how this works.

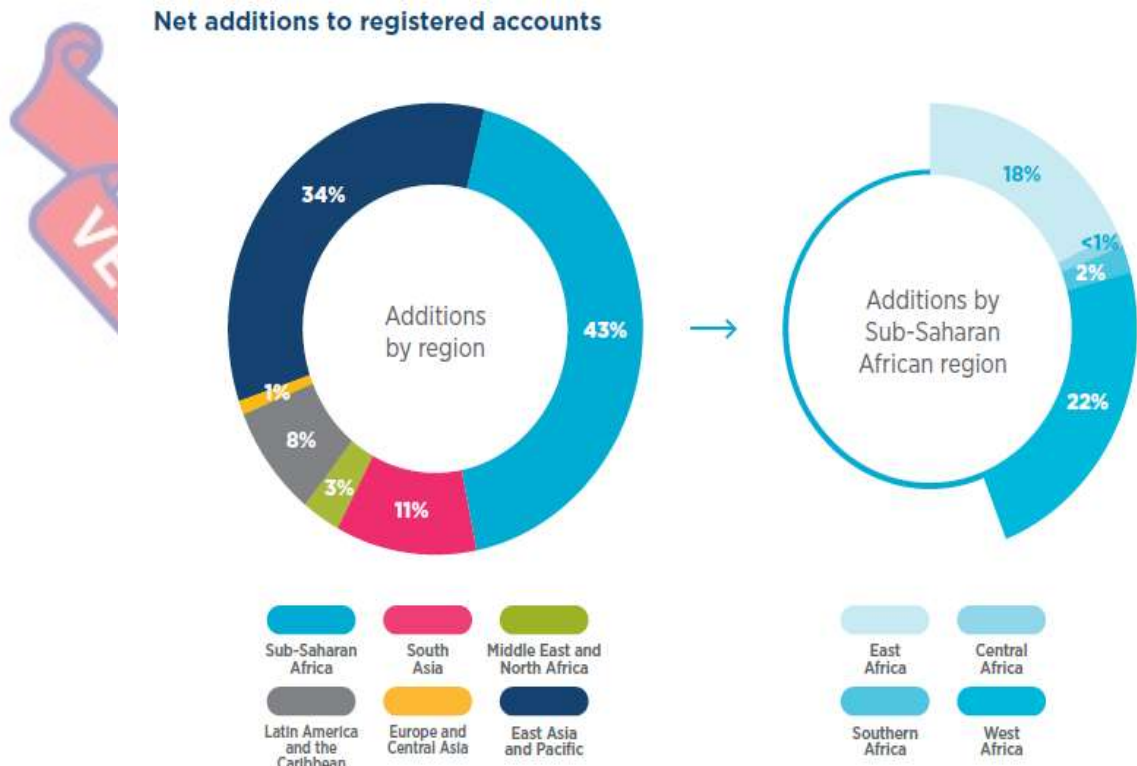


Figure 2: Net additions to registered accounts  
Source: State of Industry Report on Mobile Money, 2021

Individuals and residents in Ghana now have easy access to digital financial products thanks to government and Bank of Ghana initiatives (Ministry of Finance, 2017). The Ministry of Finance (MoF) presented the public with an update on the execution of digitization regulations and the necessary adjustments. According to the MoF report, Ghana has made significant progress in expanding digital access to financial services, but a huge portion of the country's population either lacks access to these services or is unable to use those that are available. Accelerating payment and receipt digitization is recommended because it will allow the Ghanaian government and citizens, including individuals and businesses, to benefit from many of the advantages of digitization (Ozili, 2018).

In 2017, the government of Ghana commissioned a diagnostic study with the Better than Cash Alliance, which found that the nation has "made tremendous progress in building the structure of an egalitarian digital payments ecosystem" (Ministry of Finance, 2017). The country's banking sector is well-developed, with a large number of non-bank financial organizations backing it up. The basis of the payments system includes a Real-Time Gross Settlement, an Automated Clearing House and a central payment switch. Users now have better access to traditional financial services thanks to the rising mobile money and fintech businesses, which are aided by increased internet connectivity.

All of this is governed by a tangle of laws, rules and regulations, some of which are currently being revised to make them more progressive and adaptable to new technology. Between April and June 2017, Cash Alliance researched to better understand the state of digital payments in the country and

to help develop informed scale-up strategies. Using the best available data, the study looked at the current state of the shift from cash to digital payments. It also looked at the transition's timeline to assist the government in setting goals and making policy decisions about how to speed up digital payments and bring people who are currently excluded into the formal economy (Ministry of Finance, 2017).

Ghana's total annual payments in 2016 were GHS561bn, according to the findings of this study, which were paid by individuals, businesses and the government. Only one percent of payments was made using digital technology, with 99% of payments made in cash. Cash accounted for 63% of total payments in terms of value, while digital payments accounted for 37%. While the government made the fewest payments in the above category, as assessed by the quantity and volume of total yearly payments in Ghana, it was the leader in terms of digitization, with 86% of its transactions being done electronically. In terms of digital payments, the government was also the second-largest by volume (23%). This achievement was primarily due to government-to-person and government-to-government payments (Ministry of Finance, 2017).

Businesses get the majority of government payments in terms of dollar value, yet 90% of these transactions are still conducted via paper-based instruments. These figures show that the government is at the forefront of the digitization of cash payments. To meet the government's digital transformation goal, however, much more work is required. It is important to emphasize the need of hastening digitization and educating small, medium and petty merchants in the country on the importance of going digital. If the bulk of our

firms fall into this group, the economy will be altered to meet the government's objectives (Ministry of Finance, 2017).

Ghana's inadequate usage of digital platforms for corporate transactions is highlighted in research by the Ministry of Finance (2017). It is also obvious that many districts, towns and metropolises have paid little attention to how often their residents use these services. In light of this, one of the objectives of this study was to determine the level of knowledge and the frequency with which SMEs use digital platforms to receive funds. By the conclusion of the year, 2016, Figure 3 depicts a variety of Ghanaian financial technology (Ministry of Finance, 2017).

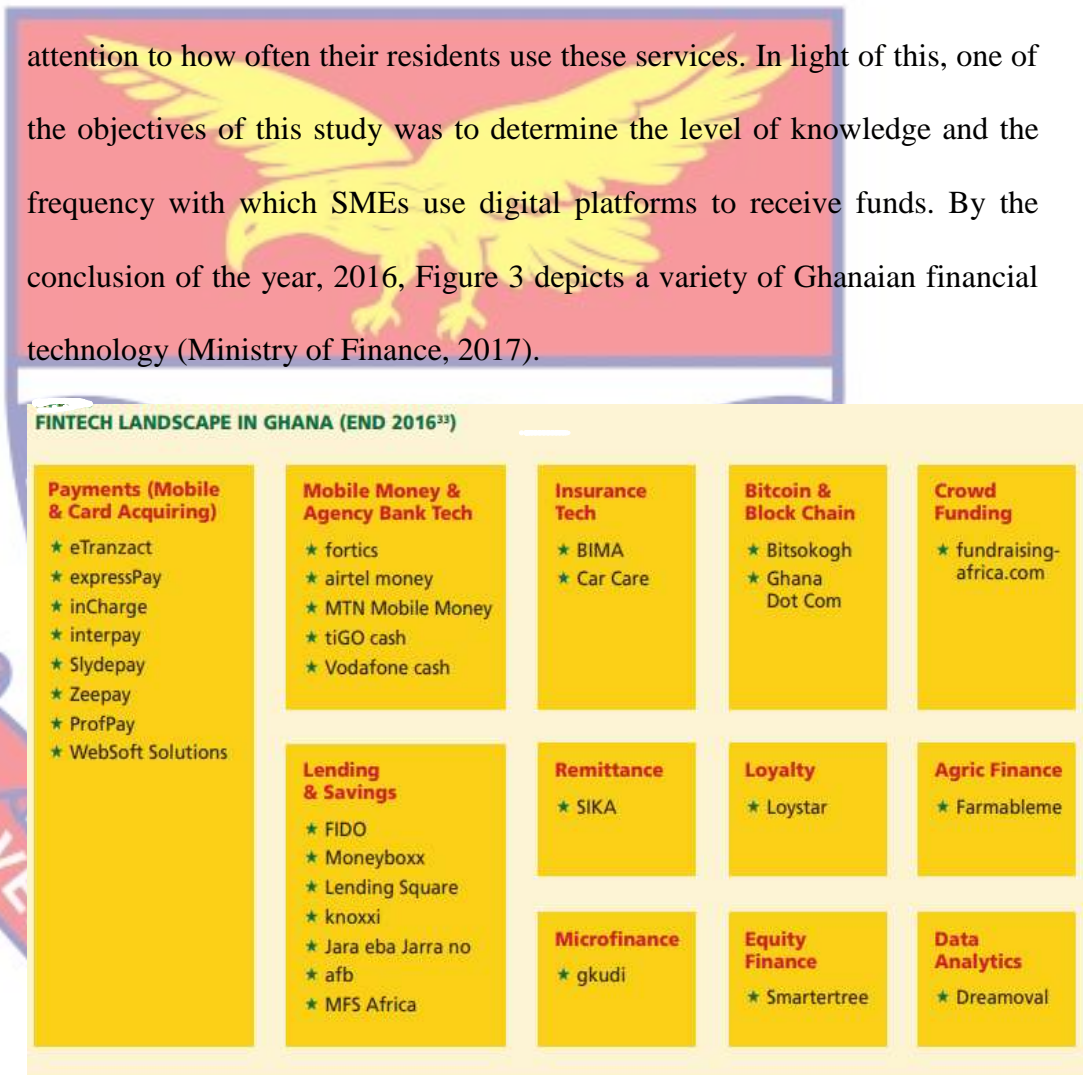


Figure 3: Financial Technology Landscape in Ghana  
Source: Ministry of Finance (2017)

### Performance of SMEs

In their studies, Cicea, Popa, Marinescu and Cătălina, (2019) found profitability, productivity, revenue dynamics, expenditures and liquidity as indicators of SMEs' performance using quantitative analysis. Performance of firms was also seen to be influenced by goals and accomplishments, leadership

style, employee behavior (Anggadwita & Mustafid, 2014), customer satisfaction (Alpkan, Yilmaz, & Kaya, 2007), product and process, innovation, organizational and marketing innovation (Sheehan, 2013).

Reputation, productivity, employee satisfaction, profits, sales, prompt order delivery, sufficient working capital, effectiveness in production operations, product quality, achievement of targets, number of clients, ease of supervision and product cost reduction were among the 14 indicators used by Gopang, Nebhwani, Khatri and Marri (2017) to describe SMEs' performance. Also, internal factors such as firm age and size (Arend, 2014), human resources and human resource practices (Katou, 2012; Sheehan, 2013), entrepreneurial networks (Bratkovi & Antoni, 2016), occupational health and safety measures (Gopang, Nebhwani, Khatri, & Marri, 2017), product, process, organizational and marketing innovation have been found to have an impact on firm performances.

Although the majority of research focuses on particular components of an organization's internal and external surroundings as being critical to its success, Kanu (2015) looked at the impact of overall levels of corruption on the performance of SMEs. In Malaysia, for example, government's attitude has been found to have influence on business growth (Rasiah, 2002). In their study of 77 Taiwanese SMEs, Lin and Lin (2016) discovered that the types of network linkages had the greatest impact on organizational performance. Taiwan, Chi, Wu and Lin (2008) used a foreign direct investment-related training program as a mediating variable to conclude on the impact foreign direct investment has on the performance of SMEs.



Aceleanu, Trașcă and Erban (2014) in their study revealed that the general economic climate which affects gross domestic product and gross national product, investment capacity and the level of development influences the performance of SMEs. Ipinnaiye, Dineen and Lenihan (2017) found that SMEs' performance is influenced by both its internal environment (enterprise features and strategy) and macroeconomic variables (Unemployment rate, inflation rate, national competitiveness, real effective exchange rate and domestic credit provided by the private sector). Using survey data from 198 manufacturing Indian SMEs, Gupta and Batra (2016) revealed that environmental variables (demand growth and competitive intensity) had a moderating effect on the entrepreneurial orientation–performance relationship.

Finally, corporate social and environmental responsibility was found to have a positive influence on the performance of SMEs (Choongo, 2017; Rekik & Bergeron, 2017). Also, SME performance indicators were evaluated in three ways by the European Commission: the number of SMEs, the number of SMEs' employees and the added value of SMEs (European Commission, 2016). These indicators were found to have a positive impact on a firm's performance.

Performance metrics are owing to a variety of Ghanaian research projects. In their study, (Adomako, Danso, & Ofori, 2016; Agyapong & Attram, 2019) looked at how financial literacy influences the relationship between access to finance and SMEs' performance. Financial and non-financial variables are indicators of business performance, according to Tuffour, Amoako and Amartey (2020), with financial performance comprising accounting and marketing-based metrics. Quality service, customer service,

employee happiness and environmental and social contributions are examples of non-performance metrics. SME performance was also seen to be positively influenced by financial information quality (Amarteifio, 2020). The level of education of managers of SMEs had a negative influence on a performance unlike business experience (Amarteifio & Agbeblewu, 2017).

Buchdadi (2020) concluded that access to finance had a positive influence on performance, however, the study did not include digital financial services in its evaluation of access to finance. Performance assessments took into account customer satisfaction, employee satisfaction and risk. Though there was a positive relationship between access to funds and performance, the objective of this study is to see if the same is true for SMEs' access to digital finance. Abbasi and Weigand (2017) in their exploratory study found that crypto and digital currency businesses might potentially provide interesting insights on corporate performance. In the future, research on the impact of cryptocurrencies on the performance of businesses in developing countries might be fascinating.

### **Empirical Review**

#### **Financial Literacy and Access to Digital Finance**

Buchdadi (2020) concluded that financial literacy improved access to finance, however, he did not include digital financial services in his measurement of access to finance. Financial literacy was assessed using a five-point Likert scale and was restricted to the creation and presentation of financial statements as well as how to get credit, with no mention of the need of including financial services on digital platforms. Furthermore, Königsheim,

Lukas and Nöth (2017) showed that financial expertise is linked to the chance of making considerable and beneficial use of digital financial services.

In their study, Kulathunga, Ye, Sharma and Weerathunga (2020) identified technical literacy as a body of knowledge distinct from financial literacy. Access to digital finance was viewed as knowledge acquisition in the study, which was done in Kenya and was explained as something management must possess. For my research, access to digital finance was perceived as a service that managers in Ghana would have to introduce to their businesses. Studies on the relationship between financial literacy and access to digital finance have received less attention in Ghana. This is why the purpose of this research is to see how financial literacy affects access to digital funding in Ghana.

#### **Access to Digital Finance and Performance of SMEs**

Kulathunga, Ye, Sharma and Weerathunga (2020) discovered that technology literacy boosts SMEs' performance, with technology knowledge referring to a manager's capacity to profit from financial growth revolutions by introducing digital financial services. In the study, access to digital finance was regarded as knowledge acquisition and it was presented as something a manager needs to boost the firm's performance. It was observed that researcher data relating to the digital channels utilized as access to digital finance is either very limited or not empirical in nature. Furthermore, Agyapong (2021) discovered mobile money platforms are widely accepted for payment. It was revealed that organizations are incorporating digitization into their service delivery. However, the study did not analyse the relationship between the

usage of digital platforms to SME's performance and it was just exploratory research.

Studies such as (Siddik, Kabiraj, Shanmugan, Yanjuan, & 2016; Van Uyen, & Phuong, 2015; Ceylan Emre & Asl, 2008; Hernando, & Nieto, 2007), were of the view that technological investments require more than two years to pay off. This raises an essential question that has been ignored in the literature: how much should be digitized and what should the ideal digitization look like in terms of return on investment (both monetary and nonmonetary)? What other factors influence this ideal digitization? It may be fascinating to see if, for example, technological innovation and client awareness are progressing at the same rate.

Future research on the impact of digital finance on the profitability and performance of mobile service providers' businesses might be intriguing and developing countries could learn more about adoption, efficiency, performance and trust. Although the majority of research shows that digital financial services improve a company's performance and profitability (Ozili, 2018; Abbasi & Weigand, 2017), the paucity of study in this area, indicates that no studies have been able to refute this conclusion.

### **Financial Literacy, Access to Digital Finance and Performance of SMEs**

In their study, Eniola and Entebang (2018) stated that an owner-manager who is financially educated and understands the influence of financial decisions on business performance at all stages of growth knows where to acquire the finest goods and services and communicates with suppliers with confidence. Marriott and Mellett (1996) defined financial literacy as a manager's ability to behave ethically while also comprehending

and evaluating financial facts. Lusardi and Tufano (2008) emphasized the impact of financial literacy on managers' competency and decision-making. There was also a focus on one type of financial literacy in particular (debt literacy).

Also, the practical experience offers a foundation for knowledge and other components of financial literacy, according to Lusardi and Tufano. According to Atakora (2013), traders with a high degree of education have a greater level of financial literacy than those who are uneducated. Using Kumasi Central Market as a focus group, the findings revealed that market women with more job experience were more financially literate.

Few studies (Tuffour, Amoako, & Amartey, 2020; Agyapong & Attram, 2019; Salia & Karim, 2019; Gathungu & Sabana, 2018; Hussain, Mabula, & Ping, 2018) focused on financial literacy and business performance as well as the relationship between financial literacy and access to funds. Although the research above focused on financial knowledge and money availability, they overlooked the impact of digital finance, particularly access to digital finance. Hussain, Mobula and Ping used access to finance to mediate financial literacy and SMEs' performance while digital access was mostly ignored. Given the current situation of the financial world, financial literacy today extends beyond the preparation and presentation of financial statements (Gomber, Koch, & Siering, 2017).

In research on financial literacy, access to finance and firm performance, the issue of digitization as a feature of management to improve access to money has received less attention. There is a lot of information about how vital a digitalized system is for economies and how it aids corporations in

their financial performance (Agyapong, 2020; Ozili, 2018; Gomber, Koch, & Siering, 2017). Myovella, Karacuka and Haucap (2020) proposed an innovation-based theory of economic development to explain the influence of technology, particularly the digital economy, on economic growth and development. In their study, digitization promotes economic growth.

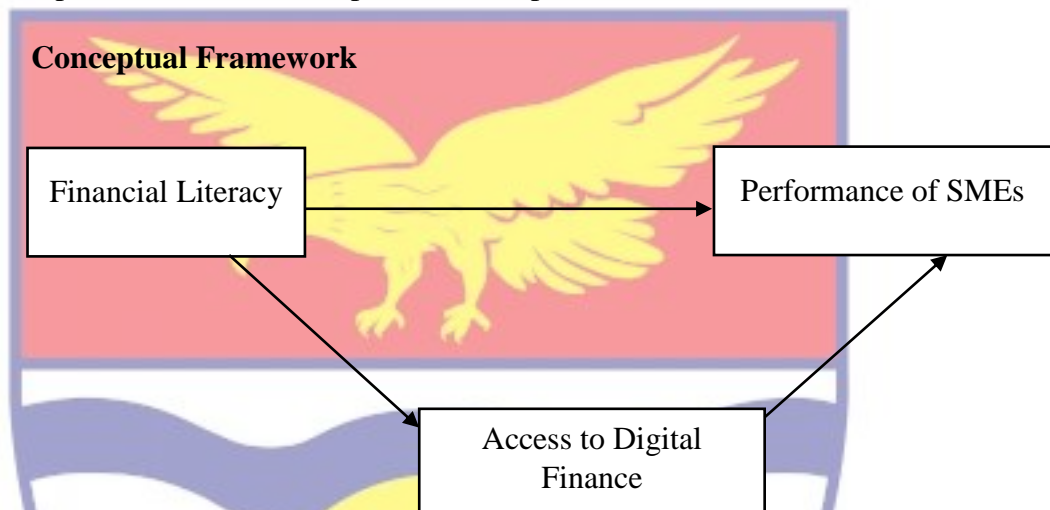
According to Kulathunga, Ye, Sharma and Weerathunga (2020), techno-finance literacy has a substantial impact on the performance of SMEs drawing on the assessments based, knowledge base theory and evolutionary theory of economic transformation. According to Kulathunga, Ye, Sharma and Weerathunga, SMEs must investigate feasible technological changes in the environment to improve their performance. Firms must recognize that by granting access to all sorts of allowed digital systems, they may be able to attract more clients, which will result in greater cash flow.

### **Research Gaps**

The relevance of financial literacy and access to funds on performance of SMEs have been extensively studied by (Tuffour, Amoako, & Amartey, 2020; Agyapong & Attram, 2019; Salia & Karim, 2019; Gathungu & Sabana, 2018; Hussain, Mabula, & Ping, 2018). The above studies found the impact of financial literacy of management of SMEs on their performance to be positive and significant. These studies also found that access to funds greatly affect the performance of a business and that, to be able to acquire funds, it requires some level of financial literacy.

The importance of digitization which could possibly lead to an increase in the acquisition of funds by the business through, online savings, online trading, internet banking has seen less attention with respect to SMEs

performance. There is the need to know how a managers financial literacy level could influence his ability to access funds digitally for business. This explains why the study mediates access to digital finance on the relationship between financial literacy and SME performance. The framework below represents the relationship of the concepts reviewed above.



*Figure 4: Conceptual Framework*  
Source: Author's Construct (2021)

Drawing on the Resource-Based Theory, the Hypotheses explains that, SMEs will have access to digital finance when their management are financially literate (Agyapong & Attram, 2019). A management's ability to acquire digital financial services depends on his/her financial literacy (Hussain, Salia, & Karim, 2019). This concept is derived from the Resource-Based theory stating that, intangible resources such as knowledge a measure of Financial Literacy in this study, helps management of business to plan and take decisions that will give a firm a competitive advantage and improved performance.

In this study, the relationship between financial literacy and access to digital finance would be examined. Though other studies suggest a positive relationship (Adomako, Danso, & Ofori, 2016), Amarteifio and Agbeblewu

(2017) in their study found otherwise with both studies conducted in different locations. Also, Abbasi and Weigand (2017) explained in their study that, where a business has access to digital financial services, performance of the business will improve. This current study explained Abbasi and Weigand's concepts using the Resource-Based Theory. This means that, access to digital finance being the financial resources in this concept will improve the performance of the SMEs in these selected commercial areas.

Lastly, the study looked at the mediating effect of access to digital finance on the relationship between financial literacy and performance of SMEs in selected commercial areas in the Central Region of Ghana. This mediating effect is explained using the Resource-Based Theory and Evolutionary theory of Economic Changes. The Evolutionary Theory of Economic Changes states that successful development involves the co-evolution of technologies employed, firm and industry structure and broader economic institutions. This theory was utilized to explain the impact of digital finance on SME performance in this study. The Resource-Based Theory also explains that, a business's performance will improve where the business in question has the requires resources that is tangible and intangible (knowledge-financial literacy).

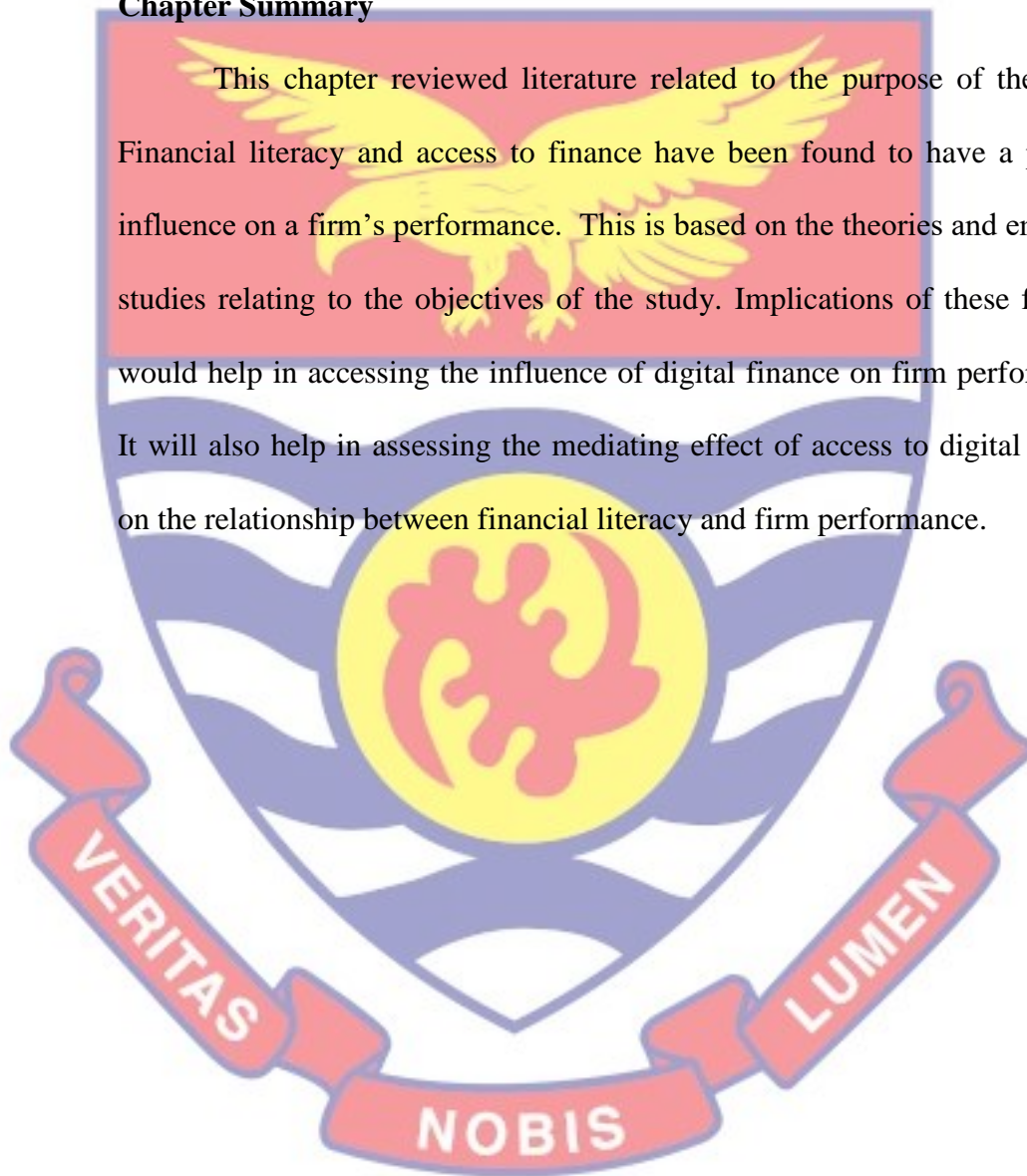
In solving the problem of performance among SMEs, Gathungu and Sabana (2018) mediated access to finance on entrepreneur financial literacy and performance and had a significant relationship. Adomako, Danso and Ofori (2016) in their studies moderated financial literacy on access to finance and performance and also had a positive and a significant relationship. The above studies emphasised the fact that, funds were the pressing needs of businesses



and recommended that businesses include innovative ways to seek for funds. For the purpose of this study, inclusion of access to digital finance as a mediating variable is motivated by the current financial and economic development which focuses on digitisation.

### Chapter Summary

This chapter reviewed literature related to the purpose of the study. Financial literacy and access to finance have been found to have a positive influence on a firm's performance. This is based on the theories and empirical studies relating to the objectives of the study. Implications of these findings would help in accessing the influence of digital finance on firm performance. It will also help in assessing the mediating effect of access to digital finance on the relationship between financial literacy and firm performance.



## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

This chapter explained the research methodologies that were employed to conduct the study. This chapter cover the research paradigm, research design, research approach, study region, target population, sample size, sampling and sampling method, data collection instruments and procedures, data processing and analytical descriptions, as well as a chapter summary.

#### Research Paradigm

In this study, the positivist method was applied. Positivism, according to Saunders *et al.* (2016), is a philosophical system that deals with issues that can be experimentally proven while simultaneously providing a platform for generalization. This means that human interpretation has no bearing on the production of facts. Hypotheses were generated based on existing theory in this paradigm. These hypotheses are verified and confirmed, in whole or in part, or refuted, resulting in the development of a theory that can then be examined further through research (Creswell, 2009; Saunders *et al.*, 2016). Because the study's hypotheses were evaluated using resource-based theory and evolutionary theory of change, this paradigm is suited for fulfilling the study's aims.

#### Research Approach

The study used a quantitative research approach/method. This was because the study's objectives necessitated the use of quantitative approach such as descriptive and inferential statistics (Creswell, 2014). This method is useful for assessing relationships, their strength and size, as well as the

influence or impact of one variable on another. Furthermore, because the viewpoints are objective rather than subjective, the approach ensured that the study's findings can be generalized (Creswell, & Creswell, 2017). As a result, quantitative analysis was used by the researcher.

### Research Design

The explanatory design was used in this study. Because an explanatory design aims to establish cause and effects linkages between variables. (Saunders *et al.* 2015). In practice, the study looked into the impact of digital finance on the relationship between financial literacy and the performance of SMEs in Ghana's Central Region's commercial areas. There are benefits and drawbacks to using an explanatory research approach (Creswell, 2014; Creswell & Creswell, 2017). Increased understanding of a subject, flexibility in accessing sources, improved conclusions and generalization of findings are all possible benefits of this strategy. The study's objectives provided a basic comprehension of the topic while also allowing the researcher to collect data about them via a well-designed questionnaire. The researcher could also make assumptions about the results of the analysis using quantitative analyses.

Despite these benefits, this method has a flaw in that it is prone to receiving biased information from respondents. Other uncontrollable factors, such as time and the lack of corporative responders, could also influence the results. Taking into account all of these flaws and the lack of other designs, the researcher enlisted the help of three National Service Personnel who were briefed on the study's goal and requirements. These individuals were able to explain the content of the questionnaires to respondents and how they should respond appropriately.

## Study Area

Agona Swedru, Kasoa, Cape Coast, Mankessim and Assin Fosu were chosen as the research locations. Because of the business activities that take place in these towns, these locations were chosen. According to the Directorate of Chamber of Commerce in Ghana's Central Region, these towns are part of an eight-town cluster that is highly commercial and contribute significantly to the region's small company performance (Boadi-Kusi, Kyei, Asare, Owusu-Ansah, Awuah, & Darko-Takyi, 2016). It is home to a large number of enterprises and firms, as well as a sizable population. These towns are usually bustling and well-known for their business activity, which draws visitors from all over the world. These locations were chosen for this study because they are the busiest in the region. They have retail stores and business warehouses. This made gathering the information needed to meet the study's objectives much easier.

## Population

SMEs in the commercial areas in Central Region were the study's target population. Basing this study on Regional Project on Enterprise Development Ghana, classification of SMEs by Teal (2002) was adopted where Micro enterprises are businesses with less than 5 employees, small enterprises being 5-29 employees and medium enterprise, 30-99. Therefore, owner-managers in charge of businesses with employee size between 0-99 were the target population.

## Sample and Sampling Procedure

Managers of SMEs were selected using the purposive sampling approach in the five selected commercial districts of Ghana's Central Region.

This technique was used because there was no data on the total number of SMEs operating in these areas. To curb bias responses, every firm that exhibits the characteristics of an SME qualified for the study. Owner- Managers of Small and medium-sized companies (SMEs) in these locations provided responses for the survey. In each area, a total of 80 individuals were randomly polled making up to 400 respondents.

#### **Data Collection Instrument**

Self-administered questionnaires were utilized to collect information for this study. The questionnaire, which was the main data collection strategy, consisted of both closed and open-ended items and was delivered to the targeted group. Some business owners were unable to read or write. There was the need for questionnaires to be interpreted and translated for them. To avoid common method bias or variance, questions were interspersed with unrelated items to determine how thoroughly respondents answered the questions. There were two sections to the questionnaires. The first portion of the survey was used to collect demographic data, which was categorically measured.

The questionnaire's second section was divided into three sections. The purpose of the first portion, Section A, was to assess financial literacy. All of the questions in this section were rated on a ten-point scale, with one being the lowest and ten being the highest. Section B was used to assess digital finance access, which was similarly graded on the same scale. The final component, Section C, consisted of performance-related questions. Respondents were asked to rate their performance on a ten-point scale, exactly as they had in the previous sections.

### Pre-Testing

Sample questionnaires were given out for a pilot test before the main questions were sent out. Only Cape Coast and Agona Swedru received these questionnaires, which had a sample size of thirty (30). This was done to test the instrument and see how the questionnaires would turn out, as well as make any necessary modifications before sending it out. The results of objective one demonstrates that SMEs' managers have the most knowledge of Mobile Money, with an average of 79.7%, while cryptocurrency had the least, with 25.53%. In terms of other possibilities, data collected revealed that respondents were only aware of the aforementioned digital platforms, hence the rate assigned to it was (1), indicating that they were unaware of any other digital platforms. Others used cash as an example of digitized money and gave it a score of (10).

Mobile Money was more frequently used than the others, with an average of 86.7%, with cryptocurrencies having 2.6percent as of the least. This demonstrates that the 30 managers sampled during the pre-test for both commercial regions often use mobile money. It also provided information to the researcher about the accessibility and use of digital platforms in these business districts, as other platforms included in these objectives had respondents who had utilized them. To detect the correlations and the validity of the various metrics, the sample size was relatively tiny. Validity of the study was achieved through pilot testing of the questionnaire, expert review and peer review

### **Data Collection Procedure**

The researchers used primary data source: structured questionnaires. To make collecting the questionnaire simpler, the researcher offered the managers of SMEs in the commercial sectors a letter of reference from the Graduate School, University of Cape Coast. The questionnaires were distributed to the respondents after they gave their approval. The collection activity was conducted over four weeks to achieve a high and timely response rate. The exercise began on April 1st, 2021 and concluded satisfactorily on April 30th, 2021. The activity was primarily completed during the respondents' designated times. The respondents chose this time frame because it was the most convenient for them.

Some of them, however, were given the option of filling out the surveys on their own. The exercise was carried out with the help of some trained field assistants. These assistants had complete control over each question item, allowing them to assist respondents whenever they encountered problems. Unfavourable periods for respondents due to hectic job activities and fear of information leakages despite guarantees were some of the challenges encountered during the exercise. Also, some of them were unwilling to fully participate in the exercise since they saw it as time-consuming and unprofitable.

### **Data Processing and Analysis**

After collecting enough data from respondents, the data was thoroughly reviewed to ensure that any errors resulting from incomplete or incorrectly filled questionnaires were eradicated or severely reduced. The data was then meticulously coded to eliminate any missing values. The data was

entered and processed using SmartPLS and SPSS software after they were coded. Tables were created to present the results. Statistical approaches such as descriptive and inferential tools were also used to examine the data. Frequencies, percentages, averages and standard deviations were used as descriptive statistical tools, while structural equation model was used as an inferential statistical tool.

Demographic characteristics of respondents and objective one of the studies were analysed using descriptive tools. As a result, mean scores and standard deviations were calculated for each scale item under the first objective. Finally, structural equation modelling was used to assess the second and third objectives, which intended to study a cause-and-effect relationship between financial literacy, access to digital finance and SMEs' performance.

### **Structural Equation Modelling**

To analysed data, Structural Equation Modelling was employed. Structural Equation Modelling is a second-generation statistical technique for measuring variables using indicator variables. It facilitates the measurement of inaccuracy in observable variables (Chin, 1998). To reduce the residual variance of a dependent variable, partial least-squares structural equation modelling is used to estimate the nexuses of the path in a model. The structural equation (through path analysis) and the measurement equation (by confirmatory factor analysis) are the two primary components of structural equation modelling. Confirmatory factor analysis is used to confirm constructs and modify scales, whereas route analysis is used to show how variables or constructs in a study are related.



Using Partial Least Squares, the  $R^2$  values of the dependent variable are minimized when path model nexuses are estimated using Structural Equation Modelling (Hair, Hult, Ringle, & Sarstedt, 2014). When dealing with complicated models and limited sample numbers, it's also beneficial (Hair *et al.*, 2014; Rezaei & Ghodsi, 2014; Rezaei, 2015; Shahijan, Rezaei, Preece, & Ismail, 2014). Ravand & Baghaei, 2016; Rönkkö & Evermann, 2013) say it's also suitable when a hypothesis isn't fully established. Structural equation modelling, according to Hair *et al.*, has two measuring scales: formative and reflecting. The formative measurement scale is the one that causes the construct of a study while reflective measurement is the construct that produces the research's indicator. Because the indicators in this study were generated by its concept, the reflective measurement scale was used in this investigation.

1. The use of structural equation modelling in this work was prompted by the following benefits: The use of latent variables, which permits various indicators to accurately and dependably capture constructs (Jeon, 2015).
2. When compared to regression, the ability to make the causal equation model between latent variables clearer.
3. One or more independent variables can be regressed on one or more dependent variables in this model.
4. Because numerous independent and dependent variables can be estimated at the same time, a researcher can show the direct, indirect and total influence.

Structural Equation Modelling is extremely resistant to flaws such as skewness, multicollinearity of indicators and model misspecification (Cassel *et al.*, 1999). Confirmatory factor analysis, correlation analysis and regression analysis can all be done at the same time in a model using SEM.

### Mediating Procedures in SEM

Hair, Hult, Ringle and Sarstedt (2017), defined mediating as the effect that occurs when a third constructor variable is introduced between two other related constructs or variables. The third variable, also known as the mediating variable, absorbs a portion of the relationship between the dependent and independent variables in the partial least square route model. In this method, the mediator reveals a true link between the dependent and independent variables. In this study, the relationship between financial literacy (independent variable) and the performance of SMEs in Central Region commercial areas (dependent variable), is mediated by access to digital finance. Hair *et al* established a systematic mediator analysis process in partial least square structural equation modelling.

This study adopted the mediating procedures devised by Nitzl *et al* (2016). To determine the significance, it starts with a test for the indirect effect via the mediator. The sort of mediation will be determined by the significance of the indirect effect. The present mediation literature, according to Hair *et al* (2017), discusses two forms of mediation: complete and partial mediation. Complementary and competitive partial mediation are two types of partial mediation. Figure 4 depicts the mediation procedure used in this investigation.

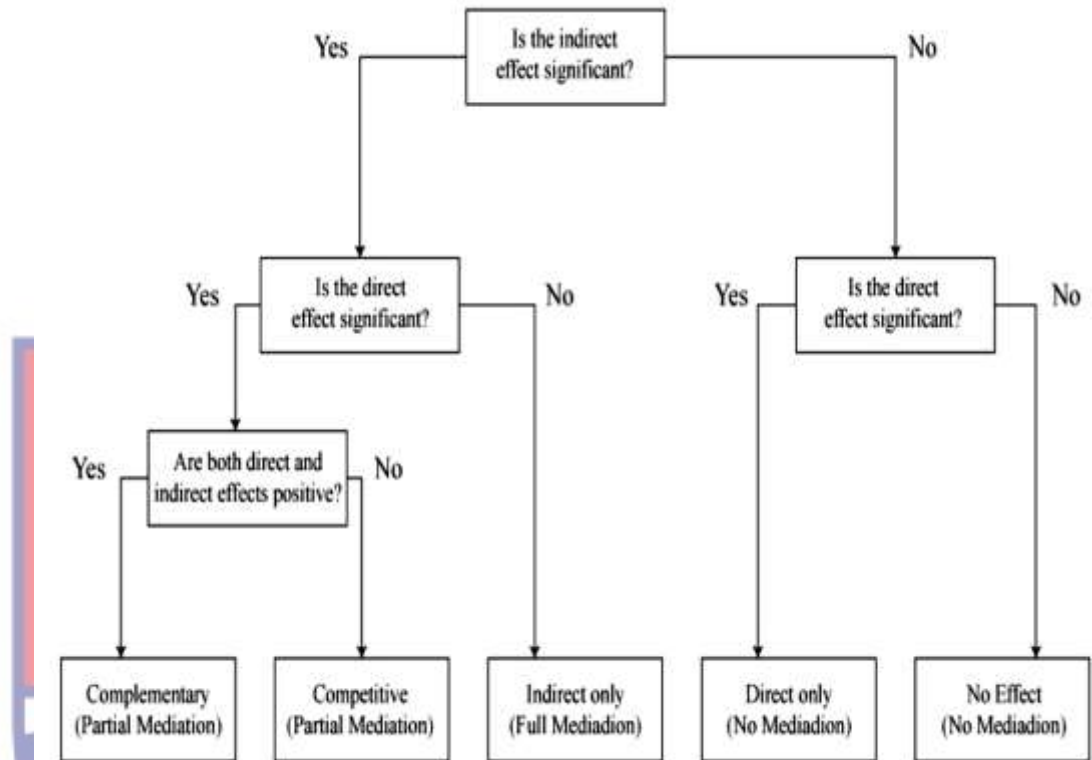


Figure 5: Mediator Analysis Procedure in PLS-SEM  
Source: Hair, Jr., Hult, Ringle and Sarstedt (2017)

### Validity and Reliability of the Model

A two-step procedure was used to test validity and reliability in this study. The first procedure taken was Models of Measurement Evaluation. With this model, we have reflective measurement models as well as composite reliability which was used to assess internal consistency and individual indicator reliability, while average variance extracted (AVE) was used to assess convergent validity. To test discriminant validity, cross-loadings, Fornell-Larcker criterion was also used (Hair *et al*, 2013). Lastly, evaluation of the structural model Multicollinearity and VIF were also tested.

### Internal Consistency Reliability

This test is used to see if the results from multiple items on the same test are consistent or if the items assessing the same concept have similar scores (if the correlations are large) (Drolet & Morrison, 2001). Composite

reliability was used in this study. This is because, rather than Cronbach's alpha, the composite reliability test is better for determining internal consistency (Rossiter, 2002). In exploratory research, values of .60 to .70 are acceptable, whereas in more advanced stages of research, values of .70 to .90 are acceptable (Nunally, & Bernstein, 1994).

### **Convergent Validity**

According to Anderson and Gerbing, convergent validity arises when all factor loadings for items measuring the same variable are statistically significant (1988). This may be done by loading factors and calculating the average variance (Hair *et al.*, 2016). According to Hair, Ringle and Sarstedt, factor loadings must be .70 or above to establish convergent validity (2011). An AVE of .50 or greater, on average, accounts for more than half of the variance in its indicators. An AVE of less than .50, on the other hand, indicates that the items include more inaccuracy than the concept's variation.

### **Discriminant Validity**

To ensure that construct measures are truly distinct from those of other constructs, Discriminant Validity was used. This indicates that the constructs used are unique and capture phenomena that the model's other constructs do not (MacKinnon, 2008). The method adopted for this study for determining discriminant validity was the Fornell-Larcker criterion. The square roots of the expected average variable are compared to the latent variable correlations (Fornell & Larcker, 1981).

### **Assessment of the Structural Model**

The first and most important criterion for evaluating the PLS-SEM is the coefficient of multiple determinations ( $R^2$ ) for each endogenous

component. The R-square ( $R^2$ ) formula compares the explained variance of a latent variable to its overall variance. According to Hair et al. (2014), structural models with coefficients of determination ( $R^2$ ) of .25, .5 and .75 are weak, moderate and significant, respectively. The next step in evaluating the structural model is to look at the regression coefficients between the confirmed latent variables. The size of a regression coefficient indicates the strength of the link between two latent variables. The regression coefficients must be significant at the 0.05 level to be considered significant (Bradley & Tibshirani, 1993).

Finally, assess the structural model's predictive ability. The Stone-Geisser  $Q^2$  statistic is used to assess the structural model's prediction performance (Stone, 1974).  $Q^2$  values greater than zero in the structural model for a reflecting endogenous latent variable indicate the route model's predictive significance for this construct. As a relative measure of predictive importance, values of .02, .15 and .35 indicate that an external construct has a moderate, medium, or high predictive relevance for a certain endogenous construct (Hair et al, 2016). Individual endogenous components must be assessed with the exogenous variable as well. To accomplish so, the effect size ( $f^2$ ) is used. Cohen (1988) claimed that the exogenous latent variable had small, medium and substantial effects based on  $f^2$  values of .02, .15 and .35.

## Ethical Consideration

Ethical principles such as informed consent was administered first before the actual questionnaires were administered. Anonymity and plagiarism policies were adhered to. Input of data collected was solely done by the researcher. Information received from respondents through the questionnaires were discarded after the end of the study. Softcopies of responses were saved on google drive to prevent leakages. Names of businesses and their owners as well as emails were exempted from the questionnaires to prevent easy identification of respondents. No part of the responded questionnaires was given out to the public or the media. The responses were strictly for the purpose of the study

## Chapter Summary

This chapter described the research methodologies used to accomplish the study's objectives. As a consequence, the chapter examined the technique, design, demographic, sampling strategy and data collection equipment used in the study, among other things. Because the inquiry included a quantitative approach, the explanatory research design was adopted. To address the study's research objectives, the data from questionnaires were evaluated using descriptive and inferential statistical methods such as percentages, frequencies, means, standard deviations and correlation.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

This chapter discussed the findings of the study with the study objectives. Specifically, this chapter discussed the demographic characteristics of respondents, the level of knowledge and frequency of use of digital platforms of managers of SMEs in trading, the relationships between financial literacy, access to digital finance and performance of SMEs in Agona Swedru, Kasoa, Cape Coast, Mankessim and Assin Fosu as well the mediating effect of access to digital finance on the relationship between financial literacy and performance of SMEs. The objectives were analysed using SPSS and Partial-Least Squares.

#### Demographic Characteristics

Demographics Over view of SMEs in Agona Swedru, Mankessim, Cape Coast, Kasoa and Assin Fosu. Table 1 gives demographic representation of SMEs in Agona Swedru, Mankessim, Cape Coast, Kasoa and Assin Fosu. In this study, they include sex, educational qualification, age, number of employees, firm type, number of years in business, job position and religious affiliation.

**Table13: Demographics Over view of SMEs in Agona Swedru**

Profile	Description	Frequency	age (%)
Sex	Male	204	51.5
	Female	194	48.5
Educational Qualification	Diploma	39	9.8
	degree	66	16.5
	Master's Degree	22	5.5
	Other Lower	273	68.3
Age	20-24	13	3.25
	25-29	84	21
	30-34	80	20
	35-39	77	19.25
	40-44	65	16.25
	45-49	38	9.5
	50-54	22	5.5
	55-59	11	2.75
	Above 60	10	2.5
Number of Employees	Below 5	293	73.25
	5-29	106	26.5
	30-99	1	0.25
Firm Type	Manufacturing	41	10.3
	Services	359	89.8
Number of years in Business	Below 5 years	54.75	
	5-10years	24.75	
	11-15years	6.25	
	16-20years	7.25	
	20-25years	3.25	
	Above 25years	3.75	
Job Position	Owner - Manager	295	73.8
	Manager	105	26.3
Religious Affiliation	Orthodox	143	35.8
	Pentecostal	206	51.5
	Charismatic		
	Islamic	41	10.3
	Traditional	10	2.5

Source: Field Survey (2021)

From Table 1, respondents were impartially distributed in terms of sex specification since the gap between their frequencies was 10. For educational qualification, most of the managers and or owner-managers of firms in these commercial areas have lower educational qualifications thus below diploma degrees. Basing this study on Regional Project on Enterprise Development



Ghana, classification of SMEs Teal (2002) where Micro enterprises are businesses with less than five employees, small enterprises being 5-29 employees and medium enterprise, 30-99, 293 representing 73.25% were firms that could be classified as micro-enterprises.

This result was in agreement with classifications made by some institutions such as National Board for Small Scale Industries, Ghana Statistical Service where SMEs are firms with employees ranging from 0-30 (Fuseni, 2015). Also, 10.3% of the firms were manufacturing firms. This shows that most of the businesses provide services. Most of these firms provide retail services, fabrication and repairs, sewing and hairdressing and most especially, selling agricultural products.

### Knowledge and Frequency of Use of Digital Platforms

Table 2 showed the results of descriptive statistics on the knowledge of digital platforms of respondents (managers and or owners of SMEs)

**Table 2: Knowledge of Digital Platforms by Managers of SMEs**

	Mean	Std. Deviation	Variance	Skewness	Std.	Kurtosis	Std.
	Statistic	Statistic	Statistic	Statistic	Error	Statistic	Error
Momo	8.16	1.952	3.809	-1.310	.122	1.668	.243
Mobile Banking	4.20	3.481	12.117	.428	.122	-1.494	.243
Card Acquiring	3.46	2.841	8.069	.832	.122	-.645	.243
Cryptocurrency	1.77	1.823	3.324	2.814	.122	7.785	.243
Paypal	1.74	1.840	3.386	2.796	.122	7.724	.243
Other	1.03	.461	.212	18.801	.122	363.778	.243

Source: Field Survey (2021)

Respondents were given five sets of digital platforms to rank their level of expertise on each platform, with 1 being the least and 10 being the

most. There was also the option to incorporate and rate any additional digital platform they wanted; in addition to the one, they were given. The mean (M) and standard deviations (SD) for each of the items indicated as digital platforms, with the possibility to add any other, are calculated in Table 2. We may deduce from Table 2 that SMEs' managers and/or owners have a higher level of expertise about mobile money than any other digital platform (M=8.16, SD=1.952).

Furthermore, respondents evaluated mobile banking much higher than the other options, with (M= 4.20, SD=3.481) being the second highest. Payment (card acquiring and other services) was the following item after mobile banking and it received the same rating approach (M=3.46, SD=2.841). Cryptocurrency (M=1.77, SD=1.823) and Paypal (M=1.74, SD=1.840) came in fourth and fifth respectively. The option to select any other digital platform except the ones specified above had the lowest average (M=1.03, SD=.461). From the analysis, the study found that, among the digital platforms in this study, Mobile Money was the most known.

It could be observed that, when it comes to knowledge of digital financial services say MoMo, management of SMEs have that to some extent. This makes Momo easy to use as compared to the others. Knowledge on other digital products were less, because respondents explained that there was little or no training from the providers on their usage as compared to MoMo. Nonetheless, inclusion of MoMo into their businesses has expanded their client base. This has improved their finances of the business through digital trading, savings etc., leading to increase in financial performance as explained by the Resource-Based Theory. Also, these findings were consistent with the

findings of a report published by the GSMA in 2015 that, knowledge of digital platforms, such as Mobile Money, has not been a hurdle to its users as compared to other digital platforms (GSMA, 2015).

Business owners registered as Mobile Money agents deal directly with banks to ease payment and receipt of cash transactions on regular bases and this increases their level of knowledge (Atakora, 2013). In his study, Atakora (2013) stated that understanding of Mobile Money as compared to other kinds of digital platforms is influenced by the experience with digital platforms among traders. Thus, utilizing Mobile Money regularly may provide you with a sufficient understanding of how to transmit and record received funds. This helps to explain why SME managers ranked their knowledge of mobile money higher than the rest of the digital platforms.

Table 3 showed the results of descriptive statistics on the frequency of use of digital platforms of respondents (managers and or owners of SMEs)

**Table 3: Frequency of use of Digital Platforms by Managers of SMEs**

	Mean	Std. Deviation	Variance	Skewness	Std. Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Error	Statistic	Error
Momo	8.15	2.052	4.211	-1.345	.122	1.685	.243
Mobile Banking	3.81	3.435	11.800	.6280	.122	-1.335	.243
Card Acquiring	2.98	2.672	7.142	1.179	.122	.1580	.243
Cryptocurrency	1.42	1.382	1.909	3.767	.122	14.374	.243
Paypal	1.39	1.209	1.461	3.689	.122	14.528	.243
Other	1.26	1.402	1.965	5.370	.122	27.292	.244

Source: Field Survey (2021)

Table 3, showed the result of descriptive statistics on the use of digital platforms by respondents. Respondents were given five sets of digital

platforms and asked to rate their frequency of usage of each digital platform on a scale of one to ten, with one being the least used and ten being the most used. The mean (M) and standard deviations (SD) for each of the items mentioned as digital platforms are determined in Table 3 shows that SMEs' managers and/or owners utilize mobile money more frequently than any other digital platform (M= 8.15, SD=2.052).

In addition, respondents gave mobile banking a better rating than the rest, with (M= 3.81, SD=3.435) to the statement. Payment (card acquiring and other services) was the next item after mobile banking and it was rated similarly to mobile banking. (M=2.98, SD=2.672) followed by Cryptocurrency with (M=1.42, SD=1.382) and lastly Paypal with (M=1.39, SD=1.209). The option to select any other digital platform except the ones specified above had the lowest average (M=1.26, SD=1.402). From the analysis, the study found that, among the digital platforms in this study, Mobile Money was the most used.

These findings resonate with a report by the Ministry of Finance (2018), which states that the most popular used digital platform in Ghana was Mobile Money. According to Manjang and Naghavi (2021), Mobile Money was very popular in households owing to its' flexibility in usage. This could be explained that, mobile money is easy and simple to use. It may require little efforts as compared to the others to complete a transaction. GSMA (2015), reported that, when utilizing Mobile Money, for example, one may transact business without being conversant with the system because an agent is ready to help.

Other digital platforms do not have such system. Due to little or no training for products like mobile banking, cards and QR-codes and insecurities such as frauds with the use of mobile banking associated, their level of confidence to use these products most especially mobile banking is very low.

Mobile money on the other hand has agents that transact businesses on behalf of businesses and individuals whenever the need arises. This contributes to the frequency of use of Mobile Money as compared to the others. It was also found that, products like Paypal and Cryptocurrency was not legally regulated in the Ghana and that, it is not well known leading to less usage.

#### **Assessment of the PLS-SEM**

The measurement models used in this study were explained in this section. Model measurement evaluation was done by using indicator loadings, internal consistency reliability (Composite reliability, construct reliability, Cronbach's Alpha), discriminant validity (Fornell-Lacker) Collinearity (VIF) and convergent validity (AVE-Average variance extracted). To give indications for the measurement model's evaluation, a consistent PLS approach was used. The following tables describe the findings.

#### **Specifying the Structural and Measurement Model**

This section explained the structure of the study's model. It explains the dependent and independent variables using various indicators. The dependent variable in this study is the performance of SMEs. The independent variable in this study is financial literacy, while the mediating variable is access to digital finance. Performance is measured using 14 markers PERF (1-14), Access to digital finance is measured using 14 indicators ADF (1-14) and financial literacy as FL (1-15). This is illustrated in Figure 6.

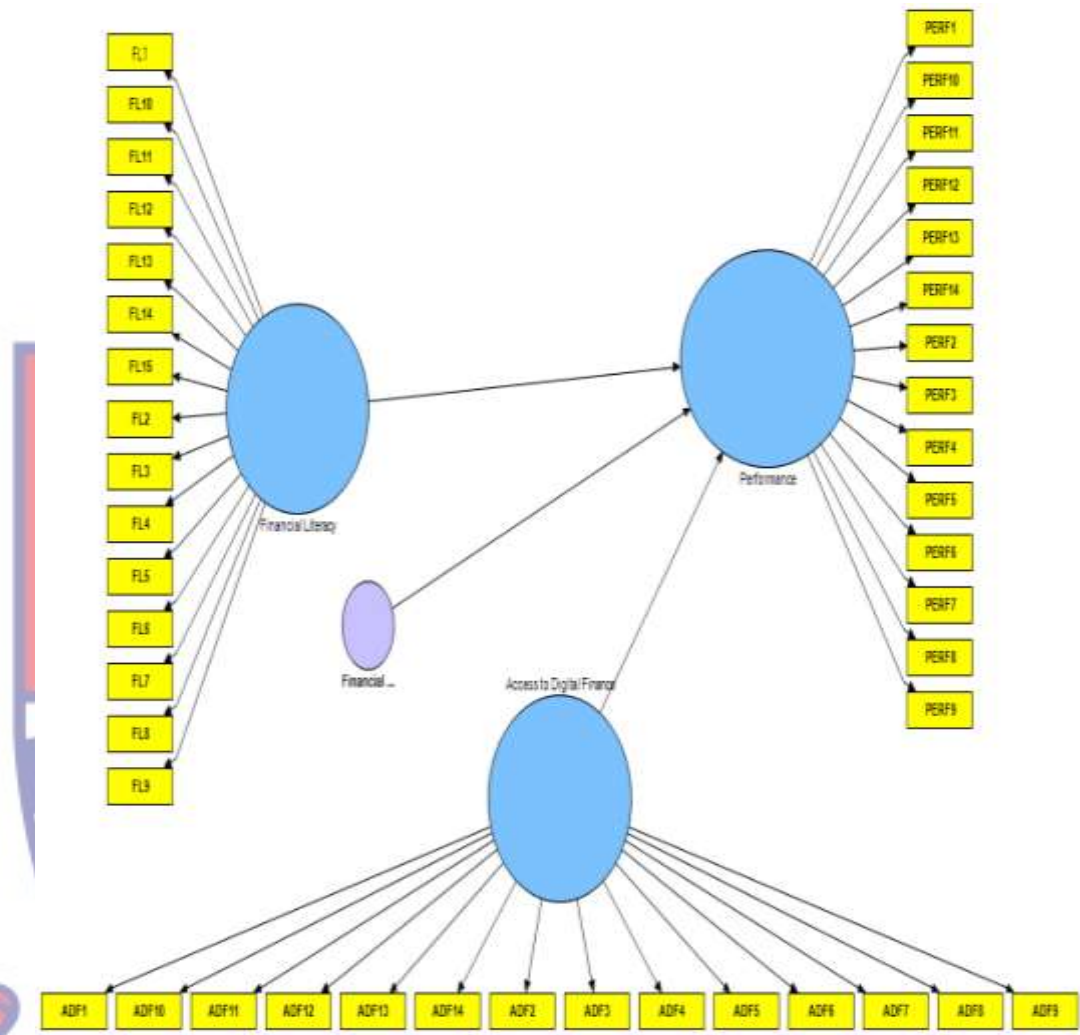


Figure 6: Structural Equation Model for the Study  
Source: Author's construct (2021)

### SEM For Dependent and Independent Variables

To increase the overall model's reliability, any indicator that loaded below the threshold of .7 was removed, as advised by Hair *et al* (2016). Financial literacy (FL4, FL5, FL6, FL7, FL8 and FL10) were removed, as well as access to digital finance (ADF1, ADF2, ADF3, ADF4, ADF5, ADF6, ADF12 and ADF13) and performance (PERF 1, PERF3, PERF 7 and PERF11, PERF 13 PERF 14) Figures 7 depict the structural equation model based on the study's hypotheses three. Outer Loadings of this model can be found in appendix 3.

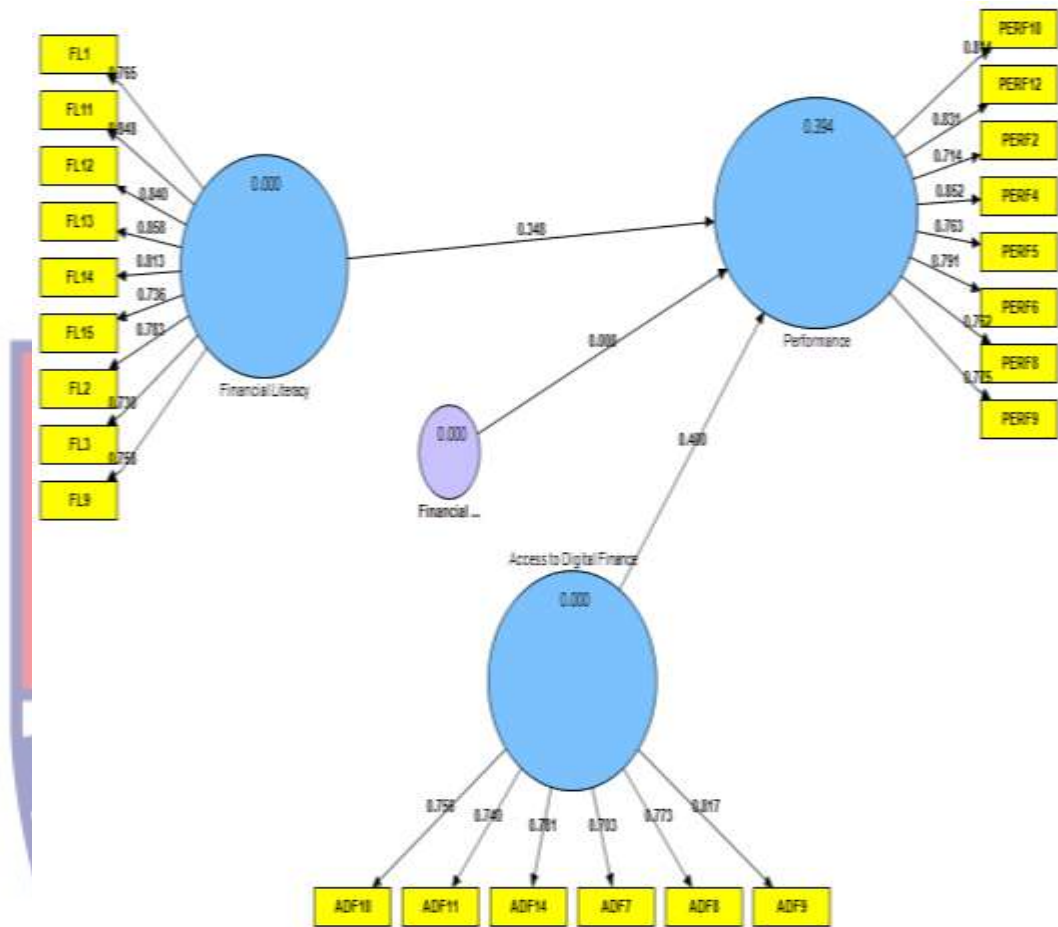


Figure 7: Structural Equation Modeling  
Source: Field Survey (2021)

### Assessment of Measurement Models for the Study

To assess the measurement models of the study, internal Consistent reliability (Cronbach's Alpha, Composite reliability), Convergent Validity (AVE) and discriminant validity (Fornell Lacker criterion) and Cross Loadings of Variables were examined.

### Assessing Internal Consistency Reliability

The composite reliability was used to assess the constructs' internal consistency dependability in this study. Cronbach's alpha is a less adequate metric of internal consistency than composite reliability (Rossiter, 2002). Table 4 shows that all latent variables in this investigation are dependable

since they all loaded around the .70 thresholds by the end of the trial (Bagozzi, & Yi, 1988). Financial literacy had the highest composite dependability score (.939), followed by SMEs' performance (.929) and last, access to digital finance (.894).

**Table 4: Validity and Reliability**

	AVE	Composite Reliability	R-Square	Cronbach's Alpha
Access to Digital Finance	.585	.894		.858
Financial Literacy	.631	.939		.927
Performance	.622	.929	.394	.913

Source: Field Survey (2021)

According to Cronbach (1951), a data collection instrument must have a Cronbach alpha value of 70% or higher to be considered reliable. As shown in Table 4 above, reliability was above acceptable levels (Cronbach's alphas  $>.70$ , Average Variance Extracted  $>.50$ , composite reliability  $>.70$ ), according to scholars (Fornell, & Larcker, 1981). Convergent validity was also evident in the factor loadings (which ranged from .585 to .631). This model's constructs can account for more than half of the variation in their indicators, with Financial Literacy being the most important and Access to Digital Finance being the least important. As part of the measurement model evaluation, discriminant validity was also assessed.

#### Assessing Discriminant Validity

The capacity of a construct to capture phenomena that are not represented by other constructs in the model is referred to as discriminant validity (MacKinnon, 2008). The Fornell-Lacker criteria were employed to evaluate discriminant validity in this study. To compare the square root of the AVE values to the latent variable correlations, the Fornell-Larcker criteria was employed (Fornell, & Larcker, 1981). The square root of each construct's



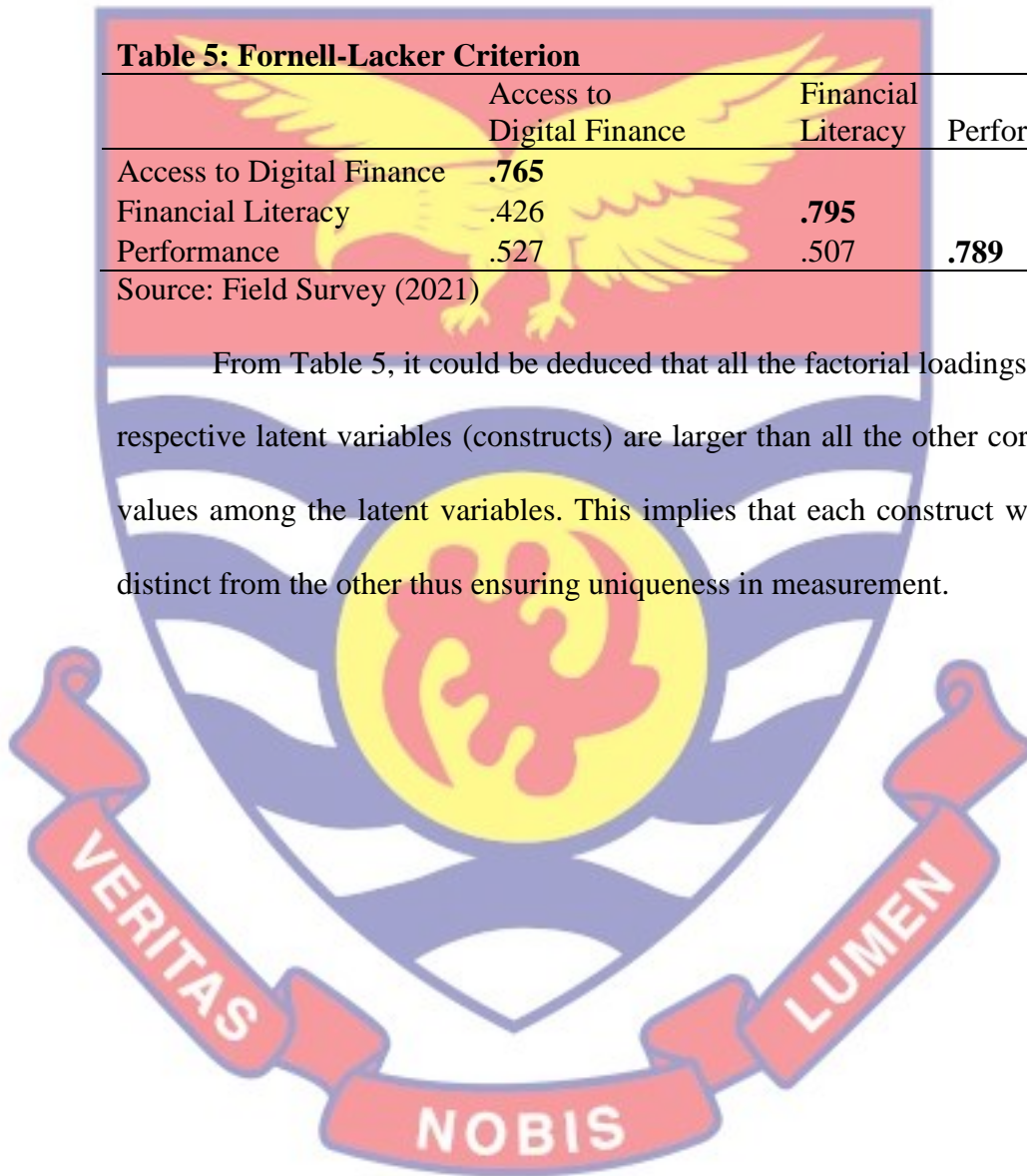
AVE should, in particular, be higher than the greatest correlation with any other construct (Hair *et al.*, 2013). As demonstrated in Table 4, the square root of each variable is significantly greater than its correlations with other study components. This means that each construct is distinct from the others and no two can accurately represent the same occurrence.

**Table 5: Fornell-Lacker Criterion**

	Access to Digital Finance	Financial Literacy	Performance
Access to Digital Finance	<b>.765</b>		
Financial Literacy	.426	<b>.795</b>	
Performance	.527	.507	<b>.789</b>

Source: Field Survey (2021)

From Table 5, it could be deduced that all the factorial loadings in their respective latent variables (constructs) are larger than all the other correlation values among the latent variables. This implies that each construct was truly distinct from the other thus ensuring uniqueness in measurement.



Assessing Indicator Loadings

**Table 6: Cross Loading of Variables**

	Access to Digital		
	Finance	Financial Literacy	Performance
FL1	.397	<b>.742</b>	.465
FL2	.432	<b>.780</b>	.412
FL3	.311	<b>.748</b>	.507
FL9	.311	<b>.765</b>	.323
FL11	.226	<b>.835</b>	.392
FL12	.287	<b>.836</b>	.381
FL13	.296	<b>.836</b>	.363
FL14	.319	<b>.801</b>	.368
FL15	.281	<b>.737</b>	.260
ADF7	<b>.729</b>	.503	.328
ADF8	<b>.753</b>	.273	.391
ADF9	<b>.801</b>	.261	.497
ADF10	<b>.762</b>	.330	.375
ADF11	<b>.746</b>	.327	.311
ADF14	<b>.759</b>	.276	.570
PERF2	.609	.430	<b>.734</b>
PERF4	.380	.380	<b>.815</b>
PERF5	.332	.284	<b>.718</b>
PERF6	.360	.495	<b>.739</b>
PERF8	.374	.281	<b>.765</b>
PERF9	.374	.293	<b>.772</b>
PERF10	.355	.475	<b>.795</b>
PERF12	.386	.456	<b>.842</b>

Source: Field Survey (2021)

The factor loading structure for access to digital finance indicate that 6 out of the 14 items ranging from (.729-.801). Financial literacy had 9 out of the 15 items ranging from (.737-836) and performance had 8 out of the 14

items ranging from (.718-.851). This indicates that the factor extracts sufficient variance

### Assessing the Structural Model

Table 7 shows the findings of assessing multicollinearity among the variables for this study. In the context of PLS-SEM, a tolerance value of .20 or lower and a VIF value of 5 or higher indicate a potential collinearity problem, respectively (Hair *et al.*, 2011). A VIF rating of 5 indicates that the other formative indicators associated with the same concept account for 80% of the variance in the indicator. In terms of access to digital financing and financial expertise, Table 7 shows a minimum VIF of 1.593 and a maximum VIF of 1.893. According to the findings of this investigation, there was no multicollinearity between the indices.

**Table 7: Collinearity amongst Constructs**

	VIF
Access to digital finance	1.893
Financial Literacy	1.593
Performance	-

Source: Field Survey (2021)

The absence of common method bias is further supported by the VIF results in Table 7. The existence of a VIF value of more than 3.3, according to Kock and Lynn's (2012) criterion, is a symptom of pathological collinearity, as well as an indicator that a model may be contaminated by common method bias. As a consequence, if all VIFs generated from a comprehensive collinearity test are equal to or less than 3.3, the model is free of vertical and lateral collinearity, as well as common method bias (Kock, 2013).

### Assessing Coefficient of Determination and Predictive Relevance

According to Hair *et al.* (2014), structural models with coefficients of determination ( $R^2$ ) of .025, .500 and .750 are weak, moderate and significant, respectively. Whiles predictive relevance  $Q^2$  of “.002, .150 and .350” and effect size ( $F^2$ ) of “.002, .150 and .350” are deemed “small, medium and large,” respectively, for structural models, according to the author. Financial literacy and access to digital finance have a modest (.375) coefficient of determination, accounting for 37.5 % of the variation in SMEs' performance, according to Table 8. The findings show that the model has a moderate predictive significance on the endogenous variable in terms of predictive relevance (0.209). This indicates that the independent variables can predict the dependent variable with accuracy.

**Table 8: Coefficient of Determination and Predictive Relevance Table**

	Path	T-Stats	$R^2$	Adj. Square	$Q^2$	P-Value	$F^2$
Performance			.375	.372	.209		
Access to Digital Finance	.392	7.115				.000	.196
Financial Literacy	.327	6.954				.000	.136

Source: Field Survey (2021)

From Table 8, the effect size ( $F^2$ ) of access to digital finance was 0.196 and financial literacy was 0.136. This result was based on Cohen's (1988) impact indicator where values 0.35 (large), 0.15 (medium) and 0.02 (small). This indicates that access to digital finance and financial literacy has a medium effect size on the performance of SMEs. Finally, the predictive relevance ( $Q^2$ ) for the study was ( $Q^2=0.209$ ). The rule of thumb is that,  $Q^2$  values of 0.35 (large), 0.15 (medium) and 0.02 (small) respectively (Henseler *et al.*, 2009). From Table 8, the  $Q^2$  values ( $Q^2= 0.209$ ) indicate moderate predictive relevance.

**Financial Literacy, Access to Digital Finance and Performance of SMEs**

The second objective of the study was to assess the relationships between financial literacy, access to digital finance and performance of SMEs. Table 9 depicts a single direct path from financial literacy to access to digital finance. Financial literacy accounted for 19.9% of the difference in attitudes on access to digital finance, according to the direct effect. This means that 19.9% change in access to digital finance is explained by financial literacy.

**Table 9: Path Estimation Results for Financial Literacy and Access to Digital Finance**

Path	T-statistics	R <sup>2</sup>	Adjusted R square	Q <sup>2</sup>	P-value
ADF		.201	.199	.1007	
FL	.449	11.058			.000

Source: Field Survey (2021)

Based on route estimation in Table 9, the PLS-SEM results indicated that financial literacy had a significant and a positive influence on access to digital finance ( $\beta = .449$ , p-value = .000). From the analysis in Table 8, it was found that where a manager is financially literate, there is a 44.9% chance of trading with digital platforms. That is once a manager has a high level of financial knowledge, he or she may access digital finance. This result confirms the assumptions of the resource-based theory which suggest that, acquisition of higher knowledge in operation builds the capabilities and competencies of the human resources of a firm to yield competitive advantage and higher firm performance. This means that, broader knowledge in finance will influence management’s ability to seek funds from all legal sources including digital means.

In support of these results, Königsheim, Lukas and Nöth (2017), found that financial competence is strongly associated with the likelihood of utilizing digital financial services. In contrast to this study, Gerrard, Cunningham and Devlin (2006) found that customers were not using internet banking due to a lack of awareness about digitization, a significant barrier to adoption. This implies that being financially literate does not imply being digitally literate.

The PLS-SEM results showed that Access to Digital Finance had a substantial positive effect on Performance of SMEs ( $\beta = .392$ ,  $p\text{-value} = .000$ ) based on path estimate. This is illustrated in Table 10.

**Table 10: Path Estimation Result of Access to Digital Finance and Performance of SMEs**

Path	T-statistics	Adjusted R <sup>2</sup>	Q <sup>2</sup>	P-value
Performance		.3747	.1640	
Access to Digital Finance	.392 7.1078			.000

Source: Field Survey (2021)

Based on the results from Table 10, access to digital finance improved performance by 39.2%. As a result, the study supports the assertion that access to digital finance can enhance SMEs' performance. This is backed by (Ozili, 2018; Abbasi & Weigand, 2017), who found that having access to digital financing has a beneficial impact on business performance. Also, (Agyapong & Attram, 2019; Hussain, Salia, & Karim, 2019; Okello, Mpeera, Munene, & Malinga, 2017), found usage of digital currencies for digital channels, firm's access to funds has impact on performance and growth of firms.

This is further supported by the Resource-Based Theory, which states that businesses or corporations will function successfully if all necessary resources including digital ones are available. Therefore, firms would perform much better if a resource (digital manner of getting cash) is made accessible and available. Financial resources enable organizations to get other forms of resources that are useful in their operations (Stacey, 2011). Even though the study confirms that access to digital finance enhances performance, other authors posit that, such an effect might be in the long run (Siddik, Kabiraj, Shanmugan, & Yanjuan, 2016; Van Uyen, & Phuong 2015; Ceylan, Emre, & Asl, 2008; Hernando, & Nieto, 2007).

### **Mediating Role of Access to Digital Finance on Financial Literacy and Performance of Small and Medium Enterprises**

The third objective of the study was to examine the mediating role of digital finance in the relationship between financial literacy and performance among SMEs. A mediation test was possible since access to digital finance had significant relationship with SMEs' performance and financial literacy. As Nitzl (2016) pointed out, the only requirement for demonstrating mediation effect is a significant indirect effect. The mediating influence of access to digital finance on the nexus between financial literacy and SME performance was explored by bootstrapping, according to Hair *et al* (2017). Table 11 displays the findings of the total effect.

**Table 11: Total Mediating Effect**

	Path	T Statistics ( O/STDEV )	P-Values	f <sup>2</sup>
ADF ->Perf	.392	7.115	.000	.196
FL -> ADF	.449	11.058	.000	.252
FL -> Perf	.327	6.954	.000	.136

Source: Field Survey (2021)

Table 11 indicates the significance of each of the model's recommended paths. It shows that, access to digital finance, has a positive impact on SMEs' performance, with a significant p-value of .000 and a coefficient of .392. There was a positive significant association between financial literacy and access to digital finance, with a p-value of .000 and a coefficient of .449. Also, financial literacy has a positive relationship with SMEs' performance and the relationship is significant, with a p-value of .000 and a coefficient of .327. The coefficient of determination and predictive significance of the model on the dependent variable are shown in Table 12.

According to the findings, access to digital finance accounts for 20.1% of the total variation in the dependent variable. The complete model explains 37.2% of the variance in SMEs' performance. According to Chin (1998), an R<sup>2</sup> value of 48 % indicates moderate variance, which is sufficient (Hair *et al*, 2017). Furthermore, the findings show that the mediating variable is responsible for 19.9% of the variance in access to digital finance and 37.2% of the variation in performance throughout the whole model. Stone-Q<sup>2</sup> Geisser's statistic was used to determine the model's predictive relevance (Stone, 1974). The model has a predictive relevance of 11.4 % for access to digital finance



and 20.9 % for performance, according to Hair *et al* (2016) indicating lower predictive significance.

**Table 12: Coefficient of Determination and Relevance Model on Dependent Variable**

	R <sup>2</sup>	Adjusted R <sup>2</sup>	Q <sup>2</sup> (=1-SSE/SSO)
ADF	.201	.199	.114
Perf	.375	.372	.209

Source: Field Survey (2021)

The particular indirect effect was analysed to establish the type of mediating effect proposed based on the positive significant effect of the mediating variable (access to digital finance) on financial literacy and SMEs performance (Niltz *et al.*, 2016; Hair *et al.*, 2017). The relationship between financial literacy, access to digital finance and SMEs' performance was assessed using mediation analysis. As a result, the hypothesis was put to the test in terms of the indirect effect. Table 13 displays the results of the specific indirect effect. Table 13 shows that the relationship between financial literacy and SMEs' performance is mediated by access to digital finance. Based on Carrión *et al.* (2017) criteria, it can be determined that partial mediation exists. This is because financial literacy has a substantial direct influence on SMEs' performance (p-value = .000, Table 11).

**Table 13: Indirect Relationship**

	Path	T Statistics ( O/STDEV )	P Values
Financial Literacy -> Access to Digital Finance->Performance	.176	5.673	.000

Source: Field Survey (2021)

Findings from these results show that having access to digital finance can improve the relationship between financial literacy and performance by 17.6% when adopted. A study by (Tuffour, Amoako, & Amartey, 2020;

Agyapong & Attram, 2019; Salia & Karim, 2019) showed that, financial literacy has significant impact of a firm's performance because it leads to higher financial decisions which improves performance of business. The studies recommended the need for SMEs to explore more options to raise funds for their businesses. With regards to these recommendations, access to digital finance was adopted in this study to test how a manager's financial literacy could lead to his or her quest to include digitization in their operation using the resourced-based theory and the evolutionary theory of changes. With the results above, it is observed that, the assumptions made by theories mentioned above holds. The resourced-based theory posits that, a firm would perform well when all required resources needed for business operations are made available. The above results showed that, where a manager of an SME is financially literate and uses all his or her knowledge to operate digitally to acquire digital funds, it is statistically proven that performance of the firm will increase by 17.6%.

The findings are also in line with the assumptions made by the evolutionary theory of economic changes which states that the economy is always in the process of change. This emphasized the need of seeking out innovative ways to improve company performance (Nelson, 2009). The theory also states that successful development involves the co-evolution of technologies employed, firm and industry structure and broader economic institutions. Early developers of the theory explained technologies with regards to plants and machinery. Adoption of digitized systems to trade indicates that you are innovative as a business. From this perspective, some internal characteristics, such as access to digital finance practices may be

dependent on the evolution of technology by firms. As the economy is always in the process of change, there is a need as a business to also evolve around.

To explain the effects of technology, particularly the digital economy, on economic growth and development, Myovella, Karacuka and Haucap (2020) offered innovation-based theory of economic development. Thus, techno-finance literacy has a significant influence on SMEs' performance. Kulathunga, Ye, Sharma and Weerathunga (2020) supported these findings drawing on evaluation base perspective and evolutionary theory of economic change. This means performance can be achieved quicker with access to digital finance.

### **Chapter Summary**

With the objectives of the study, this chapter discussed the results and discussion of the study. The chapter also presented a snapshot of the demographic characteristics of the respondents (managers of SMEs). The chapter presented discussions on the level of knowledge and frequency of use of digital platforms by managers of SMEs in trading, the relationships between financial literacy, access to digital finance and performance of SMEs and lastly the mediating effects of access to digital finance on financial literacy and performance of SMEs. The next chapter presents the summary, conclusions and recommendations of the study.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### Introduction

This chapter which is the concluding chapter of this study presents the summary, key findings and conclusion of the study as well as recommendations and suggestions for future research.

#### Summary

The purpose of this research was to assess the relationships between financial literacy, access to digital finance and SMEs' performance in Agona Swedru, Kasoa, Cape Coast, Mankessim and Assin Fosu. To attain this aim, three objectives were devised. These objectives were to determine the level of knowledge of managers of SMEs and the frequency of use of digital platforms in trading, assess the relationship between financial literacy, access to digital finance and performance of SMEs and finally evaluate the mediating effect of access to digital finance on financial literacy and SMEs' performance.

Before the distribution of questionnaires of the main work, the questionnaires were put through a pilot test. Cape Coast and Agona Swedru, two of the towns, were given this responsibility. The survey included a total of 30 people who took part. Respondents were given the essential self-administered questions after the pre-test, which were based on a rating scale and extensive literature to minimize common method bias. Respondents from these five towns were chosen at random from a population of 400 people using stratified random sampling. Proportionate stratified sampling was employed in this investigation.

As a consequence, each town received an allocation of 80 responders. The tool was created to concentrate on the demographic features and factors of the research. The demographic information supplied by respondents was examined using descriptive statistics expressed in frequencies and percentages. The first study objective was also analysed using SPSS and descriptive statistics. The study's other two objectives were analysed using partial least squares structural equation modelling techniques and the SMART PLS Version 3.0. The most significant findings with the study's objectives are listed below;

### **Key Findings**

The following information was discovered with the first objective; managers' level of knowledge on the use of digital financial platforms: Findings revealed that managers had some level of knowledge on how to use a specific digital platform, Mobile Money. Knowledge on other platforms were scored lower, indicating that users' understanding of those platforms, such as Paypal, cryptocurrency, mobile banking and others, was limited. This was due to little or no training on their usage as well insecurities such as frauds. These results influenced the frequency of use of these platforms. Also, Mobile Money was the platform that was frequently used. Other platforms' frequent usage was scored lower, indicating that those platforms, such as Paypal, cryptocurrency, mobile banking and others, were never or seldom used.

The second objective analysed the relationship between financial literacy, access to digital finance and the performance of SMEs. It was found that financial literacy had a significant relationship with access to digital finance. This showed that if management is financially knowledgeable, they

can easily access cash via digital means. Also, access to digital finance was found to have a significant and positive relationship with performance. This means that having access to digital financing has a significant effect on SMEs performance. The third objective was to determine the mediating role of access to digital finance in the relationship between financial literacy and SMEs' performance. It was discovered that access to digital finance partially mediates the relationship between financial literacy and SMEs performance.

### **Conclusions**

Based on the findings of this study, it can be concluded that, where management is financially knowledgeable and live up to current financial developments, they can easily access cash via digital means. Also, having access to funds through digital platforms will improve the finances of the firm leading to higher performance. That is management can achieve quicker performance if they can introduce digital platforms in their business. These conclusions were supported by the positions of the Resourced-Based Theory and the Evolutionary Theory of Economic Changes.

### **Recommendations**

Managers should consider expanding their payment models to embrace digital payments to grow their client base and sales. Specifically, they should grow and broaden their mode of transactions to include the digitization of trade receipts and payments. This is because, most customers today prefer the cashless manner of commerce due to security reasons like robbery. This will in turn result in more sales, which will lead to increased revenue and improved financial performance for the SME. It is also recommended that managers of

SMEs have training and workshops on digital literacy to increase their level of knowledge in other digital platforms in addition to MoMo.

Also, as a policy, government and relevant stake holders should make laws to regulate online trading. This will increase the confidences of managers of these SMEs to adopt digitization in trading. The Ghana Chamber of Commerce and other stakeholders must encourage managers of SMEs and citizens to use the digital platforms available in Ghana using the media and any other rightful channel. Also, government and other stakeholders should make efforts to pass a law that will regulate the operations of these digital service providers. This is because most businesses depend on them to trade and that any negative action by them would impede the performance of SMEs and consequently their survival.

In relation to the resource-based theory used in this study, it is recommended that, further developments on the theory should stress more on the importance of intangible resources and digitization in yielding performance. The current state of this theory focuses more on the tangible resources with less attention on intangible resources and other technological changes such as knowledge and digitization. Also, it is recommended the evolutionary theory of economic change theory be upgraded to include digitization in business. This is because digitization is a form of technological change existing in the business world.

### **Further Research Suggestions**

It is suggested that more research be done on how financial technology literacy affects the use of digital financial platforms. Also, studies on how age influences the usage of financial technology and the frequency with which is

should be conducted. A longitudinal replication of this study will also aid in exposing how access to digital finance will affect corporate performance in the long run.





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APPENDICES

APPENDIX 1

Table 14: Cross Loading of Variables

	Access to Digital Finance	Financial Literacy	Financial Literacy * Access to Digital Finance	Performance
FL1	0.3973	<b>0.7423</b>	0.5972	0.4654
FL2	0.4317	<b>0.7801</b>	0.6605	0.4116
FL3	0.3113	<b>0.7478</b>	0.5447	0.507
FL4	0.3218	<b>0.6929</b>	0.5238	0.3357
FL5	0.2577	<b>0.6252</b>	0.4777	0.2575
FL9	0.3105	<b>0.7649</b>	0.5905	0.3229
FL11	0.2258	<b>0.8347</b>	0.5544	0.3922
FL12	0.2869	<b>0.8355</b>	0.5924	0.3805
FL13	0.2958	<b>0.8364</b>	0.5954	0.363
FL14	0.3188	<b>0.8012</b>	0.5833	0.3684
FL15	0.2807	<b>0.7366</b>	0.5429	0.26
ADF6	<b>0.6717</b>	0.2498	0.6204	0.253
ADF7	<b>0.7292</b>	0.5031	0.7457	0.3275
ADF8	<b>0.7533</b>	0.2731	0.6639	0.3907
ADF9	<b>0.8011</b>	0.2609	0.6797	0.4969
ADF10	<b>0.7618</b>	0.3298	0.6795	0.3754
ADF11	<b>0.7461</b>	0.3266	0.6742	0.3109
ADF13	<b>0.6343</b>	0.2676	0.5789	0.2155
ADF14	<b>0.7593</b>	0.2763	0.6409	0.5698
PERF1	0.4681	0.2646	0.4247	<b>0.6604</b>
PERF2	0.6092	0.4295	0.6103	<b>0.7339</b>
PERF3	0.2417	0.2484	0.247	<b>0.6541</b>
PERF4	0.3801	0.3797	0.4324	<b>0.8147</b>
PERF5	0.3321	0.284	0.3662	<b>0.7179</b>
PERF6	0.3595	0.495	0.4866	<b>0.7392</b>
PERF8	0.3742	0.2809	0.3739	<b>0.7645</b>
PERF9	0.3738	0.293	0.3785	<b>0.7715</b>
PERF10	0.3552	0.4746	0.4625	<b>0.7945</b>
PERF11	0.3354	0.4227	0.4295	<b>0.6702</b>
PERF12	0.386	0.4564	0.4808	<b>0.8424</b>
PERF14	0.4176	0.2721	0.4166	<b>0.6552</b>
FL1*ADF6	0.716	0.5102	0.7779	0.4201
FL1*ADF7	0.7096	0.6577	0.8194	0.4321
FL1*ADF8	0.7487	0.4774	0.772	0.5089
FL1*ADF9	0.7719	0.5132	0.7888	0.5831
FL2*ADF6	0.7011	0.5375	0.7897	0.3841

FL2*ADF7	0.6917	0.6811	0.828	0.3917
FL2*ADF8	0.7448	0.5035	0.7917	0.4793
FL2*ADF9	0.7752	0.5605	0.8241	0.563
FL3*ADF6	0.6778	0.5136	<b>0.7585</b>	0.4201
FL3*ADF7	0.6687	0.6792	<b>0.8009</b>	0.4349
FL3*ADF8	0.7562	0.4929	<b>0.7881</b>	0.5295
FL3*ADF9	0.7515	0.5363	<b>0.7889</b>	0.6106
FL4*ADF6	0.671	0.5089	<b>0.7467</b>	0.3496
FL4*ADF7	0.6551	0.6585	<b>0.7811</b>	0.35
FL4*ADF8	0.7365	0.4679	<b>0.76</b>	0.4637
FL4*ADF9	0.7491	0.5208	<b>0.7801</b>	0.5344
FL5*ADF6	0.6633	0.4824	<b>0.7374</b>	0.3384
FL5*ADF7	0.6381	0.6398	<b>0.7719</b>	0.3407
FL5*ADF8	0.7039	0.4714	<b>0.7534</b>	0.4199
FL5*ADF9	0.6972	0.4897	<b>0.7417</b>	0.4985
FL9*ADF6	0.6672	0.5582	<b>0.7796</b>	0.3796
FL9*ADF7	0.6613	0.699	<b>0.8157</b>	0.3936
FL9*ADF8	0.7165	0.5275	<b>0.7852</b>	0.4675
FL9*ADF9	0.7566	0.593	<b>0.8323</b>	0.5859
FL1*ADF10	0.7495	0.5866	<b>0.8035</b>	0.5146
FL1*ADF11	0.7415	0.5859	<b>0.8032</b>	0.4697
FL1*ADF13	0.6831	0.582	<b>0.7594</b>	0.387
FL1*ADF14	0.7384	0.5682	<b>0.773</b>	0.6616
FL11*ADF6	0.6683	0.5788	<b>0.7897</b>	0.3821
FL11*ADF7	0.6417	0.7245	<b>0.8131</b>	0.3842
FL11*ADF8	0.7253	0.5606	<b>0.8086</b>	0.4792
FL11*ADF9	0.7494	0.6042	<b>0.8328</b>	0.5802
FL12*ADF6	0.6931	0.5582	<b>0.7965</b>	0.3713
FL12*ADF7	0.6691	0.7129	<b>0.8265</b>	0.3972
FL12*ADF8	0.7295	0.526	<b>0.7923</b>	0.4645
FL12*ADF9	0.7729	0.5914	<b>0.8407</b>	0.5782
FL13*ADF6	0.6853	0.5482	<b>0.7837</b>	0.3569
FL13*ADF7	0.6647	0.7096	<b>0.8187</b>	0.3807
FL13*ADF8	0.7353	0.5304	<b>0.7963</b>	0.4573
FL13*ADF9	0.7751	0.5938	<b>0.8393</b>	0.5637
FL14*ADF6	0.68	0.5269	<b>0.7698</b>	0.3607
FL14*ADF7	0.6685	0.6863	<b>0.8101</b>	0.3889
FL14*ADF8	0.7194	0.4952	<b>0.7668</b>	0.4514
FL14*ADF9	0.7545	0.5529	<b>0.8033</b>	0.545
FL15*ADF6	0.6654	0.5214	<b>0.7601</b>	0.3299
FL15*ADF7	0.6387	0.6723	<b>0.7824</b>	0.3503
FL15*ADF8	0.7192	0.4988	<b>0.7697</b>	0.428
FL15*ADF9	0.7404	0.5464	<b>0.7923</b>	0.5221
FL2*ADF10	0.7364	0.6164	<b>0.821</b>	0.4753
FL2*ADF11	0.7333	0.616	<b>0.8234</b>	0.421
FL2*ADF13	0.6436	0.5957	<b>0.7506</b>	0.3349

FL2*ADF14	0.7511	0.6124	<b>0.8166</b>	0.627
FL3*ADF10	0.714	0.6175	<b>0.7944</b>	0.5338
FL3*ADF11	0.6991	0.5988	<b>0.7811</b>	0.4836
FL3*ADF13	0.6297	0.5916	<b>0.7291</b>	0.4063
FL3*ADF14	0.7095	0.578	<b>0.7593</b>	0.6682
FL4*ADF10	0.7051	0.6105	<b>0.7846</b>	0.44
FL4*ADF11	0.6711	0.575	<b>0.7491</b>	0.3696
FL4*ADF13	0.6279	0.5937	<b>0.7286</b>	0.3057
FL4*ADF14	0.7139	0.5702	<b>0.7612</b>	0.5869
FL5*ADF10	0.6411	0.5545	<b>0.7279</b>	0.3832
FL5*ADF11	0.6317	0.5456	<b>0.7256</b>	0.3291
FL5*ADF13	0.5738	0.5422	<b>0.6839</b>	0.2698
FL5*ADF14	0.7123	0.5562	<b>0.7713</b>	0.5345
FL9*ADF10	0.6844	0.646	<b>0.8017</b>	0.4517
FL9*ADF11	0.668	0.6309	<b>0.7879</b>	0.4032
FL9*ADF13	0.6001	0.6197	<b>0.7395</b>	0.3281
FL9*ADF14	0.7247	0.6222	<b>0.8156</b>	0.5851
FL11*ADF10	0.6739	0.6604	<b>0.8001</b>	0.4509
FL11*ADF11	0.6673	0.6591	<b>0.8003</b>	0.4083
FL11*ADF13	0.588	0.6508	<b>0.7437</b>	0.3186
FL11*ADF14	0.6643	0.6509	<b>0.7789</b>	0.6205
FL12*ADF10	0.6995	0.6392	<b>0.8059</b>	0.444
FL12*ADF11	0.6844	0.6343	<b>0.7981</b>	0.3881
FL12*ADF13	0.6185	0.641	<b>0.7586</b>	0.315
FL12*ADF14	0.7066	0.6386	<b>0.801</b>	0.6259
FL13*ADF10	0.7158	0.6487	<b>0.8181</b>	0.4445
FL13*ADF11	0.6887	0.6385	<b>0.7989</b>	0.3858
FL13*ADF13	0.6222	0.6458	<b>0.761</b>	0.3136
FL13*ADF14	0.7001	0.635	<b>0.7903</b>	0.6117
FL14*ADF10	0.7147	0.6312	<b>0.8074</b>	0.4481
FL14*ADF11	0.7023	0.6158	<b>0.7958</b>	0.4014
FL14*ADF13	0.6283	0.6052	<b>0.7429</b>	0.3184
FL14*ADF14	0.7119	0.602	<b>0.7822</b>	0.6138
FL15*ADF10	0.6801	0.6092	<b>0.7744</b>	0.4041
FL15*ADF11	0.6738	0.5969	<b>0.7695</b>	0.3601
FL15*ADF13	0.5834	0.5666	<b>0.696</b>	0.2715
FL15*ADF14	0.7339	0.5872	<b>0.7971</b>	0.5585

Source: Field Survey, 2021

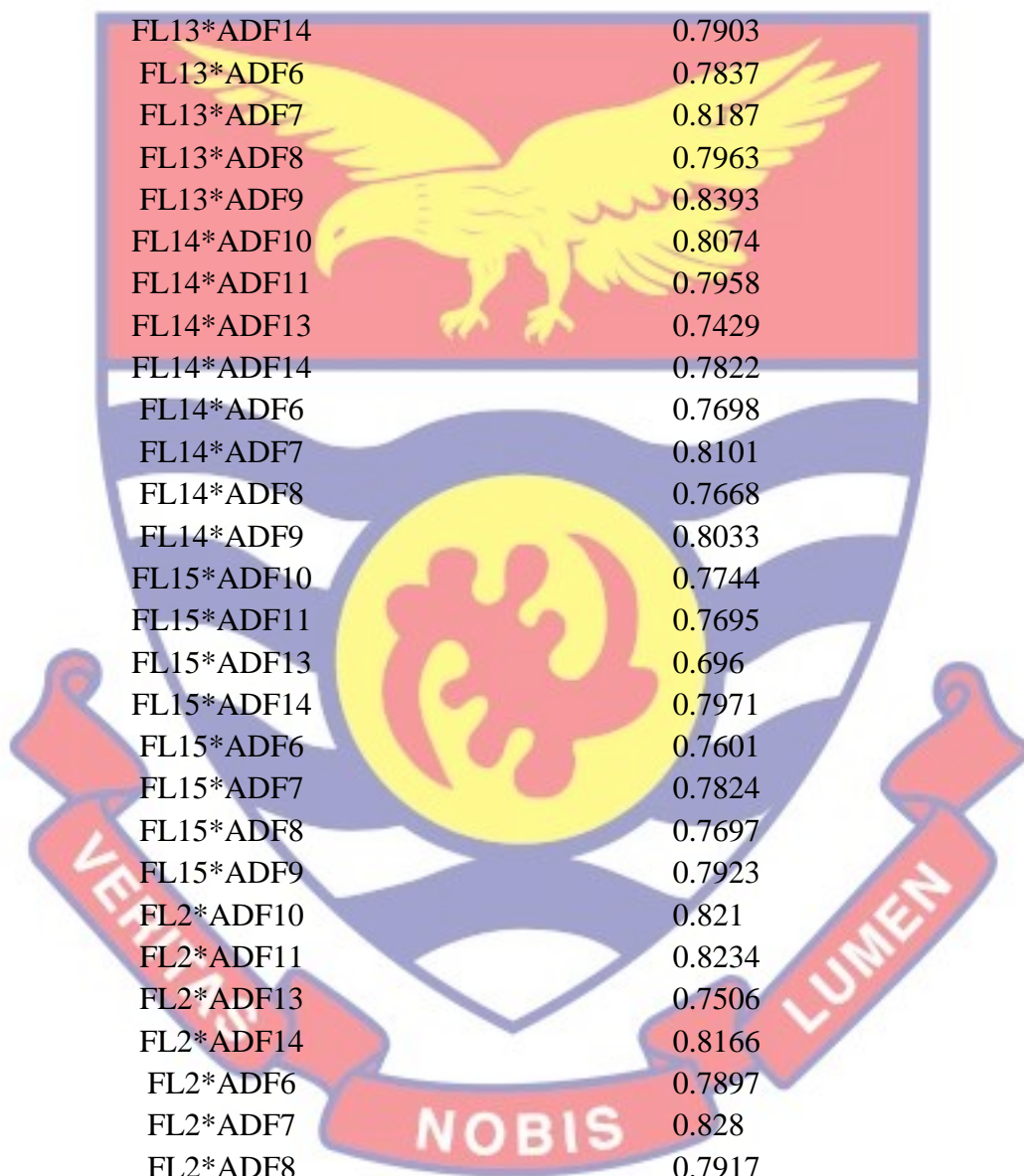


**APPENDIX 2**

**Table 15:** Outer Loading of Variables

	Access to Digital Finance	Financial Literacy	Financial Literacy * Access to Digital Finance	Performance
ADF10	0.7618			
ADF11	0.7461			
ADF13	0.6343			
ADF14	0.7593			
ADF6	0.6717			
ADF7	0.7292			
ADF8	0.7533			
ADF9	0.8011			
FL1		0.7423		
FL11		0.8347		
FL12		0.8355		
FL13		0.8364		
FL14		0.8012		
FL15		0.7366		
FL2		0.7801		
FL3		0.7478		
FL4		0.6929		
FL5		0.6252		
FL9		0.7649		
FL1*ADF10			0.8035	
FL1*ADF11			0.8032	
FL1*ADF13			0.7594	
FL1*ADF14			0.773	
FL1*ADF6			0.7779	
FL1*ADF7			0.8194	
FL1*ADF8			0.772	
FL1*ADF9			0.7888	
FL11*ADF10			0.8001	
FL11*ADF11			0.8003	
FL11*ADF13			0.7437	
FL11*ADF14			0.7789	
FL11*ADF6			0.7897	
FL11*ADF7			0.8131	
FL11*ADF8			0.8086	
FL11*ADF9			0.8328	
FL12*ADF10			0.8059	
FL12*ADF11			0.7981	
FL12*ADF13			0.7586	

FL12*ADF14	0.801
FL12*ADF6	0.7965
FL12*ADF7	0.8265
FL12*ADF8	0.7923
FL12*ADF9	0.8407
FL13*ADF10	0.8181
FL13*ADF11	0.7989
FL13*ADF13	0.761
FL13*ADF14	0.7903
FL13*ADF6	0.7837
FL13*ADF7	0.8187
FL13*ADF8	0.7963
FL13*ADF9	0.8393
FL14*ADF10	0.8074
FL14*ADF11	0.7958
FL14*ADF13	0.7429
FL14*ADF14	0.7822
FL14*ADF6	0.7698
FL14*ADF7	0.8101
FL14*ADF8	0.7668
FL14*ADF9	0.8033
FL15*ADF10	0.7744
FL15*ADF11	0.7695
FL15*ADF13	0.696
FL15*ADF14	0.7971
FL15*ADF6	0.7601
FL15*ADF7	0.7824
FL15*ADF8	0.7697
FL15*ADF9	0.7923
FL2*ADF10	0.821
FL2*ADF11	0.8234
FL2*ADF13	0.7506
FL2*ADF14	0.8166
FL2*ADF6	0.7897
FL2*ADF7	0.828
FL2*ADF8	0.7917
FL2*ADF9	0.8241
FL3*ADF10	0.7944
FL3*ADF11	0.7811
FL3*ADF13	0.7291
FL3*ADF14	0.7593
FL3*ADF6	0.7585
FL3*ADF7	0.8009



FL3*ADF8	0.7881
FL3*ADF9	0.7889
FL4*ADF10	0.7846
FL4*ADF11	0.7491
FL4*ADF13	0.7286
FL4*ADF14	0.7612
FL4*ADF6	0.7467
FL4*ADF7	0.7811
FL4*ADF8	0.76
FL4*ADF9	0.7801
FL5*ADF10	0.7279
FL5*ADF11	0.7256
FL5*ADF13	0.6839
FL5*ADF14	0.7713
FL5*ADF6	0.7374
FL5*ADF7	0.7719
FL5*ADF8	0.7534
FL5*ADF9	0.7417
FL9*ADF10	0.8017
FL9*ADF11	0.7879
FL9*ADF13	0.7395
FL9*ADF14	0.8156
FL9*ADF6	0.7796
FL9*ADF7	0.8157
FL9*ADF8	0.7852
FL9*ADF9	0.8323
PERF1	0.6604
PERF10	0.7945
PERF11	0.6702
PERF12	0.8424
PERF14	0.6552
PERF2	0.7339
PERF3	0.6541
PERF4	0.8147
PERF5	0.7179
PERF6	0.7392
PERF8	0.7645
PERF9	0.7715

Source: Field Survey, 2021

## APPENDIX 3

## Digital Payment Transactions: 2015–2017

PAYMENT INSTRUMENT	INDICATORS	2015	2016	Growth (%)	2017	Growth (%)
<b>ACH Direct Credit</b>	Volume of transactions	4,668,636	5,242,610	12.29	6,061,093	15.61
	Value of transactions (GH¢Mn)	15,075.07	19,245.65	27.67	24,327.26	26.40
<b>ACH Direct Debit</b>	Volume of transactions	692,615	874,846	26.31	940,649	7.52
	Value of transactions (GH¢Mn)	70.91	127.01	79.11	126.28	-0.57
<b>Instant Pay (GIP)</b>	Volume of transactions	—	184	18,400.00	41,795	22,614.67
	Value of transactions (GH¢Mn)	—	0.42	42.00	83.23	19,716.67
<b>Internet Banking</b>	Number of registered Customers	840,532	962,487	14.51	936,965	-2.65
	Volume of transactions	999,439	2,705,191	170.67	2,437,785	-9.88
	Value of transactions (GH¢Mn)	2,286.70	6,779.21	196.46	9,739.34	43.66
<b>Mobile Banking</b>	Number of registered customers	1,449,374	2,175,644	50.11	2,110,984	-2.97
	Volume of transactions	5,440,387	6,821,838	25.39	7,036,285	3.14
	Value of transactions (GH¢Mn)	178.59	357.38	100.12	1,501.37	320.10
<b>Debit Cards</b>	Number of Cards Issued	4,304,097	5,446,030	26.53	5,953,484	9.32
	Volume of transactions	22,852,411	46,456,021	103.29	60,382,177	29.98
	Value of transactions (GH¢Mn)	5,213.72	13,582.67	160.52	17,785.18	30.94
<b>Credit Cards</b>	Number of Cards Issued	5,438	9,217	69.49	14,698	59.47
	Volume of transactions	57,801	138,037	138.81	185,101	34.10
	Value of transactions (GH¢Mn)	33.73	70.08	107.77	99.99	42.68
<b>Prepaid Cards</b>	Number of Cards Issued	44,250	58,907	33.12	86,017	46.02
	Volume of transactions	143,531	312,143	117.47	472,071	51.24
	Value of transactions (GH¢Mn)	51.85	103.26	99.15	255.87	147.79
<b>E-zwich Cards</b>	Number of Cards Issued	1,369,369	1,878,044	37.15	2,364,456	25.90
	Volume of transactions	2,251,101	5,365,085	138.33	8,367,017	55.95
	Value of transactions (GH¢Mn)	922.90	2,362.97	156.04	3,431.49	45.22
<b>Mobile Money</b>	Number of Registered Accounts	13,120,367	19,735,098	50.42	23,947,437	21.34

Source: Ministry of Finance (2017)

**APPENDIX 4**

**UNIVERSITY OF CAPE COAST  
COLLEGE OF HUMANITY AND LEGAL STUDIES  
SCHOOL OF BUSINESS  
DEPARTMENT OF FINANCE**

Dear Sir/Madam you are kindly invited to serve as a participant to this study which seeks to research “Financial Literacy, Access to Digital Finance and Performance of SMES in the commercial areas in the Central Region of Ghana”. This exercise is strictly for academic research purposes, and respondents’ responses shall be treated with the utmost confidentiality. Kindly, provide the required responses by ticking [] where applicable and specifying where necessary.

Thank you. -

**PART A**

1. Sex  
a. Male []      b. Female []
2. Please state your age.....years
3. Educational Qualification  
a. Diploma []  
b. Degree []  
c. Master’s Degree []  
d. Other (Please specify) .....
4. Please estimate the number of employees in the firm.....
5. What is the type of your firm?  
a. Manufacturing []      b. Service []
6. State the number of years you have been in business.....
7. Your job position in the firm:  
a. Owner manager []      c. Supervisor []  
b. Manager []      d. Employee []
8. Please state your religious affiliation  
1. Orthodox []      c. Islam []  
2. Pentecostal/ Charismatic []      d. Traditional []

**PART B**  
**SECTION A**  
**KNOWLEDGE**

Knowledge on financial products, services and concepts: Respondents are being asked about the extent of their knowledge in terms of basic financial products, services and concepts. Clear explanation of the products, services and terms will enable respondents give correct description of the terms. From 1-10 indicate how you perform these activities with 10 being the highest and 1 being the least.

Please rate your knowledge on the following digital financial products	1	2	3	4	5	6	7	8	9	10
Mobile Money & Agency Bank Tech for example; fortics , airtel money , MTN Mobile Money, tiGO cash, Vodafone cash										
<b>Mobile Banking</b>										
Payments (Mobile & Card Acquiring) for example eTranzact , expressPay , in Charge , interpay , Slydepay Zeepay , ProfPay , WebSoft Solutions										
Cryptocurrency										
Paypal										
Other ..... ....										

**SECTION B**  
**FREQUENCY OF USE OF DIGITAL FINANCIAL PRODUCTS**

Frequency of use of financial products, services and concepts: Respondents are being asked about the frequency of use of digital financial services in terms basic financial products, services and concepts. Clear explanation of the products, services and terms will enable respondents give correct description of the terms. From 1-10 indicate how you perform these activities with 10 being the highest and 1 being the least.

How do you frequently use these digital platforms	1	2	3	4	5	6	7	8	9	10
Mobile Money & Agency Bank Tech for example; fortics , airtel money , MTN Mobile Money, tiGO cash, Vodafone cash										
<b>Mobile Banking</b>										
Payments (Mobile & Card Acquiring) for example eTranzact, expressPay , inCharge , interpay , Slydepay Zeepay ProfPay , WebSoft Solutions.										
<b>Cryptocurrency</b>										
Paypal										
Other .....										

**SECTION C  
MEASURING FINANCIAL LITERACY**

Frequency of use of financial products, services and concepts: Respondents are being asked on how they apply the skills, knowledge and behavior in discharging their duties as managers. The questions below will measure a manager's financial skills, behavior and knowledge

From 1-10 indicate how you perform these activities with 10 being the highest and 1 being the least.	1	2	3	4	5	6	7	8	9	10
I budget for my weekly/monthly financial activities										
My spending is always based on prior planning										
I consider a product from different market outlets before making the decision to buy it										
I compare interest rates and other										

benefits when deciding to save or borrow my money																			
I keep close personal watch on my finances (what I spend and receive).																			

I find it more satisfying to spend than save money for the medium-long term.																			
Buying on credit ends up being more expensive than paying with cash.																			
I have adequate knowledge on investments (insurance packages, stocks, bonds, mutual funds).																			
I know how to manage resources available to me.																			
I have adequate knowledge on digital financing and able to use most of the digital financing products in my business.																			
I know how to make good personal finance decisions.																			
I have good control over financial issues.																			
I am able to keep good financial records.																			
I have adequate knowledge about budgeting.																			
I have adequate knowledge about saving.																			



**SECTION D**

**MEASURING ACCESS TO DIGITAL FINANCE**

**(Alliance for Financial Inclusion, 2016) Kindly Rate your level in the performance of the various activities with 1 being the least and 10 being the highest**

	1	2	3	4	5	6	7	8	9	10
Extent of access to digital financial services: How are you frequently using these financial services.										
Mobile Money & Agency Bank Tech for example; fortics, airtel money, MTN Mobile Money, tiGO cash, Vodafone cash.										
<b>Mobile Banking</b>										
Payments (Mobile & Card Acquiring) for example, eTranzact expressPay, inCharge , interpay Slydepay , Zeepay , ProfPay WebSoft Solutions.										
<b>Cryptocurrency</b>										
Paypal										
Proximity to digital financial services.										
Rate how the digital platform you use allows you to make deposits.										
Rate how the digital platform you use allows you to contract a loan.										
Rate the extent of support from your customers Rate the extent of support from your customers.										
Rate how risky it is to use digital means; Risk Premium charged on the usage of digital means.										
Rate the tightness of digital platform conditions.										
I spend today and let tomorrow cater for										

itself.											
Rate the flexibility in converting cash received using digital financial platforms.											
Rate the percentage of your customer population with access to digital financial services.											

**SECTION E**  
**MEASURING SME PERFORMANCE**

From 1-10 indicate how you perform these activities with 10 being the highest and 1 being the least.

Presently and during the last five years in your (my) business;	1	2	3	4	5	6	7	8	9	10
How will you rate the impact current monetary policies and other economic policies have on your firm's performance?										
How will you rate your ability to meet short-term financial requirements and refinancing risks?										
I am able to cover my financial obligations including tax.										
How will you rate the growth the of profit of the firm?										
Customers are able to pay their debts on time.										
I am able to cover my daily expenses.										
Rate your labor turn over.										

	1	2	3	4	5	6	7	8	9	10
Rate your cost of employment to employee performance on this.										

Rate your total capital expenditure for the year.										
How will you rate the growth sales of the firm?										
Reticent to exploit changes in the field.										
Rate your total purchases for the year										
The firms have been able to contribute and support the society.										
How will you rate the growth of debtors and creditors of the firm?										

