

DURBAN UNIVERSITY OF TECHNOLOGY

THE IMPLICATION OF SOCIAL MEDIA MARKETING ON THE
SUSTAINABILITY OF SMEs IN ACCRA GHANA

AMEGBE HAYFORD

DECEMBER 2023



THE IMPLICATION OF SOCIAL MEDIA MARKETING ON THE SUSTAINABILITY OF SMEs IN ACCRA GHANA

Submitted in fulfillment of the requirements of the
Degree of Doctor of Philosophy in Management Sciences,
Specialising in Marketing, in the Faculty of Management Sciences
at the Durban University of Technology

AMEGBE HAYFORD

DECEMBER 2023

APPROVED FOR FINAL SUBMISSION

12th December 2023

Supervisor/Promoter: Dr. Nkululeko PraiseGod Zungu

Date

12th December 2023

Co-Supervisor: Professor Emmanuel Selase Asamoah

Date

ABSTRACT

Social media is a nascent technological tool that impacts organizations today. The impact varies from large to small organizations and developed and developing country contexts. The present study advances insight by investigating the implication of social media marketing on small and medium enterprise (SME) sustainability in Accra, using an exploratory, sequential, mixed methods strategy. The study commenced with the qualitative phase, interviewing 16 SMEs in Accra from different industries, as classified by the Ghana Investment and Promotion Council. The findings from the qualitative phase formed the basis for the quantitative phase, which surveyed 234 SMEs to participate in the study. The qualitative data were analysed with NVivo, while SmartPLS was employed for the quantitative data.

Findings from the qualitative and quantitative phases reveal support for organisational and entrepreneurial factors influencing the adoption decision of SMEs in Accra. However, the study did not find support for two qualitative phase technological factors (complexity and perceived cost) and one environmental factor (institutional pressure). Furthermore, support for social media adoption and financial marketing performance were revealed as non-financial marketing performance in both study phases, while financial marketing performance was found to also support environmental and social sustainability. This study's originality lies in the use of a sequential mixed methods approach, to extend Technology, Organization and Environment theory in examining marketing performance outcomes and sustainability. Moreover, the inclusion of an additional factor to test social media adoption among SMEs and developing a conceptual framework to explore and test these relationships, differentiates this study.

Theoretically, the study contributes to the existing knowledge, demonstrating the factors influencing SMEs' social media adoption, how this translates into non-financial marketing performance of SMEs and would lead to their sustainable performance. Based on the overall findings, the study also develops a conceptual framework that can serve as a foundation upon which future studies could be conducted. Practically, the findings would also benefit SME owners/managers on advantages of social media use in their organizations and to develop a proper implementation strategy. For policymakers who oversee SME activities, this study would provide the avenue for policy formulation on how SMEs can take advantage of social media in their organization to enable them to become competitive and remain sustainable.

DECLARATION BY STUDENT

I declare conducting this thesis by following the guidelines provided by the Faculty of Management Sciences of the Durban University of Technology and further declare that the outcome of the entire study is the result of my independent investigation, except where otherwise stated. The references used have been duly acknowledged both as in-text citations and bibliography. Finally, I declare that no part of this thesis has been submitted for the award of any other degree or being concurrently submitted in candidature for any other doctoral degree in any other institution of higher education.

Name: Hayford Amegbe

Signature: _____

Date: December 2023

NOTICE OF CONSENT

I, Hayford Amegbe, hereby give my consent that this thesis can be photocopied for inter-library loan and that the title and abstract may be made available to institutions external to the Durban University of Technology and future students.

Name: Hayford Amegbe Signature: _____

Date: December 2023

DEDICATION

To my wife and children, Rebecca Darku-Amegbe, Jeremiah Kweku Abiam Amegbe, Chris-Ann Amegbe, and Nyamenyhiria Patience Amegbe.

To my mother, Florence Danso, and my siblings, Felix Ata Bosso, Gilbert Amegbe, Doris Amegbe, Frank Nyarko Amegbe, Phaniel Amegbe and Christian Kwame Danso

ACKNOWLEDGEMENTS

The journey has been long, and God Almighty has seen me through. I say thank you, God. I want to extend my sincere appreciation to my supervisors, Dr. Nkululeko PraiseGod Zungu and Professor Emmanuel Selase Asamoah, for your guidance, mentoring, encouragement, and support during the entire period. I say God richly bless all of you for your time and efforts invested in me.

To my wife and children, I say a big thank you for holding the fort when I was practically unavailable most of the time to attend to the family. To Prof Efua Nkrumah, I say you are God sent to my life. Without you, this journey would not have been possible for me. I say thank you for showing me this extreme kindness. To Prof Felix Hammond, thank you for believing in me and always motivating me to go for the best.

I also highly appreciate Felix Attah Bosso, who never turns his back on me during challenging moments. My appreciation also goes to my brothers and sisters, who always pray for me during this journey. I say to all of you, thank you, and God bless you all.

I also acknowledge Mr and Mrs Bosch for your support and encouragement.

Lastly, and more importantly, I am privileged to be surrounded by very great and excellent friends, Charles Hanu, Michael Dzandu and Christian Nedu Osakwe. Your support for this entire journey was amazing and mind-blowing, my dear friends and brothers. I say thank you, and may the Almighty God bless you all.

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CSR	Corporate social responsibility
DoI	Diffusion of Innovation theory
EICT	Emerging Information and Communications Technologies
GIPC	Ghana Investment and Promotion Council
HND	Higher National Diploma
HTMT	Heterotrait-monotrait ratio
ICT	Information and Communications Technologies
Masloc	Microfinance and Small Loans Centre
PEU	Perceived ease of use
SEM-PLS	Structural Equation Modelling-Partial Least Squares
SME	Small and medium enterprise
SMM	Social media marketing
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model
TOE	Technology, Organization and Environment
UTAUT	Unified theory of acceptance and use of technology
VIF	Variance inflation factor
WASSCE	West African Senior School Certificate Examination

CHAPTER ONE

INTRODUCTION AND BACKGROUND INFORMATION

1.1 Introduction to the Study

Social media has revolutionized the way businesses operate, particularly for Small and Medium Enterprises (SMEs) seeking to market their products and services in Accra, Ghana. With the increasing penetration of social media platforms, such as Facebook, WhatsApp, Instagram, Twitter, and LinkedIn (Dwivedi, Shareef, Akram, Bhatti, and Rana 2022: 1; Osakwe and Ikhide 2022: 990), SMEs are exploiting these platforms to reach a broader audience and attract potential customers. Social media marketing offers SMEs in Accra, Ghana, an opportunity to build brand awareness, engage with their customers, and increase sales through cost-effective marketing strategies (Odoom and Mensah 2018: 156; Sedalo, Boateng, and Kosiba 2022: 1).

However, despite the potential benefits of social media marketing, the sustainability of SMEs in Accra, Ghana, remains a challenge (Osakwe and Ikhide 2022: 990). While some SMEs have successfully harnessed the power of social media to grow their businesses, others struggle to achieve significant results. The limited resources, skills, and knowledge about social media marketing, coupled with the intense competition, pose significant threats to the survival of SMEs in Accra, Ghana.

Therefore, it is essential to explore the implications of social media marketing on the sustainability of SMEs in Accra, Ghana, to identify the opportunities and challenges facing these businesses. By understanding the role of social media marketing in the success of SMEs in Accra, Ghana, policymakers, business owners, and stakeholders can develop appropriate interventions to support the growth and sustainability of SMEs. This study aims to investigate the implications of social media marketing on the sustainability of SMEs in Accra, Ghana, and provide insights into the factors that influence the success or failure of social media marketing and sustainability among SMEs. Hence, this chapter is guided by the following sections: study background, the research problem statement, main and sub-objectives, as well as the hypotheses, study significance, limitations and delimitations, and the organisation of the thesis.

1.2 Background to the Study

The contribution of SMEs toward the economic development and growth of emerging and or developing economies is not in doubt (Amoah, and Jibril 2021: 1; Qalati *et al.* 2022: 2). Various researchers have documented SMEs contributing towards economic development and growth of both developed and developing countries, in particular, through the creation of employment opportunities, reducing poverty, and alleviating socioeconomic inequalities (Borah, Iqbal, and Akhtar 2022: 1; Ali Abbasi *et al.* 2022: 2). For instance, in the context of Ghana, SMEs are known to employ 70 percent of the country's total population (Amoah and Jibril 2021: 1). The current study defined SMEs in the context of Ghana as enterprises with employees numbering between 1-150, which is consistent with previous studies (Eze *et al.* 2020: 43).

SMEs find themselves in a constantly changing technological environment, making it difficult to remain competitive and sustainable. It is challenging for most SMEs in Africa and, for that matter, Ghana, to deal with challenges such as lack of funds, taxation, unaccountable levies and little or no government support to enable them to become sustainable and have business continuity (Amoah and Jibril 2021:1; Ibidunni, Ogundana and Okonkwo 2021: 468). For SMEs to survive and become sustainable in most of these developing countries, it is therefore, essential that they consider adopting technology to remain competitive and sustainable (Rodríguez-Espíndola *et al.* 2022:2). One such emerging technological tool changing the business landscape, which has enormous benefits for SMEs, is social media (Abdullah and Siraj 2018: 4; Bruce *et al.* 2022: 49; Osakwe and Ikhide 2022: 990).

Social media is generally considered a web-based application, such as Facebook, Twitter, Instagram, and YouTube, as well as WhatsApp, and LinkedIn, which enables online community members to interact and engage by sharing information and uploading videos and photographs (Hanafizadeh, Shafia, and Bohlin 2021: 3; Dwivedi *et al.* 2022: 1; Grover, Kar and Dwivedi 2022: 1; Sedalo *et al.* 2022: 1). Social Networking Sites (SNSs) are online platforms characterized by three key components (Musetti, Manari, Billieux, Starcevic and Schimmenti, 2022:1). Initially, users have the ability to establish a personal profile, which can be either public or semi-public, and contains self-descriptive information (Musetti *et al.*, 2022:1). Secondly, these platforms display lists of connections, reflecting the user's online social ties and relationships of varying degrees of closeness and significance (Musetti *et al.*, 2022:1).. Lastly, unlike the traditional method of checking users' profiles for updates, most SNSs revolve around a dynamic stream of constantly refreshed content, predominantly comprised of posts

from one's network of connections (Musetti et al., 2022:1). Globally, the number of social media users, as of December 2022, was roughly 4.7 billion people, projected to increase in the coming years (Statista 2022). Given the stupendous numbers of users, Hanafizadeh *et al.* (2021: 3) identified several types of social media that have emerged, such as social networking sites (for example, WhatsApp, Line, Telegram, and WeChat), content communities (for instance, YouTube, TikTok, Vimeo), blogs (such as Twitter, Blogspot), and online forums and discussion (examples include TripAdvisor, Yelp, and FourSquare). In the Ghanaian context, the use of social media is increasing, and currently, Ghana has 8.8 million registered users of social media (Statista 2022).

Considering the vast numbers of social media users globally and in Ghana, most organizations and SMEs in Africa and Ghana are using social media (Amoah and Jibril 2021: 1; Dwivedi *et al.* 2022: 1). More importantly, social media marketing (SMM) has been explained as organizations implementing and achieving economic values through social media (Ali Abbasi *et al.* 2022: 3). This is supported by Ibrahim (2022: 62), who indicated SMM deals with the use of social media in the context of business. In the context of SMEs, SMM has been found to improve upon marketing performance outcomes (financial and non-financial) such as business growth, building customer relationships, the building of reputation and image, along with selling and promotion of products and service, customer satisfaction, increase in sales, and loyalty as well as profitability (Odoom and Mensah 2018: 156; Sedalo *et al.* 2022: 1; Ali Abbasi *et al.* 2022: 2).

Irrespective of the numerous benefits and the growing number of users on social media, SMEs, particularly in developing countries, are yet to take full advantage of the opportunities presented by social media (Odoom and Mensah 2018: 156; Osakwe, and Ikhide 2022: 990). The inability of SMEs to explore these opportunities has been mainly attributed to the lack of resources and the negative perception of the usefulness of social media (Odoom and Mensah 2018: 156). Despite these limitations, for SMEs to cope with increasing competition, survive and become sustainable, they must make all necessary efforts to adopt social media, seen as influencing their sustainability performance (Patma *et al.* 2021: 5).

The role of SMEs towards achieving the United Nations (UN) 2030 sustainable development goals is key, because of the roles they play in the development of world economies (Asgary, Ozdemir and Özyürek 2020: 59; Alraja *et al.* 2022: 1082). SMEs in most developing countries constitute the majority of businesses, and their activities impact the business environment and

the society in which they operate. The conversation on sustainability has always been centred around large firms (Rodríguez-Espíndola *et al.* 2022: 2) compared to their counterpart SMEs. However, SMEs cannot be left behind, since they form the majority (90 percent) businesses globally and their contribution is also evident (Rodríguez-Espíndola *et al.* 2022: 2; Asgary *et al.* 2020: 59). According to Yong *et al.* (2020: 5), sustainability deals with business not only focusing on the economic motive as a business entity but also paying attention to the environment and social aspect of their businesses.

Through careful examination of the extant literature and the study context, an examination of social media adoption, marketing performance and sustainability of SMEs is found to remain limited. Admittedly, several scholars have examined social media adoption through the lens of various technological innovation theories, such as the Diffusion of Innovation Theory (DoI) (Wamba and Queiroz 2022: 2), the Technology Acceptance Model (TAM) (Alfadda and Mahdi 2021: 887), Unified theory of acceptance and use of technology (UTAUT) (Rahi and Abd Ghani 2019: 492), as well as Technology, organization and environment (TOE) theory (Ahmad, and Bakar 2018: 305), and also proceeded to examine social media adoption on SME performance in general (Tajvidi and Karami 2021: 5). However, little is known regarding social media adoption, its influence on marketing performance (financial and non-financial) and sustainability of SMEs, particularly in the Ghanaian context and in existing literature. This situation creates a lacuna this study wants to address. Hence, the current study aims to investigate the implications of SMM for SME sustainability in Accra, Ghana.

The symbiotic relationship between social media adoption and a business's financial and non-financial performance is increasingly profound in today's digital landscape (Amegbe, Zungu, and Hanu, 2023: 165; Domma and Errico 2023:328). Social media platforms serve as dynamic conduits for brand exposure, enabling SMEs to connect with a vast global audience and increase awareness (Akbar 2021:46). The nexus between financial marketing performance and environmental sustainability is a pivotal intersection in modern business (Adomako and Tran 2022:3). Companies are increasingly recognizing that promoting environmental stewardship is not just a social obligation, but also a catalyst for financial prosperity (Domma and Errico 2023:328; Adomako and Tran 2022:3). By spotlighting sustainability in marketing endeavors, SMEs can cultivate a positive brand image, leading to customer trust and loyalty (Domma and Errico 2023:328). Moreover, emphasizing environmental responsibility in marketing confers a competitive edge, resonating with consumers who increasingly base their purchasing decisions

on a company's sustainability commitments. Also SMEs undertaking sustainability initiatives often yield operational efficiencies and cost savings, providing fertile ground for marketing campaigns to showcase how eco-conscious practices translate into financial gains (Adomako and Tran 2022:3) Furthermore, SMEs focusing on sustainability can enhance product innovation, setting the stage for differentiation and potentially commanding premium prices for eco-friendly offerings (Adomako and Tran 2022:3).

Insight for the present study is drawn from and anchored in the well-known TOE theory, which was developed by the seminal works of Tornatzky and Fleischer (1990). Even though there are various technological adoption theories, such as the DoI, TAM, and UTAUT, however, the study found the TOE theory more preferable, in the sense that it has been widely applied in the context of firms such as SMEs (Eze, Chinedu-Eze, and Awa 2021: 3). Furthermore, TOE theory is a more flexible, accommodative and robust theory that allows for a broader examination of issues at firm level, regarding technology adoption such as social media (Eze *et al.* 2022: 3). In addition, TOE theory can explain the technological, organisational, and environmental factors of technology adoption. According to Eze, Chinedu-Eze and Bello (2020: 44), the technological factor deals with both the internal and external capabilities that potentially impact the firm and typically involves the tools and practices of the firm. The organisational factor deals with issues concerning the organization's internal environment (Eze *et al.* 2020: 44). The environmental factor deals with issues concerning the environment in which the organization operates (Ali Abbasi *et al.* 2022: 4).

The study provides both theoretical and practical contributions. Theoretically, the study employed the use of sequential mixed methods to explore the implications of SMM for the sustainability of SMEs in Accra, which is hardly seen in the study context and the literature. Most studies employ quantitative (Ampong, and Acheampong 2022: 4) or qualitative (Eze *et al.* 2021: 3) research methods in examining social media adoption. Furthermore, the study included another factor, the entrepreneurial factor, as part of the TOE theory (due to the accommodative and flexible nature of the theory) to examine whether entrepreneurial factors influence the decision to adopt social media, enriching the understanding and the applicability of the TOE theory. Moreover, the study extends the theory beyond regular adoption, to examine further how social media adoption would influence SME marketing performance and sustainability.

Conducting such a study improves understanding and enriches the literature on SMM, marketing performance and sustainability of SMEs. Practically, the findings enable policymakers to formulate strategies to encourage SMEs yet to be on social media, to consider joining these platforms to enable them to take advantage of the benefits of using social media. SME owners/managers would know the factors influencing their adoption decision and how social media adoption translates into their marketing performance and sustainability, requiring them to develop comprehensive strategies on social media. Having discussed the study background, the research problem statement is unpacked.

1.3 Research problem statement

Similar to any other developing country, Ghana has a huge presence of small and medium enterprises (SMEs), which form approximately 92 percent of businesses and contribute 70 percent to the Gross Domestic Product (GDP), as observed by researchers such as Ohene Afriyie, Yakubu and Awudu (2023:3). Irrespective of these contributions by SMEs to the Ghanaian economy, challenges remain that hinder SME growth and development in the country. These challenges vary, ranging from lack of finance and insufficient technical skills for promoting their products and services online to attract and retain more customers, to the lack of innovativeness, insufficient trust in technology, or the technical skills to implement technology, as well as the frequent collapse of SMEs and the unsustainability of most SMEs (Bruce, Shurong, Ying, Yaqi, Amoah, and Egala, 2023:2). A cursory look at the SME literature exposes a favourable attitude toward the use of Information and Communications Technologies (ICT) (Ahmad, Ahmad and Bakar 2018: 2) and understanding among SMEs of the application of ICT tools to their businesses (Kietzmann *et al.* 2011: 242). Odoom *et al.* (2017: 2) have observed social media use in developed and emerging or developing countries to perform several activities but these are not limited to marketing.

Several studies indicate SMEs appreciate the benefits of using social media (Gavino *et al.* 2019: 472; Alzougool 2019: 4). These researchers identify several benefits: building SMEs' reputation, brand building and good image, attracting new customers, engaging customers, building trust and commitment among customers, and developing customer loyalty, as some of the benefits for SMEs using social media. AlSharji *et al.* (2018: 3) hinted that the gap between SMEs using social media and those that are not, is widening, while White, Kenly and Poston

(2016: 6) posit it would be difficult for SMEs who are not using social media to be sustainable in the long-term. Which means that SMEs who are currently not using or have no plans of using social media are not likely to be sustainable in the long-term.

Despite the burgeoning positive attitude of SMEs toward social media use, some challenges or problems facing SMEs in adopting technologies remain, particularly in emerging and developing countries. It is discernible in prior studies (Solomon, Allen and Wangombe,2023:4) that social media use or adoption among SMEs still needs to be improved, when compared to their large counterpart companies. Odoom *et al.* (2017: 384) concur, positing that big companies' financial situation makes it possible to invest in technology adoption, such as social media, allowing them to acquire the necessary technical know-how (Wadhwa,Bansal, Chakir,and Katyal,2023:193). Past studies hinge on problems SMEs encounter regarding the adoption of social media. Some of the issues enumerated are; lack of financial resources (Odoom *et al.* 2017: 384), expertise and knowledge (Gwala and Mashau, 2023:135) and ICT infrastructure (Atieh, Cooke and Osiyevskyy, 2023:1). In the context of this research, the problems SMEs in Ghana face may not be different from the difficulties of SMEs alluded to by the aforementioned researchers. Financial resources dictate the extent to which SMEs can invest in paid advertising, content creation, and advanced analytics tools, ultimately shaping the reach and impact of their marketing efforts. Moreover, the presence of marketing expertise within an SME can lead to the development of tailored strategies that resonate with the local audience, taking into account cultural nuances and market trends. A robust understanding of compliance and ethical considerations ensures that SMEs navigate the social media landscape responsibly. In terms of ICT infrastructure, a reliable internet connection is indispensable for real-time engagement and customer interaction. Additionally, technological tools and platforms, when accessible, empower SMEs to explore innovative content creation methods. Lastly, a secure ICT environment safeguards sensitive information and fortifies the SME against cyber threats, building trust with their audience and securing their online presence. The implications of social media marketing on the sustainability of SMEs in Accra, Ghana are profoundly influenced by financial resources, expertise and knowledge, and ICT infrastructure. .Based on the above review, the main objective and sub-objectives are provided.

1.4 Research aim and objectives

The main aim of this study is to investigate the implications of social media marketing (SMM) for the sustainability of SMEs in Accra, Ghana.

1.4.1 Sub-Objectives

The following sub-aims are also to be achieved by the end of the study.

1. To evaluate how Technology, Organization, Environment (TOE) and entrepreneurial factors influence social media adoption of SMEs.
2. To analyse how social media adoption influences non-financial and financial marketing performance outcomes of SMEs.
3. To examine how non-financial marketing performance outcomes influence the financial marketing performance of SMEs.
4. To examine how financial marketing performance outcomes, influence environmental Sustainability of SMEs.
5. To analyse how financial marketing performance outcomes influence the social sustainability of SMEs.
6. To develop a conceptual framework to test the complex relationship between technology adoption, social media, marketing performance and SME sustainability in Accra.

1.5 Hypotheses

H1-H9: There is a positive influence of Technology, Organization, and Environment (TOE) on Social Media Adoption of SMEs.

H10-H11: There is a positive influence of Entrepreneurial Factors on Social Media Adoption of SMEs.

H2. There is a positive relationship between Social Media Adoption and Non-Financial and Financial Marketing Performance Outcomes of SMEs.

H3. Non-Financial Marketing Performance Outcomes positively impact Financial Marketing Performance Outcomes.

H4. There is a positive relationship between Financial Marketing Performance Outcomes and Social Sustainability of SMEs.

H5. There is a direct relationship between Financial Marketing Performance Outcomes and Environmental Sustainability of SMEs.

H6. There is a relationship between TOE, Social Media Adoption, Marketing Performance Outcomes, and Sustainability of SMEs.

1.6 Significance of the study

The current study has the potential to contribute toward the Ghanaian economy as it unearths the factors influencing social media adoption, and how the adoption would impact the marketing performance of SMEs; making them more sustainable, which is valuable. A comprehensive view of the factors influencing social media adoption, marketing performance and sustainability would serve as a starting point to motivate SMEs who still need to take advantage of social media and those who want to be entrepreneurs, to consider using social media.

In addition, the study adds to the paucity of literature on social media adoption, marketing performance and sustainability in the study context and the general academic scholarship. The findings of this study also provide important and valuable information to SME owners/managers and entrepreneurs in Ghana, in general, to improve their businesses through technological innovations such as social media. The current study also contribute to theory by extending the Technology-Organization-Environment (TOE) theory by including entrepreneurial factors and testing in a developing country's setting. This enhance the robustness and applicability of the theory. It also contribute to a better understanding of the theory and addes to existing knowledge about the theory. The study also employed the use of exploratory sequential mixed-method approach which also contributes towards a better understanding of the topic. Finally, understanding social media adoption, marketing performance and sustainability would help shape and provide a better understanding of future emerging technologies in the Ghanaian SME space and the business environment in general.

1.7 Limitations and Delimitations

This study had some limitations and delimitations. The first limitation is the method of data collection, where responses are self-reported, reflecting the views of SME owners/managers, which the study assumed to be truthful. The second limitation the study is the use of survey questions to collect data. This is a limitation because the questionnaire was not be able to collect data from the entire SMEs in Ghana. However, to reduce this limitation, the researcher collected

enough data to make it more representative of the population in addition to conducting interviews.

Concerning delimitations, the study had some delimitations as well. The first delimitation is that the study is delimited to SMEs in the Greater Accra region in Ghana, and the target was owners/managers. This makes generalisation of the findings of this study impossible. However, enough data was collected to enrich the understanding of the topic and contribute both theoretically and practically. Another delimitation is that the study delimited to the industry classification of the GIPC Classification of industries, which means industries not classified under the GIPC were ignored. To address this issue, the study collected a sufficient amount of data from the industries classified by the GIPC.

1.8 Organisation of Study

The study is organised into seven chapters, of which this is the first chapter.

Chapter two: This section will provide two literature reviews. The first is to present literature on the main theory underpinning this study, the TOE theory, and other related theories of technology innovation adoption. Furthermore, it presents literature on social media, marketing performance and sustainability in the domain of SMEs.

Chapter three: This chapter provides a detailed account of the research philosophy, paradigms and research approach used, as well as the justification for using a particular approach. In addition, the population, sample size, various sampling methods, and methods employed are indicated.

Chapter four: This chapter highlights the step-by-step approach to conducting the qualitative study phase. It details the analyses of the main findings leading to the empirical review, hypotheses development and conceptual framework development for the quantitative study phase.

Chapter five: This chapter is devoted to the results of the quantitative phase of the study. The study discusses the Structural Equation Modelling-Partial Least Squares (SEM-PLS) analysis of the conceptual framework developed to test the relationship between TOE, entrepreneurial factors, social media adoption, and marketing performance, as well as sustainability of SMEs in Accra Ghana.

Chapter six: This chapter is dedicated to combining the findings from the qualitative (chapter 4) and the quantitative (Chapter 5) phases and discussing these results, which leads to the revision of the conceptual framework.

Chapter seven: This chapter is the final chapter; it will provide the summary, the study contribution, limitations, and possible directions for future research.

1.9 Summary of the Chapter

This chapter is the introductory chapter that sets the tone on which the other chapters are developed. The background to the study was introduced, concepts explained, the lacuna identified, and the main objective stated, in addition to which the theory for the study was indicated, and the study contribution also stated. Furthermore, the various hypotheses were stated and the limitations and delimitations indicated. Finally, the chapter ended with an outline showing the organisation of the study. Based on this chapter, the study proceeds to conduct an extensive review of the current literature on the theory relevant to the study and the various constructs of the topic, which are detailed in the next chapter.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The preceding chapter indicated the study context, background, problem statement, and the aims to be addressed by the study. The chapter starts by presenting SMEs and their characteristics and then move to reviews important extant literature on the TOE model, paying attention to SMEs' social media adoption, marketing performance and sustainability. The chapter deals with the TOE as a theoretical foundation for the study, focusing on how this theory has been applied in various contexts, particularly narrowing it to the context of SMEs in developing countries.

2.2 SMEs and Characteristics

There is evidence in the literature regarding the non-existence of a universally accepted definition of SMEs among scholars (Pawar and Palivela 2022: 1, Ugwu-oju, Onodugo and Mbah 2020: 167; Mabenge, Ngorora-Madzimure and Makanyeza 2020: 4). SMEs have been variously defined by different scholars, based on the context in which they are studying SMEs (Mabenge *et al.* 2020: 4).

For instance, a study conducted by Pawar and Palivela (2022: 1) in Malaysia defined SMEs as enterprises with a yearly turnover of RM 300,000 to RM 50 million. An SME should employ a minimum of five and up to 200 employees. Similarly, a study conducted in the UAE by AlSharji *et al.* (2018: 303) defined SMEs as enterprises with a yearly minimum turnover of AED 2 and 200m with 50-200 employees working full time. Furthermore, AlBar and Hoque (2019: 2) defined SMEs as "firms with between 50 to 100 employees".

As indicated earlier, this study defined SMEs in the context of Ghana as enterprises with employees numbering between 1-150, which is consistent with previous studies (Eze *et al.* 2020: 43). In the context of Ghana, several scholars have also provided definitions in their studies (Hagin and Caesar 2021: 2; Salifu *et al.* 2018: 284). However, Ghanaian scholars offer a variety of definitions of SMEs, as revealed by the broad literature on SMEs.

The study of Hagin and Caesar (2021: 2) defined SMEs based on the definition provided by the Ghana Statistical Service (GSS), which defines SMEs as firms that employ 30-99

employees. Similar studies by Ghanaian researchers, such as Salifu *et al.* (2018: 284), defined SMEs from two central bodies, namely the National Board for Small-Scale Industries (NBSSI) and GSS. According to Salifu *et al.* (2018: 284), the difference between the definition provided by GSS and the NBSSI is that the NBSSI included fixed assets and the number of employees in their attempt to define SMEs. Salifu *et al.* (2018: 284) cited the NBSSI definition, which indicated that SMEs employ 29-99 workers and should have an investment in plants and machinery that does not include land, buildings and vehicles, and does not exceed 100 000 dollars equivalent. These different definitions provided by researchers in Ghana indicate there is no consensus on a single definition of SMEs in the literature and those in use are based on the context in which the study is conducted.

The contribution of SMEs toward the advancement of developed and developing countries is still being determined, with scholars having indicated that SMEs play a huge role towards development (Bala and Feng 2019: 102; Alzougool 2019: 472; Mabenge *et al.* 2020: 2). For instance, it has been reported that globally, SMEs positively impact the economic outlook of nations and are regarded as the source of creating employment and contributing to the GDP of countries (Centobelli, Cerchione and Singh 2019: 112; Rao, Kumar and Madhavan 2019: 41; Sinha, Mishra and Manogna 2021: 71). A study conducted by Quaye and Mensah (2019: 1535) reveals that SMEs in Ghana form roughly 90 percent of businesses, are sources of employment generation to well over 80 percent and also contribute more than 50 percent to the country's GDP. Irrespective of the contributions of SMEs to global economies, they differ from their counterparts, big firms, in terms of their characteristics. An examination of the literature reveals SMEs are generally faced with issues such as a lack of resources, specifically financial resources, and are mostly controlled by the owner/manager (Oduro 2020: 22).

Other than these issues confronting SMEs, decision-making is also shown as centred around the owner/manager and this, in turn, has a positive or negative impact, with unstructured processes and procedures some of the characteristics of SMEs (Rasheed and Siddiqui 2019: 158; Oduro 2020: 22). In Ghana, issues such as lack of infrastructure, managerial knowledge and skills, technical know-how, and regulatory and legal constraints have been observed as some of the challenges confronting SMEs (Shaikh, Kumar, Syed, and Shaikh, 2021:3). Having explained what social media and SMEs are, the next concern is to examine the trend of social media use in an organisational context.

2.3 Theoretical Background

2.3.1 Technology, Organization and Environmental (TOE) Theory and Entrepreneurial Factors Influence on Social Adoption of SMEs

This section presents the TOE factors and entrepreneurial factors and how these factors influence the adoption of SMEs. There is evidence in the current literature of several articles published on TOE theory (Eze *et al.* 2021: 3; Salimon *et al.* 2023: 104; Ali Abbasi *et al.* 2022: 4). The extant literature reveals how scholars acknowledge the introduction of TOE theory by Tornatzky and Fleischer (1990), which has since been applied in several studies to understand technological innovation adoption in an organization (Yadegaridehkordi *et al.* 2020: 3, Eze *et al.* 2019: 161, Eze *et al.* 2020: 43). According to AlSharji *et al.* (2018: 305), the use of TOE theory in several studies to understand technological adoption is evident in both developing and developed countries in Europe, America, Asia and Africa. This indicates how broadly TOE theory has been applied to understand technology adoption.

In the context of organizations, studies such as Mahakittikun, Suntrayuth, and Bhatiasevi (2020: 362) examined TOE factors on firm performance from the merchant perspective of mobile payments from Thailand's retail and service firms. These researchers found a significant relationship between TOE factors and firm performance in Thailand. In a similar study, Ahmad *et al.* (2018: 87) also examined social media adoption and its impact on firm performance from the United Arab Emirates (UAE) perspective, by interviewing entrepreneurs/owners to gather an in-depth understanding of the impact social media adoption has on their business. The findings reveal the adoption of social media enables these SMEs to create brand awareness, build customer relationships and increase sales (Ahmad *et al.* 2018: 87).

Eze *et al.* (2019: 161) examined information needed for emerging ICT (EICT) adoption, using TOE theory to study UK small service businesses. The outcome of their study reveals that TOE factors and information contexts influence SMEs' perceived information need for EICT adoption. Ma, Jiang, and Jia (2021: 3) also used TOE theory to understand the adoption of social media in the construction industry in China, based on construction project teams (CPTs). Their findings demonstrated the impact of TOE factors, with technological factors (compatibility and expected cost), one organisational factor (top management support) and two environmental factors (project partner collaboration and project fit) shown to have significant influence on the adoption of social media among the CPTs.

Oyewobi *et al.* (2021a: 262) also used TOE theory to examine social media usage on the performance of construction firms in Nigeria. The study indicated that technology has a significant relationship with social media adoption, whereas social media adoption has a very strong positive impact on an organization's performance. In the domain of SMEs, which is the focus of this study, reviewing the current literature reveals the dominance of the application of TOE theory, used in the SME domain. For example, whereas AlSharji *et al.* (2018: 305) applied this theory to understand social media adoption in SMEs in the UAE, Abed (2020: 3) also used TOE to understand Saudi Arabian SMEs' social commerce adoption, while Eze *et al.* (2018: 252) used TOE theory to examine the factors influencing SME managers' information behaviour on emerging ICT (ECT) adoption decision-making in the UK. In addition, Asiae and Rahim (2019: 717) studied the adoption of cloud computing among Malaysian SMEs and Eze *et al.* (2020:43) examined factors that shape SME adoption of SMM applications in the Nigerian context.

Several scholars have amplified the value of using TOE in the adoption of technology in the SME context. According to Ofosu-Ampong and Acheampong (2022: 6), apart from the TOE taking care of the technological and organisational factors of adoption, the TOE theory can further explain other factors, such as environmental and social factors. In addition, Baker (2012: 236) noted various studies have proved the TOE theory has broader application and better explanations suitable for several technological, national or cultural contexts and sectors. Departing from earlier studies such as Ahmad *et al.* (2018: 87) that used a single research method approach to examine TOE factors on social media adoption among SMEs, the current study employed the use of a mixed-methods approach, through the lens of TOE theory, to understand SME social media adoption, marketing performance and sustainability.

Further to the above, the current study also examined financial and non-financial marketing performance and proceeded to examine how their performance would make them more sustainable. In addition, the study introduced a fourth factor, called the entrepreneurial factor, as influencing the adoption of social media, which OfosuAmpong and Acheampong (2022: 6) state as the power of the TOE theory to explain other factors. Hence, making the current study more novel and contributing to a better understanding of the application of TOE theory and enriching the literature on social media adoption, marketing performance and sustainability.

Existing research has demonstrated that the TOE theory has broad applicability and possesses explanatory power across many technological, industrial, and national/cultural contexts. In each

of the empirical studies that test the TOE theory, researchers have used different factors for the technological, organisational, and environmental contexts. The work of Eze *et al.* (2020: 43) noted TOE theory deals with how organizations embrace and implement technological innovations and inventions, which are affected by technological, organisational and environmental (TOE) perspectives. There is general agreement among scholars that the TOE theory consists of three main broad factors, which are technological, organisational factors and environmental factors (Yadegaridehkordi *et al.* 2020: 3; Eze *et al.* 2020: 43; Abed 2020: 3). In respect of these views, the current study draws insight from the TOE theory as the theoretical foundation upon which this study is developed, to understand the social media adoption of SMEs in Accra, along with their marketing performance and sustainability. The details of the three factors are discussed in the next section.

2.3.2 Technological Factor

A review of the current literature shows that researchers have linked technological factors to the benefits such as operational efficiency and increase in productivity that the organization derived from both the internal and external environment of the organization (Mujahed *et al.* 2022: 610). According to Mujahed *et al.* (2022: 610), the internal factors deal with the benefits associated with the technology, which are generally considered prior to its actual implementation. Past researchers (Baker 2012; Alshamaila, Papagiannidis, and Li 2013: 257) and relatively recent researchers (Fernando, Rozuar, and Mergeresa 2021: 3 and Abed 2020: 3) share the view that the technological experience achieved by the organization through internal and external experience enhances the adoption of technological innovation, with organizations often considering how innovations would contribute positively to their operations.

A critical review presents several factors adapted and linked with technological factors from different study-specific contexts. However, the present literature points out the most common factors such as compatibility (Awuah, Onumah, and Duho 2022: 5; Ofosu-Ampong, and Acheampong 2022: 4), relative advantages (Hussain and Merigo 2022: 1; Wessels and Jokonya 2022: 332), perceived affordability or cost (Wessels and Jokonya 2022: 332), and interactivity (Shahadat, Nekmahmud,Ebrahimi and Fekete-Farkas, 2023:6), as well as complexity (Ofosu-Ampong, and Acheampong 2022: 4; Asante Boakye, Zhao, and Ahia 2022: 9), trialability (Hasani, and O'Reilly 2021: 114) and observability (Hasani and O'Reilly 2021: 114), which have been linked to the technological factors.

Other than these well-researched factors, there are other factors linked to the technological factor, such as visibility, technology competence, structural assurance, and security concerns of using social media, along with the perceived usefulness (Mujahed *et al.* 2022: 610; Fernando *et al.* 2021: 3; Tajudeen, Jaafar, and Ainin 2018: 309). The study, therefore, discusses the most common technological factors and summarises the various factors linked to technological factors identified in the extant literature in Table 1. The various technological factors are now discussed, beginning with compatibility as a technological factor.

Compatibility, according to researchers, is an essential factor of technological factors. It helps in understanding the usage of technological innovation by the organization (Ahmad *et al.* 2018: 87; Fernando *et al.* 2021: 3). Compatibility is explained by Qalati *et al.* (2021: 4) as how innovation fits into already existing technological infrastructure, customs and values, as well as culture and practices of the organization. Furthermore, Ahmad *et al.* (2019: 87) indicated that compatibility deals with how the technology is aligned with existing technologies being used in the organization. Maduku, Mpinganjira and Duh (2016: 714) share that compatibility deals with current technological innovations aligned with existing technologies within the organization and that meet organisational needs.

Compatibility is seen as a key construct in predicting its impact on organisational performance and, more importantly, for SMEs to ensure all the necessary changes in their organizations, such as infrastructure, technologies and services, are compatible with their current organisational infrastructure, values, attitudes, and procedures, as well as beliefs and value system (Maduku *et al.* 2016: 714; Mouakket, and Aboelmaged 2022: 907). According to Ramayah *et al.* (2016: 154), the more technological innovation is seen as aligning with current systems, procedures, attitude and beliefs of the organization, the better the chance that technology sees continuous usage and subsequent adoption in the organization.

In the context of SMEs, Ramayah *et al.* (2016: 154) noted that when SME owners are considering social media platforms, it is essential they consider the fit of the organization's current technologies is compatible with the ever-changing technologies they would want to adopt. Therefore, SMEs must always consider the compatibility of their systems, procedures, and values in adopting technological innovations such as social media.

Relative advantage has been defined by Ahmad *et al.* (2019: 87) as the "degree to which potential adopters see an innovation as better than the alternatives". Tajudeen *et al.* (2018: 309)

added that relative advantage concentrates on the benefits the organization expects to derive from using the technology. Ramayah *et al.* (2016: 154) considered a relative advantage as organizations' direct and indirect gains from adopting online technologies.

The direct benefits are associated with improving efficiency within the organization, such as reducing the cost of doing business using the current process. The indirect benefits are as a result of benefits derived from using online technologies such as social media (Ramayah *et al.* 2016: 154). The existing literature additionally indicates the benefits of using social media, and scholars have indicated that using social media offers SMEs a relative advantage over those competitors that do not use social media (Qalati *et al.* 2020: 991; Odoom *et al.* 2017: 4). Scholars have also found the relationship between relative advantage and technology adoption to be a significant and positive one among SMEs (Maduku *et al.* 2016: 714; Yadegaridehkordi *et al.* 2020: 4).

Cost or perceived affordability of the cost of technological innovations is another critical factor that influences behaviour of SME owners/managers towards the use of technology and eventually adopting it as part of their organization (Ahmad and Siraj 2023:104). The cost has been linked to how the current technology is very productive and valuable to the organization (Tajudeen *et al.* 2018: 309). Researchers have indicated the cost is all the money and time SMEs spend to adopt technological innovation, with this evident in the current literature, which reveals cost influences SMEs adopting a particular innovation (Ramayah *et al.* 2016: 154). Findings from several studies in the SME context have also supported this view of SME owners/managers paying attention to the cost of technology prior to deciding to adopt (Hasani, Rezania, Levallet, O'Reilly and Mohammadi 2023:4).

Interactivity is a further dominant factor associated with technological factors. Technology interactivity deals with how two or more people can interact with each other through technology (Ta and Lin 2023:3). Social media is seen as an interactive media (Qalati *et al.* 2021: 4; Odoom *et al.* 2017: 386). As far back as 1998, Ha and James (1998) discussed interactivity as how users can send information and receive feedback. Therefore, interactivity is considered a two-way communication among firms, firms and customers and between customers (Odoom *et al.* 2017: 386).

The social aspect of social media makes it more interactive on the individual, interpersonal or collective intergroup level, which calls for some level of awareness from organizations,

particularly SMEs (Odoom *et al.* 2017: 386), since the closeness and communication among social media users makes it more interactive. The social media presence involves timely communication with customers and building practical and useful interactions (Odoom *et al.* 2017:386). Technological innovation, such as social media, is considered an avenue for organizations use to increase customer interaction with the firm. It also closes the gap left by the differences in time and place (Qalati *et al.* 2020: 991). In the study context, Qalati *et al.* (2021: 4) have also confirmed interactivity as an influencing factor in the adoption of social media. This makes interactivity a critical factor when considering the adoption of social media, particularly in the context of SMEs.

Complexity is also considered one of the critical technological factors. According to Abu Bakar, Ahmad, and Ahmad (2019: 87), complexity deals with the difficulty that accompanies the use of technological innovation and whether the technology is perceived as user-friendly. Maduku *et al.* (2016: 714) state that customers are less likely to use a particular technological innovation when they see it as more complicated and difficult. These authors further indicated that SMEs would only be willing to adopt a particular technology they perceive as taking little effort to learn and simple to use (Maduku *et al.* 2016: 714). The current literature shows the relationship between complexity and technological adoption has received wider attention (Ahmad *et al.* 2018: 87; Ofosu-Ampong and Acheampong 2022: 4).

Trialability is another important factor linked with the technological factor. Hasani and O'Reilly (2021: 111) indicated that introducing any new technology creates uncertainty in trying to use the technology, which impacts its adoption. According to Abu Bakar *et al.* (2019: 87), trialability deals with how easily the technology can be tested before its actual use. The idea of trialability of technological innovation is to enable potential users to reduce their uncertainty and have much confidence in using the technology (Wang, Xiang and Fesenmaier 2014: 16). In doing so, users are more relaxed and comfortable using technological innovation and are committed and prepared to adopt the technology. Wang *et al.* (2014: 316) posit that a more useable system is often associated with ease of navigation and how users can get “back on track” quickly, when they make a mistake. Trialability is thus essential, because it builds confidence and reduces uncertainty in using social media among SMEs. Having explained the technological factors, the subsequent interest is to discuss the organisational factor of TOE theory.

2.3.3 Organisational Factor

The next TOE factor to be discussed in this study is the organisational factor. The extant literature reveals several factors linked with the organisational factor that researchers have examined (Su, Zhang and Wu, 2023:2; Fernando *et al.* 2021: 3; Ampong and Acheampong 2022: 4). For example, Abed (2020: 3) using the TOE theory, found that SMEs in Saudi Arabia indicate that trading partner pressure in the environmental context, top management support in the organisational context, and perceived usefulness in the technological context influence the adoption of social commerce.

Fernando *et al.* (2021: 3) also discovered that a lack of pressure from competitors and technical competency hindered the adoption of blockchain technology. Ampong and Acheampong 2022: 4) used the TOE to understand remote work systems (RWS) in Ghana and revealed that relative advantage, complexity, organisational readiness and competitive advantage significantly influenced the adoption of contactless digital technologies. Going through the literature, factors such as top management support (Wessels and Jokonya 2022: 332), organisational readiness (Ampong and Acheampong 2022: 4) and firm size (Hussain and Merigo 2022: 1), have been extensively used as factors linked with the organizational factor. The study, therefore, discusses these well-researched factors linked with the organisational factor.

Top management support is considered the most researched factor (Abed 2020: 3; Fernando *et al.* 2021: 3) with regard to organisational factors, and in this study, is considered an essential factor regarding an organisational factor. Top management support has been explained as the degree of support an organization receives from the top-level management and staff when considering technology innovation adoption for the organization (Abed 2020: 3). The outcome of past studies has shown that top management support and staff is a significant predictor of the organization's attitude towards technology innovation adoption (Mujahed *et al.* 2022: 610; Orji *et al.* 2020: 4).

To drive innovation within the firm, top management should exhibit behaviours that communicate the importance of innovation throughout the entire organization, rally the support of the entire staff, and promote innovative initiatives within the firm (Maduku *et al.* 2016: 714). The support of SME owners/managers and the entire staff is vital in creating the necessary environment and resources for adopting technological innovation, such as social media (Maduku *et al.* 2016: 714). Top management support is, therefore, an important factor in

considering technological innovation, especially in the context of SMEs, where most decisions on adopting new technology are the sole responsibility of the owners/managers.

Organisational readiness is also one of the factors linked to the organisational factor and has also been examined in the current literature. According to Abed (2020: 3), organisational readiness in the context of the organisational factor deals with how prepared the organization regards technical and financial resources to enable it to adopt new technologies. Furthermore, Ofosu-Ampong and Acheampong (2022: 4) noted that organisation readiness is about the capabilities and factors that impact the firm's decision to adopt new technology. These authors added that in a situation where the human resource is not ready to adopt a particular technology, the organization would be constraint in this aspect, which will lead to them not seeing the importance of adopting the new technology.

Firm size has also been studied as a demographic factor with regard to organisational factors (Sun *et al.* 2018: 6). The size of the organization has been defined by Sun *et al.* (2018: 6) as "the firm's annual revenue and the number of employees that could support the adoption of technological innovation". According to Sun *et al.* (2018: 6), the literature has documented the critical influence of organisational size in adopting technology. Furthermore, Sun *et al.* (2018: 6) and Yadegaridehkordi *et al.* (2020: 4) indicated where firm size is concerned, it is discernible that large firms can take advantage of technological innovations faster, because of the availability of resources and their preparedness to take risk. Conversely, this is not the case for smaller firms, due to numerous challenges, such as the need for more financial resources to enable them to adopt technological innovation. Having explained the various organisational factors, the study now discusses the environmental factors linked with the environmental TOE factor.

2.3.4 Environmental Factor

Environmental factors are the last but not least negligible factor of TOE theory and are linked to both the internal and external environment in which SMEs operate (Ngo, Pham, and Nguyen 2023:1358). The current literature reveals factors such as competitive pressure (Hussain and Merigo 2022: 1), competitive industry (Tongsuksai, Mathrani and Weerasinghe 2023: 23963), consumer pressure (Abed 2020: 3) and bandwagon effects (Qalati *et al.* 2021: 4) have been widely used as factors related to the environmental factor of the TOE theory. These individual factors are discussed below.

Competitive pressure is one of the widely used environmental factors and is critical in deciding on new technology adoption (Ali Abbasi *et al.* 2022: 6). According to Ali Abbasi *et al.* (2022: 6), competitive pressure is the pressure from external competitors in the same industry. Researchers believe organizations adopt new technologies to respond to increased competition in the industry in which they are operating (Qalati *et al.* 2022: 4). Further to this, Maduku *et al.* (2016: 714) and Zainuddin *et al.* (2017: 1981) have observed that the root of such pressure is due to the threat of firms losing competitive advantage in the industry. Ahmad *et al.* (2018: 87) posit that the higher the number of competitors, the higher the adoption of new technologies in firms such as SMEs. In this era of ubiquitous organizations such as SMEs, these small enterprises are prone to competition globally. Hence, Ali Abbasi *et al.* (2022: 6) believe organizations such as SMEs can gain an advantage by adopting technological innovations, for example social media, and becoming leaders in the industry. Therefore, SMEs need to embrace such technological innovation in order to obtain the necessary benefits. Previous studies have also confirmed the influence of competitive pressure on the adoption of social media (Ali Abbasi *et al.* 2022: 6).

As far back as 1995, Thong and Yap discussed the competitive construct as the competition confronted by organizations within the industry. According to Ali Abbasi *et al.* (2022: 6), competitiveness compels firms to adapt to technological innovations to sustain their competitive rank in the industry. In addition, firms such as SMEs do business in a global environment. Therefore, they need to deploy the use of new technologies, such as social media, in developing their marketing strategies to excel and gain a competitive advantage (Ali Abbasi *et al.* 2022: 6). These authors observed that financial support might trigger SMEs to adopt current technological innovations such as social media, in a situation where the market is very competitive. Furthermore, in a situation where the market is monopolistic and there is no competition, even with resource availability, SMEs may not adopt social media (Ali Abbasi *et al.* 2022: 6). Moreover, when firms such as SMEs embrace change, they stand to benefit from competitive edge among competitors as well influence the competition in the industry. As observed by past studies (Maduku *et al.* 2016: 714; Ahmad *et al.* 2018: 87), the competition within the industry would influence SMEs to adopt current social media to become sustainable and have a competitive advantage in the industry in which they operate—making it essential to understand the competitive industry as one of the factors linked with the environmental factor.

Consumer pressure: It is evident from the current technology adoption literature that consumer pressure is an essential environmental factor (Maduku *et al.* 2016: 714; Ali Abbasi *et al.* 2022: 6). Previous studies have found a significant positive relationship between SME intention to adopt technological innovation, such as social media, and pressure from customers (Maduku *et al.* 2016: 714; Matikiti, Mpinganjira and Roberts-Lombard 2018: 3; Ali Abbasi *et al.* 2022: 6). Compared to large firms, Maduku *et al.* (2016: 714) argue SMEs are more likely to face pressure from their customers, due to customer expectations that SMEs will meet their needs. Maduku *et al.* (2016: 714) studied mobile marketing adoption among SMEs and concluded customer pressure influences current technology adoption. In addition, scholars have demonstrated SMEs are compelled to implement social media because of the pressure mounted on them by their customers (Maduku *et al.* 2016: 714).

Bandwagon: The last but not least of the factors associated with the environmental factor in this study, is the bandwagon effect. The main idea behind this effect has to do with psychological occurrence (Qalati *et al.* 2021: 4). According to AlSharji *et al.* (2018: 87), the bandwagon effect posits that individuals or firms such as SMEs may decide to use current technology, not because it is part of their business strategy, but rather because their competitors are using such technology. Stated differently, SMEs may mimic their competitors using social media not because it forms part of their organisational strategy. Qalati *et al.* (2021: 4) added that as the number of technological innovations among organizations in a particular sector or industry increases, pressure on the rest to follow the same, because of the fear of non-performance of those who will not adopt. The bandwagon effect is significant in a situation where there is market volatility (Farjam and Loxbo, 2023:3).

2.3.5 Entrepreneurial Factor

TOE theory is more flexible and accommodates several factors to test technological, organisational and environmental (TOE) factors (Baker 2012: 236). It is observed that researchers have used a few different factors to examine TOE theory (Baker 2012: 236). This is attributed to aspects such as the differences in national culture and those found in every industry, with these unique factors influencing the industry. Consistent with previous studies (Ghobakhloo and Ching 2019: 2), this study introduces entrepreneurial factors such as resource availability, personality trait, and demographics of SME owners/managers as part of the TOE theory, to examine social media adoption in the Ghanaian context.

The first entrepreneurial factor is resource availability, which according to researchers, is an essential factor influencing the adoption of technology in an organization (Obschonka, Fisch, and Boyd 2017: 14). Resource availability is the indication of how resources are readily available to take advantage of technological innovation for the benefit of the organization (Obschonka *et al.* 2017: 14). According to the framers of the TOE theory, Tornatzky and Fleischer (1990), financial resources are termed as "organisational slack", which indicates the availability of both financial and human resources in the organization to meet stakeholder expectations. Kim and Garrison (2010: 393) found where technology adoption in an organization is concerned, having adequate financial resources must be noted, since this is a critical contributing factor to technology adoption decisions in most organizations. Obschonka *et al.* (2017:14) indicated financial resources are essential to help initiate and pay for the organization's technological innovation cost. Furthermore, Sila (2013: 204) believes having sufficient finance is key, because it helps the organization lower the possibility of financial problems during the technology adoption process. For the various reasons assigned, the study believes for SMEs to adopt social media in the Ghanaian context, it is essential for the owners/managers to have adequate financial resources to enable the adoption.

A personality trait is another important entrepreneurial factor in which this study is interested, because personality affects life and the decisions managers make (Vandor 2021: 3). McCrae and Costa (1999, cited in Vandor 2021: 3) defined personality trait as "the disposition to exhibit a certain kind of cognitive and behavioural response across different situations". In the domain of entrepreneurship and SME literature, personality is often viewed as a set of traits (Obschonka *et al.* 2017: 14; Vandor 2021: 3). Consistent with previous studies (Israel, Lüdtke and Wagner 2019: 81; Alper, Bayrak and Yilmaz 2021: 1; Han 2021: 2), this study draws insight from the well-researched theory in existing literature, referred to as the " Big Five traits", to examine the personality traits of SME owners/managers .

The Big Five traits consist of openness, extraversion, conscientiousness, and agreeableness, as well as neuroticism (Obschonka *et al.* 2017: 14). Openness means willingness by SME owners/managers to accept new ideas and experience innovations; extraversion also means SME owners/managers feel energetic and inspired when dealing with people or when involved in any activity; conscientiousness denotes reliability of SME owners/managers; with agreeableness indicating SME owners/managers are motivated to please others; whereas

neuroticism infers SME owners/managers exhibit strong negative emotions (Obschonka *et al.* 2017: 14, Israel *et al.* 2019: 81; Vandor 2021: 3).

Literature on how researchers have studied the demographics of SMEs is well-documented (Eze *et al.* 2021: 5; Tan *et al.* 2010: 33). According to Eze *et al.* (2021: 5), the adoption of technology by owners/managers is mostly influenced by demographic factors, such as experience, age, gender and education. Age is the next factor considered in this study, with previous studies having investigated the relationship between age and owners/managers of SMEs (Yembi Renault, Agumba and Ansary 2021: 1511; Chatterjee *et al.* 2022: 4). These researchers' findings indicated a significant positive relationship between age and technology adoption by SME owners/managers. For example, a study by Hedges (2010: 6) reveals that top managers less than 39 years of age are more willing to embrace technology adoption than top managers aged between 50 and 60. This suggests younger SME owners/managers are more likely to adopt technology than older ones.

The next demographic factor of interest to this study is education. The formal education level of SME owners/managers has a considerable influence on the adoption of technology and helps rapid technological adoption and implementation (Eze *et al.* 2021). According to these authors, highly educated top management are well informed, diverse, value innovation and are prepared to obtain information from experts, to influence the performance of their organizations (Eze *et al.* 2021: 6). In addition, highly educated top management is willing to acquire innovations and often carry the rest of the people in the organization along with them. This suggests when SME owners/managers are educated, they tend to adopt technology in their organization, when compared with those who are not educated.

The study, by way of an extensive review, highlights the TOE theory underpinning this research (Table 2.1). The following sections of this study will examine the adoption of Information Communication Technology (ICT) and SMEs, its importance, benefits, and challenges.

Table 2:1: Summary of factors associated with TOE factors and their sources

No	Author(s)	Study Settings	Application context	TOE Factors		
				Technology	Organisational	Environment
1	Awuah <i>et al.</i> (2022: 5).	Ghana	Computer-assisted tools	Relative advantage, Simplicity, Compatibility	Technical Competence, Management Support	External pressure, Standards
2	Oforu-Ampong, and Acheampong (2022: 4).	Ghana	Adoption of contactless technologies	Relative advantage, Complexity, Compatibility	Top Management Support, Organization Competence, Organisational Readiness	Competitive and Advantage, Regulatory Support
3	Asante Boakye <i>et al.</i> (2022: 9).	Ghana	Blockchain technology	Infrastructural availability, compatibility, Complexity, Privacy and Security and Perceived Benefits	Top management support, Human resource capacity, Organisational culture and Perceived investment costs	Governmental support, Competitive pressure, Social Trust, Market Dynamism
4	Hussain and Merigo (2022: 1)	Australia	Social commerce adoption and fuzzy linguistic	Relative advantage, Compatibility, Complexity, Security and privacy, Reliability and Scalability	Organisation readiness, Firm size, Top management support	Competitive pressure, Trading partner pressure, Government regulations
5	Wessels and Jokonya (2022: 332).	South Africa	Big Data and SMEs	Security, Complexity, Compatibility, Costs, Relative advantage, and Technological resources	Organizational readiness, business size, financial commitment, infrastructure, top management support, and employee information systems knowledge	competition, legislation, external pressure, vendor capabilities, market trends, and customer demands
6	Fernando <i>et al.</i> (2021: 3),	Malaysia	Block chain-enabled technology	Technology competence, Compatibility	Firm size, Top management support	Competitive pressure
7	Mouakket and Aboelmaged (2022: 907)	UAE	Green information technology adoption	Relative advantage, Compatibility	Management Support, Resource Commitment	Regulatory Forces, Competitive Forces

8	Qalati <i>et al.</i> (2021: 4)	Pakistan.	Social Media and SMEs	Relative advantage, Cost effectiveness, Compatibility, Interactivity, Visibility	Top management support	Competitive industry, Competitive pressure, Bandwagon effect
9	Abed (2020: 3)	Saudi Arabian	Social commerce	Preserved Usefulness, Security Concern	Top Management Support, Organisational Readiness	Consumer Pressure, Trading Partner Pressure
10	Chege and Wang (2020: 3)	Kenya	Technology Innovation and SMEs	Relative advantage, Complexity and Compatibility, Product innovation and Process and Market Innovation	ICT Innovation Intensity, Size of Firm, and Management Support	Competitive and Market Pressure, Technology Support Infrastructure and Government Regulations
11	Hasani and O'Reilly (2021: 114)	Malaysia	Organisational performance and start-up businesses	Perceived Advantages, Compatibility, Observability, Trialability	Internal Financial Resources, Business Incubation	External Pressure, Governmental Support, Business Angel Support, Venture Capitalist Supports, Crowdfunding Support
12	Qalati <i>et al.</i> (2020: 991),	Pakistan	Social Media	Relative advantage, Interactivity, Visibility	Top Management Support	Institutional Pressure
13	Yadegaridehkordi <i>et al.</i> (2020: 4)	Malaysia	Big data	Complexity, Compatibility, Relative advantage, Cost of adoption	Management Support, Organisational resources, Organisational size	External Pressure, External Support, Security and Privacy concerns
14	AlSharji <i>et al.</i> (2018: 87).	UAE	Social Media Adoption and SMEs	Relative advantage, Compatibility, Complexity, Trialability, Observability	Management support	Competitive industry, Bandwagon pressure, Competitive pressure

Source: Compiled by the Author, 2022

2.4 Review of important technology adoption theories in the SME context

Several technology adoption theories have been identified after critically examining the existing literature. The study is interested in the theories that have been widely applied in the context of SMEs. The most widely applied theories identified in the current literature in this context are the DoI, the TAM, the UTAUT and the TOE theories. The TOE theory is selected as the theory underpinning this study and has been discussed in the introductory part of the study. Attention is now paid to the rest of the theories identified as widely used.

2.4.1 Technology Acceptance Model (TAM)

Developed by Davis (1989: 319), this theory has received the needed attention from scholars (Kamal, Shafiq and Kakria 2020: 2; Chatterjee *et al.* 2021: 1; Guner, and Acarturk 2020: 313; Alfadda and Mahdi 2021: 887; Van, Quynh and Doanh 2022: 3; Katebi, Homami and Najmeddin 2022: 2; Muflih 2022: 3) and has been extensively used to explain and understand the acceptance of technology, because of its flexibility and robustness. Davis (1989: 319) proposed this theory to predict behavioural intention to adopt technologies and argues the theory encompasses five constructs, namely perceived ease of use (PEU), perceived usefulness (PU), attitude toward use, and behavioural intention to use, as well as actual use. However, the two most important pillars of the model are PEU and PU (Alfadda and Mahdi 2021: 887).

PEU is associated with less effort in using the technology, whereas PU deals with how the use of the technology increases output or the performance of the organization (Muflih 2022: 3; Alfadda, and Mahdi 2021: 887). Per the definitions of the TAM constructs, it implies that when organizations such as SMEs want to garner strong consumer support for the adoption of technology, it is important they make it more accessible and easier to use (Muflih 2022: 3). This claim was put forward by Hoseini, Saghafi and Aghayi (2018: 913) that organizations mostly consider ease of access, understanding and use. Furthermore, according to Guner and Acarturk (2020: 313), the TAM theory also refers to how behavioural intention is predicted by perceived usefulness and PEU, in addition to external factors.

The simple nature of TAM theory, with fewer constructs, has contributed to its wide use to examine technology adoption (Kamal *et al.* 2020: 2; Ferri *et al.* 2021: 777; Shetty and Panda 2022: 1). The extensive application of this theory has led to other authors adding more constructs to the theory. For instance, Venkatesh *et al.* (2003: 446) proposed the inclusion of

constructs such as effort expectancy, performance expectancy, social influence and facilitating conditions that influence intentions to adopt the technology.

This claim has yielded several theories from the TAM, which are TAM II and UTAUT (Venkatesh *et al.* 2003: 446). Albeit there has been an attempt in the literature to use TAM in the context of SMEs (Kazaure *et al.* 2021: 204; Ferri *et al.* 2021: 777). However, TAM has also been blended with the TOE to examine technological adoption in the context of SMEs. Shetty and Panda (2022: 6) are of the view the TAM is not widely used to investigate technology adoption in the context of organizations but rather at the individual level. In this study, the focus is on understanding social media adoption from the context of SMEs, which is from the perspective of an organization. Therefore, this theory is not suitable for the study. Stated differently, looking at the predictive and explanatory power of the TOE theory compared with the TAM, the TOE presents a better theoretical framework underpinning this study.

2.4.2 Diffusion of Innovation Theory (DoI)

According to Min, So, and Jeong (2019: 773), more than applying TAM to examine user acceptance of technologies may be required to bring forth an understanding of other technologies. Previous studies have acknowledged this deficiency and argued for the inclusion of other theories with the TAM (Lee, Hsieh, and Hsu 2011: 125). One such theory is the DoI, to enhance understanding today's increasingly changing technological environment.

The seminal work of Rogers (1962: 5) gave birth to the DoI and since then, it has been used by scholars in a different context (Vargo, Akaka, and Wieland 2020: 527; Mehra, Paul and Kaurav 2021: 481; Wamba, and Queiroz 2022: 2). For example, Yuen *et al.* (2021: 505) used the DoI theory to examine the factors influencing autonomous vehicle adoption. Researchers such as Wamba and Queiroz (2022: 2) have observed that DoI is a solid theory that considers how society and organizations adopt a new idea, process and technological innovation. Rogers (1962: 5) defined the idea of diffusion as the “process by which an innovation is communicated through certain channels over time among the members of a social system.”

In the opinion of Yuen *et al.* (2021: 505), the DoI tries to explain why individuals would choose to adopt a particular innovation because of their beliefs. Rogers (1962: 5) is, however, of the view that the decision to adopt an innovation comprises five stages, starting with knowledge, then persuasion, decision, implementation, and confirmation. More precisely, Rogers (1962: 212) indicated five main innovation characteristics as predictors of technology that form the

basis of the DoI theory, namely relative advantages, complexity, compatibility, and observability, as well as trialability. The literature on SMEs shows the application of the DoI theory is evident, with scholars such as Mamun (2018: 113) having used the DoI theory, as example, for SMEs in the Malaysian manufacturing sector.

Scanning the literature shows the DoI theory has received scholars' attention and impacted the technology innovation adoption literature. However, the DoI theory is only critiqued by previous scholars (Amin and Hussin 2014: 3; Lyytinen and Damsgaard 2001: 186). For example, according to Amin and Hussin (2014: 3), one main drawback of this theory is that it needs to consider the influence of organization and environmental factors, which are vital in the adoption process. This limitation is highlighted in the work of Abdullah, Wahab and Shamsuddin (2013: 81), who indicated the theory does not consider owner/manager characteristics, which have been noted as the key factors in technological adoption, particularly regarding SMEs. As far back as 2001, Lyytinen and Damsgaard (2001: 186) cautioned against the DoI theory, because their findings reveal the theory falls short of some theoretical constructs. Also, the DOI theory elucidates and forecasts the adoption decision by considering elements associated with the technology itself, including its inherent characteristics and user perceptions (Amini and Jahanbakhsh Javid 2023:1221). However, these researchers observed that technology-related constructs do not exclusively dictate the adoption of technologies. There are additional determinants such as environmental and organizational factors that play a pivotal role in the decision to embrace technology adoption. These factors, specifically environmental factors, are not taken into account in DOI (Amini and Jahanbakhsh Javid 2023:1221). Based on the various claims concerning the limitations of this theory, the DoI is not an appropriate theory for this study. Hence, the use of the TOE theory to examine social media adoption among SMEs in the study context.

2.4.3 Unified theory of acceptance and use of technology (UTAUT)

The UTAUT is another technology adoption that has also received the necessary attention from scholars (Rahi and Abd Ghani 2019: 492; Ronaghi, and Forouharfar 2020: 4). This theory is considered one of the known theories in examining how individuals use and adopt technology (Mishra, Shukla, and Sharma 2021: 1). Introduced by Venkatesh *et al.* (2003: 446), the UTAUT has four antecedents of intentions to use and technology use, which are performance expectancy, effort expectancy, social influence, and facilitating conditions (Venkatesh 2022:

10). Other than the antecedents, the UTAUT further proposed four variables, namely gender, age, experience, and voluntariness of use, as moderators for the theory (Venkatesh 2022: 10).

Performance expectancy has been explained as how the individual perceived the use of system would improve upon work-related performances, while effort expectancy has been explained to mean the easiness of using a system, with social influence also meaning how individuals use a system, because others perceive them of using that system. Finally, facilitating conditions deals with the individual systems and structures to support the use of a new system (Venkatesh 2022: 10).

Previous studies have employed the UTAUT to test technological adoption issues and the same is observed with regard to the context of SMEs, such as Lutfi (2022: 1), who studied the factors impacting the intention to use accounting information systems among SMEs in Jordan, using the UTAUT theory. Broadly speaking, the UTAUT theory has been applied in various studies; however, this theory also has some limitations, as pointed out by Blut *et al.* (2021: 58), who indicated more insight into examining the uncertainty regarding whether the UTAUT predictors differ, for example, across organizations or culture and technology. Blut *et al.* (2021: 58) also advocated for more research at the organisational level, since more studies focused on the individual level. Based on this understanding of the theory being primarily focused on technology adoption at the individual level, the UTAUT does not seem applicable as a theoretical foundation for the current study.

2.5 Adoption of ICT and SMEs

This section provides information on ICT and SMEs in general. The concern of this section is to look at overview of studies on ICT adoption and SMEs, importance and benefits, and challenges. The reason is that since the current is on technology adoption among SMEs is important to also look at how ICT is embraced by SMEs. The various issues in this section is now discussed.

Today's business environment has become turbulent, with increasing technological changes, where innovation is driving competition for organizations to satisfy their customers in a more timely and sustainable way (Cuevas-Vargas, Parga-Montoya and Fernández-Escobedo 2022: 199; Fernández-Márquez and Vázquez 2018: 124). Coupled with the recent COVID-19 outbreak is increasing pressure on organizations across the globe, more importantly, on SMEs, to adopt ICT tools to remain competitive and ensure survival, as part of their business strategy

(Cuevas-Vargas *et al.* 2022: 199). These issues place greater responsibility on SMEs, particularly in developing countries, to pay attention to ICT adoption.

The adoption of ICT by SMEs, who form most organizations in both developed and developing countries, is changing the face of their business (Okundaye, Fan and Dwyer 2019: 31; Napitupulu *et al.* 2018: 2). According to scholars such as AlBar and Hoque (2019: 2), Nair, Chellasamy and Singh (2019: 696) and Eze *et al.* (2020: 43), SMEs globally are significant players in various sectors of the economy, considered the pillar of economic growth and development.

In most countries, as AlBar and Hoque (2019: 2) state, the most widely accepted definition of SMEs is "Small Sized Enterprises with between 1 to 49 employees, while Medium Sized Enterprises are firms with between 50 to 100 employees". However, for this study, SMEs would be defined as enterprises with between 1-150 employees, which is consistent with previous studies (Eze *et al.* 2020: 43). According to AlBar and Hoque (2019: 4), the SMEs industry contributes to both developing and developed countries by reducing poverty through employment creation, improving income levels, enhancing technological innovations and impacting other areas of social development. AlBar and Hoque (2019: 4) further indicated that SMEs increase the rate of social and economic growth, especially in developing countries. As argued by Okundaye *et al.* (2019: 31), some scholars claim that larger organizations are more important when it comes to economic growth, because there is the likelihood to produce more innovation compared to SMEs (Harness *et al.* 2018: 18).

Conversely, some researchers have also contented that SMEs play a more significant role in the development of the economy than their counterparts, large firms (Harness *et al.* 2018: 18), where these scholars are of the view that large organizations have numerous benefits. These advantages include the ability to take advantage of economies of scale, to access huge financial resources at lower cost, to adopt technology, and the ability to take and manage risks to cheaper and larger financial resources. The extant literature agrees the advantage SMEs has over their large counterpart organizations, is embedded in their size (Okundaye *et al.* 2019: 32; Napitupulu *et al.* 2018: 2). The size of SMEs allows owners/managers to be more flexible and lesser organisational structures, less red tapes and bureaucracy, as well as informal culture that enhances efficient communication, in addition to being closer to markets, and SME owners/managers likelihood of embracing new technologies (Harness *et al.* 2018: 18; Rahayu

and Day 2017: 26). Several studies have also alluded to the importance and implications of ICT use among SMEs and highlighted the consequences of SMEs not using ICT (Consoli 2012: 94; Okundaye *et al.* 2019: 32, and Napitupulu *et al.* 2018: 2).

The use and benefits of ICT are increasing across various industries, while ICT growth has had a considerable influence on how SMEs operate (AlBar and Hoque 2019: 4). ICTs have been explained to include the Internet, Extranets, Intranets, and ERP, as well as other related technologies that add value to SME products and services and enhance the efficient and effective running of their business (AlBar and Hoque 2019: 4). According to researchers the adoption of ICT creates an opportunity for SMEs to be competitive and outweigh their competitors (Eze *et al.* 2018: 2; AlBar and Hoque 2019: 4), with the current literature having documented how SMEs have adopted several technological innovations.

The SME sector has also experienced the introduction of various ICT applications, which start with the most basic to the more advanced ICT, such as Enterprise Resource Planning software. In line with this, several studies have researched the adoption of ICT among SMEs over the years. For instance, Ab Wahab *et al.* (2020: 270) studied the relationship between ICT adoption and Malaysian SMEs' business performance by sampling 155 SMEs. The outcome shows ICT adoption has a positive and significant relationship between ICT adoption and the business performance of the sampled 155 Malaysian SMEs.

Recently, Mushtaq, Gull, and Usman (2022: 16) investigated the association between ICT adoption, innovation and SME access to finance, using a World Bank Enterprise Survey (WBES) data, consisting of 171 000 SMEs from 149 countries, between 2006 and 2020. Their study indicated ICT adoption reduces information irregularities between SMEs and banks. Hence, banks are more likely to grant loans to SMEs that have adopted ICT. There is a growing body of studies on ICT adoption among SMEs in the current literature, and a summary (Table 2.2) of studies published is tabled below.

Table 2.2: An overview of studies on ICT adoption and SMEs

No	Authors	Title of Publication	Publ. Year	Methodology	Findings/ Outcomes
1	Mushtaq <i>et al.</i>	ICT adoption, innovation, and SMEs' access to finance	2022	Quantitative	ICT adoption reduces information asymmetry between SMEs and banks.
2	Eze <i>et al.</i>	A theory grounded framework of information behaviour of SMEs on emerging information communication technology adoption decision-making	2022	Qualitative	The study developed an integrated framework underpinned by the TOE theory
3	Kyakulumbye and Pather.	Understanding ICT adoption amongst SMEs in Uganda: Towards a participatory design model to enhance technology diffusion	2022	Quantitative	ICT learnability, User-confidence, and User-friendliness. These are found to be key determinants of ICT adoption. ICT s
5	Athapaththu, and Nishantha.	Information and communication technology adoption in SMEs in Sri Lanka; Current level of ICT usage and perceived barriers	2021	longitudinal study/ qualitative	The findings revealed that despite the majority of respondents using IT for essential functions, they lacked proper internal IT infrastructures, personal motivation, had internet connection issues, trust issues, and lack of knowledge.
6	Munikrishnan, and Mamun.	Survival and competitiveness of traditional travel agencies in	2021	Qualitative	Is to co-exist with technology and embrace proactive strategies (i.e., competitive aggression, public relation,

		Malaysia: a qualitative enquiry			dependence development, smoothing, cooperative, and manoeuvring strategies)
7	Wahab, Musa and Yusuff.	Measurement Validation of Factors Influence SME Business Performance in Malaysia	2021	Quantitative	Organizations are increasingly under pressure to shift from traditional to sustainable production methods, reinforcing the requirement to monitor sustainability performance. The slow performance growth of Malaysian manufacturing companies remains problematic.
8	Cuevas-Vargas <i>et al.</i>	The adoption of ICT as an enabler of frugal innovation to achieve customer satisfaction. The mediating effect of frugal innovation	2022	Quantitative	The outcomes indicate that ICT adoption has a significant influence on both frugal innovation and customer satisfaction. Furthermore, greater levels of frugal innovation increase customer satisfaction.
9	Wendt <i>et al.</i>	Let's Connect to Keep the Distance: How SMEs Leverage Information and Communication Technologies to Address the COVID-19 Crisis	2022	Qualitative	Our findings reveal that ICT adoption not only depends on rational decisions based on organisational, environmental, and technological characteristics, but also on these dimensions' interrelationship and the specific ICTs' affordances and constraints.
10	Mujahed <i>et al</i>	Factors influencing Palestinian small and medium enterprises intention to adopt mobile banking	2022	Quantitative and Qualitative	Findings presented in this paper reveal that SMEs factors, enabling environment and business model are the main determinant factors affecting the intention to adopt mobile banking by the SMEs sector in Palestine.

11	Turk	Structured analysis of ICT adoption in the European construction industry	2021	Qualitative	The paper concludes there is a need for a better way of deployment, organising, marketing, and learning about new technologies that would mostly benefit SMEs, which lag most in ICT use.
12	Vivas, Pazos, Tito, and Ordoñez.	Review of models to identify ICT adoption factors in SMEs [Revisión de modelos para identificar los factores de adopción de tic en pymes]	2021		This research will help the different parties involved in the ICT adoption process.
13	Tsuchiyam and Miyoshi	The Adoption of Information Communication Technology (ICT) by Japanese SMEs	2020	Quantitative	Found that ICT adoption did not adequately plan business and stakeholder requirements. In addition, it suggested the purposes and goals were not properly arranged.
14	Kosi, de Souza, Zaidi and Nguyen	Determinants of the Adoption of Information and Communication Technologies (ICTs): the Case of Tunisian Electrical and Electronics Sector	2020	Quantitative	The results show firms' human capital, export and import intensities, and firm size are the most significant explanatory variables of adoption of advanced manufacturing ICTs in the Electrical and Electronics sector.
15	Naushad and Sulphey	Prioritising technology adoption dynamics among SMEs.	2020	Qualitative	The findings indicate SMEs adopt ICT to have a relative advantage over competitors. Affordability, ease of use, value creation and productivity are top priority reasons. Profitability and top management support are other prime factors that stimulate ICT adoption.

16	Janaki.	Strategies for adopting information and communication technology among micro, small and medium enterprises (MSMES).	2020	Quantitative	The highest mean value has been observed from enterprises who consider financial support as the major challenge for adopting ICT, with a mean value of 4.18. It implies 83.6% of the enterprises agreed financial support is the major challenge for adopting technology and secured the first rank for the adoption of ICT among MSMEs.
17	Kusuma <i>et al.</i>	Information and Communication Technology Adoption in Small- and Medium-Sized Enterprises: Demographic Characteristics	2020	Quantitative	The study made some interesting findings. No significant differences were found in SME adoption factors between the demographics of gender groups and educational qualifications. However, significant disparities were found to exist among the age compositions, managerial status, and years in business.
18	Wahab <i>et al.</i>	The importance of ICT adoption in manufacturing sector: An empirical evidence on SME business performance	2020	Quantitative	The findings revealed that ICT adoption had a significant correlation and relationship with SME business performance. The study also suggested ICT adoption is a major factor affecting SME business performance, as reported by SME Corporation Malaysia.
19	Joseph and Padmanabh	Perception of information and communication technology tools among small and medium enterprises in Bengaluru	2020	Quantitative	The findings prove institutional pressures have no significant influence on the advantages of ICT adoption, challenges of ICT adoption and awareness of different government schemes. Benefits of ICT adoption have a moderate influence on Challenges of ICT adoption.

2.5.1 SME Adoption of ICT: Importance and Benefits

It is evident in the current literature that SMEs are faced with several challenges preventing them from adopting ICT. Scholars such as Wessels and Jokonya (2022: 334) have noted that adopting ICT would enable SMEs to survive and compete with their larger counterpart firms in this era of ubiquitous organizations, coupled with an unpredictable and changing business environment. In considering SME challenges, for example, Wessels and Jokonya (2022: 334) state, when compared with large firms with more capital resources, lack of resources hinders SMEs from competing with their large counterpart firms. Hence, adopting ICT is key to the survival of SMEs (Eze *et al.* 2019: 159).

Despite these challenges, such as lack of finance, it is vital for SMEs to develop strategies to tap into the numerous benefits, such as improved performance and growth (Kyakulumbye and Pather 2022: 2), that come with the use of ICT. For instance, Kyakulumbye and Pather (2022: 2) investigated ICT adoption among SMEs in Uganda and observed this adoption improves performance, growth and sustainability. Eze *et al.* (2019: 159) also identified that the adoption of ICT by SMEs influences their performance.

Lu *et al.* (2019: 7) investigated ICT implementation of SMEs in the construction sector and identified several significant benefits of adopting ICT. These benefits include, among others, enhancing productivity and practical work, reducing transaction costs, promoting organisational and commercial reform, as well as improving communication, boosting knowledge transfer and management, in addition to improving customer/supplier satisfaction. Other advantages, such as quality of service delivery, enhancing competitive advantage and increasing market share are some of the benefits derived from using ICT. In addition, Beynon, Munday, and Roche (2021:1800) noticed that ICT adoption by SMEs improves their performance, can respond to customer and supplier demands in a timely fashion, and enhances service delivery standards.

According to Nair *et al.* (2019: 696), ICT use by SMEs would lead to profit maximisation, better coverage and competitiveness of the firm. Colicchio, Giovanoli, and Stella (2015: 177) noted that deploying ICT by SMEs helps lower the cost and complexity of doing business, creates new opportunities and improves the way of doing business. AlBar and Hoque (2019: 4) investigated factors affecting the adoption of ICT among SMEs in Saudi Arabia. They indicated

that ICT adoption enables development of the capacity to manage resources, develop the skills for gathering and disseminating information, and accessing information rapidly.

Although SMEs are aware of the several benefits of using ICT, researchers such as Kannabiran and Dharmalingam (2012: 187) have observed the slow pace of ICT use and the reluctance of some SMEs, especially in developing countries, to use ICT. This posture of the slow pace and reluctance to use ICT is attributed to the numerous challenges SMEs face. The importance and benefits of SMEs adoption of ICT is provided in Table 2.3 below. The various challenges of SMEs are discussed in the next section, which deals with the challenges SMEs experience in adopting ICT.

Table 2.3: SME adoption of ICT: Importance and Benefits

No.	Authors	Year	Importance and benefits
1	Chandavarkar and Nethravathi,	2023:4	ICT might help firms become more effective, inventive, and competitive.
2	Hossain, Dewan, Senin, and Illes	2023:2	ICT enables rapid productivity and easy and rapid communication to reach new clients
3	Lawrence	2023: 293	ICT can add significant value to an organization in terms of productivity and performance improvements
4	Kyakulumbye and Pather	2022: 2	Improve performance, growth and sustainability
5	Eze <i>et al.</i>	2019: 159	SME performances
6	Lu <i>et al.</i>	2019: 7	Enhancing productivity and work effectively; Reducing transaction costs; Promoting organisational and commercial reform; Improving communication and collaboration processes; Boosting knowledge transfer and management; Improving customer/supplier satisfaction or quality of services; and Enhancing competitive advantage and increase market share.

7	Zivic, Grujovic and Miljojkovic	2018: 114	Increase communication with customers and information flow
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Source: Compiled by the Author, 2022.

2.5.2 SME adoption of ICT: Challenges

A review of the extant literature reveals a consensus on the part of researchers on how SMEs have shown positive interest in the use of ICT and the fact that ICT is an essential enabler towards the success of their business (Bertello *et al.* 2022: 92; Chatterjee and Kar 2020: 1). Despite these researchers' observations, the literature has also documented the internal and external challenges facing SMEs.

According to Okundaye *et al.* (2019: 30), ICT adoption still needs to improve among SMEs, and some are unwilling to try innovations that widen the gap between SMEs and their counterpart in large firms with regard to ICT. Neirotti, Raguseo and Paolucci (2018: 12) argue that large firms have the resources and the technical expertise to invest in ICT when compared with SMEs, since several challenges preventing these small enterprises from adopting ICT. Scholars agree that SMEs lack resources and these resources primarily have to do with a lack of money, which contributes to the inability of SMEs to develop and craft strategies tailored toward ICT use in meeting their needs and organisational goals (Eze *et al.* 2019: 159; Wessels and Jokonya 2022: 334). This may be the reason why ICT adoption is in its infant stages in most countries, particularly in developing countries (Neirotti *et al.* 2018: 12).

Concerning the lack of financial resources by SMEs, this limits their ability to commit to investing financial resources in ICT, unlike larger firm that can commit financial resources (Neirotti *et al.* 2018: 12). Adopting ICT comes with some cost in acquiring the necessary accompanying tools, which SMEs would not be able to afford, and may explain why SMEs are mindful of investing their scarce financial resources in ICT adoption. Broadly, the existing literature has indicated the lack of financial resources as the primary reason that prevents ICT adoption among SMEs and precludes them from investing in new technological innovations (Neirotti *et al.* 2018: 12; Wessels and Jokonya 2022: 334). Hence, these small enterprises avoid investing in expensive technological innovations, including ICT and the associated exorbitant cost (Asare, Gopolang and Mogothlwane 2012: 278). One major challenge to SMEs, as Asare *et al.* (2012: 278) indicated is the cost of adopting ICT. Okundaye *et al.* 2019: 34) believe owners/managers of SMEs see ICT as expensive and fraught with challenges that require

further external support. This has resulted in SMEs being more concerned with using ICTs to reduce cost, instead of deriving value for their business (Okundaye *et al.* 2019: 34).

Other than the lack of financial resources, which is the main factor in ICT adoption, other factors include the lack of ICT infrastructure, which is also considered a limiting factor in SME ICT adoption. Most SMEs need more ICT infrastructure to implement ICT, along with IT experts and skills within their organizations (Oduro 2020 513; Wendt *et al.* 2022: 2). In addition, it is observed that SMEs owners/managers' lack of skills, coupled with their not having IT experts in their organizations have a direct bearing on their understanding and knowledge about how using ICTs would benefit their organization (Bertello *et al.* 2022: 92). Furthermore, SMEs owners/managers are in charge of decisions when it comes to ICT adoption and implementation, necessitating in-house IT experts, which impacts their understanding of the benefits ICT offers to their business (Eze *et al.* 2019: 159).

To add to the above, there are also context-specific challenges SMEs in developing countries such as Ghana face in adopting new technology. Some of the challenges are well known in the literature, as SMEs in developing countries have serious financial problems, lack of infrastructure, and lack of ICT knowledge and skills (Asare *et al.* 2012: 278; Karakara and Osabuohien 2020: 399). In the Ghanaian study context, Karakara and Osabuohien (2020: 399) listed challenges such as the high cost of acquiring ICT facilities, high usage cost of ICT facilities (maintenance, running costs), frequent power supply disruption, and lack of literacy and other skills among the labour force, as well as lack of managerial skills, lack of access to technology and lack of access to capital, as some of the challenges facing SMEs in ICT adoption. Table 2.4 summarises some of the additional challenges identified by scholars in the literature.

Table 2.4: Summary of SMEs adoption: ICT Challenges

No	Authors	Year	SMEs challenges of adopting ICTs identified by researchers
1	Wessels and Jokonya	2022:334	Lack resources, context, access, operations, attitudes, and capabilities
2	Kyakulumbye and Pather	2022	Skepticism, and Technophobia
3	Bertello <i>et al.</i>	2022:92.	Lack of knowledge, collaboration, organizational, and financial and strategic

4	Akpan Udoh and Adebisi	2022:10	Poor state of infrastructure and malfunctioning political and economic systems
5	Wendt, Adam and Benlian Kraus	2021:2	Not able to attract and retain the required skills and expertise, awareness of available ICT, and affordability
6	Turkyilmaz, Dikhanbayeva, Suleiman, Shaikholla, and Shehab.	2021:216.	Not able to quickly react to market changes, lack of knowledge, lack of qualified personnel
7	Eze <i>et al.</i>	2019:159	Competitive business environment, unawareness of new technologies, financial limitations, inadequate training, safety and security issues, as well as inability to understand strategic implication of ICT, insufficient resources, poor knowledge of the financial benefit associated with emerging ICT, along with issues of uncertainty re the benefits of the new technology.,
8	Abdulle, Zainol and Ahmad Mutalib.	2019	Availability, accessibility, and affordability
9	Eze <i>et al.</i>	2019	Lack of know-how and not open-minded
10	Prasanna <i>et al.</i>	2019: 4	Lack of capital and inadequate technical know-how,
11	Dahbi and Benmoussa.	2019: 811	Lack of top management support, owners/managers, lack of innovativeness, resistance and a lack of skilled employees
12	Eze <i>et al.</i>	2019: 572	Technology adoption is in the hands of only the owner/manager who takes the decision concerning the ICT adoption of the business.
13	Nair <i>et al.</i>	2019: 695	Economic downturns, increased lead time, frequent change in customer demand and unpredictable financial markets, keeping global competition in mind, and to overcome domestic rivalry
14	Oduro	2020 513	Labour shortages lack of information’, ‘lack of infrastructure, and lack of financial resources,
15	Kumar, Singh and Dwivedi	2020	lack of effective strategies
16	Omiunu	2019: 4	literacy in the use of ICT
17	Asiaei and Rahim	2019: 710	lack of a clear guideline and acceptable standards

Source: Compiled by the Author, 2022.

2.6 Social media and SMEs

Having dealt with the main theoretical framework underpinning the study, the TOE theory, ICT adoption of SMEs, the next section examines social media and SMEs. This section will review relevant literature on the concept of social media, SMEs and their characteristics, social media use among SMEs and the benefits and challenges of using social media.

2.6.1 Social Media-The concept

The introduction of the word social media into academic scholarship has received the necessary attention by scholars from both developing and developed countries (Nguyen, Nguyen, and Do 2022: 245; Borah *et al.* 2022: 3; Hassani and Mosconi 2022: 3). In the domain of SMEs, social media has gained attention, and it is important that in this study, the concept of social media is examined to understand what exactly it is. Several definitions (Hassani and Mosconi 2022: 3; Meel and Vishwakarma 2020: 2) have been provided in the literature; however, for this study, the definition provided by Kaplan and Haenlein (2010) is adopted.

Kaplan and Haenlein (2010: 61) defined social media as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, which allow the creation and exchange of user-generated content." Globally, the number of social media users, as of December 2022, was approximately 4.7 billion people (Statista 2022). Existing literature identifies several social media platforms such as Facebook, Twitter, Snapchat, and Wikipedia, as well as Instagram, WeChat, QQ, and Weibo. Other platforms include WhatsApp, Google classrooms, TripAdvisor, and YouTube, along with Zoom (Nguyen *et al.* 2022: 245; Borah *et al.* 2022: 3; Hassani and Mosconi 2022: 3; Zhang and Zhu 2021: 184; Meel and Vishwakarma 2020: 2).

According to Meel and Vishwakarma (2020: 2), social media is now a platform where users share sentiments and emotions, discuss issues, express their ideas, and share information. Furthermore, social media platforms such as Facebook, Twitter, Snapchat and Instagram are becoming the most popular social media platforms, with millions of users who share their experience and information, which also improves interactions between people and business partners (Singh, Shukla and Mishra 2018: 400; Groothuis, Spil and Effing 2020: 2562; Soni *et al.* 2021: 1). For example, a study conducted by Ngussa, Fitriyah and Diningrat (2021: 232) on some social media platforms, reveals most (50.6 percent) sampled respondents use Google

classrooms. This is followed by WhatsApp Groups (30.8 percent) and Zoom (18.6 percent) to study different topics.

The extensive impact social media has on business, where information technologies are concerned, is noted by Zhang and Zhu (2021: 184), while it is also shown to provide an excellent opportunity for new ideas and challenges for organizations today (Meel and Vishwakarma 2020: 2).

This study discusses some of the most popular social media platforms such as Facebook, Twitter, YouTube, and LinkedIn, as well as Skype, and Instagram, as identified in the literature (Nguyen and Do 2022: 245; Borah *et al.* 2022: 3; Hassani and Mosconi 2022: 3), because of the study context, thus excluding platforms that are not common. The study is interested in social media platforms used by SMEs in Ghana; hence, the most popular platforms identified by researchers in the Ghanaian context will receive attention. Facebook: Founded by Mark Zuckerberg and some colleagues at Harvard University in the year 2004, the application was originally only for Harvard students. Facebook has now become a worldwide household name and is used by millions of users today (Alzougool 2019: 475).

- Facebook is described as a social networking platform that allows users to register prior to using the platform by creating individual profiles, which allows them to add their friends and to simultaneously send and receive messages. Alzougool (2019: 475) indicated that users receive automatic notifications when there is an update on their profiles. It also allows users to create various groups, such as university and work groups with similar interests
- Twitter: An online social networking and micro-blogging platform that enables users to send and read short 280-word messages, known as "tweets". Alzougool (2019: 475) adds that only registered members can read and post tweets, while those who still need to register can only read the tweets.
- YouTube: Founded in 2005, YouTube has become a sizeable video-sharing platform for users to upload, view, and share videos (Alzougool 2019: 475). This platform enables its users to share videos to reflect their inspiration to the world, offering various types of paid subscription.
- LinkedIn: Considered the largest network of professionals, with over 300 million users across 200 countries, it was founded in 2003, with the objective to connect professionals globally to share their experience and expertise, to make them more successful and productive in their workplaces (Alzougool 2019: 475).

- Skype: This is a video communications platform allows users to create a profile and connect with their friends, family, and loved ones worldwide (Alzougool 2019: 475). Skype offers text, video and voice, thus allowing people to stay connected, share information, their experiences and thoughts (Alzougool 2019: 475).
- Instagram: This platform enables users to share posts made up of photos or videos with descriptions/captions for others to like and comment on the posts (Alzougool 2019: 475).

Social media has been classified (Table 2.5) based on purpose of use, named the 5Cs: communications, collaboration, connecting, and completing, as well as combining (Jalonen 2014: 1371; Vuori 2011: 59). Communication, according to Jalonen (2014:1371), is enabled by social media, with current tools for users to store, share, disseminate information, and discuss and express their thoughts and influence. In addition, the author indicated that social media communication is done through blogs and microblogs, podcasts and videocasts, media sharing systems, along with discussion forums and instant messaging. In terms of collaboration, Jalonen (2014: 1371) noted that social media allows for collaboration among users, which permits them to create content and text without the hindrance of their location and time in the world. A typical example of collaboration in social media is Wikis (for example, Wikipedia) and shared workspaces (for instance, GoogleDocs) (Jalonen 2014: 1371).

Regarding social media connecting people, Jalonen (2014: 1371) believes these platforms bring on board a new approach to networking with people, where platforms such as Facebook and LinkedIn are examples of connecting people both socially and professionally through social media. Completing social media involves mixing and matching content; examples are Pinterest, Google Reader and Digg. Lastly, combined social media sites are usually referred to as “mash-ups”; explained as combining pre-existing web services that permit users of a platform to use another application without necessarily moving from the original platform (Alzougool 2019: 475).

Table 2.5: Purpose of social media platforms and their sources

No.	Purpose	Social Media Platforms	Sources
1	Communication	Blogs (Bloggers), microblogs (Twitter) Video sharing (YouTube) Presentation sharing (SlideShare) Instant message (Skype and Viber messenger)	Hassani, and Mosconi (2022: 3). Nguyen, Nguyen and Do (2022: 245), Borah <i>et al.</i> (2022: 3).
2	Collaboration	Wikis (Wikipedia) Groupware (GoogleDocs) Community practices (MeetUp, and Webinar)	Zhang and Zhu, (2021:184), Vuori (2011: 59), Jalonen 2014 :1371).
3	Connecting	Social networking platforms (Facebook, LinkedIn)	Alzougool (2019: 475), Vuori (2011: 59), Jalonen (2014: 1371).
4	Completing	Visual bookmarking tool (Pinterest) New aggregate (Digg)	Alzougool (2019: 475), Vuori (2011: 59), Jalonen (2014: 1371).
5	Combining	Mash-up (Google maps)	Vuori (2011: 59), Jalonen (2014: 1371).

Source: Adapted from Hanafizadeh et al. (2021: 3)

2.6.3 Benefits and challenges of social media use to SMEs

The importance and benefits of using social media for SMEs is well-documented, with several benefits indicated that SMEs stand to gain when they embrace the use of social media in their organizations. A critical review of the literature indicates several benefits to social media use, such as broader coverage through brand engagement (Geurin and Burch 2017: 273; Qalati *et al.* 2021: 1; Tajudeen *et al.* 2018: 308), enhanced sharing of knowledge (Jung and Jeong 2020: 1; Qalati, *et al.* 2021:1), facilitates access to global markets via an online environment (Jung and Jeong 2020: 1), and enabling less expensive, on-time communication channels with customers, suppliers and stakeholders (Whiting, Williams and Hair 2019: 135). Furthermore, its use enables SMEs to be competitive by strengthening their customer relationships (Jin and

Hurd 2018: 72), while it also improves sales performance (Wardati and Mahendrawathi 2019: 977; Qalati *et al.* 2021: 1).

Further benefits have, in addition, been identified as also enabling firms to be linked closely to markets and being able to make use of information from the business environment more effectively (Alalwan *et al.* 2017: 1179; Zhang and Zhu 2021: 184). Moreover, attainment of organisational goals, communication, searching for knowledge, and internal cooperation, with different organizations (Wang, Pauleen and Zhang 2016: 1; Zhang and Zhu 2021: 184), as well as supporting the development of new product outcomes (Rakshit *et al.* 2021: 1) and being a very important and influential platform for customers to express their views about products or services, are possible because of its availability and less effort in using social media (Lund, Cohen and Scarles 2018: 271; Zhang and Zhu 2021: 184; Rakshit *et al.* 2021: 1).

Further benefits, such as enabling SME owners/managers to connect and develop relationships concerning their interest (Olanrewaju *et al.* 2020: 90), contributes to the creation of partnerships among SMEs and triggers innovation and co-creation (Olanrewaju *et al.* 2020: 90), and influences SME performance (Franco, Haase and Pereira 2016: 4; Rialp-Criado and Rialp-Criado 2018: 355), with fewer barriers to overcome, less expensive, and usage requiring a low level of IT skills (Abed 2020: 1). Added to the above are the promotion, building and developing of brand communities and creating and reaching broader markets (Guha, Harrigan and Soutar 2018; Abed 2020: 1), along with the ability to communicate and generate content without being physically present (Zhang *et al.* 2017:3; Alzougool 2019: 473). When used as the blueprint of a firm's commercial objective and impact on business performance (Rapp *et al.* 2013: 547), social media assists in developing and building brand image and awareness among customers and stakeholders (Nisar and Whitehead 2016: 744), while it also impacts branding strategies, with a positive impact on electronic word-of-mouth (eWOM) (Tajvidi and Karami 2021: 1). Using social media for gathering of information and communicating (Alzougool 2019: 473), enables efficiency at work and building relationships (Zhang *et al.* 2017: 230), which positively influences customer retention, loyalty, customer satisfaction, and creating brand awareness, as well as building reputation and increasing sales and revenue (Alzougool 2019: 473) are some of the benefits identified by these scholars.

The use of social media also provides value to SMEs by way of building customer trust and bonding (Zhang *et al.* 2017: 230), contributing to sales growth (Kumar and Ayedee 2018:196) and improved brand value (Nisar and Whitehead 2016: 744). Furthermore, social media use

influences business performance (Aligarh, Sutopo, and Widarjo 2023:4), improves customer service, increases and directs traffic to the company website, as well as reduces cost, and develops and improves relationships among businesses (AlSharji *et al.* 2018: 304). It additionally allows SMEs to share expertise and information, develop customer relationships, communicate with customers timely and enables low-cost transactions (Amoah, Bruce, Shurong, Bankuoru Egala, and Kwarteng, 2023:4), along with attracting new customers, influencing customer engagement, increasing sales and developing better customer relationships (Oyewobi *et al.* 2021b: 415).

Although these benefits are suitable for SMEs when they use social media, some challenges remain that hinder certain SMEs from using social media in their organizations, particularly in the context of developing countries. The following section examines challenges SMEs encounter in adopting social media in the existing literature. According to Qalati *et al.* (2021: 2), SMEs are confronted with global competition and increasing changing demands of customers, amidst a need for more resources, namely human, organization and financial. In addition, some SMEs avoid the use of social media, because of a lack of technical know-how and trust in using these platforms (Qalati *et al.* 2021: 2). To these, Abbasi *et al.* (2022: ,2) add low levels of technological knowledge as well as lack of finance as contributing towards SMEs not adopting the use of social media. These researchers noted this could be why the gap between those currently adopting social media and non-adopters is widening.

2.7 Social Media Marketing (SMM) and SMEs Performance

Social Media Marketing (SMM) encompasses the application of social media technologies, platforms, and software to generate, communicate, deliver, and exchange offerings that hold value for an organization's stakeholders (Corral de Zubielqui and Jones 2023:1607). SMM is defined as a company's practice of initiating and promoting online marketing-related activities on social media platforms to deliver value to its stakeholders (Khaki and Khan 2023: 7). Moreover, SMM exhibits a positive association with customer loyalty, proximity, and trust (Khoa, 2020:198). The adoption of SMM is expected to aid small and medium-sized enterprises in advancing their commercial operations by establishing strong brands (Kikawa *et al.*, 2022:5) and by acting as a powerful tool to enhance their business practices, consequently fostering sustainable growth (Khaki and Khan 2023: 7). In contrast to conventional marketing, SMM is

fundamentally more efficient and impactful for small and medium-sized enterprises (SMEs) specifically (Iankova, Davies, Archer-Brown, Marder, and Yau 2019:171), owing to its speed, cost-effectiveness, and extensive geographical reach (Shen, Luong, Ho, and Djailani 2020:594). SMM enables SMEs in achieving their marketing goals at relatively low cost, as it imposes minimal technical requirements and is thus comparatively straightforward to implement and use (Drummond, O'Toole, and McGrath, 2020:1250). Ahmad *et al.* (2018: 12) and Ainin *et al.* (2015: 71) have grouped SMM performance under various headings in their findings. For example, Ahmad *et al.* (2018: 12) indicated that SMM contributes to SME performance by increasing customer base, brand awareness, loyalty, and reputation, while reducing communication and marketing costs, attracting new customers, and competitive advantage. Ainin *et al.* (2015: 71) also indicated that SMM enables SME performance, such as advertising, branding, research and referrals, along with information search and sharing, enhanced customer relations and service, as well as cost reduction, improved information sharing and accessibility, revenue generation and competitive advantage. These researchers have provided a clear understanding of how SMM contributes to SME performance, with these benefits further examined.

According to Ahmad *et al.* (2018: 12), SMEs increase visibility online, particularly on social media platforms such as Facebook, Instagram, and WhatsApp, which has the potential to increase the customer base of SMEs, because this would enable SMEs to look for new businesses and customers on these social media platforms. These researchers also indicated that social media enables customers to comment, like, and share information, which helps SMEs reach a more comprehensive customer base and attract new customers. The more SMEs are visible on social media, the more customers become aware of the SMEs, which leads to simultaneously building reputation, impacting profitability and creating brand value (Ahmad *et al.* 2018: 12). These factors influence customers to become more loyal to SMEs as a result of enhanced brand image.

2.8 Social Media Adoption Influence on Non-financial Marketing Performance of SMEs

A variety of studies exist on the benefits of social media towards non-financial marketing performance in the context of SMEs (Ainin *et al.* 2018: 208; Abed 2020: 2; Qalati *et al.* 2021; Borah *et al.* 2022: 1; Sedalo *et al.* 2022: 1). For instance, social media enables SMEs to improve their relationship with customers (Geurin and Burch 2017: 273), the building of trust and relationships with their customers (Abed 2020: 2, Sedalo *et al.* 2022: 1), as well as establish

and develop business partners (Sedalo *et al.* 2022: 1). A study conducted by Qalati *et al.* (2021) also revealed social media benefits such as improving knowledge sharing among SMEs, which enables SMEs to access global markets, and enhances SME brand engagement with the customer. Furthermore, Abed (2020: 2) indicated that SMEs' use of social media enables them to build strong online brand communities, promote and sell their products and services online, and have wider and different market segment coverage.

According to Tajudeen *et al.* (2018: 208), social media has a huge impact on the performance of SMEs, enhancing their digital advertising and promotion, generating innovative ideas, building customer relationships, and improving the quality of customer services. These benefits are confirmed by other scholars such as Tajvidi and Karami (2021: 1), Sedalo *et al.* (2022: 1), and Ali Abbasi *et al.* (2022: 2), who add that social media use among SMEs allows them to improve brand reputation, build and develop trust and loyalty, as well as gathering marketing information. In addition, benefits include improving brand value, developing customer bonding, and eWOM. The use of social media further benefits SMEs in terms of increasing customer satisfaction and loyalty, creating brand awareness, increasing retention and building reputation (Alzougool 2019: 473).

2.9 Social Media Adoption Influence on Financial Marketing Performance

The literature on the benefits of social media adoption towards financial marketing performance is well-documented, with seemingly more studies conducted on non-financial marketing performance benefits using social media among SMEs (Ainin *et al.* 2015: 570; Akbar 2021: 50; Chatterjee and Kar 2020: 6). However, a critical review of the literature reveals this is not the situation, rather, scholars using SME performance as an umbrella term to either represent financial or non-financial performance marketing performance of SMEs using social media adoption (Tajvidi and Karami 2021: 5; Franco *et al.* 2016: 8); which gave the impression that the literature focus is mostly on non-financial marketing performance and SME performance in general.

Several scholars have examined the financial marketing performance of social media use among SMEs (Tajvidi and Karami 2021: 7; Akbar 2021: 50), finding a significant positive relationship between social media adoption and financial marketing performance, with few exceptions. Gavino *et al.* (2019: 481) and Tajvidi and Karami (2021: 7) studied the influence of social media on performance (growth and profitability) in the context of SMEs in the UK

hotel industry by using a sample size of 384. Their findings reveal social media adoption among SMEs had a significant positive relationship with financial performance, such as growth and profitability.

Similarly, Akbar (2021: 50) studied the impact of SME Instagram use on financial and non-financial marketing performance, using 352 Malaysian SME employees. The outcome confirms a significant positive relationship between SME Instagram use and their financial performance. Further to this, Franco *et al.* (2016: 8) examined social networks in SME performance, such as return on assets, sales growth, profitability increase, and the average sales value before tax, using 88 SMEs in Portugal. The findings of these researchers show that social networks influence performance, in terms of return on assets, sales growth, profitability increase, and the average value of sales of SMEs sampled.

According to a study by Amoah (2020: 39), SME use of social media reduces business costs and could enhance financial performance outcomes. In addition, Chatterjee and Kar (2020: 6) investigated the impact of SMM among 310 SMEs in India. These scholars examined the impact of sales, and their findings show social media use positively impacts the sales of SMEs sampled. In their study, Basri and Siam (2019: 172) revealed that social media adoption reduces cost and increases profitability among SMEs in the Arab world. Similarly, Rienda, Ruiz-Fernandez and Carey (2021: 126) analysed social media adoption in the fashion industry on a sample of 102 participants, and their findings show that social media adoption contributes to profit before tax.

Several other scholars have also identified benefits of using social media adoption for financial marketing performance, such as revenue generation (Ahmad *et al.* 2018: 13), return on investment, return on equity, sales growth and gross profit (Susanto *et al.* 2023: 16). Generally, other than the context of SMEs, researchers have also examined social media and financial performance., determining a significant positive relationship between the use of social media and the financial performance of firms (Baek *et al.* 2017: 14; Ding *et al.* 2017: 77). For instance, Baek *et al.* (2017: 14) investigated the impact of social media platforms such as Twitter, Yahoo, Movies, blogs and YouTube on the sales revenue of box office sales. The findings reveal that Twitter and YouTube significantly positively impact the revenue of box office sales.

The present review indicates social media adoption among SMEs impacts their financial marketing performance. SMEs must consider adopting social media, especially in the context

of this study, where they still require help to remain competitive and sustainable. It is apparent from the review that SMEs in Ghana stand to benefit financially from using social media. The next concern of this study is examining the non-financial marketing benefits of using social media.

2.10 Non-financial Marketing Performance Outcomes Influence on Financial Marketing Performance of SMEs

The current literature has well-documented the relationship between non-financial marketing performance outcomes and the economic sustainability of SMEs (Bahta et al., 2021: 1428; Tiep Le, Ngo and Aureliano-Silva, 2021: 1). Notably, in this study, financial performance serves as a proxy for economic sustainability. It is important to indicate that Tiep Le et al. (2021: 1) employ the term SME performance as an overarching concept encompassing both financial and non-financial dimensions. However, this study is focused on economic sustainability performance, specifically in the context of financial performance. Empirically, Masocha (2019: 3) conducted a study involving 238 SMEs in the Limpopo province of South Africa, investigating the benefits of engaging in social sustainability for financial performance. The findings indicate a significant positive relationship between social sustainability, customer satisfaction, and employee satisfaction with financial performance. Additionally, Tiep Le et al. (2021: 1) examined SMEs in Vietnam over the period from 2020 to 2021, utilizing a sample of 482 to probe into the relationship between Corporate Social Responsibility (CSR) and SME financial performance, with a focus on mediating factors like corporate image, corporate reputation, and customer loyalty. The study reveals a significant relationship between all constructs and their respective mediators. Furthermore, Bahta et al. (2021: 1428) undertook a similar study in Eritrea, involving a sample of 402 SME owners and managers, aiming to elucidate the relationship between CSR and SME performance, while also considering the role played by SME reputation in the context of a developing country. The findings demonstrate that CSR significantly impacts financial performance and is influenced by SME reputation. Based on the comprehension of how these non-financial marketing performance outcomes impact SME financial performance, this study posits that non-financial marketing performance outcomes in SMEs are likely to exert a similar influence on the economic (financial) sustainability of SMEs.

2.11 Overview of SME sustainability

At present, governments globally, non-profit-organizations (NGOs), academics, and policymakers are constantly discussing the issue of sustainable business practices (Sadhukhan *et al.* 2020: 1; Jayashree, *et al.* 2022: 314). The conversation on sustainable practices is on the increase, because of the world's commitment to addressing issues such as climate change, reducing poverty, decreasing waste, and management of scarce resources (Fuso Nerini *et al.* 2019: 2; Zhang *et al.* 2019: 5).

In addressing the issue of sustainability, the UN introduced 17 sustainable goals, with 169 targets and 232 specific indicators, to be achieved by its member countries. According to Yong *et al.* (2020: 215), sustainability deals with businesses focusing not only on the economic motive as a business entity, but also paying attention to environmental and social aspects. This means businesses, while addressing the present needs of society should not have any adverse effect on future needs (Yong *et al.* 2020: 215). Furthermore, sustainability deals with protecting and preserving the scarce resources in our society today for the use of our future generations (Yong *et al.* 2020: 215). Undoubtedly, society cannot achieve the 17 sustainable development goals agenda without the support of businesses. For this to be achieved, businesses must pay attention to their sustainability issues by striking a balance between achieving their economic, social and environmental performance, with a long-term approach (Sajan, Shalij and Ramesh 2017: 778; Eikelenboom and de Jong 2019: 1390; Haddoud, *et al.* 2022: 702; Jayashree *et al.* 2022: 314).

Issues of sustainability conversation have been observed as mainly focused on larger firms, as compared with their smaller SME counterparts (Eikelenboom and de Jong 2019: 1390; Graafland and Smid 2016: 297). Nonetheless, SMEs are the most dominant businesses in most countries, and their activities also impact society (Ferro *et al.* 2019: 103). Concerning the issue of the environment, society is not only the concern of the larger firms but also SMEs, since these issues present both opportunities and challenges for business of any size (Graafland and Smid 2016: 297). That is why it is important for more attention to be directed towards SME sustainability so that, collectively, sustainable development goals can be achieved.

2.12 Financial Marketing Performance Outcomes, Influence on Environmental Sustainability of SMEs.

Embracing economic sustainability among SMEs is very important, in the sense that the survival of SMEs depends on a strong financial outlook and serves as the foundation on which social and environmental sustainability is achieved (Sarango-Lalangui, Álvarez-García and del RíoRama 2018: 3). The literature indicates economic motivation in business is not the same as economic sustainability, noting the idea of economic sustainability deals with not compromising on future economic gains of businesses by gaining now (Nawi *et al.* 2020: 375; Masa'deh *et al.* 2018: 3118).

In the views of Albort-Morant, Leal-Rodríguez and De Marchi (2018: 3), there is no problem with SMEs setting financial goals such as profitability and reducing cost; however, issues of financial management should be from an economic sustainability perspective. As stated by Nawi *et al.* (2020: 375), it is essential that SMEs, in achieving economic sustainability, approach this from a long-term perspective and are very transparent in their financial transactions, balancing this with satisfying their stakeholders, since this is the focus of economic sustainability.

A literature review reveals several components of economic sustainability that SMEs stand to gain by making economic sustainability a core part of their businesses. Components such as profitability, competitiveness, brand value, and cost reduction, as well as spin-offs, finance, and trade-offs are some of the factors identified in economic sustainability (Svensson and Wagner 2015: 205; Ferro *et al.* 2019: 103). As highlighted by Svensson and Wagner (2015: 205), it is evident SMEs are expected to make a profit for the sustainability of the business, however, this may not be immediate, and the focus of SMEs should, instead, be on how to make sufficient profit for the survival and sustainability of their firms. These researchers also indicated that SME engagement in sustainability is not only for philanthropic reasons but also to make a profit, attributed to all businesses; hence SMEs undertaking economic sustainability should know that it takes time, and there should be some principles for the pursuit of economic sustainability as SMEs. Another constituent of economic sustainability is the competitiveness of SMEs, with Svensson and Wagner (2015: 205), who assert SMEs' current and future competitiveness in their industry, along with a good reputation, project SMEs as good organizations and are essential for their sustainability.

Contrary to views that involvement in sustainability increases cost, engaging in economic sustainability has several benefits, such as reducing cost and enhancing the brand (Svensson and Wagner 2015: 205). Furthermore, SMEs with a good brand name in the industry they operate, would influence their competitiveness in the industry position, which would translate into increased sales and profitability. For instance, SMEs seen to be doing well may benefit from indirect media promotion, which could positively impact their marketing budget. Therefore, the financial gains of SMEs should be inculcated in the decision to undertake economic sustainability (Svensson and Wagner 2015: 205).

The next component of SMEs engaging in economic sustainability deals with influencing their brand value. According to Ferro *et al.* (2019: 103), SMEs engaging in economic sustainability influences their image and reputation, which leads to stakeholders having a favourable image of the SMEs, with spin-offs considered one of the components of SMEs' economic sustainability. Ferro *et al.* (2019: 103) indicated SMEs that embrace economic sustainability could derive some unforeseen benefits to their advantage, which influence other areas of SME operations. In addition, the economic sustainability of SMEs yields trade-offs, in the sense that areas seen as not economic, influence the decisions of these small enterprises, while also involving resource assignment that necessitate SMEs to make economic trade-offs, for instance, price vs quality (Ferro *et al.* 2019: 103). The last but not least component of the economic sustainability of SMEs, is the significant positive impact on financial operations, producing financial benefits to their advantage, therefore, enhancing financial performance (Ferro *et al.* 2019: 103). Financial marketing performance, often synonymous with economic sustainability, holds a crucial position within SME and broader sustainability literature. Studies have independently explored economic sustainability (Cardoni *et al.*, 2020: 1; Arsić *et al.*, 2020: 1; Hernita *et al.*, 2021: 1) and environmental sustainability (Yacob *et al.*, 2018: 2; Bakos *et al.*, 2020: 1; Ali *et al.*, 2020: 2294), highlighting their significance as distinct constructs. Moreover, empirical evidence suggests a notable interplay between these two domains. For instance, Chege and Wang (2020: 1) studied the impact of technological innovation on SME performance through environmental practices in Kenya, drawing from a sample of 204 respondents. Their findings revealed that technological innovation exerted a significantly positive influence on the environment, consequently translating into a positive effect on financial performance. Similarly, within the South African context, Masocha and Fatoki (2018: 1) surveyed 222 SME owners and managers, revealing a significant relationship between economic, social, and environmental sustainability. In Ghana, Danso *et al.* (2020: 652) explored stakeholder

integration, environmental sustainability orientation, and financial performance among 233 SMEs. Their results indicated an amplified indirect impact of environmental sustainability on financial performance.. Given these established connections between environmental and financial sustainability, this study is of the view that economic (financial) sustainability can influence environmental sustainability within the specific context of SMEs under investigation.

2.13 Financial Marketing Performance Outcomes Influence on Social Sustainability of SMEs.

Much attention has been paid to the study of social sustainability in the SME literature (Mani, Jabbour, and Mani 2020: 1; Lee, Che-Ha, and Alwi 2021: 752; Ronaghi and Mosakhani 2022: 6839). In the opinion of Lee *et al.* (2021: 752), social sustainability refers to how SMEs can create value through the advocacy of improving human resources and seeking the well-being of the society in which they operate. A literature review also reveals increasing numbers of SMEs currently involved in social sustainability programmes (Masocha 2019: 3; Lee *et al.* 2021: 752).

The primary objective of social sustainability is to pay attention to the community in which firms operate, by engaging in education, health and well-being, sporting activities, and assisting people with low-incomes, as well as being part of the community (Thiel 2015: 185; Masocha 2019: 3; Høgevold *et al.* 2015: 2). In addition, as Masocha (2019: 3) highlighted, organizations participating in activities such as sport, health and well-being and education, are seen as uplifting the image of social and cultural issues in society, while also developing the communities in which they operate.

In light of SMEs being the most businesses globally (Rodríguez-Espíndola *et al.* 2022: 2; Asgary *et al.* 2020: 59), they are considered very important in participating in social sustainability in the communities in which they operate. For instance, Masocha (2019: 3) indicated evidence of SMEs undertaking social sustainability by supporting their communities in Europe and Latin American countries. Other than this, empirical evidence indicates SMEs are involved in social sustainability activities, such as providing education, improving the standard of living, volunteering, as well as donations (finance and in-kind), and collaborating with other organizations and authorities to develop the communities in which they operate (Masocha 2019: 3).

The current literature suggests four main pillars in the domain of social sustainability, which are: social-economics, stakeholders, societal well-being, and social sustainability (Thiel 2015: 185; Masocha 2019: 3). The definition of social sustainability is embedded with issues of society, community and culture and evaluated through the performance of the firm in terms of donations, corporate citizenship behaviour, safety, and philanthropy activities (Thiel 2015: 185; Masocha 2019: 3). Hence, social sustainability places a colossal responsibility on SMEs to be involved in social sustainability and also take up more responsibilities to satisfy their stakeholders and the society in which they operate (Thiel 2015: 185; Masocha 2019: 3).

SMEs engaged in social responsibility attract several benefits (Malesios *et al.* 2018: 4; Mani *et al.* 2020: 4). Malesios *et al.* (2018: 4) observed SMEs involved in social sustainability benefit from physical performance improvement. For instance, a study conducted by Mani *et al.* (2020: 4) reveals that SMEs engaging in social sustainability significantly impact supply chain performance. Furthermore, the study indicated that the more SMEs invest in social sustainability, the better their customer, supplier, and operational performance. This view is shared by Masocha (2019: 3), who indicated that these SMEs drive financial benefits, improving both customer and employee satisfaction.

A further aspect, is that SMEs can also derive competitiveness by balancing workforce-related issues with social issues, when undertaking social sustainability (Turyakira, Venter and Smith 2014: 160; Lee *et al.*, 2021: 752). It is further posited that firms undertaking social sustainability tend to perform better than their counterparts, both in the short- and long-term (Longoni and Cagliano 2015: 217; Mani *et al.* 2020: 1). According to Masocha (2019: 3), SMEs in Africa are engaging in several social sustainability activities, which includes employing people who are less qualified, without the necessary requisite skills, as well as under privileged women in society. Hence, SMEs must pay particular attention to social sustainability practices, with several benefits derived when engaged in such activities, as shown by the literature.

The successful implementation of the other dimensions of sustainability, such as social and environmental aspects, hinges on the economic (financial) performance of SMEs (Boso *et al.*, 2017: 2). Without economic sustainability, SMEs would face challenges in pursuing environmental and social sustainability initiatives (Boso *et al.*, 2017: 2). There exists a reciprocal influence between social sustainability, particularly corporate social responsibility (CSR) activities, and economic sustainability (Choongo, 2017: 1; Boso *et al.*, 2017: 2). A study conducted by Juarez (2017: 74), among SMEs in the state of Sonora, Mexico, with a sample of

81 respondents representing the Industrial and Service sectors, the relationship between these two constructs was examined. The findings posit that social sustainability activities, specifically CSR initiatives, exert a significant impact on economic (financial) sustainability. Similarly, Choongo (2017: 1), utilizing a longitudinal approach, investigated 153 SMEs in Zambia, scrutinizing the influence of CSR on their performance. The results revealed a substantial and positive effect of CSR on the financial performance of the sampled SMEs in Zambia. Furthermore, Chege and Wang (2020: 1) studied 204 SMEs in Kenya and concluded that SMEs actively engaged in social sustainability are more likely to demonstrate positive financial performance.

2.14 Motivation, Benefits and Challenges of SME Sustainability

The literature on sustainability in the domain of SMEs reveals the motivation, benefits and challenges of SMEs undertaking sustainability practices. The motivation for SME involvement in sustainability is triggered by several factors, including top management support, government policies and regulations, and organisational culture (Bakos *et al.* 2020: 3). These drivers emerge from internal and external factors which drive SMEs to adopt sustainability practices. The main motivation for SMEs to adopt sustainability practices is attributed to financial benefit, resource availability and compliance with government regulations (Aboelmaged 2018: 213; Bakos *et al.* 2020: 3; Kiefer, Del Rio Gonzalez and Carrillo-Hermosilla 2019: 155).

Additional to these factors, Bakos *et al.* (2020: 3) indicated distinctive factors, which motivate SMEs to undertake sustainability, have to do with the habits and behavioural factors of SME owners/managers. A study by Tur-Porcar, Roig-Tierno and Llorca Mestre (2018: 6) supports this view, suggesting behavioural factors, such as lifestyle and motivation, drive sustainability practices in an organization. Furthermore, support from top management and government policy has been observed as drivers of business sustainability (Bakos *et al.* 2020: 3). In addition, Sarvaiya, Eweje and Arrowsmith (2018: 825) noted that SME sustainability strategies and deployments depend primarily on the commitment and motivation of the owner/managers. For example, Hamann *et al.* (2017: 23) conducted a study using 55 South African SMEs in the wine industry. Their findings reveal the owner's/manager's attitude toward the environment influences their environmental sustainability adoption. Other than their motivation to adopt sustainability practices, SMEs are also interested in the benefits they would derive from sustainability activities (Kiefer *et al.* 2019: 155), with several documented benefits that SMEs gain from engaging in sustainable practices (Cantele and Zardini 2018: 168).

SMEs involved in sustainability practices variously benefit from, for instance, competitive advantage, enhanced corporate image and reputation, customer satisfaction and organisational commitment (Bakos *et al.* 2020: 3; Madsen and Uihøi 2015: 14). It has, furthermore, been observed that SMEs engaged in sustainability activities have better opportunities than those who are not, in the sense that they are not merely improving society and the environment through spending but are also able to build a strong brand targeting their customers (Cantele and Zardini 2018: 168). For example, a study by Cantele and Zardini (2018: 168), using 336 respondents among SMEs in the manufacturing industry in Italy, reveals that when SMEs achieve a competitive advantage, it enhances their financial performance positively. Moreover, by engaging in sustainability practices, SMEs can increase customer satisfaction and source of motivation, which enables value creation by way of reducing cost and increasing profit (Cantele and Zardini 2020:127).

It is evident SMEs are motivated by several factors and benefits for engaging in sustainability practices and being sustainability-oriented. Irrespective of these motivations and benefits, SMEs face barriers and challenges in adopting sustainable practices, with these obstacles hindering the implementation of sustainable activities. These barriers and challenges faced by SMEs can emanate from within the organization or the external environment (Bakos *et al.* 2020: 3). Barriers such as lack of resources, primarily financial, lack of management support and commitment, inadequate government support and the lack of consumers patronising sustainable products and services, are some of the challenges SMEs face in undertaking sustainable practices (Chassé and Boiral 2017: 3; Tounés, Tornikoski and Gribaa 2019: 531; Choudhary *et al.* 2019: 515). In another similar study, Choudhary *et al.* (2019: 515) revealed that less progressive environmental policies, lack of adequate logistics, and underdeveloped market structures are some barriers to SME participation in sustainable practices.

Other barriers identified include the lack of educated workers (López-Pérez, Melero and Javier Sese 2017: 993), lack of several resources and individual competence (Lambrechts *et al.* 2019: 1632), as well as insufficient awareness, education, and expertise (Caldera, Desha and Dawes 2019: 576; Singh and Thakar 2018: 38) have been identified as barriers to SME sustainability. In addition, a study conducted by Ghazilla *et al.* (2015: 659) in the context of Malaysian SMEs, the findings revealed barriers such as weaker organisational structure, lack of management support, internal delays, and lack of empowerment to support sustainability, as well as

resistance from management, as the main impediments of the 64 barriers identified in their study.

In the context of developing countries such as Ghana, scholars indicated SMEs find it challenging to start sustainability practices, because of the lack of financial resources and government support. Many SMEs start with the support of family because of financial constraints (Jeppesen, Lund-Thomsen, and Jamali 2017: 3). From the literature review, SMEs are shown to have drivers, benefits and challenges of engaging in sustainability practices, suggesting SMEs must be aware of all these issues to have a balanced view of sustainability, prior to deciding to undertake sustainability practices in the organization.

2.15 Summary of the Chapter

The objective of this chapter was to review the existing literature on the TOE theory underpinning the study, as well as the various study constructs, such as social media, marketing performance and sustainability of SMEs. The chapter further presented detailed examinations of various TOE and entrepreneurial factors influencing the adoption of social media, in addition to the various ICT theories, and the justification in using TOE theory for the study. Furthermore, the chapter highlighted SME financial and non-financial marketing performance, by reviewing extensive literature to show why SME marketing performance is important. Moreover, the chapter shed light on the three main sustainability issues, namely environmental, social and economic, with a detailed literature review on these essential constructs. The next chapter describes the study methodology. employed in undertaking the research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter details how the primary data were collected and analysed, with an introduction to various philosophies and the one from which this study draws insight. This is particularly important, because it sets the design scope and limitations and identifies various trends in SMM, forming the basis to select the research design. It further proceeds to discuss the research approach and succinctly justifies the methods selected for the study. The value of this chapter is that it sets the foundation on which the design is presented, which extends to the qualitative and quantitative studies detailed in Chapters 4 and 5.

3.2 The Philosophy of Research

Research philosophy has been part of research for decades and several scholars have discussed this critical concept in the research literature (Hürlimann 2019: 111; Jain 2019: 8; Al Ahmadi 2019: 7; Moon *et al.* 2019: 3). The word philosophy has its roots in the Greek word “Philosophia”, which consists of two words, namely *philia* (meaning love) and *Sophia* (meaning wisdom). The historical background meaning of the word philosophy thus means love of wisdom. Hence, anyone who loves wisdom is a philosopher (Muchanga 2020: 208).

Jain (2019: 8) defines research philosophy as the guide upon which knowledge concerning several assumptions is developed. However, Saunders *et al.* (2015: 124) define the research philosophy concept as the growth of knowledge in a specific scientific domain, informed by a set of principles and assumptions. This view is supported by Antwi and Hamza (2015: 218), who indicated that beliefs, values, assumptions and culture inform research philosophy. For the purpose of this study, all the aforementioned definitions of the research philosophy term will be adopted.

Research philosophy is, additionally, broadly categorised into four main beliefs: ontology, epistemology, axiology and methodology (Muchanga 2020: 208; Al Ahmadi 2019: 7; Killam 2013: 6). These individual research philosophies are discussed in the following section.

3.2.1 Ontology philosophy

Ontology philosophy is noted as based on the assumption and characteristics of reality (Irfan *et al.* 2022: 150; Hayati and Dalimunthe 2022: 172; Kaushik and Walsh 2019: 1), and is premised

on the conjecture and features of reality (Al Ahmadi 2019: 7; Gunbayi 2020: 38). However, Ludwig and El-Hani (2019: 7) revealed that ontology philosophy is concerned with what the nature of reality is about, having an enquiry into what exists, and finding answers to how it operates. Ontology philosophy is also found to influence the researcher to become conscious of the nature of reality (Vladlenova and Kalnytskyi 2022: 43).

There are two primary positions in the field of ontology philosophy: realism and nominalism, as noted by Neuman (2014: 94) and Burns *et al.* (2022: 2). Realism is based on the belief that the world exists independently of human interpretation (Burns *et al.* 2022: 2), which means the world is not constructed by human thought or language, instead, it exists objectively and autonomously. Realists argue the world can be examined as it is, regardless of our subjective interpretations (Ludwig and El-Hani 2019: 7). Contrary to this, nominalists believe humans do not have direct access to reality (Al Ahmadi 2019: 7; Gunbayi 2020: 38; Burns *et al.* 2022: 2), arguing that our understanding of the world is based on language and concepts, which are constructed by humans (Gunbayi 2020: 38; Irfan *et al.* 2022: 150).

The current study employed ontology philosophy to develop a framework for understanding the fundamental nature of SMM. By examining the ontology of SMM one can gain insight into its essential properties and categories. Using ontology of philosophy can help SMEs in Accra to understand how SMM operates and how it can be used effectively to promote their sustainability. Moreover, ontology philosophy can also help SMEs in Accra to examine the relationship between SMM and reality. By understanding the ontology of SMM, SMEs can gain insight into how SMM relates to the real world and how it can be used to promote sustainable business practices.

3.2.2 Epistemology Philosophy

Epistemology philosophy is founded on what comprises acceptable knowledge and the level of knowledge to attain (Gunbayi 2020: 38). It is further noted that epistemology philosophy is described as entailing knowledge that can be established through empirical testing and the researcher concluding whether the knowledge is absolute, can be confirmed as absolute truth and also aids in the generalisability of the study findings (Al Ahmadi 2019: 19; Thesismind 2019: 1). The primary role of epistemological study is to collect data that are reliable and made more factual, which helps in understanding the outcome from a particular research domain (Al Ahmadi 2019: 20; Thesismind 2019: 1). The use of epistemology among scholars is evident in

the sense that it aids in investigating the correct information without any disagreement or doubts. The use of epistemology is based on providing insights into the nature of knowledge and how it is justified, helping SMEs to develop effective SMM strategies that align with their sustainability objectives. In addition, epistemology philosophy can assist SMEs in Accra in evaluating the credibility of information acquired through SMM. By understanding the various sources of knowledge and their reliability, SMEs can make informed decisions and avoid potential pitfalls that may arise from using unreliable information. Therefore, the study was guided by this philosophy.

3.2.3 Axiology Philosophy

Taking its origin from the Greek word “axios”, which means value, axiology philosophy is primarily concerned with the nature of human ethical behaviour (Killam 2013: 6; Al Ahmadi 2019: 7). This philosophy deals with the ethical lens through which the researcher trusts and believes the study is fittingly principled and helps in the decision-making process of the study (Killam 2013: 6). This echoes Wahyuni (2012: 69), who stated axiology philosophy is driven by ethical consideration and involves the contribution of value as well as the attitude of the researcher toward what is being studied. Axiology is thus found to be focused on the values and morals of the study and the researcher's point of view (Wahyuni 2012: 70; Kaushik and Walsh 2019: 1; Gunbayi 2020: 38).

According to Al Ahmadi (2019: 20), knowledge entails the collection of data, as well as the objectives, hence, the autonomy of values, interests and mood of the researcher. Value in axiological philosophy examines the importance of human life, activities, deeds and actions (Tomyuk *et al.* 2020: 433). These authors state anything meaningful to an individual or social group is considered valuable (Tomyuk *et al.* 2020: 434), which is the core principle of axiology. This points to the fact that scholars employ the scientific method to collect data to ensure objectivity and non-bias in conducting research (Al Ahmadi 2019: 20). Yilmaz (2013: 316) noted that in the axiology concept, researchers are aware of the set of values, however, in some cases, are influenced by their culture, upbringing, and worldview.

3.2.4 Utilisation of philosophies in the current study

The study made use of ontology, epistemology and axiology philosophies; selected because of research questions and the hypotheses of the present study. The ontological philosophy enabled an understanding of participating SME owner/manager behaviour, while the epistemology

allowed the researcher to focus on the observable subject of interest. This aided in a credible dataset, by paying attention to generalisation and breaking the subject of interest into the simplest elements (Gunbayi 2020: 38; Kaushik and Walsh 2019: 1). Based on this idea of epistemology, the current study was able to generalise the findings from the sampled SMEs that participated in the study. The motivation for the axiology philosophy is that the researcher conducts the study in a value-free and ethical manner. In doing so, the researcher is independent of the data and takes unbiased stands (Gunbayi 2020: 38). Therefore, axiology philosophy enabled the current study to remain unbiased and objective in interpreting the study's full results. Hence, the researcher can confirm the study results are credible, independent, and not manipulated.

3.3 Research Paradigms

The word research paradigms originated from the Greek word “paradeigma”, which means “pattern”, is the way a researcher sees and interprets the world, and serves as the springboard on which the study is conducted (Killam 2013: 5). Research paradigms bring several benefits to the researcher, such as being informed and gaining a better appreciation of the paradigms that are most appropriate to achieving the objectives set for the research (Easterby-Smith, Thorpe, and Jackson 2015: 45). Further to this, selecting a research paradigm assists the researcher to choose and spell out the study approach, along with their idea of the philosophy, thus enabling the researcher to differentiate between which research designs will be applicable and those that are not (Easterby-Smith *et al.* 2015: 46).

A review of the current literature shows that research paradigms have been categorised as positivism, post-positivism, interpretivism and pragmatism (Kivunja and Kuyini 2017: 30; Romani *et al.* 2018: 248; Rahi, Alnaser and Abd Ghani 2019: 1161). These four main assumptions are discussed in this section.

3.3.1 Positivism paradigm (Naïve realism)

Positivism, also called naïve realism, is based on the principle of beliefs and has been applied in different contexts (Park, Konge and Artino 2020: 690). The authors explain that, for instance, “positivism is anchored on the hypothetico-deductive approach to confirm sets of hypotheses which are quantitative, where relationships are tested between exogenous variables (independent variables) and endogenous variables (dependent variables)” (Park *et al.* 2020: 690). Differently stated, Peng and Shiyu (2019: 212) observed that positivism deals with

researchers being convinced that knowledge comes through utilising the scientific empirical approach to organise data through experiments and observation.

The positivist approach uses rules and principles to formulate hypotheses that can be tested to understand the rationale behind human behaviour and predict the future. Broadly stated, positivism uses a quantitative strategy and beliefs that there is one fact about reality (Tsang 2014: 175; Park *et al.* 2020: 690). A previous study by Saunders *et al.* (2003: 113) noted that a researcher who intends to use positivism, uses some aspect of positivism, such as a well-documented, quantitative approach, by using a survey, which permits the researcher to collect data and analyse it statically to generate an outcome.

Furthermore, the quantitative aspect of positivism is shown by Creswell and Creswell (2017: 211) and Peña, Manaois and Pasana (2020: 3) to deal with collecting numerical data and applying statistical analysis to generate the result. López *et al.* (2020: 996) indicated that quantitative research permits future changes to be successfully incorporated into the mode employed. The positivism paradigm is deductive and originates from both social and natural sciences, which include psychology, life sciences and behavioural science, and enables the researcher to test the various hypotheses developed by the researcher in the study (Khatwani and Panhwar 2019: 127; Ullah *et al.* 2020: 358). Even though scholars generally understand that a quantitative approach underpins positivism, scholars such as Park *et al.* (2020: 690) believe the positivism paradigm does not always use a quantitative strategy. These researchers indicated that an experimental study, exploring the effect of intervention through the qualitative approach, also meets the concept of the positivism paradigm.

3.3.2 Post-positivism paradigm (Critical realism)

Unlike the positivism paradigm, in the post-positivism paradigm the researcher can decide whether to use a qualitative or quantitative strategy. Bygstad and Munkvold (2011: 1) point out that critical realism developed as a substitute for positivist and interpretive research. The post-positivism perspective of ontology assumption is that society is objective and independent of human understanding and is ruled by several different activities (Ellaway, Kehoe and Illing 2020: 3). According to Kaushik and Walsh (2019:1), scholars who adopt this approach see this as categorisation of closely linked steps and indicate that knowledge is dependent on objectivity, standardisation, empirical reasoning, while also controlling those embedded in the research.

Supporters of the post-positivist paradigm or critical realism, are of the view it is not enough to draw conclusions based on empirical data on predictors and outcomes, because there is a possibility these relationships are created based on factors other than only the analysis of the empirical data (Thanh and Thanh 2015: 24; Bonell *et al.* 2018: 2). According to Ellaway *et al.* (2020: 4), post-positivism enables the researcher to pay attention to the importance of value as a blueprint where the social occurrence is concerned.

3.3.3 Interpretivism paradigm (Constructivism)

Kankam (2019: 86), defines the interpretivism paradigm as an epistemological stand that enables scholars to have a subjective understanding of social activities. Interpretivists propose that social reality is constructed through the meanings and interpretations individuals attach to their experiences, rather than being objective and independent of human perception (Alharahsheh and Pius 2020: 42; Junjie and Yingxin 2022: 10). Similar views are shared by Kankam (2019: 86, 87) who claims there is nothing such as an acceptable truth or a global view. The interpretivism paradigm begins with the idea that a person's knowledge concerning what reality is and the actions of humans are created socially (Iyamu 2020: 3).

Ormston *et al.* (2014: 13) indicated that interpretivism is the heart of the qualitative study, which entails the benefits of interpretation and observation in providing an in-depth understanding of individual experience. These scholars indicated that researchers who use this approach in their study, employed in-depth interviews. Furthermore, according to Thanh and Thanh (2015: 24) it is evident that the use of interpretivism or the constructivism paradigm enables researchers to acquire a better opinion of the world from the respondent's perspective and experience, to develop and draw insight from the information obtained. The focus of the interpretivism paradigm is, more importantly, directed towards researchers exploring the world by paying attention to people and society at large (Kankam 2019: 87). According to Kankam (2019: 87), the interpretivism paradigm allows researchers to depend on the views of the participants regarding the topic under investigation.

3.4 Pragmatism

The pragmatic paradigm enables the researcher to use both qualitative and quantitative or mixed methods, as well as multi-methods, at the same time, in a single study (Abutabenjeh and Jaradat 2018: 247; Maarouf 2019: 2). This suggests the researcher is not limited to one approach but can, instead, make use of various methods and procedures that would be more convenient and

easier to achieve the research objectives. Maarouf (2019: 5) suggests pragmatism deals with the idea of "what works" and represents the assumption of truth. Furthermore, as explained by Wahyuni (2012: 70), the nature of pragmatism allows researchers to use objective and subjective approaches. With this approach, researchers see knowledge as something other than absolute, final, perfect, or universal, instead, it is shown to be a process that can be re-examined and improved constantly (Creswell and Poth 2016: 64). The pragmatism approach allows researchers to collect and analyse data without being limited to a single method (Maarouf 2019: 5). Hence, the pragmatism paradigm employs the use of a mixed-methods strategy.

3.4.1 The study choice of paradigm

After a review of the various philosophies and paradigms, it is important to select a particular paradigm to guide the study. The paradigm choice for this study is based on the objective and hypotheses. According to the study aims, pragmatism is employed to understand SMM issues and the sustainability performance of SMEs in Accra. First, the study does not use a single approach (qualitative or quantitative), instead opting for mixed methods, which makes use of both qualitative and quantitative at the same time. Creswell and Plano Clark (2011 18) state the mixed methods approach entails combining qualitative and quantitative in all the research processes, commencing from the conceptualisation, to the data collection, analysis and conclusions. This design is more flexible in how these approaches are merged (Phethean 2014: 36).

The goal of a mixed methods approach is not to replace qualitative with quantitative; rather, it depends on the strength of each to enhance a better understanding and rigour of the subject under investigation. According to Johnson and Onwuegbuzie (2004: 17), employing mixed methods allows the researcher to mix and match the design of the components, providing an excellent opportunity to address the objectives and research questions. In addition, pragmatism enables both qualitative and quantitative methods to be used simultaneously, in a single study, which primarily focuses on the objectives and research question, instead of the philosophical approach to be used (Creswell and Plano Clark 2011 26).

The pragmatism position claims a practical and applied research philosophy that addresses what works best in answering the research question(s) the researcher is trying to address (Venkatesh, Brown and Bala 2013: 23). A review of the literature also shows that, in the technology innovation and adoption literature, the use of the pragmatic method has been employed in a

complex technological innovation adoption in an organisational setting (Crammond *et al.* 2018: 36). For example, in the domain of social media, scholars such as Jussila, Kärkkäinen and Aramo-Immonen (2014: 613) have indicated that using a pragmatic approach provides a broader view of the potential of using social media in an organisational context; such as SMEs in the case of this study. Furthermore, pragmatism is noted to be linked with a mixed methods strategy (Howe 2012: 96; Johnson, Onwuegbuzie and Turner 2007: 112).

Based on the above review, this study uses a pragmatism strategy, employing a mixed methods approach to draw insight through both qualitative and quantitative methods, to present a better understanding of the study. Having selected the paradigm, the next stage is to select the research approach, with these details presented in the next section.

3.5 Research Approach

Having selected the preferred paradigm for this study, the most critical research approach had to be selected. This study's research approach will be a mixed methods approach. Therefore, the concern of this section is to discuss both qualitative and quantitative approaches, with the reasons behind using these two approaches also highlighted. The use of mixed methods is vital in understanding various aspects of qualitative and quantitative research and their features enhance the rigour of mixed methods (Jogulu and Pansiri 2011: 693). An examination of the research literature shows various methods; however, the most used methods are qualitative and quantitative methods. According to Rahi (2017: 2), the qualitative approach is broadly linked with the interpretivist paradigm, and the quantitative approach mostly with positivism.

The use of qualitative and quantitative serves different purposes and characteristics, which Rahi (2017:2) indicated are used to collect detailed information regarding a topic. The assumption is that the feelings and emotions of a person or a group are taken care of, which otherwise would have been ignored by using a quantitative approach. Nevertheless, the quantitative method aims at collecting new data based on the problem, for a large number of respondents, and performing data analysis without considering the emotions, feelings or environmental context of a person or a group (Rahi 2017: 2). Earlier researchers, such as Johnson and Onwuegbuzie (2004: 17) and Denscombe (2008:172), have termed this approach as a "natural complement" and a rational option to resolve the weakness in one another instead of using them on their own.

Several studies have employed the use of qualitative and quantitative in one study (Musa and Isha 2021: 5; Dongo *et al.* 2021: 580), including scholars such as Doyle, Brady and Byrne

(2009: 176), who claimed the joint use of the two methods brings together the advantages of each method, creating ripe ground for different research approaches that cut across several disciplines. Regarding social media studies, the use of mixed methods is not as limiting, compared with qualitative and quantitative methods used individually. Considering the power of combining the two, and how single method use limits studies, may be the motivation researchers are extending the use of mixed methods in the technological innovation adoption literature.

This view echoes that of Venkatesh *et al.* (2013: 3), who indicated the need to take advantage of this approach to enhance our understanding and explain complex organisational and social issues such as social media adoption. This study has examined the strength of the mixed methods approach, deciding to use this approach to understand SMM and the sustainability of SMEs in Accra. Abutabenjeh and Jaradat (2018: 240) point out that a researcher can choose from different research designs based on the study objectives, and there is no one-size-fits-all approach in research design.

3.6 Research design

Abhijeet (2019: 1) and Harris (2020: 22) also observed the choice of design is influenced by several factors, such as the availability of adequate resources, time, and logistics of conducting the study. The choice to employ a mixed-methods approach in this research is linked to the considerations of resources, time, and logistics. The availability of financial resources profoundly impacts the feasibility of using a mixed-methods in this study, as it requires transcription services, and data collection tools. The use of mixed-methods research typically demands a more extended timeline due to the nuanced nature of both data collection and analysis. Balancing the potentially time-intensive qualitative methods with the quicker pace of quantitative analysis requires careful planning. Logistical considerations encompass participant recruitment, data management, and the coordination of data collection activities. This involves ensuring representative participant samples, implementing effective data organization strategies, and orchestrating seamless data collection across both qualitative and quantitative phases. Ultimately, the decision to pursue a mixed-methods approach hinges on a thorough evaluation of these factors, aligning the chosen methodology with the research question, resources, and practical constraints at hand. In addition, research design is indicated generally as comprising three categories, namely exploratory, descriptive and causal research (Abhijeet 2019: 1; Arora and Mahankale 2012: 39; Ghauri, Grønhaug and Strange 2020: 284). Based on

the study topic and context, a researcher is free to adopt more than one research design to enable achieving the study objectives (Jain 2019: 5). The current study used descriptive to enable the researcher to describe the situation (Hair *et al.* 2019: 163) of SMEs social media adoption, marketing performance and sustainability and also exploratory, because this enabled the researcher to present a better understanding of how SME adoption of social media trigger marketing performance and leading to their sustainability performance. The individual research designs are discussed below:

3.6.1 Exploratory Research Design

Considered critical, the aim of exploratory research design is described by Amoah (2016: 110) as exploring new researchable ideas or experiments, in order to gain more understanding. According to Arora and Mahankale (2012: 39), the journey of every research commences with this approach, and the rest of the process follows; through an extensive literature review, the researcher formulates a researchable topic and then further engages the actors in that field. Ghauri *et al.* (2020: 64) observed this method requires skill, and care should be taken when using this method, because of its unstructured nature. Ghauri *et al.* (2020: 64) further indicated that skills such as capability to collect information efficiently, as well as the construction, explanation and theorising, as the primary skills required by a researcher when using this method.

Beri (2013: 71) listed tools such as secondary data, literature search, personal interviews, and focus groups, as well as experience surveys and case studies, as tools needed in conducting an exploratory study. The exploratory research design, more importantly, aids the researcher to conceptualise the topic, identify the key constructs and develop the conceptual framework and hypotheses based on a thorough examination of the literature (Beri 2013). Based on this study, an exploratory research design is used, and the measurement tool employed a personal interview based on the study objective. Therefore, the study employs descriptive and exploratory designs as the primary research designs for the study.

3.6.2 Descriptive research

Descriptive research is one of the important parts of research design. As explained by Akhtar (2016: 75), this type of design is concerned with examining the nature of an existing situation by addressing questions such as what, who, where, how and when a situation occurred. In addition, Akhtar (2016: 76) indicated descriptive research is widely evident in the social science

domain and is concerned with correctly measuring the characteristics of a phenomenon or a particular group. Similarly, Malhotra (2010: 106) shares the view that descriptive research is used to examine market characteristics or functions, for instance, attitudes and behaviours of customers and perceptions of customers toward a product or a service. In addition, Ghauri *et al.* (2020: 64) noted the main characteristics of descriptive research design are that it is accurate with regard to procedures in gathering information, is organised, and has clear-cut rules.

For this study, a descriptive design is employed, because it describes important information regarding the attitudes, experiences, behaviour and opinions of SME owners/managers. Moreover, the topic under examination allows for the use of this method, since it enables the researcher to describe all the characteristics of SME owners/managers in a more chronological way, while it also enables the study to identify the relationship between the constructs being examined (Curtis, Comiskey and Dempsey 2015: 2; Bhat 2020: 1).

3.6.3 Causal research

Last but not least is causal research design that, according to Dudovskiy (2019: 1), means explanatory research, which deals with examining cause-and-effect relationships. Abhijeet (2019: 1) claims this approach is more robust when identifying differences among variables. Similarly, Dudovskiy (2019: 1) indicated that causal research design enables the researcher to know whether or not there is a relationship between two or more constructs being investigated. As explained by Abhijeet (2019: 1) and Ghauri *et al.* (2020: 64), this method is used mainly in control procedures in experimental studies to examine the cause, effect and causal relationships among constructs. Furthermore, Abhijeet (2019: 1) indicated researchers use this method to achieve manipulation, measurement and control. In essence, this approach is not appropriate for this study. A descriptive, exploratory, mixed-methods (sequential) approach was used for this study.

3.6.4 The methodologies for the research design

Broadly, there are two primary, widely used methodologies for research design: qualitative and quantitative (Saunders, Lewis and Thornhill 2012: 162). However, these authors have indicated that researchers can use a mixed methodology, where qualitative and quantitative are combined. The current study used two methodologies, represented in Figure 3.1 below. These two methodologies are discussed in detail in this section.

The study starts with the qualitative methodology, which examines the following steps; population and sampling selection, sample size, and data collection instrument, and ends with a qualitative analysis of the result. On completion of this part of the study, the quantitative methodology was introduced. In the quantitative methodology, the study followed the same steps as the qualitative phase. After the quantitative data analysis of results, the researcher continued with qualitative research (from population selection and sampling to data analysis). One of the reasons was to obtain answers to questions not answered by quantitative data. Moreover, a mixed methodology was used in this study to assist the researcher in answering questions not answered by either quantitative or qualitative results.

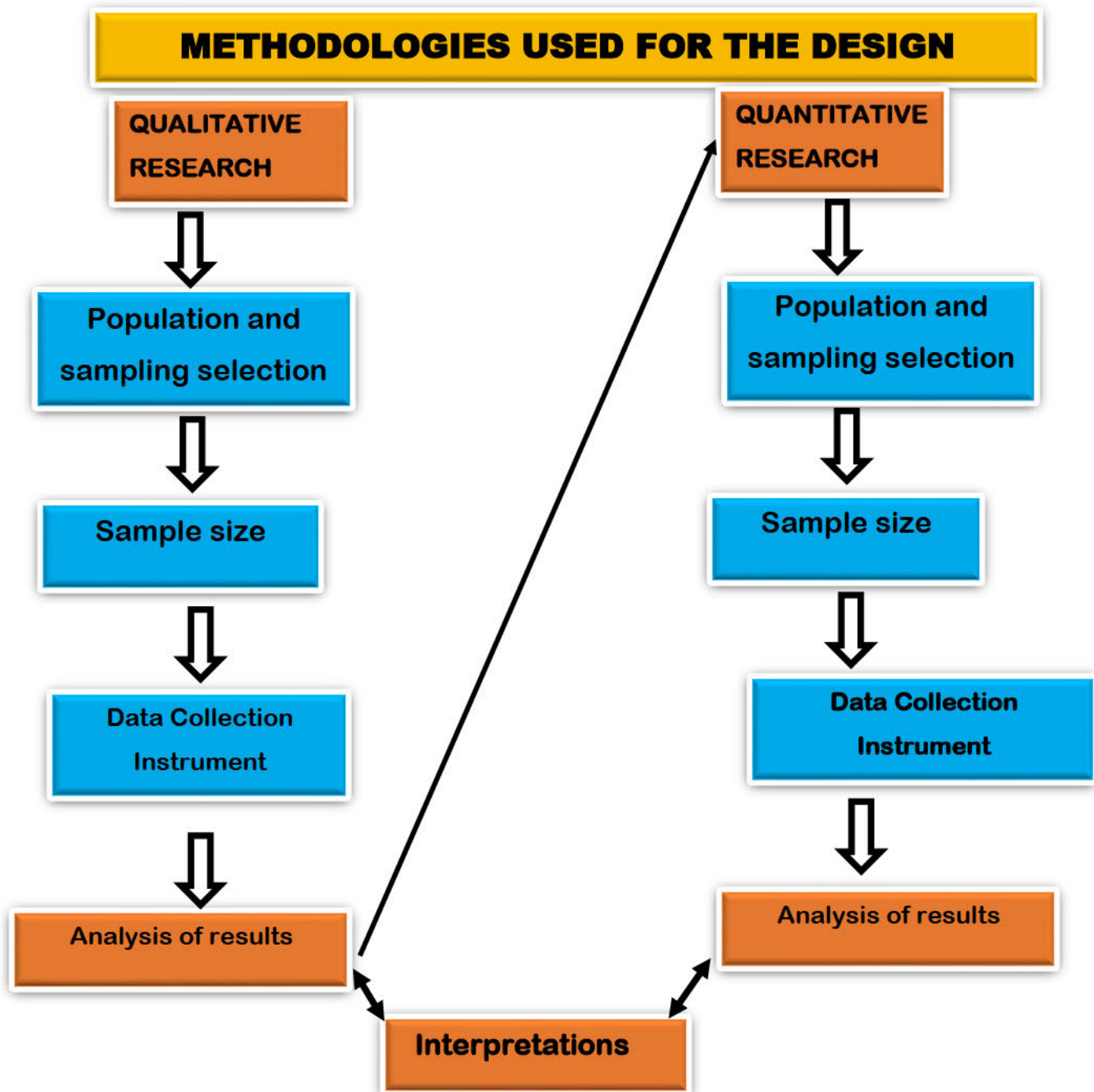


Figure 3.1: Methodologies used for the design

Source: Developed by Author

3.6.4.1 Qualitative research methodology

Qualitative research methodology has been explained to mean studies that do not use numbers in their result or apply the use of statistics (Marczyk, DeMatteo, and Festinger 2010: 32). Furthermore, Veal (2011: 356) indicated qualitative research is used by researchers in providing

answers to questions regarding the complex subject matter of interest to the researcher. The idea is to understand and describe the phenomena from the respondents' perspective. In the case of the current study, the interest is to understand SMM implications on the sustainability of SMEs. Hence, the study gathered information concerning this phenomenon from the owners/managers of SMEs in Accra. Hair, Bush and Ortinau (2006: 216) observed that researchers typically use open-ended questions, which enables them to analyse participant responses in-depth. In addition, qualitative research enhances the power of quantitative research by combining the two methods.

3.6.4.2 Quantitative research methodology

Quantitative research uses statistical analysis tools to generate results (Saunders *et al.* 2012: 162; Marczyk *et al.* 2010: 32). It was claimed by Saunders *et al.* (2012: 162) that quantitative studies are motivated by the examination of relationships between constructs, measured using numbers, and several statistical tools are applied to analyse the data. According to Hair *et al.* (2006: 216), the main idea of quantitative research is to enable the researcher to provide accurate facts that can be relied upon to make a decision. This is done through the testing of existing relationships among constructs, which makes it vital for the researcher to translate the numbers and make the information more meaningful to use by decision makers.

3.6.4.3 The rationale for selecting mixed methods

According to Levitt *et al.* (2018: 40), mixed methods research is a "methodology that combines qualitative and quantitative approaches". As explained by Hair *et al.* (2019: 161), quantitative has to do with the type of data in which numbers are directly employed to represent the attributes of something, whereas qualitative deals with a textual or visual representation, as opposed to numerical descriptions. Employing the use of a mixed methods approach in this study would provide a deeper and richer understanding of the topic, which cannot be achieved by implementing only one approach (Levitt *et al.* 2018: 40; Ryba *et al.* 2022: 148).

In addition, McKim (2017: 203) indicated one important value of conducting mixed methods rests in the integration., which enhances confidence and rigour of the conclusions drawn from the study and indicates areas for future studies to researchers. Schoonenboom and Johnson (2017: 115) state every original mixed methods study has a "point of integration" when combining qualitative and quantitative components. Drawing from this understanding of the "point of integration or mixing", the study would use three phases. The first phase would be the qualitative (Qual) and then proceed to the second phase, which has to do with the quantitative

(Quan), and then the final phase, "integration", which deals with mixing qualitative and quantitative (QUAL + QUAN) as indicated in Figure 3.2.

The reason for adopting sequential mixed methods, is that it allows the researcher to address both exploratory and confirmatory questions in a single study (Venkatesh *et al.* 2013: 23). In doing so, the researcher is developing and allocates meaning to respondents' experience regarding SMM and sustainability of SMEs, after which a survey is used to support the initial outcome by objectively confirming the outcome (Jogulu and Pansiri 2011: 693). The reason for beginning with the qualitative prior to proceeding to the quantitative phase, is because this approach provides both depth and breadth where the study outcome is concerned (Terrell 2012: 263). The qualitative phase would provide a deep understanding of the research problem, and the quantitative phase would extend the depth of the findings from the qualitative phase through breadth, enabling generalisation of the study findings. This means the study would gain insight into understanding the study by interviewing small groups of SME owners/managers and then by studying more prominent groups of SME owners/managers, enhancing the generalisation of the findings.

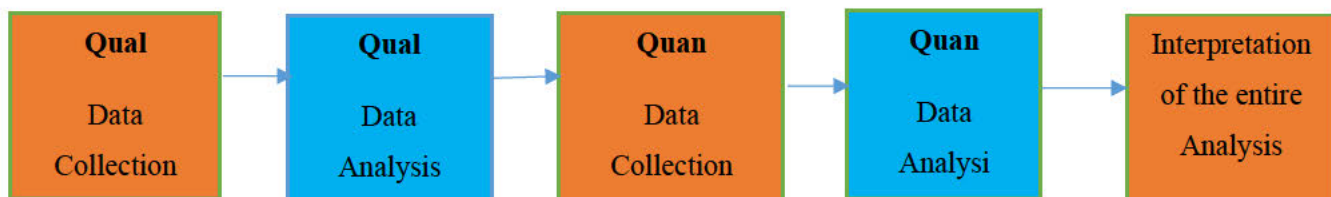


Figure 3.2: Descriptive and exploratory, mixed-methods (sequential) approach

Source: Adapted from Shorten and Smith (2017:74)

3.7 Methodological limitations

The study has some methodological limitations that need to be considered. The first limitation is the sample size for the qualitative study phase. Since the population was unknown, it was unlikely to include cases representative of the entire population. However, the researcher made all efforts to ensure the sample size selected was adequate and representative enough, by considering factors such as cost, time and other resources available to the researcher. More importantly, no fixed rule exists regarding the selection of a sample size but rather a guide (Brynard, Hanekom and Brynard 2014: 57; Taherdoost 2017: 237).

Another concern under this topic is that the study sought to explore the relationship between the TOE factors, and entrepreneurial factors (independent variables) on social media adoption, marketing and sustainability. The study did not test the interrelationship between the independent constructs (TOE and entrepreneurial factors), since this was not part of the study objective; neither was the impact of these factors on each other, within the same context, or with factors in different TOE contexts. For example, examining perceived trust, which is a technology factor, on perceived complexity, which is also a technology factor, or perceived trust on management and staff support, which is an organisational factor in the SME context, was not considered in this study.

3.8 Questionnaire development

Developing a questionnaire is an integral part of every research, and the current study is no exception. The study developed a semi-structured interview guide for qualitative research and a questionnaire for quantitative research. Two questionnaires were developed based on an extensive literature review of past studies in top peer reviewed journals. The literature provided the base for the various themes and sub-themes generated for the qualitative research, with the constructs and various items used for the quantitative study also generated. The two instruments for the qualitative and quantitative study phases are the instruments used for primary data collection.

In addition, a prepared letter signed by the researcher explaining the study aim was attached to the questionnaires (Appendices 5 and 8), assuring participants of total anonymity and confidentiality of their responses. This made the respondents more relaxed and cooperative during data collection. The two instruments (qualitative and quantitative) consist of open-ended and closed-ended questions, respectively, to examine the various themes and constructs that permit the study to use these approaches.

3.8.1. Structure and content of the qualitative questionnaire

In this study, apart from the SMEs' background information and the conclusion, the questions were adapted from previous studies identified in the current literature. The interview guide for this study is structured based on the objectives stated in Chapter one of the current study. The questions were open-ended, allowing an in-depth understanding of the issues. The themes and their source used for the semi-structured interview guide are presented in Table 3.1 below.

Table 3.1: Themes and their sources

Sections	Themes	Source
1	Information about SMEs	From the researcher
2	Social media adoption	Eid, Abdelmoety, and Agag (2019: 304) and Eze <i>et al.</i> (2020: 53).
3	Technological factors	Odoom <i>et al.</i> (2017: 391), Ainin <i>et al.</i> (2015: 587) and AlSharji <i>et al.</i> (2018: 326).
4	Organisational factors	AlSharji <i>et al.</i> (2018: 326) and Dutot and Bergeron (2016: 1188).
5	Environmental factors	Qalati <i>et al.</i> (2021: 5) and Ahmad <i>et al.</i> (2019: 27).
6	Entrepreneurial factors	Obschonka <i>et al.</i> (2017: 14)
7	Non-financial marketing performance,	Cao <i>et al.</i> (2018: 223), Ainin <i>et.al.</i> (2015: 574), Magno and Cassia (2019: 20) and Charoensukmongkol and Sasatanun (2017:32)
8	Financial marketing performance	Cao <i>et al.</i> (2018: 223), Ainin <i>et al.</i> (2015: 574), Magno and Cassia (2019: 20) and Charoensukmongkol and Sasatanun (2017: 32)
9	Sustainability performance	Abdul-Rashid, Sakundarini, Ghazilla and Thurasamy (2017: 204).

Source: Compiled by Author, 2022

3.8.1.2 Qualitative, structured interviews and criteria followed

3.8.1.2.1 Interview

As indicated in previous sections, the first phase of this study uses an interview as the main instrument for data collection, selecting semi-structured as the interview type. This part is divided into two, with the first part providing an extensive account of the interview as a data collection method and its importance in this study phase. The second part examines the use of semi-structured interviews as the type of interview used for the study.

A critical examination of the existing literature shows interviews have been broadly used across various fields (Tob-Ogu, Kumar and Cullen 2018: 244; Eze *et al.* 2019: 164; Mahat-Shamir, Neimeyer, and Pitcho-Prelorentzos 2021: 84), including information communication

technology (ICT) (Tob-Ogu *et al.* 2018: 244) and social media adoption (Eze *et al.* 2019: 164; Eze *et al.* 2020: 45). The use of interview offers several benefits to the researcher and the study. According to Adhabi and Anozie (2017: 6), an interview is more flexible and enables respondents to explain issues based on their understanding. The researcher can also interject to ensure the respondent understands the issue, the question or the topic being investigated. Furthermore, interviews enable the researcher to obtain quality data from the respondents, while researchers are also more comfortable and can coherently explain issues clearly to the respondents (Adhabi and Anozie 2017: 6).

Earlier studies observed that the interview is an important and powerful tool that enables the generation of rich data concerning an issue being studied (Myers and Newman 2007: 4; Schultze and Avital 2011: 1). These views were also shared by Schwandt (2001: 84), who indicated that an interview deals with, most importantly, people's experiential life and proceeded to define interview "as it is lived, felt, undergone, made sense of and accomplished by human beings". Myers and Newman (2007: 4) claimed an interview is the exchange of ideas and social interaction between the interviewer, which in this case is the researcher and the interviewee, also the respondent, in achieving a common goal. Schultze and Avital (2011: 1) noted an interview enables direct engagement between the interviewer and interviewee, to discover insightful and objective contextual opinions regarding a research problem, allowing for a deeper understanding of the issue and not merely the superficial experience of the interviewee.

In this study, the objective is to investigate the implications of SMM on the sustainability of SMEs, with interviews deemed an appropriate research instrument to gather information concerning SME owners/managers in Accra. Having settled on the interview as the research instrument for this study phase, the next line of action is to consider the approach to be taken in the interview.

Three types of interviews are described, namely: structured, semi-structured, and unstructured (Stuckey 2013: 56; Jamshed 2014: 87; Adhabi and Anozie 2017: 6). It was noted by Jamshed (2014: 87) that there is no qualitative interview without structure. According to Stuckey (2013: 56), in the case of the structured interview, the interview is fully controlled by the researcher (interviewer), who has more power, while the respondent (interviewee) has less power and no room for flexibility. A structured interview is similar to a job interview, with the nature of questions asked by the researcher being short and requiring the interviewee to respond in a

particular way, with a short and straightforward response (Stuckey 2013: 56; Adhabi and Anozie 2017: 6).

Regarding the semi-structured interview, this is indicated as the most widely used approach in the interview process (Alshenqeeti 2014: 40; Adhabi and Anozie 2017: 6). This form of interview outlines the areas and questions prepared by the researcher and has no strict compliance (Stuckey 2013: 56). How to conduct the interview is based on how the respondent (interviewee) answers the question or the issues raised by the researcher (Adhabi and Anozie 2017: 6). A semi-structured interview is more flexible, and can be conducted on an individual or group (Alshenqeeti 2014: 40). It enables the researcher to gain an in-depth understanding of the issues and even touch on personal issues (Adhabi and Anozie 2017: 6). The last interview method is an unstructured interview, which is considered a narrative interview (Stuckey 2013: 56). This type of interview is controlled by the researcher and is geared toward the interest of the researcher (Adhabi and Anozie 2017: 6).

Based on the aim of this study, the use of a semi-structured interview is the most preferred interview method for this study, because of the several advantages it offers the study. For instance, this method is considered the most widely used method when it comes to interviews (Alshenqeeti 2014: 40; Adhabi and Anozie 2017: 6; Mahat-Shamir *et al.* 2021: 84). Concerning the present study, using this method would allow the researcher to unravel and gain a better understanding of SMM on the sustainability of SMEs in Accra. Respondents will thus be allowed to develop their opinion regarding the subject being investigated, while it also enables the researcher to explore the perception of the interviewees and to insightfully delve into important personal and social issues (Alshenqeeti 2014: 40; Adhabi and Anozie 2017: 6; Mahat-Shamir *et al.* 2021: 84).

In addition, the use of semi-structured interview guide enables the researcher to use an interview guide which consists of a predetermined set of open-ended questions (Mahat-Shamir *et al.* 2021: 84; Adeoye-Olatunde and Olenik 2021: 1361). This method also offers the researcher more flexibility and an important tool that allows the researcher to explore the interviewees' perceptions of SMM on sustainability. In addition to all these benefits, a semi-structured interview enables the researcher to come across potentially new issues regarding the issue being investigated (Mahat-Shamir *et al.* 2021: 84).

Hence, for this stage of the study, the semi-structured interview method is preferred, to allow the researcher to provide a piece of in-depth and useful information with regard to SMM, on the sustainability of SMEs in Accra. Furthermore, it also allows the researcher to interview the key people who are the owners/managers of SMEs directly and who are in charge of the day-to-day decision-making of their business. More importantly, semi-structured interviews would permit participants to freely express their views regarding social media adoption, marketing performance and sustainability. Having settled on the interview as the primary data collection method, the type of interview, which is the semi-structured interview, the next issue of concern is to discuss how trustworthiness and credibility were enhanced.

3.8.1.2.2 Trustworthiness and Credibility

In a quantitative study, validity and reliability are very important. Similarly, trustworthiness and credibility are critical elements in a qualitative study. According to Korstjens and Moser (2018: 120), qualitative studies talk about trustworthiness by asking whether the study outcome will be trusted. Trustworthiness refers to how well readers can trust what the data seeks to achieve at the end of the study. The confidence level of a researcher towards a truthful presentation of the study outcome affects the study credibility. Several dimensions of trustworthiness have been identified by researchers, such as credibility, transferability, dependability, and confirmability (Korstjens and Moser 2018: 122).

According to Cope (2014: 89), credibility is about the truthfulness of the research data, how the respondents see the extent to which the researcher has involved them, and their understanding of the study. Credibility is enhanced when the researchers can compare their personal experiences with the feedback received from the respondents. To enrich the trustworthiness and credibility of qualitative research, it is important for researchers to pay attention to respondents' engagement, methods of data collection and keeping of audit trails. For these reasons, the current study developed a semi-structured interview guide, and all interviews reflect the respondents' views. Furthermore, the researcher spends more time with the respondents to engage them more in-depth on the topic.

3.8.1.2.3 Interview process

The interest of this section is to highlight the interview process. Before the researcher started the questioning session, an informal discussion was held with the participants. The researcher spent the first few minutes of the interview engaging respondents regarding the study purpose and what was expected of them as participants. The 16 SME managers/owners were informed

with regard to the code of conduct governing the study and any concerns were addressed prior to commencement of the interview sessions. The researcher also informed all 16 SME managers/owners regarding their right to withdraw from participating in the study at any time, in addition to making them aware and providing assurance that the information gathered through the interview process would be used solely for this study and discarded afterwards. This helped calm participants; more importantly, some participants had no previous awareness of such a process.

Importantly, all 16 SME managers/owners indicated their preparedness and interest in participating in the study. This significant initial step by the researcher enhanced trust building and confidence between the researcher and the interviewees, aiding the performance of the interviewees once the actual interview started. Having set up the foundation to start the question session, the interview then shifts from more general to specific questions, to enable interview flow and to sustain the interest of the interviewees (Myers and Newman 2007: 4). The researcher started by asking each of the 16 SMEs managers/owners a general question regarding their organizations. For example, the researcher asked questions such as *“I would like you to tell me a little bit about your business. Are you the owner, and what is your role? How many employees do you have? What are your key services or industry? How many years have you been in business?”* Beginning with such questions is very important since it makes the interviewees more relaxed and comfortable and also develops the necessary rapport with the participants (Myers and Newman 2007: 4).

Having conducted the initial general question session, the questions were structured around the main theory, which is the TOE, and the other constructs such as SMEs social media adoption, marketing performance outcomes (financial and non-financial) and sustainability performance. It is important to note all 16 SME manager/owner interviewees adopted social media in their organizations. The study used managers/owners of 16 SMEs operating in different sectors, where the GIPC classification of industries has classified their sectors. The interview was conducted personally on the premises of all 16 SME managers/owners, which enabled a more relaxed and productive setting; that is a 'more informal and quieter setting' (Myers and Newman 2007: 13). Each interview lasted for approximately 80 minutes.

3.9 Structure and content of the quantitative questionnaire

3.9.1 Survey design and development

Developing a quality survey research instrument is not an easy task but demands much effort (Rowley 2012 265; Bakla, Çekiç and Köksal 2013: 6). For instance, Andres (2012: 9) noted the process of developing a survey is "daunting", in the sense of being an orderly process that from the beginning demands the dedication of sufficient time and attention to design the survey. Grover and Vriens (2006: 12) observed that even though there is no theoretical basis guaranteeing an ideal survey instrument, it is important to design an instrument that is good, because the design process impacts the outcome. More importantly, the survey is the most important way in which the researcher communicates with the participants (Fielding, Lee and Blank 2008: 13).

In line with these observations, Bee and Murdoch-Eaton (2016: 211) have indicated the success of the survey is largely dependent on the design and have, therefore, recommended some important design principles to be followed to produce a sound survey instrument. These general rules minimise the drawback in designing the research instrument, which enables the researcher to pay attention to important issues. Hence, matters concerning survey instruments have been identified and linked with good approaches to address these issues and have been indicated and extensively discussed in the survey literature (Rowley 2012: 314). Regarding the issues raised, in this study attention was paid to question wording and format, question formulation, layout, and question sequencing, as well as the language used, which were addressed during the development of this survey instrument.

Primarily, there are two types of questions: open- and closed-ended (Rowley 2012 314). Open-ended questions have been defined by Rowley (2012 314) as those questions to which the participants are permitted to respond, "use their language and express their own views". In contrast, the closed-ended questions are also "pre-coded" questions (Seale 2004: 83), where respondents are given options to select from as response (Sue and Ritter 2012: 76). This study used closed-ended questions to collect data from respondents, because it makes it easier to analyse and summarise the data collected. Since responses are predetermined, they are easily coded and analysed using statistical methods, allowing the researcher to quickly and easily summarise the results. Furthermore, the researcher is able to have control over the response options, which ensures all respondents are answering the same question with the same response options. This minimises the potential for confusion or misinterpretation of questions.

The study developed a self-administered, structured questionnaire to collect data from SMEs in Accra. A questionnaire is a tool that has a series of questions to gather information from respondents (Abawi 2013: 90). The study used a structured questionnaire because it is considered a suitable data collection tool, which ensures consistency in the data collection process, by providing a standardised set of question and response options, allowing the researcher to collect reliable and comparable data across all participants. In addition, it allows the researcher to control the variables being measured and ensures all respondents are replying to the same set of questions. This helps in reducing the potential for extraneous variables to influence the data. In addition, it is easy to administer and can be used to collect data from large groups of people efficiently (Quinlan 2011: 326).

The selection of a structured questionnaire was based on the fact that it ensures participants are asked the same, simple, clear and precise questions (Quinlan 2011: 326). Van Eyk (2010: 37) indicated a research survey is considered credible when the questions asked are reliable. The questionnaire should be framed well to enable respondents to supply the relevant information and provide sufficient answers to the questions asked. Pride and Ferrell (2010: 144) and van Eyk (2010: 37) noted the questionnaire must be clear, easy to comprehend, accurate and aimed at a specific goal.

3.9.2 Questionnaire structure

The quantitative questionnaire used a 5-point Likert scale type response range from "strongly agree" to "strongly disagree" in sections four to 11, with the sections divided as follows:

SECTION ONE-Demographic information, detailing respondent information.

SECTION TWO-Enterprise related information, deals with information related to the position of the SME owner, the industry in which the SME operates, annual sales and the market in which the SME is operating.

SECTION THREE-Social media related general questions examine SMEs presence on social media platforms, the purpose of using social media, how soon they intend to adopt social media, and the hinderances to social media adoption.

SECTION FOUR-The technological factors section examines aspects such as perceived cost, perceived trust, interactivity and complexity.

SECTION FIVE-Organisational factors examined in this section also explored factors such as management and staff support and entrepreneurial orientation.

SECTION SIX-Entrepreneurial factors deal with, for instance, personality traits and resources available to the entrepreneur.

SECTION SEVEN-Environmental factors examine market pressure, industry completion and the bandwagon effect.

SECTION EIGHT-Marketing performance investigates social media adoption on financial and non-financial marketing performance.

SECTION NINE-Sustainability performance considers financial marketing performance on environmental and social sustainability of SMEs.

SECTION TEN-Social media adoption explores SMEs social media adoption.

SECTION ELEVEN-Access to finance deals with how SMEs are able to access finance for their business.

3.9.3 Measurement scale

Scales are essential in research, particularly in quantitative studies such as the present one. Scales are the methods researchers use in organising participants' answers asked in the survey (Kumar 2019: 486). Originally developed to address challenges of measuring character and personality traits (Boone and Boone 2012: 1), Likert (1932) developed a strategy to resolve these challenges. The initial Likert scale used a five-answer options scale, developed on the participants' agreement with a question, starting with Strongly disagree (1), disagree, undecided, agree, and ending with strongly agree (5) (Boone and Boone 2012: 1). Since the introduction of the Likert scale, it has become very famous in the research literature and has been used by several researchers (Kyakulumbye and Pather 2022: 51, Kam 2020: 2).

In this study, a Likert scale was employed with a starting point 1=strongly agree, and an ending point 5=strongly disagree. The use of the Likert scale in this study is due to its wide use in academic scholarship and applied in various academic fields (Kam 2020: 2; Shardlow, Cooper, and Zampieri 2020: 3; Kyakulumbye and Pather 2022: 51). Furthermore, the Likert scale has been used in the context of this study by several researchers (Kyakulumbye and Pather 2022: 51). In addition, the choice of Likert scale over the other types of scales such as semantic, is

due to the distinction that data collected through the use of a Likert scale are easy to code, calculate total scores, and interpret the study results.

3.9.4 Anonymity and Confidentiality.

In collecting, analysing, and reporting data, confidentiality and anonymity are fundamental ethical procedures to protect human subjects' privacy (Coffelt 2017: 227), where confidentiality means separating or modifying any personally identifiable information submitted by the respondent from the data collection and anonymity. It also means gathering data without eliciting personally identifiable information from the respondents. To address the issue of confidentiality and anonymity, the questionnaire excluded information that would identify the respondents, in addition to which the questionnaire was free from information that would be traced to the respondents personally. Moreover, respondents were assured of total confidentiality and anonymity before they were allowed to participate in the data collection process. Considering respondents' assurance of confidentiality and anonymity, Coffelt (2017: 227) indicated this makes respondents more relaxed in participating in the data collection process. That is the reason why this study assured respondents of total confidentiality and anonymity.

3.9.5 Survey Distribution

The questionnaire distribution was only possible with the approval of the Research Ethics Committee (REC) of Durban University of Technology (DUT), South Africa. The approval of the research instrument was given on 24 August 2022, with Ethical Clearance number IREC 083/22, which paved the way for the data collection. The researcher personally commenced the collection of data on 26 August 2022, to 23 September 2022. The data collection exercise lasted for five weeks, and the researcher collected 48 questionnaires weekly. In total, a sample size of 234 was used for the final study.

3.9.6 Data entry, cleaning, editing and coding

Having collected the data through hard copy questionnaire, the data was then entered into an MS Excel spreadsheet as the first process toward data analysis. This process was followed by cleaning the data, which Lian, Fu and Ju (2020: 2) indicated is an important aspect of the data analysis process, because it enhances the data quality. The researcher cleaned the raw data to guarantee the data quality prior to performing the data editing. Van Eyk (2010: 42) posited that any data needs to be correctly formatted to ensure the performance of the final data analysis.

Hence, this study cleaned and edited the collected data, with mistakes identified and corrected. Once the cleaning and editing was completed in the Excel spreadsheet, the data were then exported to the IBM Statistical Package for Social Sciences (SPSS), version 24, which was used to process the data for the descriptive statistics and for the hypotheses testing. The data were saved in an Excel spreadsheet (comma delimited CSV) format and imported into the Smart PLSM software for data analysis.

3.10 Ethical Consideration

Ethical issues are of significant concern to the academic community. According to Ritchie, Lewis, and Elam (2013: 78), ethics is the "heart" of good quality, standard study or research. It is, therefore, important for researchers to always adhere to ethical standards. For this study, various procedures were followed considering the study ethics. The first step was to seek approval from the Research Ethics Committee (REC) of DUT, South Africa. In addition, informed consent was sought from potential respondents, which indicated the study objective, the respondent's role, privacy and confidentiality, as well as data management, and that respondents would be able to withdraw from participating in the study at any time.

As indicated earlier, the data were collected through the use of a questionnaire, and the information obtained will be in the university's custody at ML Sultan campus for five years; after which the information will be deleted. Moreover, all data obtained electronically are password protected and then deleted from devices such as USB, Laptops, hard drives and so on, which will be used during the study. Having settled on the questions, the study identified the sampling method to use and adhered to the ethical procedures. Nonetheless, the researcher must conduct a pilot study before commencing the actual data collection.

3.11 Time Horizon

The researcher commenced the data collection exercise just after receiving the ethical clearance certificate in August, 2022. The qualitative and quantitative data collection exercise lasted for three months.

3.12 Pre-testing the study

Piloting or pre-testing a study prior to carrying out the research is very important, since this exercise adds credibility and trustworthiness to the study, with piloting/pre-testing applicable to both qualitative and quantitative studies. Rowley (2012: 265) indicated it is important for

questions to be tested using colleagues, friends, and potential participants, to see whether the questions are understandable and make sense. Gudmundsdottir and Utne (2010: 360) also observed that pre-testing the questions increases study validity and reliability. Because of this importance, the study was piloted for the qualitative and quantitative research. The qualitative and quantitative data collection instrument was piloted on 13 participants consisting of SME owners, colleagues and experts in the topic being researched, with participants in the piloting not participating in the main study.

The structured interview guide was piloted using three different groups; namely a colleague at the university, an expert in context and an SME owner/manager. For the pilot study, the interview lasted up to 90 minutes. The survey used for the quantitative research was also piloted on 10 people from three different groups who did not participate in the main studies, comprising experts (two), colleagues at the university (five) and SMEs owners/managers (three). The respondents who participated in the study gave constructive feedback, incorporated into the final survey for data collection. Having presented the questionnaire development for both qualitative and quantitative study phases, the subsequent interest is to present both the qualitative and quantitative questionnaires.

In essence, the piloting was an important exercise that enhanced the researcher's interviewing abilities and gained several insights. For example, the piloting exercise helped the researcher gain more knowledge in interacting with people and improving the researcher's social skills, which enhanced the researcher's capabilities in carrying out the interview. Other than this, the piloting exercise also helped gain a good overview and identify other important issues that should have been included or addressed during the preparation of the interview guide. The researcher also received constructive feedback, with the necessary changes incorporated into the questions to make them more interactive and engaging. Further to this, the piloting gave the researcher the approximate time required for each interview to be conducted. Rowley (2012: 265) shared the importance of piloting and noted this activity enables the researcher to deal with jargon, the understandability of the question and the flow of the questions. In addition, piloting the study enables the researcher to receive constructive feedback, incorporated into the final semi-structure interview guide and the survey.

3.13 Scope and unit of analysis

Determining the scope and unit of analysis is an integral part of research. It is considered the first step in helping researchers to analyse the data (Kumar 2019 71). The unit of analysis is explained by Kumar (2019 71) as the person or object from which the researcher obtains information, which deals with the issue of "what" and "who" is being investigated in the research.

For this study, the unit of analysis comprises 16 SMEs for the qualitative and 234 SME owners/managers for the quantitative analysis, making a total of 250 SME owners/managers in Accra. The study inclusion criteria focused on SMEs under GIPC classifications that must be located in the Greater Accra Region. The study also considered SMEs who had a presence on at least one social media platform and involved in at least one sustainable practice (social and environmental).

3.14 Population and Sampling

3.14.1 Target Population

The target population is explained as the entire population that meets certain qualifications outlined by a researcher to be studied (Saunders *et al.* 2016: 274; Willie 2022: 521). The target population of this study was SMEs in Accra, selected based on the GIPC classification.

3.14.2 Sample of respondent

Undoubtedly, it is almost impossible to consider the entire study population (Brynard *et al.* 2014: 54; Strydom 2011: 223; Taherdoost 2016: 17; Sekaran and Bougie 2016: 239). Hence, these researchers and several others have called for a part of the population to be selected as a sample to be studied. One of the primary reasons for scholars advocating for a sample to be selected, is that it is less expensive and saves time (Matima 2010: 65). The next section provides the sample criteria for both the qualitative and quantitative methods of the current study.

3.14.3 Sample Selection Criteria-Qualitative and Quantitative Phases

In research, selecting the study participants is an essential aspect of the research design. Sampling in research means the process of selecting a sample from a population (Alvi 2016: 11). The main reason why this is important is the choice of sampling method has a great impact on the quality of the entire research and it is important for a researcher to “provide unbiased and robust results” (Wilmot 2005: 1). Irrespective of the importance of sampling strategy, the

selection of a sample from the entire population is not an easy task in a qualitative and quantitative approach. The issue is more complicated when combining qualitative and quantitative because a combined research approach, such as explanatory and concurrent, may demand different sampling strategies.

Broadly, sampling can be categorised into probability and non-probability sampling. Probability sampling has to do with a technique in which the probability of selecting each individual is the same (Sharma 2017: 749), whereas non-probability sampling is a technique that relies solely on judgment (Sharma 2017: 745). In this study, a non-probability type of sampling, called purposive sampling, is used to sample the qualitative and quantitative data. Purposive or subjective sampling is a procedure that relies on the researcher's judgment when selecting the unit to be investigated, for example, organizations, persons, events and more (Campbell *et al.* 2020: 654; Sharma 2017: 751).

According to Campbell *et al.* (2020: 654) and Palinkas *et al.* (2015: 2), purposive sampling is selected to target respondents who can contribute towards a better understanding of the depth of knowledge and the breadth of understanding the topic. This approach is used, because it allows the owners/managers of SMEs, who have a better understanding of the operations and challenges of SMEs in Accra, to provide an insight that would contribute towards understanding social media adoption, marketing performance and sustainability issues.

Apart from SME owners/managers providing better information to enrich the depth of this study, using purposive sampling is consistent with previous studies such as Campbell *et al.* (2020: 80). For the qualitative part, a total of 16 SMEs were selected based on the classification of the GIPC (Table 3.2) from different industry sectors as participants. For the quantitative phase, a sample size of 234 SMEs was selected. In total, a sample size of 250 SME owners/managers (qualitative and quantitative) was selected.

The inclusion criteria for selection of the target population of this study should meet the following requirements.

- Should be in the Greater Accra Region (this is because most of the SMEs are located in the Capital, and most of the technological infrastructure is also in the Capital).
- Should have a presence on at least one social media platform.
- They should also be involved in at least one sustainable practice (social and environmental).

The following would also be the exclusion criteria for the target population.

- SMEs who are not located in the Greater Accra Region of Ghana would not be part of the study.
- SMEs who do not have a presence on at least one social media platform would not be selected.
- SMEs who are not involved in at least one sustainable practice (social and environmental) would not be selected.

3.14.4 Sample Size

The issue of sample size has been an important discussion among researchers (Francis *et al.* 2010: 1230; Singh and Masuku 2014: 6; Taherdoost 2017: 237). Sample size is explained by Singh and Masuku (2014: 6) as selecting the number of observations to be part of the sample, with the authors further revealing sample size is an important part of any study, because it enables inferences regarding the population.

Francis *et al.* (2010: 1230) and Taherdoost (2017: 237) share their views on the appropriate sample size. For instance, Francis *et al.* (2010: 1230) argue that when the sample size is much larger than required, it is an ethical issue, because it wastes the researcher's funds and time and vice-versa. This view was also shared by Taherdoost (2017: 237), who indicated the selection of sample size should be balanced with the resources of the researcher.

The literature on sample size shows no consensus among scholars regarding a fixed rule for selecting sample size. For example, Brynard *et al.* (2014: 57) indicated since there are no fixed rules for selecting sample size, it only serves as a guide that enables the researcher to select a more representative percentage of the studied population. In addition, O'Reilly and Parker (2013: 195) suggest the adequacy of a sample is not necessarily determined by the number of respondents, but rather by the appropriateness of the data collected from the sample. The quality and relevance of the data collected are more important than the size of the sample itself.

In this study, the sample size was determined using a conventional formula, as suggested by Saunders *et al.* (2019:302) and Gill, Johnson, and Clark (2010). Based on this formula, 234 SME owners/managers were selected to participate in the study, from a total target population of 600 SME owners/managers. This sample size was determined based on factors such as the degree of confidence necessary to estimate the true value of the population, the precision required for any estimates made from the sample, the amount of true variability present in the

data, and the size of the target population, as well as the study objective and aims, the size of the population, time, and cost, along with other resources available to the researcher in determining the sample size (Taherdoost 2017: 237; Saunders *et al.* 2019: 302).

The chosen sample size of 234 respondents in this study was based on a 95 percent confidence level and a five percent margin of error. This means there is a 95 percent probability that the true population value falls within the margin of error of five percent specified in the study. This confidence level and margin of error are consistent with the standard used in management research (Saunders *et al.* 2019: 302). By selecting a sample size with a high degree of confidence and a low margin of error, the study is able to increase the accuracy and reliability of the results and make inferences regarding the target population, with a certain degree of confidence.

3.14.5 Recruitment

The recruitment of respondents is seen as one of the important and, at the same time, challenging aspects of conducting a study. Khatamian Far (2018: 278) define the concept of recruitment as "the process of identifying potential participants, providing them with information about the research, obtaining consent and allocating them to the study". For the purpose of this study, respondents were recruited in the Greater Accra region of Ghana. The respondents were recruited based on the classification of GIPC Classification of industries, as indicated in Table 3.2 below.

Table 3.2: GIPC Classification of industries

No.	Industry
1	Agriculture and Agro-Processing
2	Textiles and Garment
3	Food Processing
4	Health
5	Oil and Gas
6	Tourism
7	Mineral Processing
8	Utilities

Source: Ghana Investment and Promotion Council (GIPC 2021)

The respondents were informed about the study purpose and why they should participate, assuring them of the anonymity and confidentiality of their responses. In addition, the procedure for data collection was explained, assuring participants that the questionnaire does not contain any item that would identify them and their organization. The time participants would spend in completing the questionnaire was also communicated to them. Participants were further informed that there is no right or wrong answer during the process of completing the questionnaire, and they are also free to withdraw from the process at any time. There is no remuneration for participating in the study. Moreover, the researcher only invited respondents when they agreed to participate, after taking them through all the processes stated.

3.15 Sampling Methods

Broadly stated, sampling can be categorised into probability and non-probability sampling, where probability sampling deals with a technique in which the probability of selecting each individual is the same (Sharma 2017: 749). However, non-probability sampling is a technique that relies solely on judgment in participant selection (Sharma 2017: 745). These two sampling methods also have sub-types (Gogtay and Thatte 2016: 66), with the various sampling methods presented in Table 3.3 below:

Table 3.3: Types of Sampling

Probability/ Random Sampling	
1	Simple random sampling
2	Stratified random sampling
3	Systematic sampling
4	Cluster sampling
Non-Probability/ Non-Random Sampling	
1	Quota sampling
2	Convenience/ accidental sampling
3	Purposive/ Judgmental sampling
4	Snowball sampling
5	Expert sampling

Sources: Adapted from Kumar (2019: 297); Taherdoost (2016: 20)

In this study, a non-probability type of sampling, purposive sampling, will be used to sample the qualitative and quantitative data.

The purposive or subjective sampling is a procedure that relies on the researcher's judgment when selecting the unit to be investigated, for example, organizations, persons, events and so forth (Campbell *et al.* 2020: 654| Sharma 2017: 751). Purposive sampling allowed the researcher to select the target sample of SMEs that are actively engaged in SMM, which provided more focused and relevant data for the study. The use of purposive or subjective sampling is employed because it enabled the researcher to obtain information from SMEs owners/managers who are knowledgeable and expert on the topic under investigation. Apart from SME owners/managers providing better information to enrich the depth of this study, using purposive sampling is consistent with previous studies such as that of Campbell *et al.* (2020: 80).

3.16 Data Collection

Data collection is an integral part of research, and several activities must be performed before the actual data collection (HR and Aithal 2022: 462; Mwita 2022: 532). In this study, the researcher personally performed the data collection activities for both the qualitative and quantitative data collection. The next sections detail the data type, method and collection instrument.

3.16.1 Type of data collected

Primary data

The study collected primary data on the various constructs of interest to the study. Matima (2010: 21) defines the concept of primary data as the data collected for the first time by the researcher to resolve the study objectives and problems. The current study used a semi-structured interview guide to collect the qualitative data and a questionnaire for the quantitative data. These data collection instruments were distributed to SME owner/managers in Accra

Secondary data

Secondary data is an important source of information for researchers and form an integral part of the research journey. Secondary data have been explained to mean data collected by a different researcher for a different purpose other than the current study (Matima 2010: 21). The author further indicated that in collecting secondary data, it is important the researcher considers to evaluate the data against factors such as the methodology employed in data collection, the accuracy of the data, the date the data were collected and the dependability of the data. For the

purpose of this study, the aforementioned factors were applied to evaluate the secondary data used by the researcher.

3.16.2 Data collection methods used for qualitative and quantitative data

Qualitative data collection method

There are several techniques that can be used in the collection of qualitative data. Myers (2013, cited by Wiid and Diggines 2021: 109) identifies three distinct categories of qualitative data collection techniques that include interviews, participant observation and fieldwork, and using documents. For the purpose of this study, interview was chosen as the technique to collect qualitative data. The reason for choosing this technique is because the interview is one of the most common techniques used, allowing the researcher to interact with the respondents to collect in-depth data (Wiid and Diggines 2021: 109). Furthermore, Adhabi and Anozie (2017: 6) revealed that the interview technique is more flexible and enables respondents to explain issues based on their understanding. The researcher is also able to interject to ensure the respondent understands the issue, the question or the topic being investigated. Furthermore, the use of interviews enables the researcher to obtain quality data from the respondents (Adhabi and Anozie 2017: 6).

Quantitative data collection method

In terms of quantitative data, the study used closed- and open-ended questions to collect data from respondents. The study developed a self-administered structured questionnaire to collect data from SMEs in Abeka Lapaz, Accra. The researcher waited for the respondents to fill the questionnaire and was collected back by the researcher. A questionnaire is a tool that has a series of questions to gather information from respondents (Abawi 2013: 90). The study used a structured questionnaire, as it is considered a suitable data collection tool that enables the researcher to collect much data from many participants (Quinlan 2011: 326). The selection of a structured questionnaire was based on the fact that it ensures participants are asked simple, clear, precise, and the same questions (Quinlan 2011: 326). Van Eyk (2010: 37) indicated a research survey is considered credible when the questions are asked creditably. For that matter, the questionnaire should be framed well to enable respondents to supply the relevant information and provide sufficient answers to the questions asked.

3.16.3 Data collection instrument(s) used to collect qualitative and quantitative data

The questionnaire was used by the researcher as instrument to collect both qualitative and quantitative data for this study. Abawi (2013: 90) defines a questionnaire as a tool that has a series of questions to gather information from respondents. However, Wiid and Diggins (2021) define it as a set of questions designed to generate the data necessary to accomplish a research project's objectives. One of the benefits of using a questionnaire as an instrument to collect both qualitative and quantitative data, is because it has been proven as a flexible tool, inexpensive and an easy way to collect data from respondents (Matima 2010: 50).

3.17 Response rate

The response rate has been calculated as the number of questionnaires received, compared to the number of questionnaires sent out (Mellahi and Harris 2016: 427). However, Skalland (2011: 89) states the response rate is a form of evaluating quality when examining the validity of survey data or comparing various surveys. The general rule is that the higher the response rate, the better, since it enhances confidence in the data and reduces issues of non-response bias (Mellahi and Harris 2016: 427). However, a low response rate could negatively impact the data quality and the study findings' generalisation (Schoeni, Stafford, McGonagle and Andreski *et al.* 2013: 77). Even though response rate issues have been documented, there is no agreement on the acceptability and unacceptability of response rate (Schoeni *et al.* 2013: 77; Mellahi and Harris 2016: 427).

Regarding response rate for this study, the researcher was interested in interviewing 16 SMEs in Accra and was able to achieve this; therefore, achieving 100percent rate of response for the first phase, which is the qualitative phase. For the second or quantitative phase, the researcher distributed 234 questionnaires. However, during the raw data cleaning, the researcher noticed six of the questionnaires were not usable due to errors, such as respondents selecting more than one answer and not answering some of the questions. Since the researcher was interested in achieving 100 percent response rate, the researcher returned to collect the additional six questionnaires from SMEs in Accra, which allowed the study to achieve a total of 234 usable questionnaires. Hence, 100 percent response rate was achieved for both the qualitative and quantitative study phases.

3.18 Data presentation

To enable readers to understand the results, the study presents the results by using tables and figures with frequencies and percentages. The study labelled and described all the tables and figures and further explained the information in these tables and figures.

3.19 Analysis of data

The data analysis section is concerned with how the qualitative and quantitative data were analysed (Figure 3.3).

3.19.1 Analysis of Qualitative Data

The researcher uses NVivo software to carry out the nodes and themes for the qualitative data. This software enables the data to be analysed before the empirical themes are clustered and verified. Another reason why this approach is used, can be attributed to this analysis approach enabling the researcher to examine the trustworthiness of the issues prior to going ahead to interpret them (Miles and Huberman 1994: 108). Furthermore, the researcher followed the well-known step-by-step approach suggested by Braun and Clarke (2006: 84), which comprises familiarisation with the data, generating the initial codes, searching for themes, and reviewing themes, as well as defining and naming themes, and producing the report. The codes used in this study originated deductively and inductively (Braun and Clarke 2006: 84), with Eze *et al.* (2019: 165) using a similar approach. The data analysis was driven by both theory and empirical-driven thematic analysis. All data were entered into NVivo (software for qualitative data analysis) because of the vast amount of data involved.

In performing the coding exercise, the researcher was mindful to identify the important norms, ideas and conceptualisation (Miles and Huberman 1994: 108). The subsequent interest is to present the thematic analysis for the study.

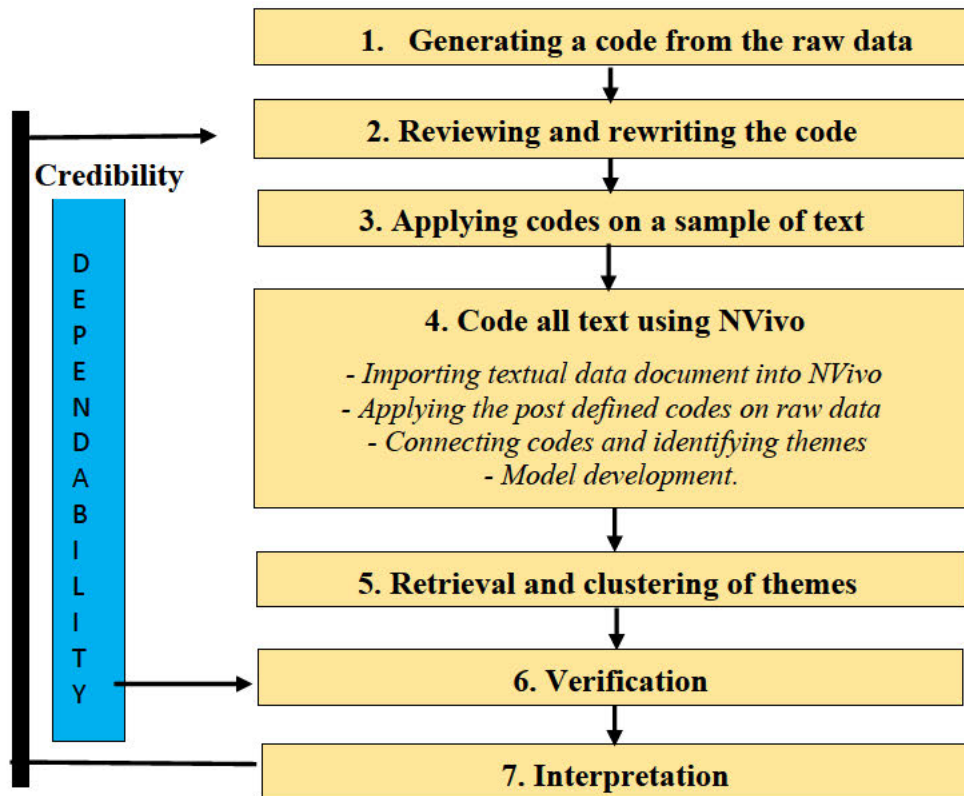


Figure 3.3: Data analysis process

Source: Adopted from Eze et al. (2020: 47)

3.19.2 Thematic Analysis Approach

Braun and Clarke (2019: 845) defined thematic analysis as "an umbrella term, sometimes designating quite different approaches aimed at identifying patterns across qualitative datasets". Furthermore, thematic analysis has been seen as more flexible and broader and has, therefore, been extensively used in various fields such as medicine (Cassol *et al.* 2018:3), health services (Norris *et al.* 2017: 4), tourism (Costa *et al.* 2016: 35), and human resource development (HRD) (Israel *et al.* 2017: 203; Perkins 2018: 135), as well as education (Halverson *et al.* 2014: 6) and social media (Eze *et al.* 2019: 165).

For the purpose of this study, the analysis was performed using thematic analysis of a hybrid method (inductive and deductive thematic analysis) to perform the analysis that developed themes (categories) and sub-themes. As the method suggests, the data were collected based on prior TOE theory, which has constructs such as technology, organization and environment. The

TOE theory is an existing theory, and the question on technology, environment and organization were all underpinned by this framework.

The use of thematic analysis to perform the analysis is informed by the several advantages it offers compared with the other methods identified (Alhojailan 2012: 40; Braun and Clarke 2019: 845; Lester, Cho, and Lochmiller 2020: 97). First, thematic analysis is more flexible, and can be applied in several research questions, from a different theoretical lens to various data set sizes (large or small) (Braun and Clarke 2019: 850). In line with this, Braun and Clarke (2019: 850) noted that thematic analysis allows researchers to answer various research questions, including those associated with identifying influencing factors of social media adoption, as in the case of this study.

Compared with other data analysis methods, thematic analysis applies to various data collection instruments, such as interviews and focus groups, and is not restricted to a particular data collection instrument (Vaismoradi, Turunen, and Bondas 2013: 402). Furthermore, thematic analysis is less labour intensive and is fast and easy to learn (Alhojailan 2012: 40; Braun and Clarke 2019: 845; Lester *et al.* 2020: 97). Thematic analysis is also accessible and a good analytical method for inexperienced researchers while it enables the researcher to easily classify the data and present the themes related to the data (Alhojailan 2012: 40; Braun and Clarke 2019: 845; Lester *et al.* 2020: 97). Based on these benefits and the nature of thematic analysis, the study employed thematic analysis to assist the researcher in identifying and interpreting SME owners'/managers' views of influencing factors with regard to social media adoption, marketing performance and sustainability of their organizations.

3.19.3 Quantitative analysis of data

The study uses two important statistical analytical tools, SPSS version 27 and SEM-PLS version 3.0, to perform the analysis. To commence the analysis, SPSS was used in the descriptive data analysis and the examination of the non-response bias (Armstrong and Overton 1977: 397). The choice of using SPSS to perform the descriptive statistical analysis is because the researcher finds it user-friendly, easy to use, and more importantly, the most often used social science data and normality testing (Mishra *et al.* 2019: 69; Pallant 2020: 9). Performing this type of analysis, the researcher finds the use of PLS-SEM more appropriate for the design and testing of the proposed conceptual framework (Hair Jr, Howard, and Nitzl 2020: 102; Hair

et al. 2021: 115; Henseler, Ringle, and Sarstedt 2015: 116). For this reason, the software SmartPLS was employed in analysing the dataset (Ringle, Wende, and Becker 2015: 34).

3.19.3.1 Frequency analysis

Welman, Kruger and Mitchell (2005: 229) state that frequencies determine whether there is uniformity in all categories or merely formed around a few categories. This is in line with Huysamen (1998: 15), who explained that “the number of cases observed in a particular category is known as the frequency for that category [with] measurement categories said to be mutually exclusive and collectively exhaustive because (1) no case can be classified into more than one category, and (2) each case can be classified into one of the available categories.” The frequency categories may, in addition, comprise a nominal, ordinal, interval or ratio scale. The study made use of frequencies, presented and shown in tables and figures.

3.19.3.2 Descriptive statistical analysis

According to Trochim (2020: 1), descriptive statistical analysis is a fundamental tool for quantitative data analysis that aims to describe the features of collected data, enabling the researcher to present summaries of the sample and measures, while it also demonstrates graphical analysis for the study. Descriptive statistics were employed to present the frequencies and percentages gained from SMEs sampled for the study. The results of the descriptive analysis are presented in the form of tables in Chapter 5.

3.20 Validity

Heale and Twycross (2015: 66) defined validity as the degree to which the concept is accurately being measured in the study. The authors further observed that the validity concept deals with the mindfulness of the key research aspect and that researchers are concerned with measuring what they intend to measure. Different types of validity have been identified, which include construct, internal, external, and content, as well as face validity, in addition to concurrent, convergent and discriminant validity (Flake *et al.* 2022: 576), as discussed below:

3.20.1 Construct validity

Construct validity is well-known in the research literature and has been applied in quantitative studies to enhance data quality. Yilmaz (2013: 318) claimed that data is valid when the results are accurate and effective in reflecting the study aims. However, Amoah (2016: 125) revealed that research is considered valid when that research produces reliable data, guided by sound scientific methods. Hence, in conducting the quantitative phase of this study, it is important to

pay attention to the validity of the research instrument to indicate rigour and improve the accuracy of the research instrument (Heale and Twycross 2015: 66).

Trochim (2020: 1) states that construct validity deals with facts regarding the conclusion of the research, which shows that the operationalisation of the study is the truth and accurately reflects what it was meant to achieve. Construct validity depends on a statistical approach to measuring the quality of the research instruments per what was intended (Kumar 2019: 272). Lechien *et al.* (2019: 2) indicated that construct validity could also examine whether the research instrument developed can measure the intended theoretical idea and also directly impact the suitability of the measurement-based inference.

Jonas (2018: 154) highlighted that construct validity, furthermore, controls how the instruments measure the proposed constructs. When the instruments measure different constructs and not the intended constructs, it would lead to doubt or create confusion. In this regard, it is essential as researchers, to ensure construct validity is highly reliable. Kumar (2019: 273) indicated that the influence of the independent variable on the entire dependent variable is a sign of the degree of validity of the instrument, and the higher the variance associated with the construct, the higher the construct validity of the instrument. For the purpose of this study, Confirmatory factor analysis (CFA) was used to examine construct validity and to confirm the correct number of factors in the study.

3.20.2 Internal validity

Internal validity is concerned with establishing causal relationships. Yilmaz (2013: 318) explained internal validity as confirming a causal relationship between an action and an outcome, which further establishes whether the relationship is causal. Eisend and Kuss (2019: 186) maintained that internal validity could eliminate the alternative clarifications for the observed associations, based on the measurement procedure. Practically, the primary concern of establishing internal validity is to determine whether the variation in the exogenous variable can be seen as the cause, which means a change in the exogenous variable would result in a change in the endogenous variable (Eisend and Kuss 2019: 186). According to Cuncic (2020: 1), internal validity goes beyond "yes or no" to examine how the researcher is more confident about the findings, which are dependent on the truthfulness and trustworthiness of the research outcomes to avoid any negative feedback concerning the outcomes. The internal validity of this

study was tested based on empirical findings that supported the relationship between the TOE factors and the sustainability activities of SMEs.

3.20.3 External validity

According to Yilmaz (2013: 318), external validity concerns the extent to which the researcher can generalise the study findings. Jonas (2018: 155) noted that researchers select a sample size representative enough, as a result of external validity. Adding to this, Eisend and Kuss (2019:188) provided conditions for external validity before a researcher could generalise the study findings. These conditions are determined as follows:

- ❖ Can the result come from a characteristically smaller number of participants (groups, persons, and organizations) that can be representative of the population?
- ❖ Can the findings be generalised to the study objectives, for instance, TOE and SME social media adoption?
- ❖ Can the findings from the study be replicated in another context, taking into consideration cultural, environmental and time differences?
- ❖ Can the same result be obtained by a different researcher by employing different approaches using different measurement instruments?

This study considers the proposition by Eisend and Kuss (2019: 188) regarding external validity. The findings of this study cannot be generalised to the entire country of Ghana, since it was only conducted in the capital, Accra. More importantly, Ghana has several other regional capitals. Globally, generalisation of the findings is not possible because it was context-specific with different cultures and environments.

3.20.4 Content validity

As stated by Lechien *et al.* (2019: 2), content validity deals with whether the research instruments developed by the researcher are intended for the purpose and whether the items and constructs apply to the study population. A critical part of content validity is face validity; hence, performing content validity in this study is the same as face validity. It is research practice to include questions and objectives in the questionnaire and justify the inclusion. As stated by Kumar (2019: 477), the process of justifying the inclusion of questions in the questionnaire is what is termed face validity. To conduct face validity, experts, specialists and professionals in the discipline are invited to examine whether the items used in the study are important and are in line with the study idea (Amoah 2016: 125). In line with face validity, 10

experts were used in this study, consisting of colleagues who are experts in this field and SME owners/managers, to examine the content and the research instrument to establish face validity.

This approach of establishing face validity is supported by researchers such as Amoah (2016: 123) who claimed that using experts to establish content validity is acceptable. Suggestions from the experts were considered at the instrument development stage in the current study. In addition, the study also checked for content validity by piloting the questionnaire.

3.20.5 Concurrent validity

A practice well-known in academic fields such as psychology and social science, concurrent validity deals with the extent to which empirical findings of a particular study or measurement relate to the previously tested outcome of the same concept (Williams 2015: 1). Conducting concurrent validity is when the researcher intends establish how robust a research instrument is, by comparing it to other credible findings from a different researcher. According to Kumar (2019: 473), concurrent validity can be performed by comparing the current study findings with the literature review, to assess whether the outcome is consistent with what the literature says or whether the findings are at variance with the literature. This study performed concurrent validity by comparing the current study findings with what previous scholars have discovered in the context of TOE, social media, marketing performance and sustainability.

3.20.6 Convergent validity

As explained by Lechien *et al.* (2019: 2), convergent validity examines how the items of the same construct would be related when measured by two separate instruments. Stated differently, Thoma *et al.* (2018: 1) indicated that convergent validity represents the degree to which a particular study measures similar concepts as other studies are supposed to, such as the hypothesis, constructs and theory. In this study, CFA was employed to examine the construct validity and evaluate whether the measurement model used in each of the models was appropriate. Furthermore, CFA was used to confirm the correct number of factors in the study.

3.20.7 Discriminant validity

The description of discriminant validity, according to Nusair and Hua (2010: 316), is the level to which similar conceptualisations of ideas are separate. For example, a low cross-construct correlation reveals discriminant validity (Nusair and Hua 2010: 316). The use of CFA in this study helped identify the study's discriminant validity.

3.20.8 Heterotrait-monotrait ratio (HTMT)

The HTMT is a well-known determinant of discriminant validity and has been extensively applied in quantitative studies. Henseler *et al.* (2015: 115) explained the HTMT is "the mean value of the item correlations across constructs relative to the (geometric) mean of the average correlations for the items measuring the same construct." This view is also expressed by Sarstedt *et al.* (2021: 17) and Hair *et al.* (2018: 9), who claimed HTMT is robust and powerful when it comes to measuring discriminant validity.

A combination of the Fornell-Larcker criterion and HTMT was therefore, employed to assess discriminant validity for this study, by following the guidelines of Henseler *et al.* (2015: 130). The recommended threshold is that the HTMT value should be below 0.85, in the case of conceptually distinct constructs, and below 0.90 in the case of conceptually similar constructs (Henseler *et al.* 2015: 123). Hence, there is no presence of discriminant validity when an HTMT value is above 0.90. However, in the case where constructs are conceptually divergent, a lower threshold of 0.85 is acceptable (Henseler *et al.* 2015). It is, furthermore, highlighted that HTMT ratio must be below 1.00 (Henseler *et al.* 2015: 121; Gaskin, Godfrey, and Vance 2018: 68). The current study performed the HTMT, and all factors met the recommended threshold, as presented in Table 5.30.

3.20.9 The Fornell-Larcker criterion

The Fornell–Larcker criterion has been extensively used among scholars, especially in quantitative research, to determine discriminant validity. According to Fornell and Larcker (1981: 3), the Fornell–Larcker criterion is determined by comparing the square root of the AVE value of each variable in the conceptual framework with other latent variable correlations. Franke and Sarstedt (2019: 434) explained that the items in the framework share more variance with their intended construct than with other constructs. In determining the Fornell–Larcker criterion, the researcher is able to ascertain the extent to which each indicator loads high on the constructs it is linked with (Henseler *et al.* 2015: 115). This implies that the average variance extracted (AVE) square root of each variable should exceed the correlation value with other constructs (Henseler *et al.* 2015: 115).

The Fornell–Larcker criterion is, however, not without criticism, since concern has been raised by Henseler *et al.* (2015: 129), among others, regarding the power and broad application of the Fornell–Larcker criterion in determining discriminant validity. Irrespective of these concerns,

researchers are using Fornell–Larcker criterion to determine discriminant validity (Wongleedee 2020; Donate *et al.* 2020). In this regard, Fornell and Larcker (1981: 3) indicated that the threshold of the square root of the AVE for each construct should be greater than 0.5, as well as when it comes to correlations with other constructs. The study determined the Fornell–Larcker criterion and met the recommended threshold, with results presented in Table 5.31.

3.21 Reliability of Instruments

Reliability is an important construct in the research literature and has received much attention when conducting research, particularly quantitative research (Jonas 2018: 157; Terziev and Petkova-Georgieva 2019: 518; Su *et al.* 2020: 65; Wu and Tsui 2020: 10). The importance of reliability to the researcher is because it ensures accuracy, consistency and precision of the instrument to reflect the selected constructs (Hapsari 2018: 6). According to Yilmaz (2013: 317), reliability is concerned with the degree to which the instrument is constant with the variables being measured and when repeated on the same or similar subject, would be the same.

Roberts and Priest (2006: 41) defined reliability as "how far the survey will produce similar results in different circumstances assuming nothing else has changed". As noted by Yilmaz (2013: 318), reliability deals with how dependable and internally consistent the measuring instruments are, as well as how trustworthy the instrument scores are. Furthermore, Jonas (2018: 157) observed that internal reliability is also termed internal consistency, with the primary objective to measure the level of similarity among construct items. A critical examination of the extant literature on reliability reveals the use of the most popular Cronbach alpha coefficients to determine the internal reliability for this study. This view is confirmed, with Asadollahi-Kheirabadi and Mirzaei (2019: 7) who indicated the Cronbach's alpha coefficient is more appropriate in carrying out quantitative studies such as this current phase.

3.21.1 Cronbach's Coefficient alpha

Cronbach's alpha is an important reliability indicator measure used in quantitative research. According to Hair *et al.* (2020: 104), the main principle of Cronbach's alpha is that the indicator loadings are equal and calculate the reliability by examining how the observed items and the various constructs intercorrelate. The reliability literature indicates that a Cronbach's alpha between 0.7 and 0.9 is considered reliable (Terziev and Petkova-Georgieva 2019: 518; Su *et al.* 2020: 65; Wu and Tsui 2020: 10). In addition to these authors, Ursachi, Horodnic and Zait (2015: 681) noted that the general rule is that a Cronbach's alpha should measure 0.6 to 0.7 to

indicate an acceptable level of reliability, where 0.8 or more indicates a very good level. According to Ursachi *et al.* (2015: 681), values more than 0.95 are not all that good, because they may signal data redundancy. Based on the acceptable rule, the Cronbach's alpha measures in this study conform to the acceptable rules and ranges. Hence, the reliability of all the items used for the study was tested using Cronbach's alpha; indicated in chapter five of the study.

3.21.2 Composite reliability

In addition to using Cronbach's alpha, the study performed composite reliability by assessing the internal consistency reliability of the constructs. Composite reliability is another approach to measure internal consistency, which is different from the principle of Cronbach's alpha because it does not assume equal loadings of items (Hair *et al.* 2021: 183). For instance, Sarstedt *et al.* (2020: 293) and Hair *et al.* (2021: 183) posit that Cronbach's alpha is unweighted, and the composite reliability is weighted, providing a more precise way of evaluating construct reliability. Furthermore, as with Cronbach's alpha, the composite reliability threshold should be equal to or greater than 0.70 to meet the reliability criteria. Based on the validated items used to measure the constructs, the study recorded values between 0.70 and 0.95, indicating good levels of reliability (Hair *et al.* 2022: 77).

3.21.3 Dijkstra's rho_A

Dijkstra's rho_A is another form of reliability assessment apart from Cronbach's alpha and composite reliability, in determining construct reliability. The current study employed the use of Dijkstra's Rho_A to assess the quality of the constructs. Even though Cronbach's alpha is widely used in academic scholarship, it is premised on the fact that all indicator loadings are reliable. Moreover, conducting a reflective measurement assessment using PLS-SEM, Cronbach's alpha is seen as the lower bound, while composite reliability is considered the upper bound of internal consistency reliability (Sarstedt, Ringle, and Hair 2020: 17; Ghasemy *et al.* 2020: 1133). Hence, Sarstedt *et al.* (2021: 17) have observed that the exact construct reliability is somewhere between Cronbach's alpha and the composite reliability. Therefore, Hence Rho_A is the preferred alternative to assessing internal consistency reliability (Dijkstra and Henseler 2015: 302). The general rule is that the Rho_A should be equal to or greater than the recommended 0.70 threshold, which the various items used in the study met.

3.21.4 Cross-loadings

Cross-loading enables the researcher to check whether the constructs in the framework are statistically separate, unique and a valid measure of what it is expected to measure. Hamakhan and Taha (2020: 15) recommend a loadings threshold of 0.70. The study performed the cross-loadings, and those items that did not meet the threshold were deleted, leaving those items that met the recommended threshold of 0.70. The cross-loadings are presented in Table 5.23.

3.21.5 Qualitative Reliability Analysis

The study conducted a reliability analysis based on the categories and quotes by following the recommendation of Bryman (2008: 127), which consisted of two judges. These judges examined the quotes based on the themes and through cross-case analysis of finding support (Macredie and Mijinyawa 2011: 242). The findings of the inter-coder reliability analysis indicated that the judges were over 80 percent in agreement, which is above the threshold recommended by Miles and Huberman (1994: 17). The details are presented in Table 3.4 below.

Table 3.4: Reliability Analysis

Reliability Area	No. of Judges	First Judge	Second Judge
Factors influencing SMEs social media adoption, marketing performance and sustainability	2	0.75 (75%)	0.86 (86%)

Source: Compiled by Author, 2022

3.22 Non-response and common method bias

The study performed non-response bias assessments by comparing the first 30 percent with the last 30 percent to determine a non-response bias (Armstrong and Overton 1977: 397). The outcome indicates no significant difference between the compared groups ($p > 0.05$) on the key constructs. Hence, the issue of non-response bias was not established. Furthermore, the study also took steps to reduce the effect of common method bias (CMB) by letting respondents understand there is no right or wrong answer to the questions they are asked. In addition, the study assured participants of their data confidentiality and anonymity and the study purpose, which is primarily academic.

Other than the above steps and based on previous SME literature (Abed 2020: 5; Kim, Jang, and Yang 2017: 308; Osakwe, Chovancova, and Ogbonna 2016: 37), the conventional

Harman's (1976: 68) single-factor test was deployed to examine the presence of CMB. The issue of CMB was not established, since no single component made up 50 percent of the covariance in the data (Rodríguez-Ardura and Meseguer-Artola 2020: 3). The study also proceeded to assess issues of multicollinearity (if any) by evaluating the variance inflation factor (VIF) (outer) values and these values were less the recommended threshold of five (Hair *et al.* 2017: 625). Moreover, full factor level VIF analysis was performed, and all the inner values were less than the 3.3 recommended threshold (Kock 2015: 7). Hence, the issue of CMB was not a problem for the current study.

3.23 Measurement model

The measurement model was performed based on the guidelines provided by Sarstedt *et al.* (2022: 1058). The process begins by checking whether the individual items meet the acceptable threshold, and the ones that do not are deleted. The outcomes show that most of the loadings exceeded the conventional threshold of 0.708 thresholds (Hair *et al.* 2019: 10; Sarstedt *et al.* 2022: 1058). However, some had below 0.708, which is also considered acceptable (Su *et al.* 2020: 65; Terziev and Petkova-Georgieva 2019: 518; Wu and Tsui 2020: 10). The VIF were also less than the prescribed threshold of five (Hair *et al.* 2017: 617).

The study performed the reliability test of the various constructs by securing the internal consistency, Cronbach's alpha (α), rho_A, and composite reliability (Hair *et al.* 2020:102; Sarstedt *et al.* 2021:22; Dijkstra and Henseler 2015: 302). The details of the outcome are presented in chapter five. The findings show that the score of the composite reliability of the items and the rho_A, respectively, exceed the conservative threshold of 0.70 (Dijkstra and Henseler 2015: 302; Sarstedt *et al.* 2022: 1058). Similarly, the convergent validity was performed in line with the AVE. The outcomes reveal that the AVE was above the acceptable results of 0.50 (Hair *et al.* 2017: 617; Sarstedt *et al.* 2021: 22). Hence the findings confirm acceptable levels of reliability and validity of the study

The study's discriminant validity was assessed using the Fornell-Larcker criterion, the HTMT and cross-loadings (Henseler *et al.* 2015: 116). Based on the Fornell-Larcker criterion (Fornell and Larcker 1981: 3). The discriminant validity measurements are now discussed.

3.23.1 Assessment of model fit

The seminal work of Henseler, Ringle and Sarstedt (2016: 407) indicates that the assessment of model fit is the initial step of PLS model assessment, even though Ringle *et al.* (2015: 34)

recommend caution using SmartPLS in examining overall model fit. Regardless, this study assessed the model fit based on the saturated model fit in PLS-SEM: a standardised root means squared residual (SRMR), an unweighted least squares discrepancy (d_ULS), a geodesic discrepancy (d_G), and normed fit index (NFI).

Performing the model fit is important because it enables the researcher to determine whether the data reflect the intended information of the research model. An examination of the current literature on SEM shows an SMRS value lower than 0.10 or 0.80 is seen as a good fit (Shi and Maydeu-Olivares 2020: 420; Hu and Bentler 1999: 5). Furthermore NFI values above 0.9 usually represent an acceptable fit, with the d_ULS and d_G measuring the exact model fit, and the acceptable discrepancies that should be lower than 95 percent-quantile (HI95) or 99 percent-quantile (HI99) of the bootstrap discrepancies (Bentler and Bonett 1980: 599; Lohmöller 1989: 200). (Benitez-Amado, Henseler, and Castillo, 2017: 6; Henseler *et al.* 2016: 407; Dijkstra and Henseler 2015: 302).

The outcome of the analysis shows that the SRMR value was 0.060, which is acceptable (Bentler and Bonett 1980: 591; Lohmöller 1989: 200). The NFI recorded 0.834, which is adequate, since it is closer to the acceptable threshold (Bentler and Bonett 1980: 591; Lohmöller 1989: 200). In addition, d_ULS (0.952) and d_G (0.972) are below the 99 percent-quantile (HI99) of the bootstrap discrepancies (Benitez-Amado *et al.* 2017: 6; Henseler *et al.* 2016: 407).

3.24 Summary of Chapter

In a nutshell, this chapter discussed the various philosophies and the type of philosophy used for the study. The chapter further examined the various research paradigms and provided the justification for selecting the paradigm used for the study. In addition, this chapter also reported on the research approach and design underpinning the study. The choice of employing the use of sequential mixed-methods was also provided, with the chapter also dealing with the population and sampling for the study. The various sampling methods are highlighted, and the choice of sampling method for the study indicated. The current chapter makes way for the next chapter (chapter 4), which offers a more detailed discussion of the qualitative phase.

CHAPTER FOUR

FIRST PHASE– THE QUALITATIVE RESULT

4.1 Introduction

This chapter aims to present the outcome of the qualitative data. The relevance of this chapter is that the quantitative phase is derived from this section, to develop the hypotheses for testing, with this presented in chapter 5. The results of the qualitative interviews are now presented in this chapter.

4.2 SME Background information

This section presents the characteristics of the 16 SME owners/managers who participated in the study for the qualitative study phase. The information gathered on these SMEs includes their position, qualifications, number of employees, and years in business, as well as the industry, and the social media platform they use. The study also assigned each SME with a code, such as SMEA01 representing SME 1, SMEA02 representing SME 2, in that order, for all 16 SME owners/managers that participated. These SMEs differ in the industries they operate in and also fall under the GIPC Classification of industries. The idea of selecting these SMEs from different industries enables the researcher to develop a deeper insight and explore various factors from these industries on the topic under investigation. The details of the information gathered on SME owners'/managers' background information are presented below.

4.2.1 Qualification of SMEs

The qualification levels (Table 4.1) of the 16 SME owners/managers who participated show they all have a formal education, with the highest qualification a Master's degree. Most participants attained a degree, with this followed by a Higher National Diploma (HND) and the lowest qualification being a West African Senior School Certificate Examination (WASSCE).

Table 4.1: Qualification of SME owners/managers

Codes	Qualification	Codes	Qualification
SMEA01	Degree	SMEA09	Degree
SMEA02	Degree	SMEA10	Degree
SMEA03	Masters	SMEA11	WASSCE
SMEA04	Degree	SMEA12	HND
SMEA05	Degree	SMEA13	Degree

SMEA06	Diploma	SMEA14	HND
SMEA07	Degree	SMEA15	Degree
SMEA08	WASSCE	SMEA16	Diploma

4.2.2 SMEs positions and number of years in the business

The result (Table 4.2) of SME employee positions and number of years in business reveals that most are owners/managers. For example, SMEA09, SMEA10, SMEA14, SMEA16, are owners/managers. Also, SMEA01, SMEA02, SMEA03, SMEA05 held the position of owner/managing director. The findings further show that SMEA04, SMEA12, and SMEA13 held the position of managers. Only SMEA07 held the position of an accountant. In terms of the number of years of operating their business, the results show that SMEA04 has been operating for 16 years, which is the longest, followed by SMEA01 who has operated for 15 years. The results indicate most SMEs have been operating for between five to 10 years, with few operating or less than five years.

Table 4.2: SME positions and number of years in the business

Codes	Position held by SMEs	No. of years in business	Codes	Position held by SMEs	No. of years in business
SMEA01	Owner/Managing Director	15 years	SMEA09	Owner/Manager	12 years
SMEA02	Owner/Managing Director	10 years	SMEA10	Owner/Manager	8 years
SMEA03	Owner/Managing Director	7 years	SMEA11	Owner/Manager	5 years
SMEA04	Manager	16 years	SMEA12	Manager	7 years
SMEA05	Owner/ Managing Director	5 years	SMEA13	Manager	8 years
SMEA06	Manager	10 years	SMEA14	Owner/Manager	4 years
SMEA07	Accountant	9years	SMEA15	Manager	5 years
SMEA08	Owner/Manager	10 years	SMEA16	Owner/Manager	3 years

4.2.3 Number of employees per SME

Regarding the number of employees (Table 4.3), SMEA02 had 50 employees, which is the highest number of employees. This is followed by SMEA01 and SMEA04 with 29 and 15

employees, respectively. In addition, SMEA12 had 13 employees, while most SMEs have more than one employee.

Table 4.3: Number of employees per SME

Codes	Number of employees per SME	Codes	Number of employees per SME
SMEA01	29	SMEA09	3
SMEA02	50	SMEA10	5
SMEA03	5	SMEA11	4
SMEA04	15	SMEA12	13
SMEA05	6	SMEA13	2
SMEA06	5	SMEA14	5
SMEA07	6	SMEA15	3
SMEA08	5	SMEA16	5

4.2.4 Key service or industry

The SMEs who participated all operated in the industries (Table 4.4) classified by the GIPC Classification of industries, which are: Textiles and Garments, Agriculture and Agro processing, Minerals Processing, Food processing, Oil and Gas, Tourism and Health.

Table 4.4: Key service or industry

Codes	Key service or industry	Codes	Key service or industry
SMEA01	Textiles and Garments	SMEA09	Minerals Processing
SMEA02	Agriculture and Agro processing	SMEA10	Health
SMEA03	Minerals Processing	SMEA11	Oil and Gas
SMEA04	Textiles and Garments	SMEA12	Agriculture and Agro-processing
SMEA05	Tourism	SMEA13	Food processing
SMEA06	Food processing	SMEA14	Utilities
SMEA07	Oil and Gas	SMEA15	Tourism
SMEA08	Utilities	SMEA16	Health

4.2.5 SME Social Media Platforms

Table 4.5 presents the various platforms used by the 16 SME participants of the study.

Table 4.5: SME Social Media Platforms

Codes	Social Media adopted by SME	Codes	Social Media Adopted by SME
SMEA01	Facebook, Twitter, Instagram	SMEA09	Facebook, Instagram
SMEA02	Facebook, and Instagram	SMEA10	Facebook, Twitter, Instagram
SMEA03	Facebook, Twitter, Instagram	SMEA11	Facebook and Instagram
SMEA04	Facebook, Twitter, Instagram	SMEA12	Facebook and Instagram
SMEA05	Facebook, Twitter, Instagram	SMEA13	Facebook, Twitter, Instagram
SMEA06	Facebook, Twitter, Instagram	SMEA14	Facebook, Twitter, Instagram
SMEA07	Facebook, Twitter, Instagram	SMEA15	Facebook, Twitter, Instagram
SMEA08	Facebook, Twitter, Instagram	SMEA16	Facebook, Twitter, Instagram

4.3 Findings of qualitative data

In this section, an overview of the results obtained from the semi-structured interviews conducted with the 16 participants is provided. The findings are divided into four categories, including technology, organization, environment, and entrepreneurship factors. Additionally, the study highlights the findings related to social media adoption and marketing performance, as well as sustainability performance of SMEs. Each of these concepts will be presented individually below.

4.3.1 Technology factors

The technology factors refer to the factors that affect the adoption of technology. The study identified four sub-themes, namely perceived cost, trust, interactivity and complexity under this category, along with supporting cases, with a summary of the findings is presented in Table 4.6. These findings are based on interviews conducted with 16 SME owners/managers in Accra.

Table 4.6: Sub-themes and their supporting cases for Technology Factors

Themes (Codes)	Supporting Cases	Total Number of Supporting Cases
Technological Factors		
Perceived Cost	SMEA01, SMEA02, SMEA04, SME06, SMEAO8 SMEAO9 SMEA10, SMEA11, SMEA12	9/16

Perceived Trust	SMEA01, SMEA02, SME06, SME07, SMEA11	5/16
Interactivity	SMEA01, SMEA02, SMEAO5, SMEA13, SMEA14, SMEA16	6/16
Complexity	SMEA02, SMEA04, SMEA05, SMEAO9, SMEA13, SMEA14	6/16
Total		14/16
SMEA01, SMEA02, SMEA04, SMEAO5, SME06, SME07, SMEAO8, SMEAO9, SMEA10, SMEA11, SMEA12, SMEA13, SMEA14, SMEA16		(87.5%)

4.3.1.1 Comprehensive analysis of sub-themes and their supporting cases for Technological Factors

This section provides the result of the sub-themes and their supporting cases for the technological factors. The sub-themes for the technological factors are perceived cost, perceived trust, interactivity, and complexity; individual sub-themes are presented below.

- **Perceived Cost**

The cost of using social media is very important for SMEs, and the result of the interviews shows cost is a key motivation to use social media (SMEAO8, SMEAO9, SMEA10, SMEA11, and SMEA12). These SMEs indicated social media is less expensive than traditional channels such as radio, billboards, and TV in promoting and advertising products. For instance, SMEA02, SMEA04, and SME06 indicated that *“all that you need is your internet on your phone, and you can start adverting your products and services compared with the huge amount they charge for advertising on the radio.”*

Interviewee SMEA02, for example, stated that their organization *“spent GH 2000 cedis (approximately 100 dollars) for two weeks on just advertising, but now with social media, they spend GH 50 to buy internet, and that is all. No payment again, and we can advertise on Facebook, Twitter etc.”*

“Social media has brought huge relief to us when it comes to the cost of advertising our products and services”; this view was expressed by SMEA01, SMEA02, SMEA04, SME06, SMEA08, SMEA12:

“Looking at our size and the profit margins, it would have been difficult for us to use the traditional channels for advertising our products. But with social media, we can put our product online for people to see, and we are able to generate sales from there at a very low cost. Social media is not expensive at all to use” SMEA12.

“Another interviewee also was excited about the cost of using social media. The interviewee indicated that social media is the greatest thing that has happened to my business when it comes to the cost of using social media” SMEA01.

The perception regarding how social media is less expensive was expressed by SMEA09 and SMEA10.

“My business has greatly benefited from the use of social media, and it is not because it is less expensive to use and advertise your products and services,” SMEA09.

“Today I am on Facebook and Instagram, and people know about my business. I could not do this with Radio or Tv because it is expensive to do just one advert” SMEA10.

- **Perceived Trust**

The findings show that trust is important for SMEs who took part in the study. Trust plays a key role in influencing them to use social media in their business. For instance, the owners of SMEA01, SMEA02, SME06, SME07, and SMEA11 indicated they trust social media fully, and that is why they are using social media in their business.

For example, the owner of SMEA01 indicated that since he started using social media in their organization, they have never encountered any problem which is technical in nature: *“Although people have told me about hacking and stuff, for me I trust Facebook, Twitter and Instagram, which I use to be able to resolve issues of such nature.”*

“Social media platforms such as Instagram, Facebook and Twitter are used worldwide and have a good reputation, so I don't think they would do something to destroy their reputation. That is the more reason why I trust them” SME06.

Some SME owners also trusted these social platform companies' ability to address any challenge when it comes to using social media. For example, SMEA11 indicated that:

"I believe that anytime we have technical challenges which are beyond us and we inform Facebook or Twitter they will be able to address them for us. We do not own these social media platforms, but I trust they can resolve any technical issue for us."

- **Interactivity**

SME owners/managers reported on the interactive nature of social media platforms that allows them to communicate and share information with their customers, influencing their social media use in their organization. For instance, some (SMEA04, SMEA05, SMEA13, and SMEA14) indicated that social media platforms are different from websites, because social media is more interactive.

In this regard, SMEA09, SMEA13, and SMEA14, for example, indicated that social media offers several options, such as sharing video, photos and text: *"We can engage their customers because of the interactive nature of social media and serve as an effective way of interacting with customers."*

"If I were to be using, the traditional forms of channels would not allow me to send videos, photos and text to specific customers simultaneously. However, with Facebook and Instagram, I can share videos and photos with a particular customer at a time" SMEA13 and SMEA14.

Also, the owner of SMEA09 emphasised the importance of getting closer to customers to enable them to understand customers better and to offer them good products and services.

"It is important to use technologies which are interactive so that we can engage our customers and listen to them. Social media provide us with excellent interactivity which enables us to attract more customers and also develop good products and services" SMEA09.

- **Complexity**

Complexity was also found to be one of the factors influencing the use of social media platforms by SMEs who participated in the interview. SMEs (SMEA02, SMEA04, SMEA05, SMEA09, SMEA13, and SMEA14) noted that using social media platforms is very easy, irrespective of your educational background. It is simple. For example, SMEA04 stated that:

“At first, I was afraid to use social media platforms because I thought it was very complex. I tell you is very easy to use, and even my 6 years boy is able to use social media. It is very easy to do from start to finish, and you can do it yourself without someone assisting you.”

“The interesting thing is that it is not only easy but also very easy to use as part of your business” SMEA02.

“Information about social media platforms is easy to find and learn about them as well” SMEA04.

Other SME owners/managers also share similar views, for example, SMEA14 indicated that he had originally held the opinion that Instagram was difficult to use. *“However, this view eroded once I started finding out how it works and its benefits. After reading about Instagram and its benefits, I created the account without the help of anybody. I did it myself, and it was easy to do.”*

“What I have observed is that one does not need to be highly equipped with IT skills to be able to use social media platforms. I find it very easy and practical to use without any difficulties” SMEA05.

The simple nature of social media platforms was compared with a website by SMEA13. The owner of SMEA13 stated that, *“A website, when it comes to technicalities, is complicated because there are some design issues that need to be met. However, with social media platforms such as Facebook, for instance, it is easy, and you just open the platform and upload videos and photos.”*

4.3.2 Organisational Factor

This section presents the results of the organizational factors that affect the adoption of social media by SMEs, summarised in Table 4.7. These organisational factors are closely related to the adoption of social media by SMEs. The study identified two sub-themes, which are management and staff support, and entrepreneurial orientation, under this category, along with supporting cases. These findings are based on interviews conducted with 16 SME owners/managers in Accra.

Table 4.7: Sub-themes and their supporting cases for Organisational Factors

Organisational Factors				
Themes (Codes)	Supporting Cases	Total	Number	of
		Supporting Cases		
Management and Staff Support	SMEA01- SMEA16	16/16		
Entrepreneurial Orientation	SMEA01- SMEA16	16/16		
Totals		16/16		
SMEA01- SMEA16		(100%)		

4.3.2.1 Comprehensive analysis of sub-themes and their supporting cases for Organisational Factors

This section provides the results of the sub-themes and their supporting cases for the organisational factors. The sub-themes for the organisational factors are management and staff support and entrepreneurial orientation. The individual sub-themes are presented below.

- **Management and Staff Support**

The findings, as expected, show all the SME owners/managers who participated indicated their support played an essential role in the adoption of social media in their organization (SMEA01-SMEA16).

Interestingly, the views shared by these SMEs are almost the same. For example, the manager of SMEA12 said that:

“Personally, I love innovation and I see social media as a good innovation so I support the use of social media in this enterprise. We use Facebook, Instagram, and Twitter to promote our products.”

In addition, SMEA01, SMEA02, and SMEA04 indicated their commitment and support for the use of social media in their organization by stating:

“I fully support the use of media in this organization, and is making us more visible SMEA01 I am very passionate about technological innovations such as social media, and I know it would drive our business. That is why I fully support the usage of social media in this organization,” SMEA02.

“We use social media a lot in this organization, and we have someone dedicated to handling our social media platforms” SMEA04.

Other than the well-received commitment and support for the adoption of social media by SMEs, they further show financial commitment through the budget allocation of funds. This view was shared by SMEA09, who indicated that:

“As an owner, I allocate funds for new technologies. Even though we are a small organization with limited resources, I believe that technology would help drive our business, so we currently have a website. We are using social media platforms such as Facebook, Instagram, and Twitter to advertise and promote our products which, for me, is cheaper compared with the traditional forms of advertising and promotion.”

SMEA12 also highlighted the support and commitment to using social media by all staff in the organization by stating that:

“All the staff of this organization are on social media platforms; for example, we have created a WhatsApp group, and we use it to communicate, and all my staff are on social media platforms, and they often post and share a video of all our products.”

- **Entrepreneurial Orientation**

In this section, too, all the SMEs (SMEA01-SMEA16) agreed entrepreneurial orientation influences the adoption of social media in their organization. For example, SMEA01 indicated that:

“I always encourage new ideas and want my workers to bring their experience on board to help the organization, and social media is one of them.”

“Our goal is always to satisfy our customers who patronise our services, and I know social media is helping us to do that” SMEA03.

“My team and I are risk-takers, and we are very innovative, so social media is part of the innovation we have embraced” SMEA07.

“I am very much open to innovation and passionate about it because if you don’t embrace it you would be out of business” SMEA09.

“I have a positive attitude towards whatever I do, and as a business, social media is the way to go now, so we have to be positive about it” SMEA13.

4.3.3 Environmental factors

This section presents the results of the environmental factors that affect the adoption of social media by SMEs, summarised in Table 4.8. These environmental factors are closely related to the adoption of social media by SMEs. The study identified four sub-themes, namely industry competition, industry pressure, bandwagon and market pressure under this category, along with supporting cases, and a summary of the findings is presented in Table 4.8. These findings are based on interviews conducted with 16 SME owners/managers in Accra:

Table 4.8: Sub-themes and their supporting cases for the Environmental Factors

Environmental Factors				
Themes (Codes)	Supporting Cases		Total	Number of Supporting Cases
Industry Competition	SMEA01, SMEA09, SMEA13, SMEA16	SMEA05, SMEA10, SMEA14,	7/16	
Institutional Pressure	No supporting cases		0/16	
Bandwagon	SMEA02, SMEA09, SMEA13, SMEA16	SMEA05, SMEA10, SMEA14,	7/16	
Market Pressure	SMEA06, SMEA09, SMEA11, SMEA16	SMEA07, SMEA10,	6/16	
Totals			11/16	
SMEA01, SMEA03, SMEA06, SMEA09, SMEA13, SMEA16	SMEA02, SMEA05, SMEA07, SMEA10, SMEA14,			(68.8%)

4.3.3.1 Comprehensive analysis of sub-themes and their supporting cases for Environmental Factors

This section provides the results of the sub-themes and their supporting cases for the environmental factors. These sub-themes are industry competition, institutional pressure, bandwagon and market pressure. The individual sub-themes are presented below.

- **Market Pressure**

In this study, market pressure is a combination of customer and competitive pressure. Concerning market pressure, SMEA06, SMEA07, SMEA09, SMEA10, SMEA11, and SMEA16 indicated a positive impact of market pressure on their decision to use social media in their organization. For example, SMEA06 indicated the keen competition in the industry by saying:

“The food processing industry is a very difficult one. We have so many competitors, so you must use technological innovations such as social media to be different. So, we post our foodstuff on our social media platforms for people to see what we have, and they can place an order for us to deliver to their doorsteps. Besides, I also check what my competitors are doing by browsing their social media sites to see what they are also doing.”

A similar view was shared by SMEA10 regarding the impact of market pressure on the organization, in stating that:

“I am able to monitor both local and international competitors in my industry to follow what is new by visiting their social media handles so that we can also be informed and compete very well. If we do not follow what our competitors are doing, we will be left behind, and we may collapse, so that is why we also use social media.”

- **Industry Competition**

Industry competition is an important factor influencing the adoption of social media among the SMEs who participated in the interview. The findings show the industry competition varies from one industry to the other. For example, the owners of SMEA05, SMEA09, SMEA13, and SMEA14 sees the Textiles and Garments and Food processing industries as experiencing key competition, because of the numerous players in the industry. For instance, the owner of SMEA09 indicated that:

“My industry, which is clothing, has so many people even on this street. Just count the number of people who are into textiles and clothes. So, for me, I use social media to display my clothes

and promote them. So, I am able to receive orders outside Accra, and sometimes Ghanaians abroad even place orders for us to deliver to their families and friends in Ghana. Honestly, social media has helped me a lot by gaining some advantage, so I use Facebook, Twitter and Instagram.”

Another owner, SMEA13, shares a similar view regarding the industry in which she operates by indicating that:

“I sell "Waakye", a local rice food, and there are so many places selling this kind of local rice but what is helping me is social media. I have a Facebook page with a lot of people who, if not for Facebook, would not have heard about me. So social media is helping me stay in business.”

- **Institutional Pressure**

Contrary to the view that institutional pressure influenced the adoption of social media, all the SMEs (SMEA01-SMEA16) who participated in the study did not see institutional pressure influencing them to adopt social media. For instance, SMEA01 indicated that: *“I do not see any institution forcing us to use social media in our organization.”*

Another SME owner, SMEA03 indicated that:

“There is no institution putting pressure on us to use social media, but we know the importance of using social media that is why we are using it.”

- **Bandwagon**

Another important factor influencing the use of social media among SMEs is bandwagon. The findings reveal SMEs (SMEA02, SMEA06, SMEA10, SMEA12, SMEA14, SMEA16) indicating that bandwagon influences their decision to adopt social media. For instance, SMEA12 indicated that:

“It is important to also use social media because most of our competitors are using social media, and if you don't, then you will miss out.”

“Social media has become a new trend, and most businesses are using social media today. This makes it a very important tool for our business also to use social media SMEA16.

Other SME owners also indicated that:

“Nowadays, if you are not on social media, you can lose your customers easily because they can have access to similar products or services through social media” SMEA10.

“Social media is very common now, and a lot of people are using it. So as a business, we also have to use it to be in touch with our customers” SMEA14.

4.3.4 Entrepreneurial factors

This section presents the results of the entrepreneurial factors that affect the adoption of social media by SMEs, summarised in Table 4.9. These entrepreneurial factors are closely related to the adoption of social media by SMEs. The study identified two sub-themes, which are resources available to the entrepreneur, and personality trait, under this category, along with supporting cases, with a summary of the findings presented in Table 4.9. These findings are based on interviews conducted with 16 SME owners/managers in Accra.

Table 4.9: Sub-themes and their supporting cases for the Entrepreneurial factors

The Entrepreneurial factors		
Themes (Codes)	Supporting Cases	Total Number of Supporting Cases
Resources available to the entrepreneur	SMEA01, SMEA03, SMEA06, SMEA08, SMEA11, SMEA13, SMEA14, SMEA16	8/16
Personality Trait	SMEA04, SMEA05, SMEA07, SMEA09, SMEA10, SMEA12, SMEA15	7/16
Totals		14/20
SMEA01, SMEA03, SMEA04, SMEA05, SMEA06, SMEA07, SMEA08, SMEA09, SMEA10, SMEA11, SMEA12, SMEA13, SMEA14, SMEA16		(87.5%)

4.3.4.1 Comprehensive analysis of sub-themes and their supporting cases for Entrepreneurial factors

This section provides the result of the sub-themes and their supporting cases for the environmental factors. The two sub-themes for the entrepreneurial factors are resources

available to the entrepreneur and personality trait. The individual sub-themes are presented below.

- **Personality trait**

The study findings suggest a possible influence of personality trait on SMEs' decision to adopt social media. The findings revealed SME owners' (SMEA04, SMEA05, SMEA07, SMEA09, SMEA10, SMEA12, SMEA15) personality traits influence their social media adoption. For instance, SME owner SMEA15 indicated that:

“Personally, I love taking a risk, and I encourage my staff to be risk-takers and innovative all the time, so that is why I love to use social media.”

“In business, you must have a strong personality and be prepared to take the risk, especially in this part of our world you must have a strong personality” SMEA12.

Another SME owner also indicated that:

“In business, you must be reliable so that your customers can depend on you and for me, that is one of my key principles” SMEA09.

“In my enterprise, I welcome new ideas and experiences, and social media is an experience enabling my business to thrive” SMEA05.

- **Resources available to the entrepreneur**

The study results also suggest a possible influence of resources available to the entrepreneur as influencing SME adoption of social media by the participants who took part in the study. SME owners (SMEA01, SMEA03, SMEA06, SMEA08, SMEA11, SMEA13, SMEA14, and SMEA16) confirm that because of the available resources, they are able to use social media. For example, SME owner SMEA14 indicated that:

“Compared with the traditional channel of promoting and advertising my products, I think I have the resources to use social media, and honestly, social media is also less expensive.”

SME owner SMEA03 also indicated that: *“When it comes to the use of social media, we have the resources to use social media.”*

“I attach a lot of seriousness when it comes to the use of social media in the organization because it is less expensive and we have the resources to always tap into the benefits social media offers the business” SMEA06.

4.4 Social media and marketing performance

The interest of this section was to establish how social media adoption would influence financial and non-financial marketing performance of SMEs. The outcome of the responses from the 16 SMEs who participated in the semi-structured interviews are presented in Table 4.10. The study identified two sub-themes, which are financial and non-financial marketing performance under this category, along with supporting cases, and a summary of the findings presented in Table 4.10. These findings are based on interviews conducted with 16 SME owners/managers in Accra.

Table 4.10: Sub-themes and their supporting cases for social media and marketing

Social Media and Financial Performance		
Themes (Codes)	Supporting Cases	Total Number of Supporting Cases
Financial Performance	SMEA05, SMEA06, SMEA8, SMEA10, SMEA12, SMEA13, SMEA14, SMEA16,	8/16
Total		11/16
SMEA02, SMEA04, SMEA05, SMEA06, SMEA8, SMEA10, SMEA12, SMEA13, SMEA14, SMEA15, SMEA16,		(68.8%)
Social Media and Non-Financial Performance		
Themes (Codes)	Supporting Cases	Total Number of Supporting Cases
Financial Performance	SMEA01, SMEA02, SMEA04, SMEA05, SMEA06, SMEA8, SMEA10, SMEA12, SMEA13, SMEA14, SMEA15, SMEA16	12/16
Total		12/16
SMEA01, SMEA02, SMEA04, SMEA05, SMEA06, SMEA8, SMEA10, SMEA12,		(75%)

4.4.1 Comprehensive analysis of sub-themes and their supporting cases for social media and marketing performance

The interest of this section is to understand whether social media adoption of SMEs would impact their non-financial marketing performance (brand image, reputation, customer satisfaction and so on) and financial marketing performance (profit, sales growth, and more). The themes and sub-themes are presented below.

4.4.1.1 Non-Financial Marketing Performance

The adoption of social media by SMEs is viewed as impacting the non-financial marketing performance of SMEs that participated in the study. SME owners (SMEA02, SMEA04, SMEA08, SMEA12, SMEA14, and SMEA15) indicated that the use of social media has a positive impact on their non-financial marketing performance outcomes. For instance, SMEA14 indicated that:

“The use of social media has increased my image, and I feel I am able to satisfy my customers better. It has also made me retain my customers, and I see customer my customers to be loyal because I serve them better through social media.”

Other participants also shared similar views by indicating that:

“Social media has given me visibility, and I think our image has been enhanced through using social media. Our customers are also satisfied with our services because we are able to serve them at their convenience. For example, we display our products on social media, customers place an order, and we use delivery bikes to send to them within Accra” SMEA15.

“Our stakeholders, such as suppliers, are satisfied with us because we can promptly communicate and give them feedback on social media” SMEA04.

“The loyalty and satisfaction of our customers have been increased due to the use of social media” SMEA02.

4.4.1.2 Financial Marketing Performance

SMEs that participated in the semi-structured interview indicated social media use has also positively impacted their financial marketing performance. SME owners (SMEA05, SMEA06,

SMEA8, SMEA10, SMEA12, SMEA13, SMEA14, SMEA16) noted that social media usage in their organization had impacted their financial marketing performance positively. For instance, SMEA8 indicated that:

“The use of social media has increased my sales because more people are able to see our products and services and are able to place orders. Through social media I am able to derive some return on the investment I put into the use of social media.”

“Social media has helped a lot. It has increased our customer base, and we have some return on our investment” SMEA13.

Other participants also shared similar views by indicating that:

“We are making a profit because social media enables us to sell more” SMEA05.

“Our sales growth has translated into profit for us since we started using social media” SMEA16.

“People order through social media and this has increased our orders and sales in general” SMEA10.

4.5 Non-Financial and Financial Marketing Performance

The interest of this section was to determine how non-financial marketing performance of SMEs, as a result of social media adoption, influences their financial marketing performance. The outcome of the information obtained from 16 SMEs that participated in the semi-structured interviews are presented in Table 4.11. The study identified two subthemes, which are non-financial and financial marketing performance under this category, along with supporting cases, and a summary of the findings presented in Table 4.11. These findings are based on interviews conducted with 16 SME owners/managers in Accra.

Table 4.11: Sub-themes and their supporting cases for Non-Financial Marketing Performance and Financial Marketing Performance

Non-Financial Marketing Performance and Financial Marketing Performance				
Themes (Codes)	Supporting Cases		Total	Number of Supporting Cases
Total	SMEA02,	SMEA05,	8/16	
	SMEA06,	SMEA8,	(56.2%)	

SMEA02,	SMEA05,	SMEA10,	SMEA13,
SMEA06,	SMEA8,	SMEA14,	SMEA15,
SMEA10,	SMEA13,	SMEA16	
SMEA14,	SMEA15,		
SMEA16			

4.5.1 Comprehensive analysis of Sub-themes and their supporting cases for Non-Financial Marketing Performance and Financial Marketing Performance

The interest of this section is to understand how non-financial marketing performance (brand image, reputation, customer satisfaction, and more) would influence SMEs' financial marketing performance (profit, sales growth, and so on). The themes and sub-themes are presented below.

4.5.1.1 Non-Financial Marketing Performance and Financial Marketing Performance

SME owner/managers (SMEA02, SMEA05, SMEA06, SMEA8, SMEA10, SMEA13, SMEA14, SMEA15, and SMEA16) revealed that their reputation and image, customer satisfaction, trust, and loyalty had increased their sales and profitability. For example, SMEA8 noted that:

“We try to give the best of services to our customers by satisfying them so we are able to sell our products more.”

Other SMEs who spoke about this also indicated that:

“Our organization has built a good image over the years, and that is why we are making a profit. A lot of people know us for our quality products” SMEA06.

“We have very loyal customers, and they are the people giving us money” SMEA02.

4.6 Financial Marketing Performance and Sustainability Performance

The interest of this section was to establish how SMEs' financial marketing performance would influence their social and environmental sustainability performance. The outcome of the information from the 16 SMEs that participated in the semi-structured interviews are presented in Table 4.12. The study identified two sub-themes, namely environmental and social sustainability performance under this category, along with supporting cases, and a summary of the findings presented in Table 4.12. These findings are based on interviews conducted with 16 SME owners/managers in Accra.

Table 4.12: Sub-themes and their supporting cases for Financial Marketing Performance and Sustainability Performance

Financial Marketing Performance and Sustainability Performance				
Environmental Performance	SMEA01, SMEA07, SMEA14, SMEA16	SMEA02, SMEA10,	SMEA04, SMEA13,	8/16
Social Performance	SMEA03, SMEA11, SMEA12, SMEA15	SMEA06,	SMEA09,	6/16
Totals				14/16 (87.5%)
	SMEA01, SMEA02, SMEA03, SMEA04, SMEA06, SMEA07, SMEA09, SMEA10, SMEA11, SMEA12, SMEA13, SMEA14, SMEA15, SMEA16			

4.6.1 Comprehensive analysis of sub-themes and their supporting cases for Financial Marketing Performance and Sustainability Performance

The interest of this section is to understand how financial marketing performance (profit, sales growth, and more) would influence the sustainability performance of SMEs. The themes and sub-themes are presented below.

4.6.1.1 Environmental Sustainability

The findings show that SME owners (SMEA01, SMEA02, SMEA04, SMEA07, SMEA10, SMEA13, SMEA14, and SMEA16) were involved in environmental sustainability practices, because they have the financial means. For example, SME owner SMEA01 indicated that:

“My company is particular about our use of energy. Apart from the bills we pay, we are mindful of conserving energy, so all our electrical gadgets are put off before we leave our organization. As an agro-processing company, we are very particular about our environment.”

“My company is helping reduce unemployment by employing people in the community through employment, which is making lives better. As an agro-processing company, we pay attention to the environment. As a result of our business, we produce a lot of waste, and therefore we have made sure it is properly disposed of without harming the environment” SMEA02

Other SMEs who spoke about environmental sustainability also indicated that:

“We always put off all our gadgets when they are not in use” SMEA07.

“We encourage environmentally friendly products and services in our organization” SMEA13.

4.6.1.2 Social Sustainability

The findings show that SME owners (SMEA03, SMEA06, SMEA09, SMEA11, SMEA12, SMEA15) were involved in social sustainability practices. For example, SME owner SMEA03 indicated that:

“People in the community buy our products, and they like what we are doing for them. We have a good relationship with the people in this community because most of them come to buy from us.”

Other SMEs who spoke about social sustainability also indicated that:

“I support the community whenever there is an activity or a program” SMEA09.

“We have created employment for the community in which we operate because our staff comes from the community” SMEA06.

“We always take into consideration the impact of our actions on the community in which operate” SMEA11.

Having presented the findings from the various themes, the next important step is to validate the findings through the quantitative phase (Chapter 5) by developing hypotheses and conceptual frameworks.

4.7 Hypotheses development and conceptual framework based on the qualitative phase (Chapter 4)

Based on the extensive literature review presented in chapter two, which provided a broader overview of the theoretical background, SMM and sustainability of SMEs, this section developed a conceptual framework based on the literature review, along with hypotheses, to test the relationships within the constructs. Grounded in an empirical review, this chapter addresses the research objectives set in Chapter one. The section starts by empirically examining the relationship between the various constructs and then states the hypotheses. The final part of this section deals with the presentation of the conceptual framework for the study.

4.7.1 TOE, the Entrepreneurial factors, and Social Media Adoption among SMEs

Technological factors form part of the TOE theory and are an important factor contributing to understanding the TOE theory. A critical review of the literature shows that several researchers have listed various factors attributing it to the technological factor of the TOE theory (Maduku *et al.* 2016: 713; Tajudeen *et al.* 2018: 306; Abed 2020: 3; Qalati *et al.* 2021: 4; Chatterjee *et al.* 2021: 3). A further examination of the current literature shows factors such as perceived cost (Tajudeen *et al.* 2018: 306; Ahani, Rahim, and Nilashi 2017: 565), facilitating conditions/compatibility (Adam, Jizat, and Noor 2016: 21; Odoom *et al.* 2017: 386), performance expectancy/ perceived usefulness/ relative advantage (Turan and Kara 2018: 278; Abed, 2020: 3), and perceived trust (Ainin *et al.* 2015: 573; Nawi *et al.* 2017: 378; Vongsraluang and Bhatiasevi 2017: 87), as well as perceived enjoyment (Nawi *et al.* 2017: 378), interactivity (Ainin *et al.* 2015: 573; Odoom *et al.* 2017: 386), and system quality (Vongsraluang and Bhatiasevi 2017: 87), have been studied as some factors associated with the technological factor of the TOE theory. These factors are applied depending on the context in which the study has been carried out (Abed 2020: 3; Qalati *et al.* 2021: 4; Chatterjee *et al.* 2021: 3).

For the purpose of this study, four factors are examined as associated with the technological factor of the TOE theory, namely: perceived cost, trust, interactivity, and complexity, which is in line with previous studies (Qalati *et al.* 2021: 4; Chatterjee *et al.* 2021: 3).

Perceived cost is a crucial consideration when adopting any new technology. It is explained as how a new technology enhances performance and productivity, compared to the cost of the technology (Qalati *et al.* 2021: 4). As a factor associated with the technology factor in the context of SMEs, perceived cost has been empirically studied. For instance, Qalati *et al.* (2021: 1) empirically examined the relationship between social media adoption and performance among 423 SME owners/managers and executives in Pakistan using the TOE theory. The study used perceived cost as one of the technological factors of the TOE theory. The results indicate that the technological factors examined directly impact the adoption of social media among the SMEs sampled.

In another study, conducted by Ahani *et al.* (2017: 651) in Kuala Lumpur, Malaysia, among 140 SMEs, using the TOE theory, also revealed that perceived cost, among other factors, is the most important factor of the technological factors that influence the adoption of technology. In addition, although the relationship between perceived cost as a technological factor influencing

the adoption of social media has been amplified in the literature, a study by Tajudeen *et al.* (2018: 313) shares a contrary view of perceived cost influencing the adoption of social media. This means there is a different outcome of perceived cost influencing the adoption of social media among SMEs and organizations in general, which calls for more studies. The next technological factor in the context of this study is trust.

Trust has been explained as an influencing construct which triggers more confidence among users of social media and the internet, by quickly supplying them with good information (Vongsraluang and Bhatiasevi 2017: 87). According to Ainin *et al.* (2015: 573), social media provides an important opportunity for SMEs to build an excellent customer relationship with their customers and also enables SMEs to respond to queries, share their thoughts, and opinions through social media platforms. SMEs can share much information through social media, concerning their products and services, carry out promotions and advertising, and receive information from social media platforms (Ainin *et al.* 2015: 573).

Past empirical research in the context of SMEs has examined trust as a factor of the technological factor of TOE theory to examine social media adoption. For instance, Ainin *et al.* (2015: 573) conducted a study by using an integrated approach to examine several factors influencing social media and the performance of 259 SMEs in Malaysia. The outcome of their study reveals that trust has a significant positive relationship with social media adoption.

Similarly, trust was also found to influence the adoption of social media among students in entrepreneurship in a study conducted by Nawi *et al.* (2017: 379). In addition, Vongsraluang and Bhatiasevi (2017: 87) investigated trust in the adoption of social commerce among SMEs, and the result is not different from the outcomes of the other mentioned studies (Nawi *et al.* 2017: 379; Ainin *et al.* 2015: 573) referred to in this section. The next technological factor of interest is interactivity.

SMEs and their customers are more likely to adopt technological innovations such as social media, which is more interactive (Jiang *et al.* 2010:35; Tajudeen *et al.* 2018: 310). The important contribution of interactivity toward social media adoption motivates researchers and managers to understand how to explore interactivity to their advantage (Jiang *et al.* 2010: 35). Social media is seen as an interactive platform that allows for two-way communication among customers and the organization, through the dissemination of information instead of one-way communication (Tajudeen *et al.* 2018: 310). In addition, social media serves as an interactive

platform for SMEs to adopt social media and actual usage. It also permits them to comment and respond to customers, which helps build strong customer interactions (Qalati *et al.* 2021: 4; Odoom *et al.* 2017: 386).

Empirically, Qalati *et al.* (2021: 1) studied the adoption of social media and SME performance, from the perspective of Pakistan, by employing the TOE theory to examine 423 SME owners/managers and executives as respondents. Interactivity was used as part of the technological factor, and the result shows a significant positive relationship between the technological factors, social media adoption and performance. Odoom *et al.* (2017: 383) used 210 SMEs to understand social media usage and performance benefits, and the result shows that interactivity is important for adopting social media. Based on the empirical review, there is evidence suggesting interactivity influences social media adoption. Therefore, this study can argue that the interactivity of technological innovation, such as social media platforms, could lead to SME adoption of social media in Ghana. The last but not the least technological factor of interest in this study, is complexity or ease of use.

Complexity is also another technological factor that has been researched and explains the idea of how difficult or easily users of the technological innovation can understand and use the technology (Yadegaridehkordi *et al.* 2020: 3; Chatterjee *et al.* 2021: 1). The complexity factor examines the difficulty with the use of social media by SMEs in Ghana. The difficulties of using technology would be considered when trying to adopt a particular technology (Shin 2016: 840; Wang *et al.* 2016: 163). In the same way, SMEs would be concerned regarding how complex social media use is before deciding to adopt it in their firm.

Wang *et al.* (2016: 163) found that, most often, complexity negatively influences the adoption of technological innovation. For instance, these authors conducted a study in the Taiwanese hotel industry, sampling 140 hotels and using the TOE theory to investigate the adoption of a mobile reservation system. The outcome shows that complexity is significantly negative when adopting a hotel mobile reservation system. However, Yadegaridehkordi *et al.* (2020: 3) rejected the view that complexity significantly negatively influences technology adoption, when they conducted a similar study among SMEs in Malaysia. In light of the varying results, further investigation must be undertaken on this technological factor of the TOE theory to enrich the understanding of the TOE theory from different contexts. Based on the above empirical evidence the following hypotheses are formulated.

H1:1: There is a significant positive relationship between perceived cost and SMEs social media adoption

H1:2: There is a significant positive relationship between perceived trust and SMEs social media adoption

H1:3: There is a significant positive relationship between interactivity and SMEs social media adoption

H1:4: There is significant positive relationship between complexity and SMEs social media adoption

4.7.2 Organisational factors and social media adoption of SMEs

The organisational factor is one of the important factors of the TOE theory and has also been given attention in the current literature (Abed 2020: 3; Qalati *et al.* 2021: 4; Lutfi *et al.* 2022: 1). In this part of the empirical review, management and staff support and entrepreneurial orientations are considered as factors associated with the organisational factor of the TOE theory.

Top management support is crucial in the adoption of new technologies in an organization because they make all the decisions and the strategic direction of the organization (Al Shobaki, Amuna, and Naser 2016: 21). Admittedly, top management is the driver of technology innovation of the firm, however, the study argues that top management support without the support of the staff is not enough to implement a successful technological innovation in the study context. Hence, the study included staff support as well, when it comes to technology adoption among SMEs.

In the context of SMEs, past studies (have examined the relationship between top management support and the adoption of social media with positive outcomes (Abed 2020: 1; Lorente-Martínez, Navío-Marco and Rodrigo-Moya 2020: 1; Qalati *et al.* 2021: 1; Lutfi *et al.* 2022: 1). For instance, a recent empirical study by Lutfi *et al.* (2022: 1) that examined the influence of TOE theory on big data adoption among SMEs in Jordan, shows that top management support has a significant positive influence on the adoption of technology. In Palestine, Mujahed *et al.* (2022) used 400 SMEs to understand their intention to adopt the technology. The result shows that top management support predicts the intention to adopt the technology. Furthermore, Qalati

et al. (2021: 1) used 432 SME respondents in Pakistan to understand social media adoption and SME performance through the lens of TOE theory. The results show that organisational construct in which top management was used as associated with the organisational factor, predicts the adoption of social media and SME performance among the SMEs sampled. In light of the above critical review, it would not be out of place to posit that top management and staff support would positively impact the adoption and successful implementation of social media among SMEs in Accra. The next organisational factor of interest in this study is entrepreneurial orientation.

Entrepreneurial orientation has also received the necessary attention from scholars (Kiyabo and Isaga 2020: 1; Troise *et al.* 2022: 47; Qalati *et al.* 2022: 4) and studies in this area are still increasing, attributed to the adoption of technological innovations that enhance the ability of firms to be competitive and outweigh their competitors (Susanto *et al.* 2023: 6; Zahra 2021: 4). Fang *et al.* (2022: 2) defined entrepreneurial orientation as "a distinct organization's capability and intangible resources valuable in recognising, assessing, and implementing new opportunities in a way that should not be easily imitated."

Zahra (2021: 4) observed that SMEs possessing entrepreneurial orientation can improve upon their strength and can perform well. From the insight drawn from the resource-based view, scholars have suggested that entrepreneurial orientation is important for SMEs, particularly in this digital space and unpredictable business landscape, as social media provides them with the opportunity to have two-way communication and interaction with their customers and other stakeholders (Sahaym, Datta, and Brooks 2021: 489).

Several past studies predict the relationship between entrepreneurial orientation and social media adoption in the context of SMEs from different countries' points of view. For example, Nguyen *et al.* (2022: 243), conducted a recent study in Vietnam among SMEs, by using 180 senior managers. The outcome shows that entrepreneurial orientation predicts social media among these SME managers. Qalati *et al.* (2022: 1) also examined the TOE theory and social media adoption and its impact on SME performance in Pakistan, by using 381 SMEs. The result of their study also revealed that entrepreneurial orientation influences the adoption of social media. Other than these findings, Loong Lee and Chong (2019: 30), Troise *et al.* (2022: 47), and Susanto *et al.* (2023: 6) have all found entrepreneurial orientation to predict social media adoption among SMEs. Base on these empirical review the study formulate the following hypotheses:

H1:5: There is a significant positive relationship between management and staff support and SMEs social media adoption

H1:6: There is a significant positive relationship between entrepreneurial orientation and SMEs social media adoption

4.7.3 Environmental factors and Social Media adoption of SMEs

The environmental factor of the TOE theory is the last factor, which has also been extensively studied (Ahmad *et al.* 2018: 84; Tajudeen *et al.* 2018: 308; Abed 2020: 4; Qalati *et al.* 2022: 1). The environmental factor deals with both internal and external pressures that shape the organization. Several factors have been linked to the environmental factor of the TOE theory. However, in the context of this study, Institutional pressure, Market pressure (Consumer pressure and Competitive pressure), Industry competition and Bandwagon are used as factors linked to the environmental factor of the TOE theory. The study empirically examined how these environmental factors influence the adoption of social media in the context of SMEs.

Competitive pressure has been explained as the magnitude of pressure from competitors within the industry or the organization's market (Qalati *et al.* 2022: 4). From the perspective of SMEs, it is observed that the higher the number of SMEs competing, the more likely they adopt the technology. Past studies have examined institutional pressure on the adoption of social media among SMEs. For example, Tajudeen *et al.* (2018: 313) sampled 174 organizations in Malaysia to understand the impact of social media use among these organizations. The findings of their results show that institutional pressure influences social media use. Furthermore, Qalati *et al.* (2021: 1) investigated the TOE theory on the adoption of social media and SME performance from the perspective of Pakistan. The result resembles the outcome of Tajudeen *et al.* (2018), which further supports the explanation of consumer pressure as the demands originating from customers towards the products and services through some requests, such as information sharing and interacting with the brand.

In addition, Qalati *et al.* (2022: 4) believe SMEs would adopt a particular technology due to pressure from their customers requesting them to adopt such technology. Abed (2020: 4) indicated that when SMEs meets their expectation and needs, it triggers a positive attitude toward innovation adoption. Previous studies, such Qalati *et al.* (2022:4), found consumer pressure influencing the adoption of social media among SMEs in Pakistan. Competitive pressure has been explained as the pressure from competitors which puts pressure on the

organization within the same market (Qalati *et al.* 2022: 4). Competitive pressure is a key influencing factor when it comes to innovative technological adoption in the context of SMEs (Hamad *et al.* 2018). Ahmad *et al.* (2019) suggested the more competitors in the industry, the higher the adoption of current technologies by SMEs.

Previous studies such as Qalati *et al.* (2021: 1), Ahmad *et al.* (2018: 84), and Tripopsakul (2018: 350) have tested the relationship between competitive pressure and social media adoption and found competitive pressure influencing the adoption of social media among SMEs. These findings indicate that the current study can also claim competitive pressure influences the adoption of social media among SMEs in the study context.

Industry competition is the competition that confronts the organization from the industry in which it operates (Ali Abbasi *et al.* 2022: 7). According to Ali Abbasi *et al.* (2022: 7), the industry in which SMEs operate could greatly influence their adoption of technology. As a result of competition, it compels SMEs to adopt technologies such as social media to remain in the competition in the industry position. The relationship between industry competition and social media adoption has been studied by Ahmad *et al.* (2018: 88) and Ali Abbasi *et al.* (2022: 7). Ahmad *et al.* (2018: 84) studied social media adoption and their performance by employing the TOE theory with a sample of 144 SMEs in the UAE. The result supports the relationship between industry competition and social media adoption. The study shares a similar view by indicating the possibility that industry competition has an impact on the adoption of social media by SMEs in Accra. The next factor to consider under the environmental factor is bandwagon.

The last but definitely not the least environmental factor considered in this study, is bandwagon. The bandwagon effect is a psychological issue where organizations mimic other organizations that have adopted technological innovation, irrespective of their strategic directions (Ahmad *et al.* 2018: 88; Qalati *et al.* 2021: 6). In the context of SMEs and social media adoption, AlSharji *et al.* (2018: 302) conducted a study in the UAE by using 1700 SMEs to test the relationship between the bandwagon effect and social media adoption among these selected SMEs. The findings reveal bandwagon predicts the adoption of social media among SMEs in the UAE. Base on these empirical review the study formulate the following hypotheses:

H1:7: There is a significant positive relationship between market pressure and SMEs social media adoption

H1:8: There is a significant positive relationship between industry competition and SMEs social media adoption

H1:9: There is a significant positive relationship between bandwagon and SMEs social media adoption

4.7.4 The Entrepreneurial factors and Social Media Adoption

A unique feature of the TOE theory is that it is more accommodative in terms of adding other constructs to examine technology adoption (Baker 2012: 236; Ofosu-Ampong, Acheampong, 2022: 6). In line with this, the study extended the model by introducing entrepreneurial factors such as resource availability, personality trait, and demographics of SME owners/managers in adopting social media in their organizations. In the context of SMEs, where particularly financial resources are lacking, the availability of resources would play a key role in adopting technology. Obschonka *et al.* (2017: 14) also support this claim, indicating that resource availability is an important factor in adopting technology among SMEs.

Personality trait is also an important entrepreneurial factor in the adoption of technology, in the sense that it impacts the decision SMEs owners/managers take (Vandor 2021: 3). Personality trait has been examined to determine its influence on SMEs technological innovativeness (Obschonka *et al.* 2017: 14). There is vast evidence in the extant literature suggesting demographic factors such as experience, age, gender and education influence the adoption of technology by owners/managers of SMEs (Eze *et al* 2021: 5; Tan *et al.* 2010: 33). The study, therefore, argues that entrepreneurial factors could influence the adoption of social media in the Ghanaian context. Base on these empirical review the study formulate the following hypotheses:

H1:10: There is a significant positive relationship between personality trait and SMEs social media adoption

H1:11: There is a significant positive relationship between resources available to the entrepreneur and SMEs social media adoption

4.7.5 SME Social Media Adoption and Non-Financial Marketing Performance Outcome

SMEs using social media have been observed to derive several benefits, such as building strong customer relationships, engaging with customers, creating a brand image, as well as advertising

and promoting products and services, and more (Ahmad *et al.* 2018: 84; Eid *et al.* 2019: 284; Rienda *et al.* 2020: 117; Akbar 2021: 42; Fang *et al.* 2022: 1; Khamaludin *et al.* 2022: 9).

Qalati *et al.* (2022: 1) further indicated that SMEs gain more insight into social media and can generate much information regarding their products and services, which in brief, influences their performance. The term SME performance is widely used to represent both financial and non-financial marketing performance, with a few exceptions (Akbar 2021: 42). The interest of this section is to examine social media adoption on the non-financial marketing performance outcomes.

The relationship between SME social media adoption and non-financial marketing performance outcomes is shown by Akbar (2021: 42) to have a positive and significant relationship between these constructs, through a study regarding the use of Instagram on both financial and non-financial marketing outcomes, with a sample of 352 Malaysian SMEs. Khamaludin *et al.* (2022: 9) studied SMM and marketing performance in the Indonesian SME sector by sampling 300 SMEs. The result also shows a significant positive relationship between social media adoption and non-financial marketing performance. This is confirmed by Alalawneh, Alkhatib, and Abu Abbass (2022: 1), who studied 217 Jordanian SMEs and the fashion industry by examining social media use and innovative performance. The outcome shows social media use influences non-financial marketing performance. In addition, Oyewobi *et al.* (2021b: 413) investigated SME adoption and performance by using 79 SMEs as sample. The result resembles similar studies in a different context. In the Ghanaian context, Odoom *et al.* (2017: 383) examined social media use and performance benefits among SMEs by sampling 210 small enterprises. Their study finds support for social media adoption and non-financial marketing performance. Base on these empirical review the study formulate the following hypothesis:

H2:1: There is a significant positive relationship between social media adoption and non-financial marketing performance

4.7.6 SME Social Media Adoption and Financial Marketing Performance

Previous studies have investigated the relationship between social media adoption and financial marketing performance. For example, the seminal work of Ainin *et al.* (2015: 570), which examined the use of social media and SME performance outcomes by using a sample of 259 in Malaysia, reveals that social media adoption among these selected SMEs influences the financial performance of SMEs. In a study by Charoensukmongkol and Sasatanun (2017) in

Thailand among 217 owners of small shops, the result also shows that social media adoption has a significant positive relationship with the financial marketing performance of SMEs. Similarly, Cao *et al.* (2018: 211) also carried out a study in China, with similar findings on social media influencing financial performance. Base on these empirical review the study formulate the following hypothesis:

H2:2: There is a significant positive relationship between social media adoption and financial marketing performance

4.7.7 Non-Financial Marketing Performance outcome and Financial Marketing Performance of SMEs

An empirical study on non-financial marketing performance outcomes and economic sustainability of SMEs is well documented (Bahta *et al.* 2021: 1428; Tiep Le, Ngo and Aureliano-Silva 2021: 1). In this study, financial performance is used as a proxy for economic sustainability. It is also important to note that Tiep Le *et al.* (2021: 1) also use SME performance as an umbrella term to indicate both financial and non-financial performance. However, the study is interested in economic sustainability performance, which is financial performance.

Empirically, Masocha (2019: 3) studied 238 SMEs in the province of Limpopo in South Africa, by investigating the benefit of engaging in social sustainability and financial performance. The finding shows that social sustainability, customer satisfaction, and employee satisfaction have a significant positive relationship with financial performance. Furthermore, Tiep Le *et al* (2021:1) studied SMEs in Vietnam from 2020 to 2021 by using a sample of 482 to investigate CSR and SME performance (finance) through the lens of corporate image, corporate reputation and customer loyalty. The study outcome shows a significant relationship between all the constructs and the mediators.

Bahta *et al.* (2021: 1428) conducted a similar study in Eritrea, with a sample of 402 owners/managers of SMEs, to understand the relationship between CSR and SME performance, in addition to the role played by SME reputation in the context of a developing country. The findings show that CSR significantly impacts financial performance and is influenced by SME reputation. Based on understanding how these non-marketing performance outcomes influence SME financial performance, this study argues that the SME non-financial marketing performance outcome is likely to have the same influence on the economic (financial)

sustainability of SMEs. Base on these empirical review the study formulate the following hypothesis:

H3:1: There is a significant positive relationship between non-financial marketing performance and financial marketing performance

4.7.8 Financial Marketing Performance and Social Sustainability of SMEs

The implementation of other sustainability dimensions, such as social and environmental sustainability, is dependent on the economic (financial) performance of SMEs (Boso *et al.* 2017: 2). SMEs would not be able to undertake environmental and social sustainability if they are not economically sustainable (Boso *et al.* 2017: 2). The influence of social sustainability, namely CSR activities influencing economic sustainability have been suggested (Choongo 2017: 1) and vice versa (Boso *et al.* 2017: 2). Furthermore, an empirical study by Juarez (2017: 74) was conducted among SMEs in the state of Sonora (Mexico) using 81 respondents from two main industries (Industrial and Service) to examine the relationship between these two constructs. The findings indicate that social sustainability (CSR) activities have a significant impact on economic (financial) sustainability.

Similarly, Choongo (2017: 1), using a longitudinal approach, investigated 153 SMEs in Zambia by examining the impact of CSR on their performance. The findings revealed that CSR significantly influences the financial performance of SMEs sampled in Zambia. In addition, Chege and Wang (2020: 1) studied 204 SMEs in Kenya and concluded that SMEs engaged in social sustainability are likely to perform financially. Based on the empirical review, the present study also argues that when SMEs are economically sustainable, particularly in the context of this study, they would be in a better position to undertake sustainable social activities. Base on these empirical review the study formulate the following hypothesis:

H4:1: There is a significant positive relationship between financial marketing performance and social sustainability

4.7.9 Financial Marketing Performance and Environmental Sustainability SMEs

Economic sustainability and environmental sustainability are essential constructs in the SME literature and sustainability literature in general, with studies conducted separately on economic sustainability (Cardoni *et al.* 2020: 1; Arsić *et al.* 2020: 1; Hernita *et al.* 2021: 1) and environmental sustainability (Yacob *et al.* 2018: 2; Bakos *et al.* 2020: 1; Ali *et al.* 2020: 2294).

There is also some empirical evidence suggesting a significant relationship between these two constructs. For example, Chege and Wang (2020: 1) investigated the influence of technological innovation on SMEs performance from the perspective of environmental practices in Kenya by using 204 respondents. Through their findings, Chege and Wang (2020: 1) indicated that technological innovation has a significantly positive impact on the environment, which translates into a positive impact on their performance financially. In addition, in the South African context, Masocha and Fatoki (2018: 1), using 222 SME owners/managers, show a significant relationship between economic, social and environmental sustainability.

In Ghana, Danso *et al.* (2020: 652) studied 233 SMEs' stakeholder integration, environmental sustainability orientation and financial performance. The findings of their study indicated that the indirect impact of environmental sustainability on financial performance is amplified. In addition, Danso *et al.* (2019: 1) also investigated environmental sustainability orientation, competitive strategy and financial performance by using 269 organizations, discovering that environmental sustainability influences financial performance. Having identified several links between environmental sustainability and financial performance, the study argues that economic (financial) sustainability could influence environmental sustainability among SMEs in the study context. Base on these empirical review the study formulate the following hypothesis;

H5:1: There is a significant positive relationship between financial marketing performance and environmental sustainability

4.7.10 TOE, the Entrepreneurial factors, Social Media Adoption, Marketing Performance outcomes and Sustainability of SMEs

The TOE theory has been widely applied in the SME context to specifically examine social media adoption among SMEs. There is evidence in the current literature that past studies have empirically examined the relationship between the TOE theory and social media adoption (Sugandini *et al.* 2019: 878; Effendi, Sugandini, and Istanto 2020: 915; Abed 2020: 1; Trawnih *et al.* 2021: 1; Samsudeen, Thelijjagoda, and Sanjeetha 2021: 759; Hussain and Merigo 2022: 1; Qalati *et al.* 2022: 1; Dadhich and Hiran 2022: 1; Wessels and Jokonya 2022: 332).

For example, Trawnih *et al.* (2021: 1) used TOE theory to examine social media adoption during the COVID-19 period by sampling 250 SME respondents in Jordan. The outcome shows a significant impact of the TOE theory on the social media adoption of SMEs. A study

conducted by Qalati *et al.* (2022: 1) investigated TOE and social media adoption and their performance by using 381 SMEs, which revealed that TOE factors influence the adoption of social media. In addition, Wessels and Jokonya (2022: 332) find support for TOE factors and big data adoption among SMEs. The considerable evidence in the literature indicates that the TOE theory has a significant positive relationship with social media. Therefore, in this study, it is more likely that similar results could be obtained in the study setting.

This study is also interested in the relationship between social media adoption and SME marketing performance, with a critical review of the extant literature showing multiple previous studies examining this relationship (Amoah and Jibril 2021: 1; Oyewobi *et al.* 2021a: 257; Qalati, *et al.* 2022: 1; Ali Abbasi *et al.* 2022: 1; Nguyen *et al.* 2022: 244; Obermayer *et al.* 2022: 361). Nguyen *et al.* (2022: 244), for example, investigated social media adoption and marketing performance using 180 senior managers of SMEs in Vietnam, where the results indicate that social media influences SME marketing performance. A study by Amoah and Jibril (2021: 1) examined the relationship between SME social media adoption and their performance, from three different regions of Ghana (Greater Accra, Central and Western Region) by using 648 respondents. The findings from their study show that social media adoption influences the marketing performance of SMEs sampled in these three regions of Ghana. Tiwasing (2021: 1892) empirically examined 13 000 SMEs drawn from the 2015-UK Government Small Business Survey, to examine the relationship between social media adoption and marketing performance. The result confirms a relationship between social media and marketing performance. From the literature review, it is obvious that social media adoption by SMEs has an impact on their marketing performance; hence, this study could also argue that social media adoption by SMEs in Accra could influence their marketing performance.

The next interest of this study is the relationship between SME marketing performance and sustainability. Empirically, the relationship between SME marketing performance and sustainability has been examined (Chatterjee *et al.* 2021; Patma *et al.* 2021: 1; Borah *et al.* 2022: 1; Tudor *et al.* 2021: 1; Alraja *et al.* 2022: 1). A study by Patma *et al.* (2021:1) in Indonesia looking at SMM performance and SMEs' sustainability reveals that SMM performance influences SMEs' sustainability. Borah *et al.* (2022:1) also explored the linkage between social media usage, marketing performance and sustainability of 549 SMEs, and the result shows a favourable relationship between marketing performance and sustainability. In addition, Chatterjee *et al.* (2021: 1) sampled 304 SMEs in India to examine the SMM and

sustainability of these SMEs. The outcomes revealed that SMM performance of these SMEs plays an important role in the sustainability of SMEs. Based on the above empirical review of TOE theory entrepreneurial factor, social media adoption, SMEs marketing performance and sustainability, the study put forth the following hypothesis

H6:1: There is a significant positive relationship between TOE, Entrepreneurial factor, marketing performance and Sustainability performance

Table 4.13: List of Hypotheses developed based on the qualitative phase (Chapter 4)

No.	Constructs/Factors	Hypotheses
1	Technological (H1)	<i>H1:1: There is a significant positive relationship between perceived cost and SMEs social media adoption</i>
		<i>H1:2: There is a significant positive relationship between perceived trust and SMEs social media adoption</i>
		<i>H1:3: There is a significant positive relationship between interactivity and SMEs social media adoption</i>
		<i>H1:4: There is significant positive relationship between complexity and SMEs social media adoption</i>
2	Organisational (H1)	<i>H1:5: There is a significant positive relationship between management and staff support and SMEs social media adoption</i>
		<i>H1:6: There is a significant positive relationship between entrepreneurial orientation and SMEs social media adoption</i>
3	Environmental (H1)	<i>H1:7: There is a significant positive relationship between market pressure and SMEs social media adoption</i>
		<i>H1:8: There is a significant positive relationship between industry competition and SMEs social media adoption</i>
		<i>H1:9: There is a significant positive relationship between bandwagon and SMEs social media adoption</i>
3	Entrepreneurial (H1)	<i>H1:10 There is a significant positive relationship between personality trait and SMEs social media adoption</i>
		<i>H1:11: There is a significant positive relationship between resources available to the entrepreneur and SMEs social media adoption</i>

5	Social Media adoption and Marketing Performance (H2)	<i>H2:1: There is a significant positive relationship between social media adoption and non-financial marketing performance</i>
		<i>H2:2: There is a significant positive relationship between social media adoption and financial marketing performance</i>
6	Non-Financial Marketing Performance and Financial Marketing Performance (H3)	<i>H3:1: There is a significant positive relationship between non-financial marketing performance and financial marketing performance</i>
	Financial Marketing Performance and Social Sustainability Performance (H5)	<i>H4:1: There is a significant positive relationship between financial marketing performance and social sustainability</i>
7	Financial Marketing Performance and Environmental Sustainability Performance (H4)	<i>H5:1: There is a significant positive relationship between financial marketing performance and environmental sustainability</i>

9	TOE, Entrepreneurial factor, Social Media Adoption, Marketing performance and Sustainability (6)	<i>H6:1: There is a significant positive relationship between TOE, Entrepreneurial factor, Marketing performance and Sustainability performance</i>
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Source: Developed by the Author based on the qualitative phase (Chapter 4), 2022

4.8 Conceptual Framework

Based on an extensive, systematic, and empirical review of the literature, the study developed a conceptual framework (Figure 4), which draws insight from the TOE theory. The flexibility and accommodative nature of this theory (Baker 2012: 236), allowed this study to introduce an additional factor, namely the Entrepreneurial factor, in addition to the traditional factors of the TOE, to examine social media adoption among SMEs in Accra. Based on Figure 4.1, the study suggests the extended TOE theory factors could influence the adoption of social media among SMEs. Once these small enterprises embrace social media, this could translate into their marketing performance (financial and non-financial).

The study further argues that more than SME performance is, however, needed. Nonetheless, remaining sustainable is key, particularly in the study context, where businesses are set up and collapse in no time. Hence, the study also has an interest in establishing how SME marketing performance would translate into their sustainability. It is believed that once SMEs perform financially they should, as a result, be able to engage in social and environmental issues. Finally, some control variables are needed, such as access to finance, because in a developing country such as Ghana, SME access to finance is a challenge (Odoom *et al.* 2017: 386).

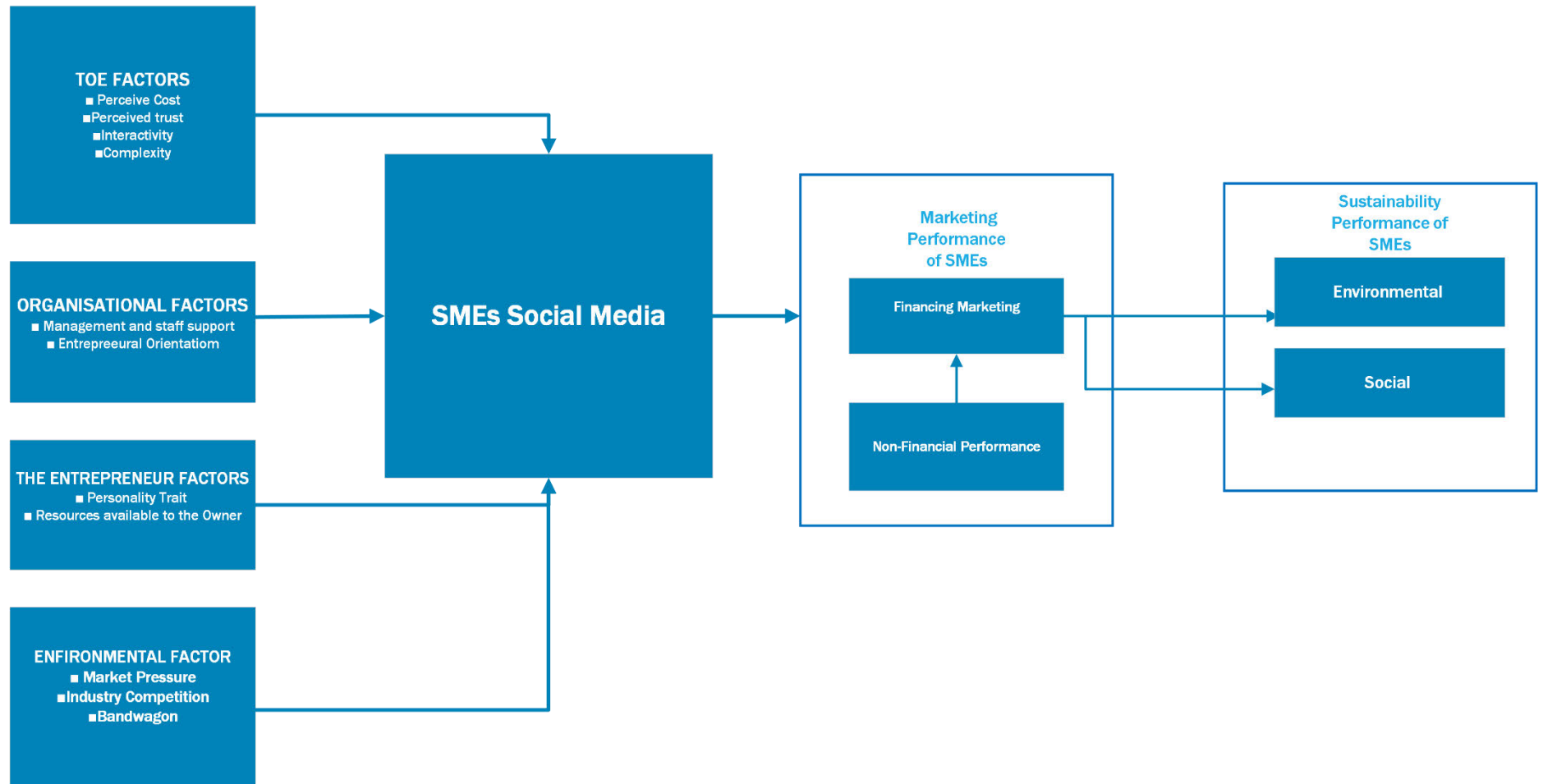


Figure 4.1: Conceptual Framework Based on Qualitative Results

■

4.9 Summary of the Chapter

This chapter details the results of the qualitative phase of the current study. The study reported on all the activities performed, such as the data collection approach and data analysis. The choice of using a semi-structured interview to collect data from the participants and the approach used in conducting the interview were also provided in this chapter. Further, the activities employed during the data collection, such as sampling, ethical approval, piloting and the interviewing process, have been highlighted, along with the use of thematic analysis for the study and the analysis outcomes, have also been presented in this chapter. Hence, the TOE and entrepreneurial factor framework has been developed based on the findings for predicting SME social media adoption, marketing performance and sustainability. More importantly, the strength of this chapter is that the findings are used as input to develop the initial conceptual model, to be tested in the next phase of this study, which is the quantitative phase (chapter 5). The validation of the initial conceptual model is discussed in detail in the next phase, the quantitative phase.

CHAPTER FIVE:

SECOND PHASE– THE QUANTITATIVE RESULTS

5.1 Introduction

Having reported the outcomes of the first phase, which is the qualitative phase, this chapter builds on the qualitative results by validating the results through a quantitative approach. presenting the results of the second study phase, which is quantitative. Before presenting the respondents' results, the description analysis of the respondents used for the study are detailed, after which the findings are reported, based on the conceptual framework developed.

5.2 The Quantitative Results

The study presents the quantitative results starting with the descriptive statistics and then presenting the results of the constructs in the developed conceptual framework (Figure 4.1, page 143). The results are presented below.

5.3 Response Rate

The researcher distributed 234 questionnaires among SMEs in Abeka Lapaz in Accra. During the data entry and cleaning the raw data, six of the questionnaires were found to not be usable because of errors such as respondents selecting more than one answer and not answering some of the questions. The researcher was interested in achieving a 100 percent response rate; hence, the researcher returned to collect the additional six questionnaires from SMEs in Accra, allowing the study to achieve a total of 234 usable questionnaires. Therefore, a 100 percent response rate was achieved for the study.

5.4 Respondents Demographic Information

This section provides information with regard to SME owners'/managers' gender, age groups and educational qualifications. The study presents cross tabulation results of gender and age (Table 5.1 below), as well as gender and educational background (Table 5.2 below) of respondents.

5.4.1 Gender and Age

The data presented in Table 5.1 below show the distribution of gender and age among the 234 SME owners/managers who participated in the study. The table provides the number of participants in each gender and age category, as well as the percentage each category represents of the total participants. Of the 234 respondents, 128 are male and 106 are female. The age groups are 18-20 years, 21-29 years, 30-39 years, 40-49 years, and 50 and above years. The largest age group is 30-39 years, which represents 46.6 percent of the total group, followed by 21-29 years (30 percent) and 40-49 years (13.2 percent) as shown in below Table 5.1 below.

Table 5.1: Gender and Age

		18-20 years	21-29 Years	30-39 years	40-49 years	50 and above years	
Male	Frequency	8	25	66	20	9	128
	Percentage	3.4%	10.6%	28.2%	8.5%	3.8%	54.7%
Female	Frequency	1	45	43	11	6	106
	Percentage	0.4%	19.2%	18.3%	4.7%	2.5%	100.0%
Total	Frequency	9	70	109	31	15	234
	Percentage	3.8%	30%	46.6%	13.2%	6.4%	100.0%

In terms of gender, the majority of the SME owners/managers who participated is male, representing 54.7 percent of the total and is presented in Table 5.1 above. The highest male age group was between 30-39 years old and the majority females was between 21-29 age category. The results show the participants predominantly middle-aged, with more males than female. However, there is also a sizable portion of young adults in the group, particularly females in the 21-29 age group.

5.4.2 Gender and Educational Background

Table 5.2 below shows the distribution of educational backgrounds by gender among the sampled SMEs. The table provides information regarding the number of respondents in each gender and educational background category, as well as the percentage each category represents of the total sampled SME owners/managers.

Table 5.2: Gender and Educational Background

		Degree	Diploma	HND	Masters	WASSCE	BECE	Total
Male	Frequency	13	25	56	21	12	1	128
	Percentage	5.5%	10.6%	23.9%	8.9%	5.1%	0.4%	100.0%
Female	Frequency	42	19	35	7	3		106
	Percentage	17.5%	8.1%	14.2%	2.9%	1.2%	-	100.0%
Total	Frequency	55	44	91	28	15	1	234
	Percentage	23.5%	18.8%	38.8%	12%	6.4%	0.4%	100.0%

The educational background groups were Degree, Diploma, Higher National Diploma (HND), Master's, West African Senior School Certificate Examination (WASSCE), and Basic Education Certificate Examination (BECE). The result shows, in terms of gender, the majority participants who held a Degree and HND is male (29.4 percent), while the majority participants with a Diploma and Master's degree is female (11 percent). Overall, the highest educational background category is HND, which represents 38.8 percent of the total group, followed by Degree (23.5 percent) and Diploma (18.8 percent) as presented in Table 5.2 above . The majority respondents had a Diploma or higher educational background, with only a small percentage (6.8%) having BECE or WASSCE. The results suggest the respondents are relatively well-educated, with a majority having obtained a Diploma or higher.

5.5 Enterprise Related Information

This section seeks to determine information related to the SME business itself. The study asked for information related to the position, industries in which SMEs operate, their number of employees, annual sales, and market area. The cross-tabulation results of the enterprise related information are presented below.

5.5.1 Gender and Position

Table 5.3 below illustrates the distribution of positions by gender among the SME owners/managers who participated. The table provides the number of respondents in each gender and position category, as well as the percentage each category represents of the total group. The position categories are Owner, Chief Executive Officer (CEO) or Managing Director (MD), Manager, and Accountant.

Table 5.3: Gender and Position

		Female	Male	Total
Owner, CEO or MD	Frequency	43	57	100
	Percentage	18.3%	24.3%	42.7%
Manager	Frequency	55	58	113
	Percentage	23.5%	24.7%	48.2%
Accountant	Frequency	8	13	21
	Percentage	3.4%	5.5%	8.9%
Total	Frequency	106	128	234
	Percentage	45.2%	54.7%	100%

In terms of gender, the results show the majority were male, representing 54.7 percent of the total as shown in the above Table 5.3 above. With regards to respondents' positions, both males and females were Managers, followed by Owner, Chief Executive Officer (CEO) or Managing Director (MD), and then Accountant. The highest percentage of Owner, CEO or MD positions is held by males, while the highest percentage of Manager positions is held by females. There is a relatively small number of Accountants among the SMEs, with this category almost evenly split between male and female. Overall, the results suggest males hold a higher percentage of Owner, CEO or MD positions, while females hold a higher percentage of Manager positions. However, it is important to note both genders are represented in all position categories, and the majority SME owners/managers hold Manager positions.

5.5.2 Age and Position

The study asked respondents age and position to provide context and insights into the characteristics and expertise of SMEs. Respondents indicated their age groups and their positions as presented in Table 5.4 below which indicates the distribution of positions by age group among sampled SME owners/managers. The table provides the number of individuals in each age group and position category, as well as the percentage each category represents of the total group.

Table 5.4: Age and Position

		18-20 years	21-29 years	30-39 years	40-49 years	50 and above years	Total
Owner, CEO or MD	Frequency	3	37	44	10	6	100
	Percentage	1.2%	1.8 %	18.8%	4.2%	2.5%	100%
Manager	Frequency	6	23	56	21	7	113

	Percentage	2.5 %	9.8%	23.9%	8.9%	2.9%	100%
Accountant	Frequency	0	10	9	0	2	21
	Percentage	0.0%	4.2%	3.8%	0.0%	0.8%	100%
Total	Frequency	9	70	109	31	15	234
	Percentage	3.8%	29.9%	46.5%	13.2%	6.4%	100%

There were 234 SMEs, with the majority aged between 30-39 years, representing 46.5 percent of the total group (shown in the above Table 5.4 above). The position categories were Owner, CEO or MD, Manager, and Accountant. In terms of age groups, the highest percentage of Owner, CEO or MD positions is held by those aged 30-39 years, while the highest percentage of Manager positions is held by those aged 21-29 years. There are no Accountants in the 18-20 years age category, and the highest percentage of Accountants is held by those aged 21-29 years.

The results suggest an association between age and position, with individuals aged 30-39 years holding a higher percentage of Owner, CEO or MD positions, and those aged 21-29 years holding a higher percentage of Manager positions. The result also shows that those sampled had no Accountants in the youngest age group, which may reflect their educational level or experience.

5.5.3 Number of employees and industries SMEs operate

There are six categories of employee numbers, ranging from 2-5 employees to 250 and above, and five industries, including agriculture and agro-processing, food processing, health, and textiles and garment, as well as utilities. The majority SMEs engage 2-5 employees (33.3percent), followed by those with 20-49 employees (20.1 percent), and 6-9 employees (29.5 percent). There are very few SMEs with 50-99 employees, 100-249 employees, or 250 and above employees. The food processing industry has the highest number of SMEs (33.3 percent), followed by textiles and garment (32.9 percent), agriculture and agro-processing (7.2percent), health (7.6 percent), and utilities (18.8 percent) as shown in Table 5.5 below. The results revealed that the food processing and textiles and garment industries have the highest number of SMEs.

Table 5.5: Number of employees and industries SMEs operate

Number of Employees		Agriculture and Agro-Processing	Food Processing	Health	Textiles and Garment	Utilities	Total
2-5 employees	Frequency	2.1%	9.4%	0.0%	0.0%	8.5%	100%
	Percentage	1	25	1	39	12	78
6-9 employees	Frequency	8	24	15	14	8	69
	Percentage	3.4%	10.2%	6.4%	5.9%	3.4%	100%
10-19 employees	Frequency	3	4	0	24	4	35
	Percentage	1.2%	1.7%	0.0%	10.2%	1.7%	100%
20 – 49 employees	Frequency	5	22	0	0	20	47
	Percentage	2.1%	9.4%	0.0%	0.0%	8.5%	100%
50 – 99 employees	Frequency	0	0	2	0	0	2
	Percentage	0.0%	0.0%	0.8%	0.0%	0.0%	100%
100-249 employees	Frequency	3	4	0	24	4	35
	Percentage	1.2%	1.7%	0.0%	10.2%	1.7%	100%
250 and above employees	Frequency	0	2	0	0	0	2
	Percentage	0.0%	0.8%	0.0%	0.0%	0.0%	100%

The above Table 5.5 displays the distribution of SMEs according to the number of employees and industries they operate in.

5.5.4 SMEs industries and the market they operate

Table 5.6 below shows the distribution of SMEs across different markets in which they operate, segmented by industry. Of the 234 SMEs sampled, the majority (44.4 percent) operate in the local market, followed by the national market (23percent), regional market (23.5 percent), and the international market (8.9 percent). The Food Processing industry has the highest number of SMEs operating in the regional market (19.2 percent), followed by the local market (7.6 percent) and national market (3.8 percent). The Textiles and Garment industry has the highest number of SMEs operating in the local market (28.6 percent), followed by the national market (1.7 percent), and the international market (0.8 percent). The Utilities industry has the highest number of SMEs operating in the national market (14.1 percent), followed by the regional market (2.1 percent) and the local market (1.7 percent). The Agriculture and Agro-Processing

industry has the lowest number of SMEs across all markets, with no SMEs operating in the regional or international markets in this category.

Table: 5.6: SMEs industries and the market they operate

		International market	Local Market	National market	Regional market	Total
Utilities	Frequency	2	4	33	5	44
	Percentage	0.8%	1.7%	14.1%	2.1%	100.0%
Textiles and Garment	Frequency	2	67	4	4	77
	Percentage	0.8%	28.6%	1.7%	1.7%	100.0%
Health	Frequency	2	9	5	2	18
	Percentage	0.8%	3.8%	2.1%	0.8%	100.0%
Food Processing	Frequency	6	18	9	45	78
	Percentage	2.5%	7.6%	3.8%	19.2%	100.0%
Agriculture and Agro-Processing	Frequency	9	7	1	0	17
	Percentage	3.8%	2.9%	0.4%	0.0%	100.0%
Total	Frequency	21	104	54	55	234
	Percentage	8.9%	44.4%	23.0%	23.5%	100.0%

5.5.5 SME industries and annual sales

Table 5.7 below demonstrates the distribution of SMEs in five industries based on their annual sales in Ghanaian cedis (GH¢). The table also displays the frequency and percentage of SMEs in each category. The results show SMEs having annual sales of less than GH¢ 5 000, GH¢ 5 000 to GH¢ 10 000, GH¢ 10 000 to GH¢ 15 000, and GH¢ 15 000 to GH¢ 20 000. Please note that at the time of this study Ghc 1 = \$11.60

The results revealed that 6.4 percent of SMEs has annual sales less than GH¢ 5 000, with 5.9 percent that has annual sales between GH¢ 5 000 and GH¢ 10 000, 33.1 percent has annual sales between GH¢ 15 000 and GH¢ 20 000, and 27.3 percent has annual sales between GH¢ 10 000 and GH¢ 15 000. The results suggest the majority SMEs are in the Food Processing and Textiles and Garment industries, and the majority have annual sales between GH¢ 10 000 and

GH¢ 20 000. This information can be useful for policymakers and stakeholders in the SME sector to understand the distribution of SMEs and their sales in different industries.

Table: 5.7: SME industries and annual sales

		Agriculture and Agro- Processing	Food Processing	Health	Textiles and Garment	Utilities	Total
Less than GH¢ 5000	Frequency	1	5	1	3	15	25
	Percentage	0.4%	2.1%	0.4%	1.2%	6.4%	100.0%
GH¢ 5000 to GH¢ 10000	Frequency	7	7	14	40	7	75
	Percentage	2.9%	2.9%	5.9%	17.0%	2.9%	100.0%
GH¢ 15000 to GH¢ 20000	Frequency	4	2	3	33	14	56
	Percentage	1.7%	0.8%	1.2%	33.1%	5.9%	100.0%
GH¢ 10000 to GH¢ 15000	Frequency	5	64	3	1	5	78
	Percentage	2.1%	27.3%	1.2%	0.1%	2.1%	100.0%
Total	Frequency	17	78	21	77	41	234
	Percentage	7.2%	33.3%	8.9%	32.9%	17.5%	100.0%

5.6 Social media related general questions

This section was interested in seeking information generally related to social media. The study asked for information related to SME social media platforms, the purpose of using these platforms, how soon SMEs intend to adopt social media and hindrances towards SME social media use. The results of the individual information regarding social media related general questions are presented below.

5.6.1: SME industries and social media platforms

Table 5.8 below presents information on the social media platforms used by SMEs in different industries. The table shows the frequency and percentage of SMEs in each industry using different social media platforms.

Table: 5.8: SMEs industries and social media platforms

		Facebook	Facebook, Instagram	Facebook, Twitter, Instagram	Facebook, Twitter, Instagram, LinkedIn	Facebook, Twitter, LinkedIn, Telegram, What's App	Total
Utilities	Frequency	25	8	0	11	0	44
	Percentage	10.6%	3.4%	0.0%	4.7%	0.0%	100%
Textiles & Garment	Frequency	8	57	7	5	0	77
	Percentage	3.4%	24.3%	2.9%	2.1%	0.0%	100%
Health	Frequency	4	8	5	1	0	18
	Percentage	1.7%	3.4%	2.1%	0.4%	0.0%	100%
Food Processing	Frequency	1	58	11	7	1	81
	Percentage	0.4%	24.7%	4.7%	a	0.4%	100%
Agriculture and Agro-Processing	Frequency	4	4	2	0	7	17
	Percentage	1.7%	1.7%	0.8%	0.0%	2.9%	100%
Total	Frequency	42	129	25	24	8	233
	Percentage	17.9%	55.1%	10.6%	10.2%	3.8%	100%

The majority of SMEs in all industries use Facebook as a social media platform. The textiles and garment industry has the highest percentage of SMEs using Facebook, in combination with Instagram (24.3 percent), and the food processing industry has the highest percentage of SMEs using Facebook, in combination with Twitter and Instagram (4.7 percent).

The results show SMEs using multiple social media platforms, with the Facebook-Twitter-Instagram-LinkedIn combination the most popular among SMEs in all industries, particularly in the utilities, textiles and garment industry and food processing representing representing, 4.7%, 2.1%, and 2.9% respectively. The most common social media platform combination used by SMEs is Facebook and Instagram, with a percentage of 55.1 percent as shown in Table 5.8 above.

5.6.2 Purpose of using Social Media Platforms

The aim of this section was to explore the diverse marketing activities that SMEs employ social media for in their business. The participants identified several uses of social media, ranked in order from the most common to the least common applications in their marketing strategies and are presented below and in Table 5.9 below as well.

- 62 respondents, representing 26 percent, use social media for branding, advertising and promotion, obtaining referrals (word-of-mouth via likes, shares, and followers on Facebook, Twitter, and so on), and developing customer relationships, as well as to communicate with customers, attend to customer service activities, and receive customer feedback.
- 48 respondents, representing 21 percent, use social media for information and search, advertising and promotion, to communicate with customers, and receive customer feedback.
- 35 respondents, representing 11 percent, use social media for advertising and promotion, to communicate with customers and customer service activities.
- 28 respondents, representing 12 percent, use social media for information and search, advertising and promotion, to conduct market research, and communicate with customers, as well as customer service activities.
- 27 respondents use social media for information and search, branding, advertising and promotion, and to conduct market research, as well as obtain referrals (word-of-mouth via likes, shares, and followers on Facebook, Twitter, and more), develop customer relationships, communicate with customers, and attend to customer service activities, while they also receive customer feedback.
- 9 respondents representing 4 percent, use social media for advertising and promotion. The results are presented in Table 5.9 below.

Table 5.9: Purpose of using Social Media Platforms

Characteristics	Frequency	Percent
Purpose of using Social Media Platforms:		
Branding, advertising and promotion, getting referrals (word-of-mouth via likes, shares, and followers on Facebook, Twitter, etc), develop customer relationships, communicate with customers, customer service activities, receive customer feedback	62	26
Information and search, advertising and promotion, communicate with customers and receive customer feedback	48	21
Advertising and promotion, communicate with customers, customer service activities	35	15
Information and search, advertising and promotion, conduct market research, communicate with customers, customer service activities	28	12

Information and search, Branding, advertising and promotion, conduct market research, getting referrals (word-of-mouth via likes, shares, and followers on Facebook, Twitter, etc), develop customer relationships, communicate with customers, customer service activities, receive customer feedback	27	11
Advertising and promotion, getting referrals (word-of-mouth via likes, shares, and followers on Facebook, Twitter, etc), develop customer relationships, communicate with customers, customer service activities	25	11
Advertising and promotion	9	4
Total	234	100%

5.6.3 How soon do SMEs intend to adopt social media

The study was interested to establish how soon SMEs would adopt social media if they were not on social media. The result shown in Table 5.10 below indicate that the majority, 135 (58 percent) intend to adopt social media in less than six months, and 56 (24 percent) respondents intend to adopt it within six to 11 months. Furthermore, 36 (15 percent) intend to adopt social media within 12 to 18 months, and seven (three percent) respondents intend to adopt it within 19 to 24 months.

Table 5.10: How soon do SMEs intend to adopt social media

Characteristics	Frequency	Percent
How soon do SMEs intend to adopt Social Media:		
Less than 6 months	135	58
6 months to 11 months	56	24
12 months to 18 months	36	15
19 months to 24 months	7	3
Total	234	100

5.6.4 Hindrance towards SME social media use

Regarding what would hinder SMEs from adopting social media, it emerged that 93 SME owners/managers (representing 40percent) indicated not enough (monetary) resources. The

result also revealed that 89 respondents (38 percent) indicated that fear of critique or negative feedback was a hindrance to social media usage. Furthermore, 36 (15percent) indicated that bad experiences with social media would hinder them from social media adoption. In addition, 10 respondents (representing four percent) indicated that social media is a risk for information security and would hinder their social media usage. Finally, 6 respondents (representing 2 percent), indicated not having sufficient skills to implement social media, as a hindrance. The results are presented in table 5.11 below

Table 5.11: Hindrance towards SMEs Social Media Use

Characteristics	Frequency	Percent
Hindrance towards SMEs Social Media Use:		
Not enough (monetary) resources	93	40
Fear of critique or negative feedback	89	38
Bad experience of social media	36	15
Social media is risk for information security	10	4
Not having enough skills to implement social media	6	2
	234	100

5.7 Comprehensive analysis of Access to Finance

Section eleven of the questionnaire seeks to establish whether SMEs in Accra have access to finance, other than personal financial resources. The following Table 5.12 below presents the result of access to finance among SMEs in Accra.

Table 5.12: Access to Finance

	N	Min.	Max.	Mean	Std. Deviation
Our business is able to obtain finance from banks and other financial institutions.	234	1.0	5.0	2.697	1.2694
Our business is able to obtain finance from investors	234	1.0	5.0	3.064	1.1080

Our business is able to obtain finance from family and friends]	234	1.0	5.0	2.876	.8219
Valid N (listwise)	234				

The corollary shows (Table 5.12 above), with regard to accessing finance from banks and other financial institutions, a mean value of 2.697 was recorded. This indicates the respondents agree they can access finance from banks and other financial institutions. In terms of obtaining finance from investors, a mean value of 3.064 was recorded, which indicates that respondents were neutral, implying their unwillingness to disclose such information. Finally, the study also sought to determine whether SMEs are able to access finance from family and friends. The outcome shows that respondents agree to receive finance from family and friends.

5.8 Comprehensive analysis of Technology Factor Loadings, Variance Inflation Factor (VIF), Reliability and Validity

Prior to conducting an analysis of the technology factor loadings, VIF, reliability, and validity of the constructs, the items of each sub-construct were coded. For example, items measuring complexity were coded as Comp11 (Table 5.13 below) to represent question 1. The current study assessed the outer loading to ensure each item could measure the construct effectively. Each item was required to meet the minimum conventional threshold of 0.708 (Hair *et al.* 2019). The item loadings were run several times with the PLS algorithm to identify and delete items that did not meet the threshold. This was done for the technology factor sub-constructs, which included complexity, interactivity, perceived cost, and trust.

The complexity (Comp1) sub-construct had five items, but one (Comp14) was deleted as it did not meet the threshold. Four items met the threshold of 0.708 and were used for analysis and are presented in Table 5.13 below. All items for interactivity (IntRa) met the minimum threshold of 0.708 and were included in the analysis and are also presented in Table 5.14 below. Perceived trust (TRus) had five items, with one (TRus2) that did not meet the minimum threshold that was deleted from the analysis and the rest used for the analysis are presented in Table 5.15. Perceived cost (PC) had three items, but one (PC2) did not meet the minimum criteria of 0.708 and was also excluded from the analysis (Hair *et al.* 2019), the rest were used for the analysis and are presented in Table 5.16 below. The study also examined the VIF values of the technology factor sub-constructs (complexity, interactivity, perceived cost, and trust).

The VIF values of these sub-constructs were all below the recommended threshold of five, indicating no collinearity issues (Hair *et al.* 2019). These results are presented in Tables 5.13 to 5.16 below.

To ensure the accuracy of the study, the convergent validity of all items for each sub-construct was assessed. This was done by computing the AVE scores of the items measuring each construct. AVE represents the degree to which a latent variable explains the variance of its indicators (Sarstedt *et al.* 2021: 18; Hair *et al.* 2018: 9). The purpose of examining convergent validity is to ensure the items actually correlate with one another (Sarstedt *et al.* 2021: 18). To calculate the AVE, the square root of the loading of each item on a construct and the mean values for each construct were computed (Sarstedt *et al.* 2021: 18; Hair *et al.* 2018: 9). It is generally accepted that each construct should account for at least 50 percent of the assigned indicators' variance ($AVE \geq 0.50$). An AVE of 0.50 or higher indicates that, on average, the construct explains more than 50 percent of the variance of its items (Sarstedt *et al.* 2021: 17; Hair *et al.* 2020: 104). Hence, all the values of the AVE of the technology factors met the AVE threshold and are presented in Tables 5.13 to 5.16 below.

To assess the reliability of the constructs, the study employed Cronbach's alpha, a commonly used measure of internal consistency reliability, which examines the intercorrelation among observed items and associated constructs (Hair *et al.* 2020: 104). As the study utilised validated items from prior research to measure the constructs, the accepted standard is that the Cronbach's alpha should be a minimum of 0.708 (Hair *et al.* 2020: 104). All the Cronbach's alpha values for the technology factors met the threshold of 0.708, indicating adequate reliability and are presented in Tables 5.13 to 5.16 below. The factor loadings, VIF, reliability and validity of the sub-constructs for the technology factor are presented in the tables below.

5.8.1 Complexity

Complexity comprised five items in total. However, ComPI4 was deleted, because it fell below the recommended threshold of 0.7. The VIF, Cronbach's alpha, Composite reliability (Rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.13 below.

Table 5.13: Complexity: Loadings, VIF, Reliability and Validity

Constructs	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Complexity					0.862	0.686
	ComPI1	0.785	1.641	0.848		
	ComPI2	0.885	2.697			
	ComPI3	0.823	1.724			
	ComPI5	0.815	2.305			

5.8.2 Interactivity

Interactivity consisted of three items. All the items met the recommended loadings threshold. The VIF, Cronbach's alpha, Composite reliability (rho_a,) Furthermore, the AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.14 below.

Table 5.14: Interactivity: Loadings, VIF, Reliability and Validity

Construct	Construct Items	Loadings	VI F	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Interactivity	IntRa1	0.885	1.944	0.758	0.804	0.677
	IntRa2	0.889	2.055			
	IntRa3	0.776	1.273			

5.8.4 Perceived Trust

Perceived trust had five items in all. However, TRus2 did not meet the recommended loadings threshold and hence was deleted. The VIF, Cronbach's alpha, Composite reliability (rho_a), and

AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.16 below.

Table 5.15: Perceived Trust: Loadings, VIF, Reliability and Validity

Constructs	Construct Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Perceived Trust					0.799	0.611
	TRus1	0.765	1.294			
	TRus3	0.843	1.928	0.785		
	TRus4	0.834	1.920			
	TRus5	0.772	1.507			

5.8.3 Perceived Cost

The perceived cost had three items in total. However, PC2 not meet the recommended threshold loadings and was deleted. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.16 below.

Table 5.16: Perceived Cost: Loadings, VIF, Reliability and Validity

Construct	Construct Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Perceived Cost					0.740	0.791
	PC1	0.899	1.515	0.737		
	PC3	0.879	1.515			

5.9 Comprehensive analysis of Organisational Factors Loadings, VIF, Reliability and Validity

Prior to conducting an analysis of the organisational factors loading, VIF, reliability, and validity of the constructs, the items of sub-constructs were coded. For example, items measuring entrepreneurial orientation were coded as EO1 (Table 5.17 below) to represent question 1. The current study assessed the outer loading to ensure each item could measure the construct effectively. Each item was required to meet the minimum conventional threshold of 0.708 (Hair *et al.* 2019). The item loadings were run several times with the PLS algorithm to identify and delete items that did not meet the threshold. This was done for the organization factor sub-constructs, which included entrepreneurial orientation and management and staff support.

The entrepreneurial orientation sub-construct consisted of two items that both met the threshold of 0.708 and were used for analysis and are presented in Table 5.17 below. All items for management and staff support (ManSS) met the minimum threshold of 0.708 (Hair *et al.* 2019) and were included in the analysis and are presented in Table 5.18 below. The study also examined the VIF values of the organizational factor sub-constructs (entrepreneurial orientation and management and staff support.). The VIF values of these sub-constructs were all below the recommended threshold of five, indicating no collinearity issues (Hair *et al.* 2019a) and are presented in Table 5.17 and Table 5.18 below.

To ensure the accuracy of the study, the convergent validity of all items for each sub-construct was assessed, with all the values of the organization factors AVE meeting the AVE threshold and are presented in Table 5.17 and Table 5.18 below.

The study employed Cronbach's alpha to assess the reliability of the constructs, utilising validated items from prior research to measure the constructs, thus the Cronbach's alpha should be a minimum of 0.708 (Hair *et al.* 2020: 104). All the Cronbach's alpha values for the organization factors met the threshold of 0.708, indicating adequate reliability and are also presented in Tables 5.17 and 5.18 below. The factors loadings, VIF, reliability and validity of the sub-constructs for the organization factor are presented in the tables 5.17 and 5.18 below

5.9.1 Entrepreneurial Orientation

Entrepreneurial orientation had two items in all. All two items met the recommended loadings threshold. Hence, they were all used for the analysis. The VIF, Cronbach's alpha, Composite

reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.17 below.

Table 5.17: Entrepreneurial Orientation: Loadings, VIF, Reliability and Validity

Construct	Construct Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Entrepreneurial Orientation	EO1	0.876	1.496	0.731	0.735	0.788
	EO2	0.899	1.496			

5.9.2 Management and Staff Support

Management and staff support consisted of three items. All three items met the recommended loadings threshold; hence, they were all used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.18 below.

Table 5.18: Management and Staff Support: Loadings, VIF, Reliability and Validity

Constructs	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Management and Staff Support	ManSS1	0.727	1.782	0.708	0.772	0.609
	ManSS2	0.782	1.858			
	ManSS3	0.829	1.170			

5.10 Comprehensive analysis of the Entrepreneurial factor Loadings, VIF, Reliability and Validity

Prior to conducting an analysis of the entrepreneurial factors loading, VIF, reliability, and validity of the constructs, the items of sub-constructs were coded. For example, items measuring personality traits were coded as PTR (Table 5.19 below) to represent question 1. The current

study assessed the outer loading to ensure each item could measure the construct effectively. Each item was required to meet the minimum conventional threshold of 0.708 (Hair *et al.* 2019). The item loadings were run several times with the PLS algorithm to identify and delete items that did not meet the threshold. This was done for the sub-constructs of the entrepreneurial factor, which included personality traits and resources available to the entrepreneur and the results are presented in Tables 5.19 and 5.20 below.

The personality trait (PTr) sub-construct had three items and all the items met the threshold of 0.708 and were used for analysis and are presented in Table 5.19 below. All items for resources available to the entrepreneur (RAE) met the minimum threshold of 0.708 (Hair *et al.* 2019) and were included in the analysis and presented in Table 5.20 below as well. The study also examined the VIF values of the sub-constructs of the entrepreneurial factor (personality traits and resources available to the entrepreneur). The VIF values of these sub-constructs were all below the recommended threshold of five, indicating that there were no collinearity issues (Hair *et al.* 2019) and the results are presented in Tables 5.19 and 5.20 below.

To ensure the accuracy of the study, the convergent validity of all items for each sub-construct was assessed; all the values personality trait and the entrepreneurial factors AVE met the AVE threshold and are presented in Tables 5.19 and 5.20 below. Furthermore, the study employed Cronbach's alpha to assess the reliability of the constructs, with all the Cronbach's alpha values for the entrepreneurial factor found to meet the threshold of 0.708, indicating adequate reliability and are presented in Tables 5.19 and 5.20 below. The factor loadings, VIF, reliability and validity of the sub-constructs for the entrepreneurial factor are presented in the Tables 5.19 and 5.20 below.

5.10.1 Personality Traits

Personality traits was made up of three items in total. All three items met the recommended loadings threshold. Hence, they were all used for the analysis. The VIF, Cronbach's alpha, Composite reliability (ρ_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.19.

Table 5.19: Personality Traits: Loadings, VIF, Reliability and Validity

Construct	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Personality Traits					0.766	0.669
	PTr1	0.874	1.973			
	PTr2	0.790	1.778	0.754		
	PTr3	0.786	1.309			

5.10.2 Resources available to the entrepreneur

Resources available to the entrepreneur had three items in total. All three items met the recommended loadings threshold and were all used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.20 below

Table 5.20: Resources available to the entrepreneur: Loadings, VIF, Reliability and Validity

Construct	Construct Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Resources available to the entrepreneur					0.900	0.826
	RAE1	0.802	2.915			
	RAE2	0.727	3.302	0.895		
	RAE3	0.898	2.326			

5.11 Comprehensive analysis of Environmental Factors Loadings, Variance Inflation Factor (VIF), Reliability and Validity

Prior to conducting an analysis of the environmental factor loadings, VIF, reliability, and validity of the constructs, the items of each sub-construct were coded. For example, items measuring bandwagon were coded as BaDw1 (Table 5.21) to represent question 1. The current study assessed the outer loading to ensure that each item could measure the construct

effectively. Each item was required to meet the minimum conventional threshold of 0.708 (Hair *et al.* 2019). The item loadings were run several times with the PLS algorithm to identify and delete items that did not meet the threshold. This was done for the sub-constructs of the environmental factors, which included bandwagon, industry competition and market pressure.

The bandwagon (BaDw) sub-construct had three items that all met the minimum conventional threshold of 0.708; hence, were used for the analysis and the results are presented in Table 5.21 below. All items for industry competition (InDCop) met the minimum threshold of 0.708 and were included in the analysis and the results also presented in Table 5.22 below. Market pressure (MKTP) had two items that were both used for the analysis, because they met the minimum criteria of 0.708 and the result presented in Table 5.23 below as well

The study also examined the VIF values of the sub-constructs of the environmental factor (bandwagon, industry competition and market pressure). The VIF values of these sub-constructs were all below the recommended threshold of five, indicating that there were no issues of collinearity (Hair *et al.* 2019) and the results are presented in Tables 5.21 to 5.23 below

To ensure the study's accuracy, the convergent validity of all items for each sub-construct was assessed, by computing the AVE scores of the items measuring each construct with all values of the environmental factors AVE that met the recommended AVE threshold and the results are presented in Tables 5.21 to 5.23 below.

The reliability of the constructs was assessed through Cronbach's alpha, with all the Cronbach's alpha values for the environmental factors that met the threshold of 0.708, indicating adequate reliability (Hair *et al.* 2020: 104) and the results are presented in Tables 5.21 to 5.23. The factor loadings, VIF, reliability and validity of the sub-constructs for the environmental factor are presented in the Tables 5.21 to 5.23 below.

5.11.1 Bandwagon

Bandwagon had three items that all met the recommended loadings threshold. Hence, they were all used for the analysis. The VIF, Cronbach's alpha, Composite reliability (ρ_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.21 below.

Table 5.21: Bandwagon: Loadings, VIF, Reliability and Validity

Construct	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Bandwagon					0.815	0.700
	BaDw1	0.786	1.608			
	BaDw2	0.860	1.947	0.789		
	BaDw3	0.862	1.599			

5.11.2 Industry Competition

Industry competition consisted of two items to measure industry competition. Both items met the recommended loadings threshold, hence, they were both used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.22 below.

Table 5.22: Industry Competition: Loadings, VIF, Reliability and Validity

Construct	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Industry Competition					0.751	0.741
	InDCop1	0.855	1.304	0.651		
	InDCop2	0.867	1.304			

5.11.3 Market Pressure

Market pressure also had two items to measure market pressure, with both items meeting the recommended loadings threshold, which were thus used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.23 below.

Table 5.23: Market Pressure: Loadings, VIF, Reliability and Validity

Construct	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Market Pressure					0.816	0.842
	MKTP1	0.812	1.885	0.813		
	MKTP2	0.724	1.885			

5.12 Comprehensive analysis of Social Media Adoption Loadings, Variance Inflation Factor (VIF), Reliability and Validity

Prior to conducting an analysis of SME Social Media adoption factor loading, VIF, reliability, and validity of the constructs, the items were coded. For example, items measuring social media adoption were coded as SMA1 (Table 5.24 below) to represent question 1. The current study assessed the outer loading to ensure each item could measure the construct effectively. Each item was required to meet the minimum conventional threshold of 0.708 (Hair *et al.* 2019). The item loadings were run several times with the PLS algorithm to identify and delete items that did not meet the threshold.

Social Media adoption comprised five items that all met the minimum conventional threshold of 0.708 and the results presented in Table 5.24 below. Hence, they were used for the analysis. The study also examined the VIF values of social media adoption, which were all found below the recommended threshold of five, indicating there were no collinearity issues (Hair *et al.* 2019) and the results also presented in Table 5.24 below.

To ensure the accuracy of the study, the convergent validity of all items was assessed, by computing the AVE scores of the items measuring each construct, with all values of the social media adoption AVE that met the recommended AVE threshold which are presented in Table 5.24 below

The construct reliability was assessed through Cronbach's alpha, to examine the intercorrelation among observed items and associated constructs (Hair *et al.* 2020: 104). Since the study utilised validated items from prior research to measure the constructs, the Cronbach's alpha should be a minimum of 0.708 (Hair *et al.* 2020: 104). All the Cronbach's alpha values for social media adoption met the threshold of 0.708, indicating adequate reliability and the results also

presented in Table 5.24 below. The factor loadings, VIF, reliability and validity of the sub-constructs for social media adoption are presented in the Table 5.24 below.

Table 5.24: SME Social Media Adoption: Loadings, VIF, Reliability and Validity

Construct	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
SMEs					0.879	0.942
Social Media Adoption	SMA1	0.875	2.761	0.923		
	SMA2	0.867	2.822			
	SMA3	0.809	3.804			
	SMA4	0.702	3.599			
	SMA5	0.821	2.237			

5.13 Comprehensive analysis of SME Marketing Performance Loadings, Variance Inflation Factor (VIF), Reliability and Validity

Prior to conducting an analysis of the marketing performance factors loading, VIF, reliability, and validity of the constructs, the items of each sub-constructs were coded. For example, items measuring financial marketing performance were coded as FPP (Table 5.25 below) to represent question 1. The current study assessed the outer loading to ensure that each item could measure the construct effectively. Each item was required to meet the minimum conventional threshold of 0.708 (Hair *et al.* 2019). The item loadings were run several times with the PLS algorithm to identify and delete items that did not meet the threshold. This was done for the sub-constructs of the marketing performance, which included financial marketing performance and non-financial marketing performance

The financial marketing performance sub-construct consisted of three items and all met the minimum conventional threshold of 0.708; hence, all were used for the analysis and the results presented in Tables 5.25 and 5.26 below. The study also examined the VIF values of the sub-constructs of the marketing performance factor (financial and non-financial marketing performance). The VIF values of these sub-constructs were all below the recommended threshold of five, indicating no issues of collinearity (Hair *et al.* 2019) and the results presented in Tables 5.25 and 5.26 below.

To ensure the accuracy of the study, the convergent validity of all items for each sub-construct was assessed, with all the values of the AVE of the marketing performance factors that met the recommended AVE threshold and the results presented in Tables 5.25 and 5.26 below.

The study employed Cronbach's alpha to assess the reliability of the constructs; all the Cronbach's alpha values for the marketing performance factors met the threshold of 0.708, indicating adequate reliability. The factor loadings, VIF, reliability and validity of the sub-constructs for marketing performance factors are presented in the Tables 5.25 and 5.26 below.

5.13.1 Financial Marketing Performance

Financial marketing performance was also made up of three items, which all met the recommended loadings threshold. Hence, they were all used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_c), and AVE met the recommended threshold of reliability and validity criteria. The results are presented in Table 5.25 below.

Table 5.25: SME Financial Marketing Performance: Loadings, VIF, Reliability and Validity

Construct	Constructs Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Financial Marketing Performance					0.740	0.642
	FPP	0.725	1.369			
	FPSG	0.818	1.406	0.722		
	FPSV	0.855	1.658			

5.13.2 Non-Financial Marketing Performance

Non-financial marketing performance also comprised three items in total. All three items met the recommended loadings threshold and were thus all used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.26 below.

Table 5.26: SMEs Non-Financial Marketing Performance: Loadings, VIF, Reliability and Validity

Construct	Construct Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Non-Financial Marketing Performance	NFPBd2	0.889	1.896	0.739	0.811	0.657
	NFPCuSat	0.730	1.243			
	1					
	NFPLoy3	0.885	1.805			

5.14 Comprehensive analysis of SME Sustainability Performance Factor Loadings, Variance Inflation Factor (VIF), Reliability and Validity

Prior to conducting an analysis of SME sustainability performance factor loading, VIF, reliability, and validity of the constructs, the items were coded. For example, items measuring environmental sustainability were coded as EO (Table 5.27 below) to represent question 1. The current study assessed the outer loading to ensure each item could measure the construct effectively. Each item was required to meet the minimum conventional threshold of 0.708 (Hair *et al.* 2019). The item loadings were run several times with the PLS algorithm to identify and delete items that did not meet the threshold. This was done for the sub-constructs of the sustainability performance, which included environmental and social sustainability.

The environmental and social sustainability comprised three items and all met the minimum conventional threshold of 0.708; hence, all were used for the analysis and the results presented in Tables 5.27 and 5.28 below. The study also examined the VIF values of the sub-constructs of the sustainability performance factor (environmental and social sustainability). The VIF values of these sub-constructs were all below the recommended threshold of five, indicating that there were no collinearity issues (Hair *et al.* 2019) and the results presented in Tables 5.27 and 5.28 below.

.To ensure the study’s accuracy, the convergent validity of all items for each sub-construct was assessed, by computing the AVE scores of the items measuring each construct. All the values of the sustainability performance factors’ AVE met the recommended AVE threshold (Sarstedt *et al.* 2021: 17; Hair *et al.* 2020: 104) and the results presented in Tables 5.27 and 5.28 below.

To assess the reliability of the constructs, the study employed Cronbach's alpha, with an accepted standard minimum of 0.708 (Hair *et al.* 2020: 104). All the Cronbach's alpha values for the marketing performance factors met the threshold of 0.708, indicating adequate reliability and the results presented in Tables 5.27 and 5.28 below. The factor loadings, VIF, reliability and validity of the sub-constructs for sustainability performance factors are presented in the Tables 5.27 and 5.28 below.

5.14.1 Environmental Sustainability

Environmental sustainability performance consisted of three items in total, which all met the recommended loadings threshold and all three were thus used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.27 below.

Table 5.27: SMEs Environmental Sustainability: Loadings, VIF, Reliability and Validity

Construct	Construct Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Environmental Sustainability					0.815	0.688
	EP1	0.799	1.336			
	EP2	0.898	2.061	0.772		
	EP3	0.877	1.908			

5.14.2 Social Sustainability

Environmental sustainability performance was also made up of three items in total, which met the recommended loadings threshold. Hence, they were all used for the analysis. The VIF, Cronbach's alpha, Composite reliability (rho_a), and AVE met the recommended reliability and validity criteria threshold. The results are presented in Table 5.28 below.

Table 5.28: SMEs Environmental Sustainability: Loadings, VIF, Reliability and Validity

Construct	Construct Items	Loadings	VIF	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
Social Sustainability				0.893	0.902	0.824
	SP1	0.813	2.831			
	SP2	0.734	3.290			
	SP3	0.876	2.314			

5.15 Discriminant validity

The study examined the discriminant validity to ensure the variables were statistically different, which was achieved through three statistical approaches, namely the Fornell-Larcker criterion, HTMT and cross-loadings. The outcome of this exercise shows all the constructs were distinct from each other. The details of all three approaches are presented in Tables 5.29-5.31 below.

5.15.1 Fornell-Larcker criterion

The study performed the discriminant validity of construct assessment using the Fornell-Larcker criterion. The results show the constructs met the recommended Fornell-Larcker criterion threshold above 0.5. The outcome of the analysis is shown in Table 5.29 below, where the result shows that the Fornell-Larcker criterion values for the constructs started from 0.621 to 0.889. Hence, the constructs' values are above the threshold of 0.5 recommended by Fornell and Larcker (1981: 3). This indicates the Fornell-Larcker Criterion suggests good levels of discriminant validity.

5.15.2 Heterotrait-monotrait ratio (HTMT)

To strengthen the statistical outcome, the study also used the HTMT to determine the discriminant validity of the study. The HTMT is viewed as a more robust assessment of discriminant validity. The result shows that the constructs were below the recommended threshold of 1. The results are presented in Table 5.30, which shows the values of HTMT for each construct (diagonal bolded figures). As indicated, HTMT ratios should not exceed 1; hence, based on the recommended threshold, all the construct values were below 1, confirming the constructs are different, unique and separate from one another.

5.15.3 Cross-loadings

The study also assessed the cross-loadings of the items, with the cross-loading of each of the items presented in Table 5.31 below.

Table 5.31 below shows cross-loading for each of the construct items. The general principle is that the cross-loadings should be above 0.70; hence, the loadings in Table 5.31 below all met the recommended threshold.

Table 5. 29 Fornell-Larcker criterion

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BaDw (1)	0.837															
ComPl (2)	0.465	0.828														
EO (3)	0.573	0.500	0.887													
EP (4)	0.620	0.484	0.588	0.829												
FP (5)	0.572	0.458	0.582	0.762	0.801											
InDCop (6)	0.580	0.561	0.558	0.544	0.525	0.861										
IntRa (7)	0.669	0.520	0.718	0.656	0.621	0.554	0.709									
MKTP (8)	0.501	0.685	0.574	0.512	0.519	0.524	0.513	0.786								
ManSS (9)	0.603	0.648	0.604	0.653	0.651	0.573	0.572	0.670	0.781							
NFP (10)	0.625	0.482	0.496	0.727	0.723	0.462	0.524	0.447	0.591	0.811						
PC (11)	0.463	0.419	0.481	0.463	0.456	0.637	0.463	0.428	0.482	0.397	0.889					
PTr (12)	0.737	0.504	0.588	0.656	0.627	0.564	0.629	0.491	0.572	0.672	0.439	0.818				
RAE (13)	0.554	0.510	0.535	0.599	0.589	0.554	0.555	0.536	0.581	0.572	0.453	0.544	0.653			
SMA (14)	0.622	0.456	0.612	0.747	0.717	0.557	0.551	0.527	0.797	0.648	0.498	0.615	0.564	0.875		
SP (15)	0.615	0.435	0.563	0.801	0.752	0.536	0.564	0.489	0.656	0.696	0.476	0.632	0.604	0.809	0.873	
TRus (16)	0.507	0.522	0.477	0.527	0.504	0.745	0.475	0.442	0.528	0.480	0.788	0.510	0.535	0.557	0.782	0.621

Complexity= ComPl, Interactivity =IntRa, Perceived Cost =PC, Perceived Trust =TRus Entrepreneurial Orientation=EO, Management and Staff Support=ManSS, Personality Trait= PTr, Resources Available to the entrepreneur= RAE, Bandwagon= BaDw, Industry Competition= InDCop, Market Pressure= MKTP, SMEs Social Media Adoption=SMA, FP=Financial Marketing, Performance=FP, Non-Financial Marketing Performance =NFP, Environmental Sustainability Performance=EP, and Social Sustainability=SP

Table 5.30: Heterotrait-monotrait ratio (HTMT)

	1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17
BaDw (1)																
ComPl (2)	0.554															
EO (3)	0.739	0.627														
EP (4)	0.752	0.582	0.772													
FP (5)	0.723	0.573	0.721	0.790												
InDCop (6)	0.797	0.748	0.806	0.754	0.760											
IntRa (7)	0.869	0.629	0.737	0.820	0.822	0.773										
MKTP (8)	0.617	0.823	0.742	0.637	0.681	0.720	0.670									
ManSS (9)	0.766	0.899	0.838	0.837	0.866	0.857	0.817	0.827								
NFP (10)	0.812	0.645	0.663	0.897	0.919	0.673	0.750	0.578	0.787							
PC (11)	0.603	0.526	0.653	0.602	0.622	0.922	0.674	0.552	0.663	0.527						
PTr (12)	0.926	0.611	0.796	0.827	0.835	0.787	0.858	0.617	0.745	0.904	0.579					
RAE (13)	0.639	0.579	0.660	0.702	0.722	0.723	0.670	0.625	0.731	0.673	0.552	0.653				
SMA (14)	0.712	0.503	0.742	0.870	0.872	0.717	0.758	0.606	0.895	0.758	0.603	0.722	0.617			
SP (15)	0.715	0.494	0.696	0.942	0.916	0.703	0.777	0.574	0.764	0.821	0.584	0.759	0.675	0.893		
TRus (16)	0.637	0.630	0.638	0.661	0.661	1.062	0.651	0.559	0.708	0.633	1.041	0.651	0.632	0.651	0.631	

Complexity= ComPl, Interactivity =IntRa, Perceived Cost =PC, Perceived Trust =TRus Entrepreneurial Orientation=EO, Management and Staff Support=ManSS, Personality Trait= PTr, Resources Available to the entrepreneur= RAE, Bandwagon= BaDw, Industry Competition= InDCop, Market Pressure= MKTP, SMEs Social Media Adoption=SMA, FP=Financial Marketing Performance=FP, Non-Financial Marketing Performance =NFP, Environmental Sustainability Performance=EP, and Social Sustainability=SP

Table 5.31: Cross loadings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BaDw1	0.786	0.338	0.411	0.394	0.343	0.420	0.511	0.393	0.410	0.387	0.386	0.564	0.320	0.433	0.407	0.357
BaDw2	0.860	0.381	0.429	0.491	0.434	0.478	0.519	0.388	0.482	0.512	0.346	0.580	0.456	0.476	0.505	0.407
BaDw3	0.862	0.435	0.570	0.633	0.613	0.542	0.630	0.466	0.592	0.630	0.423	0.686	0.575	0.620	0.602	0.487
ComPl1	0.350	0.785	0.423	0.361	0.338	0.462	0.440	0.576	0.461	0.325	0.358	0.332	0.371	0.354	0.332	0.404
ComPl2	0.446	0.885	0.414	0.463	0.401	0.521	0.426	0.622	0.530	0.442	0.362	0.471	0.475	0.422	0.412	0.492
ComPl3	0.390	0.823	0.457	0.413	0.422	0.454	0.469	0.528	0.663	0.428	0.345	0.446	0.445	0.420	0.371	0.435
ComPl5	0.337	0.815	0.346	0.343	0.340	0.406	0.373	0.540	0.461	0.392	0.319	0.410	0.381	0.282	0.306	0.382
EO1	0.510	0.422	0.876	0.538	0.527	0.470	0.590	0.467	0.498	0.452	0.401	0.563	0.459	0.516	0.508	0.408
EO2	0.508	0.464	0.899	0.507	0.507	0.519	0.681	0.549	0.572	0.431	0.451	0.486	0.489	0.568	0.492	0.438
EP1	0.328	0.313	0.366	0.699	0.456	0.331	0.365	0.340	0.411	0.391	0.286	0.355	0.339	0.458	0.464	0.314
EP2	0.564	0.456	0.527	0.898	0.704	0.488	0.614	0.469	0.584	0.696	0.418	0.593	0.580	0.652	0.711	0.483
EP3	0.606	0.418	0.544	0.877	0.698	0.509	0.611	0.450	0.604	0.670	0.427	0.638	0.534	0.715	0.774	0.488
FPP	0.365	0.296	0.425	0.538	0.725	0.352	0.434	0.429	0.475	0.380	0.331	0.400	0.371	0.509	0.456	0.343
FPSG	0.486	0.375	0.468	0.652	0.818	0.393	0.496	0.373	0.511	0.718	0.331	0.513	0.480	0.589	0.691	0.390
FPSV	0.507	0.420	0.504	0.632	0.855	0.508	0.556	0.458	0.578	0.594	0.435	0.578	0.549	0.619	0.630	0.471
InDCop1	0.464	0.467	0.432	0.479	0.448	0.855	0.426	0.407	0.463	0.410	0.572	0.486	0.463	0.470	0.495	0.738
InDCop2	0.534	0.498	0.528	0.458	0.455	0.867	0.526	0.494	0.523	0.387	0.526	0.485	0.491	0.488	0.429	0.549
IntRa1	0.576	0.483	0.702	0.591	0.561	0.520	0.884	0.532	0.583	0.510	0.489	0.536	0.522	0.611	0.569	0.477
IntRa2	0.541	0.482	0.636	0.617	0.569	0.490	0.889	0.473	0.542	0.551	0.442	0.572	0.523	0.564	0.576	0.453
IntRa3	0.556	0.285	0.383	0.379	0.377	0.329	0.776	0.291	0.383	0.367	0.313	0.491	0.317	0.388	0.431	0.293
MKTP1	0.425	0.617	0.525	0.428	0.419	0.489	0.498	0.812	0.591	0.371	0.396	0.402	0.469	0.465	0.402	0.409
MKTP2	0.492	0.640	0.529	0.509	0.530	0.474	0.494	0.724	0.637	0.447	0.389	0.496	0.514	0.501	0.493	0.402
ManSS1	0.385	0.737	0.433	0.428	0.407	0.473	0.431	0.571	0.727	0.411	0.364	0.387	0.446	0.408	0.361	0.434
ManSS2	0.495	0.589	0.553	0.489	0.482	0.499	0.508	0.702	0.782	0.421	0.406	0.449	0.513	0.498	0.443	0.402
ManSS3	0.512	0.355	0.456	0.578	0.590	0.417	0.513	0.405	0.829	0.524	0.375	0.488	0.434	0.822	0.643	0.419
NFPBd2	0.524	0.406	0.460	0.670	0.643	0.387	0.541	0.400	0.533	0.889	0.347	0.607	0.534	0.587	0.634	0.420

NFPCuSat1	0.477	0.494	0.288	0.339	0.338	0.343	0.309	0.320	0.391	0.730	0.240	0.517	0.274	0.341	0.333	0.360
NFPLOY2	0.540	0.350	0.434	0.684	0.701	0.405	0.532	0.373	0.506	0.885	0.364	0.538	0.527	0.598	0.658	0.402
PC1	0.402	0.405	0.441	0.439	0.451	0.554	0.494	0.399	0.463	0.392	0.899	0.379	0.424	0.462	0.440	0.712
PC3	0.423	0.337	0.414	0.382	0.357	0.581	0.417	0.360	0.392	0.311	0.879	0.402	0.380	0.423	0.406	0.689
Ptr1	0.601	0.391	0.483	0.603	0.581	0.483	0.592	0.371	0.496	0.614	0.388	0.875	0.521	0.541	0.567	0.448
Ptr2	0.477	0.301	0.476	0.462	0.473	0.345	0.511	0.340	0.363	0.480	0.285	0.790	0.369	0.397	0.458	0.318
Ptr3	0.698	0.516	0.485	0.527	0.477	0.527	0.477	0.479	0.519	0.541	0.385	0.786	0.426	0.545	0.513	0.461
RAE1	0.510	0.463	0.483	0.537	0.508	0.469	0.503	0.447	0.489	0.484	0.351	0.493	0.802	0.466	0.535	0.429
RAE2	0.498	0.453	0.475	0.543	0.548	0.509	0.504	0.485	0.524	0.545	0.414	0.511	0.727	0.516	0.570	0.487
RAE3	0.504	0.474	0.499	0.552	0.547	0.528	0.531	0.524	0.565	0.526	0.461	0.480	0.898	0.549	0.542	0.533
SMA1	0.555	0.403	0.548	0.688	0.666	0.508	0.594	0.507	0.660	0.614	0.460	0.580	0.526	0.872	0.736	0.508
SMA2	0.530	0.375	0.494	0.646	0.573	0.450	0.539	0.445	0.625	0.529	0.416	0.490	0.465	0.866	0.731	0.474
SMA3	0.572	0.441	0.592	0.697	0.660	0.533	0.604	0.478	0.670	0.607	0.468	0.581	0.528	0.809	0.737	0.518
SMA4	0.543	0.406	0.574	0.654	0.632	0.515	0.565	0.459	0.695	0.552	0.457	0.535	0.504	0.702	0.691	0.508
SMA5	0.520	0.366	0.463	0.582	0.600	0.426	0.520	0.413	0.831	0.529	0.378	0.500	0.442	0.829	0.644	0.427
SP1	0.546	0.366	0.485	0.744	0.701	0.471	0.574	0.401	0.571	0.631	0.437	0.555	0.550	0.719	0.813	0.476
SP2	0.606	0.415	0.559	0.767	0.730	0.514	0.627	0.464	0.627	0.662	0.461	0.646	0.569	0.742	0.734	0.501
SP3	0.519	0.406	0.484	0.666	0.608	0.473	0.549	0.472	0.588	0.601	0.393	0.512	0.526	0.746	0.876	0.460
TRus1	0.394	0.337	0.423	0.336	0.323	0.674	0.427	0.367	0.380	0.292	0.598	0.370	0.352	0.358	0.379	0.766
TRus3	0.408	0.476	0.378	0.447	0.456	0.556	0.401	0.343	0.444	0.425	0.666	0.438	0.448	0.486	0.453	0.843
TRus4	0.430	0.460	0.367	0.437	0.401	0.613	0.412	0.376	0.470	0.424	0.588	0.381	0.467	0.449	0.405	0.834
TRus5	0.358	0.348	0.341	0.418	0.384	0.519	0.357	0.306	0.355	0.347	0.618	0.404	0.397	0.437	0.414	0.772

Complexity= ComPl, Interactivity =IntRa, Perceived Cost =PC, Perceived Trust =TRus Entrepreneurial Orientation=EO, Management and Staff Support=ManSS, Personality Trait= PTr, Resources Available to the entrepreneur= RAE, Bandwagon= BaDw, Industry Competition= InDCop, Market Pressure= MKTP, SMEs Social Media Adoption=SMA, FP=Financial Marketing Performance=FP, Non-Financial Marketing Performance =NFP, Environmental Sustainability Performance=EP, and Social Sustainability=SP

5.16 Structural Model Assessment

The study examined the structural relationships to determine the level of significance and the path coefficients (Sarstedt *et al.* 2021:22). For the study to be able to test the proposed hypotheses, bootstrapping with a 5 000 resample (Hair *et al.* 2020) was used to generate the standard deviation, *t*-values, and *p*-values. As a general rule, the *p*-values of path coefficients may range from +1 to -1, and values for the *t*-statistics must be 1.96 or greater (Sarstedt *et al.* 2021: 22; Hair *et al.* 2020: 102).

5.17 Path analysis and Decision of TOE and Entrepreneurial factors on Social Media Adoption

This section presents the structural model assessment of TOE and entrepreneurial factors influencing the adoption of social media. The individual factors are presented in Table 5.32 below.

Table 5.32: Path Analysis and Decision

Paths	β	Sample mean	Standard deviation	T Values	P values	Decision
ComPl -> SMA	0.063	0.063	0.044	1.426	0.154	Not Supported
IntRa -> SMA	0.465	0.466	0.049	9.458	0.000	Supported
PC -> SMA	0.016	0.018	0.068	0.239	0.811	Not Supported
TRus -> SMA	0.276	0.277	0.078	3.560	0.000	Supported
EO -> SMA	0.204	0.203	0.038	5.413	0.000	Supported
ManSS -> SMA	0.674	0.676	0.029	23.278	0.000	Supported
PTr -> SMA	0.438	0.438	0.044	9.923	0.015	Supported
RAE -> SMA	0.327	0.327	0.046	7.096	0.001	Supported
BaDw -> SMA	0.328	0.328	0.049	6.747	0.000	Supported
InDCop -> SMA	0.179	0.175	0.050	3.592	0.000	Supported
MKTP -> SMA	0.178	0.177	0.045	3.962	0.000	Supported

Note: Complexity= ComPl, Interactivity =IntRa, Perceived Cost =PC, Perceived Trust =TRus Entrepreneurial Orientation=EO, Management and Staff Support=ManSS, Personality Trait=, PTr, Resources Available to the entrepreneur= RAE, Bandwagon= BaDw, Industry Competition= InDCop, Market Pressure= MKTP

5.17.1 Comprehensive path analysis and decision of TOE and Entrepreneurial factors on Social Media Adoption

5.17.1.1 Technology on Social Media Adoption of SMEs

The study results show a significant relationship between perceived trust and SME social media adoption ($\beta = 0.276$; $t=3.560$; $p= 0.000$). Hence, the study finds support for H1:2. The study found a significant positive relationship between interactivity and SME social media adoption ($\beta = 0.465$; $t=9.458$; $p= 0.000$), therefore, H1:3 is also supported. Notably, two of the technological factors did not find support. The study did not find support for the relationship between perceived cost and SME social media adoption ($\beta = 0.016$; $t=0.239$; $p= 0.811$) and the relationship between complexity and SME social media adoption ($\beta = 0.063$; $t=1.426$; $p= 0.154$); therefore, rejecting hypotheses H1:1 and H1:4.

5.17.1.2 Organisational factor on social media adoption of SMEs

The tested result for organisational factor on SME adoption of social media shows a significant relationship between management and staff support and SME social media adoption ($\beta = 0.674$; $t=23.278$; $p= 0.000$), hence, the study finds support for H2:1. The study found a significant positive relationship between entrepreneurial orientation and SMEs' social media adoption ($\beta = 0.204$; $t=5.413$; $p= 0.000$), thus, finding support for H2:2.

5.17.1.3 Environmental factor on social media adoption of SMEs

The result on environmental factors shows there is was significant relationship between bandwagon and adoption of social media by SMEs ($\beta = 0.114$; $t=6.747$; $p= 0.000$). Thus, rejecting H4:3. The study further tested the relationship between industry competition and social media adoption. The outcome shows that industry competition has a significant positive relationship with SME social media adoption ($\beta = 0.179$; $t=3.592$; $p= 0.000$), hence, the result confirmed hypothesis H4:2. The last factor considered under the environmental factor is the relationship between market pressure and social media adoption. The result indicates a significant positive relationship between market pressure and SME social media adoption ($\beta = 0.178$; $t=3.962$; $p= 0.000$), thus, the study finds support for H4:2.

5.17.1.4 Entrepreneurial factors on social media adoption of SMEs

The result shows a significant relationship between personality traits and SME social media adoption ($\beta = 0.438$; $t=7.096$; $p= 0.015$), hence confirming H3:1. The result also found a

significant positive relationship between resources available to the entrepreneur and SMEs' social media adoption ($\beta = 0.327$; $t=9.923$; $p= 0.001$), therefore, the study also confirms H3:2.

5.18 Path analysis and Decision of Social Media Adoption, Financial and Non-Financial Marketing Performance and Sustainability of SMEs

This section presents the structure model assessment with regard to Adoption of social media, Financial and Non-Financial Marketing Performance and Sustainability of SMEs. The individual factors are presented in Table 5.33 below.

Table 5.33: Path Analysis and Decision

Paths	β	Sample mean	Standard deviation	T Values	P values	Decision
SMA -> FP	0.428	0.428	0.048	8.838	0.000	Supported
SMA -> NFP	0.649	0.650	0.030	21.289	0.000	Supported
NFP -> FP	0.752	0.752	0.021	35.888	0.000	Supported
FP -> EP	0.762	0.763	0.021	37.005	0.000	Supported
FP -> SP	0.752	0.752	0.021	35.888	0.000	Supported

5.18.1 Comprehensive path analysis and decision of Social Media Adoption and Financial, Non-Financial Marketing Performance and Sustainability of SMEs

5.18.1.1 Social Media Adoption and Financial, Non-Financial Marketing

The study tested the relationship between social media adoption, financial marketing performance, non-marketing performance, and environmental sustainability, as well as social sustainability (Table 5.25). This section presents the result of the analysis, which shows that SME social media adoption has a significant positive relationship with non-financial marketing performance ($\beta = 0.649$; $t=21.289$; $p= 0.000$); hence, providing acceptance for H5:1. The study also tested the relationship between SME social media adoption and the financial marketing performance of SMEs. The result also supports this relationship ($\beta = 0.428$; $t=8.838$; $p= 0.000$), therefore, also confirming H5:2.

5.18.1.2 Financial Performance and Sustainability of SMEs

The study further examined the relationship between financial marketing performance and environmental and social sustainability. From the result, the study confirmed the relationship

between financial marketing performance and environmental sustainability of SMEs ($\beta = 0.762$; $t=37.005$; $p= 0.000$), therefore, the study confirmed H6:1. The study also confirmed the relationship between financial marketing performance and the social sustainability of SMEs ($\beta = 0.752$; $t=35.888$; $p= 0.000$), thus, H6:2 was also confirmed.

5.19 Coefficient of determination

The study finds the explanatory power of the model to be high. The explanatory power of technological factors in SME social media adoption was R^2 , with a value of 0.580, which is 58 percent, and financial marketing performance was R^2 , with a value of 0.439, which is 43 percent; the non-marketing performance R^2 value was 0.421, which is 42 percent; environmental sustainability R^2 value was 0.306, which is 30 percent, and social sustainability R^2 value was 0.307, which is 30 percent. Based on the recommendations by researchers (Hair *et al.* 2020: 102; Ghasemy *et al.* 2020: 1138), the values obtained are within the range of 0 to 1, which means the model has good explanatory power.

According to the SEM-PLS analysis, the results reveal that seven of the TOE factors influence the adoption of social media. However, two technological factors did not influence the adoption of social media. The entrepreneurial factors find support for the adoption of social media by SMEs in Accra. The study also found support for social media adoption and financial and non-financial marketing performance. The relationship between financial marketing performance and environmental and social sustainability was also confirmed. Combining all the relationships, the study cannot confirm the relationship between technology and social media, since only some factors under the technology factor were confirmed. This requires more studies on technological factors of the TOE theory. Table 5.34 below, therefore, presents the decision based on the analysis performed using the SEM-PLS.

Table 5.34: Summary of findings based on the hypotheses tested

Hypothesis No.	Constructs	Decision in Support of Hypotheses
Technology (H1)		
H1:1	Perceived cost	Not supported
H1:2	Perceived trust	Supported
H1:3	Interactivity	Supported
H1:4	Complexity	Not supported

Organization (H1)		
H1:5	Management and staff support	Supported
H1:6	Entrepreneurial orientation	Supported
Entrepreneurial factor (H1)		
H1:7	Personality trait	Supported
H1:8	Resources available to the entrepreneur	Supported
Environmental (H1)		
H4:9	Market pressure	Supported
H4:10	Industry competition	Supported
H4:11	Bandwagon	Supported
Social Media and Marketing Performance (H2)		
H2:1	Social media adoption and non-financial marketing performance	Supported
H2:2	Social media adoption and financial marketing performance	Supported
Non-Financial and Financial Marketing Performance (H3)		
H3:1	Non-financial marketing performance and financial marketing performance	Supported
Sustainability Performance (H6)		
H4:1	Financial marketing performance and Environmental Sustainability	Supported
H5:2	Financial marketing performance and Social Sustainability	Supported
TOE, Entrepreneurial factor, Social Media Adoption, Marketing performance and Sustainability (6)		
H6:1	Technology	Not supported
	Organisation	Supported
	Entrepreneurial factor	Supported
	Environmental	Supported
	Marketing Performance	Supported
	Sustainability Performance	Supported

5.20 Summary of the Chapter

The current chapter presents a discussion of the second phase, which is the quantitative study phase. This chapter accounts for various research activities, including data collection and analysis. It proceeds to make claims for the use of the questionnaire and the steps taken to implement the survey. Further to this, the chapter sheds light on data collection activities such as sampling, ethical approval, piloting, and questionnaire distribution. Furthermore, the justification for using SPSS and SEM-PLS to analyse the relationship between TOE, entrepreneurial factor, social media adoption, marketing performance and sustainability by SMEs, was provided. Based on the findings from this chapter, the next chapter, brings the two phases (qualitative and quantitative) together in the form of a discussion.

CHAPTER SIX

DISCUSSIONS OF RESULTS

6.1 Introduction

Chapter six discusses the findings from the qualitative phase (Chapter four) and the quantitative phase (Chapter five). Based on the exploratory, sequential mixed-methods research approach, the point of integration or mix is essential. This chapter seeks to integrate the findings of both phases (qualitative and quantitative phase), as presented in Figure 4.

The discussion will be based on the study objectives as outlined in chapter one:

- 1) To evaluate how technology, organization, environment (TOE), and entrepreneurial factors influence SME social media adoption;
- 2) To analyse how social media adoption influences SME non-financial and financial marketing performance outcomes;
- 3) To examine how non-financial marketing performance outcomes influence SME financial marketing performance;
- 4) To examine how financial marketing performance outcomes influence SME environmental sustainability;
- 5) To analyse how financial marketing performance outcomes influence SME social sustainability;
- 6) To develop a conceptual framework to test the complex relationship between technology adoption, social media, marketing performance and sustainability of SMEs in Accra; and
- 7) Present the refined conceptual model based on the qualitative and quantitative phase outcome as a model that predicts SME social media adoption, marketing performance and sustainability in Ghana.

The detailed discussion of the result is also compared with extant literature on the adoption of social media, marketing performance and sustainability.

6.2 Analysis of how technology, organization, and environment (TOE) influence SME social media adoption

The discussion starts with the technology context, followed by organization, environment and then, an entrepreneurial factor, which is an emerging factor.

6.2.1 Technological Factor

In the context of the technological factor, the results show that perceived trust and interactivity received support from both the qualitative and quantitative phases. However, perceived cost and complexity received support only for the qualitative phase and were rejected as influencing the decision to adopt social media among SMEs in Accra. These individual factors in the technological context are discussed below.

6.2.1.1 Perceived cost

The findings from the semi-structured interview revealed that the cost is an influencing factor for SMEs to adopt social media. This is also in line with the findings of past studies (Ainin *et al.* 2015: 573; Ahani *et al.* 2017: 565; Chatterjee and Kar 2020: 4; Skafi, Yunis and Zekri 2020: 79173; Olanrewaju *et al.* 2020: 94; Qalati *et al.* 2021: 3; Ali Abbasi *et al.* 2022: 5; Qalati *et al.* 2022: 3). For example, Ali Abbasi *et al.* (2022: 5) collected data on 214 SMEs in Malaysia to identify the determinants of SMM adoption by SMEs. The outcome confirms that perceived cost influences SME adoption of social media in their organization. A similar study was also carried out by Qalati *et al.* (2022: 3) among 381 SMEs in Pakistan, to understand the adoption of social media in the context of SMEs. The findings show that social media's cost-effectiveness influences social media adoption among these SMEs. The study confirmed that perceived cost influences the use of social media among the SMEs who participated. For example, a participant indicated,

“Looking at our size and the profit margins, it would have been difficult for us to use traditional channels for advertising our products. However, with social media, we can put our product online for people to see, and we are able to generate sales from there at a very low cost. Social media is not expensive at all to use” SMEA12

However, validating these findings with the quantitative phase shows that perceived cost does not influence the adoption of social media ($\beta = 0.016$; $t=0.239$; $p= 0.811$). This finding is also consistent with previous studies, such as Skafi *et al.* (2020: 79173) and Tajudeen *et al.* (2018:

313), who reported that cost does not influence social media adoption. This has led to the situation where Qalati *et al.* (2021: 8) have called for more studies to be carried out on the cost to gain more insight. Perhaps the less expensive nature of social media is why some SMEs do not consider cost a hindrance. Due to a lack of resources, there could also be others who could see social media as a cost that impacts their decision to adopt.

6.2.1.2 Perceived Trust

The findings from both the qualitative and the quantitative phases provide support for trust influencing the adoption of social media. Consistent with the findings of previous studies, trust is another factor that influences the adoption of social media by SMEs who participated in the study (Ainin *et al.* 2015: 573; Nawi *et al.* 2017: 379; Vongsraluang and Bhatiasevi 2017: 87). For instance, Ainin *et al.* (2015: 573) stated that trust was among the factors influencing social media and the performance of 259 SMEs in Malaysia. The findings reveal that trust influences the adoption of social media. Further to this, Nawi *et al.* (2017: 379) confirmed that trust influences the adoption of social media among students in entrepreneurship. This current study also confirmed this outcome. For example, the owner of SMEA01 indicated that since he started using social media in their organization, they have never encountered any technical problems. *“Although people have told me about hacking and stuff, I trust Facebook, Twitter and Instagram, which I use to resolve issues of such nature.”*

In addition, quantitatively, the finding is consistent with previous studies such as Nawi *et al.* (2017: 379) and Vongsraluang and Bhatiasevi (2017: 87). Which means SMEs that participated perceived trust as an important technological factor influencing them to adopt social media. This finding could mean, since these SMEs adopted the use of social media, they have yet to encounter technical issues such as hacking that they have to address, hence, their trust for the use of social media, as indicated by SMEA01.

6.2.1.3 Interactivity

The findings reveal both the qualitative and quantitative study phases confirmed that interactivity influence SMEs decision to adopt the use of social media in their organization, which is consistent with the findings of past studies (Ainin *et al.* 2015: 573; Qalati *et al.* 2021: 3; Qalati *et al.* 2022: 3). For instance, recently, Qalati *et al.* (2022: 3) conducted a study in Pakistan by using 381 SMEs to examine the impact of TOE factors on social media adoption and its effect on SME performance.

The present study's findings support the interactivity influencing these SMEs' adoption of social media. For example, participants SMEA09, SMEA13, and SMEA14 indicated that *social media offers several options, such as sharing video, photos and text, and they can engage their customers because of the interactive nature of social media and serve as an effective way of interaction with customers*. In addition, it is essential to note that some studies, such as Tajudeen *et al.* (2018: 209), had a contrary outcome regarding interactivity influencing the adoption of social media. Tajudeen *et al.* (2018: 209) investigated the antecedents and impact of social media usage in organizations using TOE theory among 567 Malaysian SMEs. The findings did not lend support for interactivity influencing the adoption of social media. This means interactivity outcomes still need to be settled, and depending on the context, it may produce different outcomes.

6.2.1.4 Complexity

In this study, complexity in the qualitative phase confirmed influencing the adoption of social media. However, this was not confirmed in the quantitative phase. This means there are inconsistent findings regarding complexity influencing the adoption of social media. According to Alshamaila *et al.* (2013: 257), any technology that is seen as complex or cumbersome is hardly adopted. Zailani *et al.* (2015: 1117) indicated that technologies such as social media must be user-friendly and less complex to enhance the adoption of such technologies. Furthermore, as Maroufkhani *et al.* (2020: 9) observed, when the technology is complex, it creates problems for its adoption.

The qualitative phase's finding shows that social media's complexity influence SMEs' adoption, as some SMEs indicated that social media is less complex and very easy to use. For example, SMEA04 stated that:

“At first, I was afraid to use social media platforms because I thought it was very complex. I tell you is very easy to use, and even my 6 years boy is able to use social media. It is very easy to do from start to finish, and you can do it yourself without someone assisting you.”

This finding is consistent with what Ali Abbasi *et al.* (2022: 5) discovered by collecting data on 214 Malaysian SMEs to identify SMM adoption determinants among these SMEs. The outcome of their study shows that complexity influences the adoption of social media. In addition, Maroufkhani *et al.* (2020: 9) confirmed the same result when they examined big data adoption of 171 Iranian small and medium manufacturing firms. This outcome could be

attributed to the ease-of-use nature of social media and the familiarity of social media to SMEs, which could contribute to the adoption of social media by these SMEs (Ali Abbasi *et al.* 2022: 14). The familiar nature of social media contributes effectively to the use of social media and by so doing reduce the complexity of social media, as noted by Ali Abbasi *et al.* (2022: 14). The relationship between complexity and SME social media adoption (H1:4) in the quantitative phase was not confirmed. This is in line with past empirical studies (Maduku *et al.* 2016: 718; Ali Abbasi *et al.* 2022: 14).

6.2.2 Organisational Factor

In the context of the organisational factor, the results show that management and staff support and entrepreneurial orientation are confirmed by the study's qualitative and quantitative findings as key factors in SME social media adoption. It is evident in the current TOE scholarship that the organisational factor is an essential factor in influencing SMEs to adopt social media (Ahmad *et al.* 2018: 98; Maroufkhani *et al.* 2020: 7; Abed 2020; Olanrewaju *et al.* 2020: 97; Fan *et al.* 2021: 15; Sahaym *et al.* 2021: 489; Fang *et al.* 2022: 1333; Qalati *et al.* 2021/2022). These individual factors in the organisational factor are discussed below.

6.2.2.1 Management and Staff Support

The findings revealed that management and staff support is a key determinant of adopting social media among SMEs. This relationship has been established in the current social media adoption literature and the technology adoption literature in general. This finding has been confirmed by past studies in which management and staff support is seen as influencing the decision to adopt social media (Maduku *et al.* 2016: 714; Matikiti *et al.* 2018: 4; Abed 2020: 3; Maroufkhani *et al.* 2020: 9; Qalati *et al.* 2021: 4; Ali Abbasi *et al.* 2022: 5; Lutfi *et al.* 2022). For example, the result corroborates the findings of Matikiti *et al.* (2018: 4), who suggested management support is an essential factor in influencing attitudes towards SMM among 150 SMEs in travel and tour operations in South Africa.

In light of this, management and staff support are important to enhance and facilitate the adoption of social media in the organization. The findings suggest once management and staff support the use of social media, its adoption becomes an easy and very effective tool for marketing activities such as advertising, promotion, building customer relationships and branding. Furthermore, this finding could also mean that since most SME owners/managers are

educated and use social media daily, which informs their decision to use and support its use in their organizations for marketing.

The findings of the quantitative phase also supported the qualitative phase. For instance, in the qualitative phase, SMEA01, and SMEA02 indicated their commitment and support for the use of social media in their organization by stating that:

“I fully support the use of media in this organization and is making us more visible” SMEA01

“I am very passionate about technological innovations such as social media and I know it would drive our business that is why I fully support the usage of social media in this organization” SMEA02.

The outcomes of both qualitative and quantitative posit that management and staff support influence the adoption of social media among SMEs in Accra.

6.2.2.2 Entrepreneurial Orientation

The result of this study shows that entrepreneurial orientation contributes towards the adoption of social media among SMEs. This linkage has been established by previous studies and this outcome is in line with what these past studies have discovered (Parveen, Jaafar and Ainin 2016: 2222; Tajudeen *et al.* 2018: 209; Dirgiatmo, Abdullah, and Ali 2019: 100; Fang *et al.* 2022: 1328). The owner/manager orientation toward technological innovation is important in driving innovation in the organization, and this orientation has been confirmed by this study, as some SMEs indicated that: *“My team and I are risk-takers, and we are very innovative, so social media is part of the innovation we have embraced”* SMEA07. For instance, Dirgiatmo *et al.* (2019: 100) confirm the influence of entrepreneurial orientation and social media adoption in Indonesia. Similarly, in Pakistan, Fang *et al.* (2022: 1328) highlighted the importance of entrepreneurial orientation and social media adoption. This result suggests SMEs in Accra are embracing social media to enable them to compete and stay in the competition by gaining a competitive advantage, attracting customers, as well as advertising and promoting their products and services.

6.2.3 Environmental Factor

It is evident in the current TOE scholarship that the environmental factor has been found to be an important factor in influencing SMEs to adopt social media (Ahmad *et al.* 2018: 98; Maroufkhani *et al.* 2020: 7; Abed 2020; Olanrewaju *et al.* 2020: 97; Fan *et al.* 2021: 15; Sahaym

et al. 2021: 489; Fang *et al.* 2022: 1333; Qalati *et al.*, 2021/2022). In the current study of environmental factors, the results find support for market pressure, industry competition and bandwagon in both qualitative and quantitative phases. These individual factors in the environmental factor are discussed below.

6.2.3.1 Market pressure

Consistent with previous studies (Ahmad *et al.* 2018: 84; Tajudeen *et al.* 2018: 308; Abed 2020: 4; Qalati *et al.* 2022: 1), this study found support for market pressure, in the pressure from both competition from the market and the customer. The participants indicated the pressure from the market led them to adopt the use of social media so they can withstand the competition and cope with market demand. For instance, SMEA06 indicated the keen competition in the industry by saying:

“The food processing industry is a very difficult one. We have so many competitors, so you must use technological innovations such as social media to be different. So, we post our foodstuff on our social media platforms for people to see what we have, and they are able to place an order for us to deliver to their doorsteps. Besides, I also check what my competitors are doing by browsing their social media sites to see what they are doing.”

Similarly, the relationship between competitive pressure and social media adoption has been tested (Qalati *et al.* 2021: 1; Ahmad *et al.* 2018: 84; Tripopsakul 2018: 350), with the results indicating that competitive pressure influences the adoption of social media among SMEs. These findings confirm that market pressure influenced the adoption of social media among the sampled SMEs in Accra.

6.2.3.2 Industry competition

Concerning industry competition, this study found support for industry competition influencing SME adoption of social media in their organization. This finding is in line with past studies (Ahmad *et al.* 2018: 88; Ali Abbasi *et al.* 2022: 7), which studied how industry competition influences the adoption of social media among SMEs. According to Ali Abbasi *et al.* (2022: 7), the industry in which SMEs operate could greatly influence their adoption of technology. As a result of competition, SMEs are compelled to adopt technologies such as social media to remain in the competition in the industry position. For instance, Ahmad *et al.* (2018: 84) studied social media adoption and their performance by employing the TOE theory with a sample of 144

SMEs in the UAE. The result supports the relationship between industry competition and social media adoption.

This also confirms what some of the participants indicated by stating:

"My clothing industry has so many people even on this street. Just count the number of people who are into textiles and clothes. So, for me, I use social media to display my clothes and promote them. So, I am able to receive orders outside Accra, and sometimes Ghanaians abroad even place orders for us to deliver to their families and friends in Ghana. Honestly, social media has helped me a lot by gaining some advantages, so I use Facebook, Twitter and Instagram."

These outcomes show that industry competition influences the adoption of social media among SMEs in Accra.

6.2.3.3 Bandwagon effect

The bandwagon effect is another important environmental factor influencing the adoption of social media among SMEs. The study found support for the bandwagon effect, which is consistent with previous studies (Ahmad *et al.* 2018: 88; AlSharji *et al.* 2018: 309; Qalati *et al.* 2021: 6). In a study by AlSharji *et al.* (2018: 302) conducted a study in the UAE by using 1 700 SMEs to test the relationship between the bandwagon effect and social media adoption among these selected SMEs. The findings reveal bandwagon predicts the adoption of social media among SMEs in the UAE.

In this study, participants also confirm the existing relationship between these constructs by indicating that:

"Social media is very common now, and many people are using it. So as a business, we also have to use it to be in touch with our customers" SMEA14.

The confirmation from past and current studies shows the bandwagon effect influences the decision to adopt social media among SME participating in Accra.

6.2.4 Entrepreneurial factor

The study finds support for the entrepreneurial factors in qualitative and quantitative phases. These individual factors in the entrepreneurial factor context are discussed below.

6.2.4.1 Personality trait

Consistent with previous studies, personality trait of the entrepreneur is seen as influencing the adoption of social media (Obschonka *et al.* 2017: 14; Vandor 2021: 3). For example, Obschonka *et al.* (2017: 14) examined personality trait and SME technological innovativeness and discovered that personality trait influences SME technological innovativeness. The participants also confirmed this study by stating that:

“Personally, I love taking a risk, and I encourage my staff to be risk takers and innovative all the time, so that is why I love to use social media” SMEA15.

These outcomes reveal the personality trait of the SME owner would influence their technological innovation drive in the business and when, for example, the SME owner/manager has a weak personality trait toward innovation, they are less likely to be motivated to use social media in their organization, and the reverse is the same.

6.2.4.2 Resources available to the entrepreneur

Resources available to the entrepreneur were also found to be an important factor influencing SME adoption of social media. As indicated earlier, SMEs face several challenges, including financial resources. Hence, resources available to the entrepreneur could influence the adoption of technological innovation such as social media, as confirmed by the current study, as well as past studies (Obschonka *et al.* 2017: 14; Vandor 2021: 3).

Participants of the current study confirmed that resource availability influences their decision to use social media by indicating that:

“When it comes to the use of social media, we have the resources to use social media SMEA03, I attach a lot of seriousness when it comes to the use of social media in the organization because it is less expensive. We have the resources to always tap into the benefits social media offers the business” SMEA06.

The outcome indicates that with the necessary resources, SMEs are in a better position to commit financial resources to the use of technological innovation, such as social media, than those with financial challenges. Even though the desire to use social media could be there, they may be hindered by financial resources, which have been identified as a critical challenge for SMEs (Ali Abbasi *et al.* 2022: 2).

6.2.4.3 Analysis of how social media adoption influences SME non-financial and financial marketing performance outcomes

The study examines how SME social media adoption would impact the non-financial and financial marketing performance outcomes in both the qualitative and quantitative phases. The outcomes of non-financial and financial marketing performance are now discussed.

6.2.5 Social media adoption and non-financial marketing performance

The current study confirms the use of social media by SMEs in Accra has a significant impact on their non-financial marketing performance. This finding is consistent with that of previous studies, which investigated the link between the use of social media and non-financial marketing performance (Ahmad *et al.* 2018: 84; Eid *et al.* 2019: 284; Rienda *et al.* 2020: 117; Akbar 2021: 42; Fang *et al.* 2022: 1; Khamaludin *et al.* 2022: 9). For example, Khamaludin *et al.* (2022:9) studied SMM and their marketing performance in the Indonesian SME sector by sampling 300 SMEs. The result also shows that social media adoption impacts non-financial marketing performance positively. Furthermore, Alalawneh *et al.* (2022: 1) studied 217 Jordanian SMEs and the fashion industry by examining social media use and innovative performance. The outcome shows social media use influences non-financial marketing performance. The participants in the current study also confirm these positions, such as by indicating that:

“Social media has given me visibility, and our image has been enhanced through using social media. Our customers are also satisfied with our services because we are able to serve them at their convenience. For example, we display our products on social media and customer place orders, and we use delivery bikes to send them within Accra” SMEA15.

“Our stakeholders, such as suppliers, are satisfied with us because we can promptly communicate and give them feedback on social media” SMEA04.

Our customers' loyalty and satisfaction have increased due to social media” SMEA02.

These findings indicate social media adoption offers SMEs benefits that are not financial and hence, it is important for those who are yet to adopt social media, to start considering its use in their organization.

6.2.6 Social media adoption and financial marketing performance

Concerning financial marketing performance, the study confirmed support for the use of social media and the financial marketing performance of SMEs. The outcome of this study is in line with the findings of past studies when they examined the impact of social media adoption on SME financial marketing performance (Ainin *et al.*, 2015: 570; Cao *et al.* 2018: 211; Akbar 2021: 42). One such example is Ainin *et al.* (2015: 570), who examined the use of social media and SME performance outcomes by using 259 respondents in Malaysia. The finding revealed social media adoption among these selected SMEs influences their financial performance. In addition, a study by Charoensukmongkol and Sasatanun (2017: 32) in Thailand, among 217 owners of small shops, also shows social media adoption has a significant positive relationship with the financial marketing performance of SMEs.

In the current study, SME owners/managers who participated in the semi-structured interview confirmed this by indicating that:

“We are making a profit because social media enables us to sell more” SMEA05.

“Our sales growth is translated into profit for us since we started using social media” SMEA16.

“People order through social media, and this has increased our orders and sales in general” SMEA10.

These findings mean that SMEs using social media in their organizations benefit financially, which contributes to their business growth.

6.3 Analysis of how non-financial marketing performance influences SME financial marketing performance

The study finds support for the relationship between non-financial marketing performance outcomes and the financial marketing performance of SMEs. This outcome is consistent with prior studies (Bahta *et al.* 2021: 1428; Tiep Le *et al.* 2021: 1). For instance, Le (2022: 1) studied SMEs in Vietnam from 2020 to 2021 by using a sample of 482 to investigate CSR and SME performance (finance) through the lens of corporate image, corporate reputation and customer loyalty. The study outcome shows a significant relationship between all the constructs and the mediators.

A similar study was conducted in Eritrea, where Bahta *et al.* (2021: 1428) studied 402 owners/managers of SMEs, to understand the relationship between CSR, SME performance and the role SME reputation plays in the context of a developing country. The findings of Bahta *et al.* (2021: 1428) show CSR significantly impacts financial performance and is influenced by SME reputation. Furthermore, in the qualitative phase, the study finds support for non-financial marketing performance influencing the financial marketing performance, as SMEA06 indicated that:

“Our organization has built a good image over the years, and that is why we are making a profit. A lot of people know us for our quality products.”

This outcome is consistent with previous studies, which means non-financial marketing performance has a significant influence on financial marketing performance.

6.4 Analysis of how financial marketing performance outcomes influence SME environmental sustainability

This objective seeks to determine how SME financial marketing performance would influence them to undertake environmental sustainability, since it is not enough to make a profit and it should also be considered how SMEs would be sustainable. That is why it is important to understand sustainability from the context of SMEs and, more importantly, their contribution towards the development of world economies, particularly developing countries such as Ghana. In addition, sustainability is a significant concern worldwide, with the UN introducing 17 sustainable goals. Hence, the motivation is to understand the sustainability activities of SMEs. The outcome of financial marketing performance influencing the decision of SMEs in undertaking environmental sustainability is presented below.

6.4.1 Environmental Sustainability

The findings provide support for both the qualitative and quantitative study phases. Consistent with the findings of previous studies, financial marketing performance enables SMEs to undertake environmental sustainability practices (Yacob *et al.* 2018: 2; Cardoni *et al.* 2020:1; Arsić *et al.* 2020: 1; Bakos *et al.* 2020: 1; Ali *et al.* 2020: 2294; Chege, and Wang 2020: 1; Hernita *et al.* 2021: 1). An example is Chege and Wang (2020: 1), who investigated the influence of technological innovation on SME performance from the perspective of environmental practices in Kenya, by using 204 respondents. Through their findings, Chege

and Wang (2020: 1) established a significant positive relationship between financial performance and environmental sustainability. In addition, in the South African context, Masocha and Fatoki (2018: 1), using 222 SME owners/managers, show significant positive relationships between economic, social and environmental sustainability. In the study context of Ghana, Danso *et al.* (2020: 652) studied 233 SMEs' stakeholder integration, environmental sustainability orientation and financial performance. Their findings revealed the same outcome as the other scholars.

In this current study, the SMEs that participated also confirm their involvement in some activities of environmental sustainability by indicating that:

“As an agro-processing company, we are very particular about our environment, and my company is helping in reducing unemployment by employing people in the community through employment which is making lives better. As an agro-processing company, we pay attention to the environment. As a result of our business, we produce much waste, and therefore we have made sure it is properly disposed of without harming the environment” SMEA02.

These findings show the SMEs that participated are aware their activities impact the environment and are undertaking various activities to protect the environment in their operations to avoid harming the environment.

6.5 Analysis of how financial marketing performance outcomes influence SME social sustainability

Similar to environmental sustainability, the current study was also interested in determining how financial marketing performance would influence SMEs to undertake social sustainability. The outcome from both the qualitative and quantitative phases is discussed below.

6.5.1 Social Sustainability

The study found support for social sustainability, in line with results from past studies regarding financial (economic) performance and social sustainability (Boso *et al.* 2017: 2; Choongo 2017: 1; Juarez 2017: 74; Chege and Wang 2020: 1). For example, a study conducted by Juarez (2017: 74) among SMEs in the state of Sonora (Mexico), by using 81 respondents from two main industries (Industrial and Service) to examine the relationship between these two constructs. Similarly, Chege and Wang (2020: 1) studied 204 SMEs in Kenya, concluding that SMEs

engaged in social sustainability are likely to perform financially. The findings of past studies were also confirmed in this current study by the participating SMEs; some indicated that:

“I support the community whenever there is an activity or a program SMEA09. We have created employment for the community in which we operate because our staffs come from the community” SMEA06.

These findings show SMEs that participated undertake social sustainability practices to remain competitive and for their businesses to survive, not only in the short- but also in the long-term.

6.6 Revised Conceptual Framework

Based on the findings of the qualitative phase (chapter 4) and quantitative phase (chapter 5), a revised conceptual framework (Figure 5) is developed to reflect both phases (chapter 7). The initial conceptual framework was developed according to the qualitative phase outcomes, consisting of nine TOE factors, where two entrepreneurial factors were found influencing the adoption of social media by SMEs in Accra, while also impacting marketing performance and sustainability performance.

The second phase, which is the quantitative phase, tested the initial conceptual framework developed (Figure 4) with a larger sample of 234 respondents. Based on the quantitative phase, the outcome identified nine TOE and entrepreneurial factors influencing SME adoption of social media. However, two technology factors (perceived cost and complexity) were not found to influence the adoption of social media. Consistent with the findings from the two study phases, a revised conceptual framework (Figure 5) has been developed.

6.7 Summary of Chapter

This chapter discussed the findings by detailing two important phases (qualitative and quantitative). More important though, is the point of integration in the study, when conducting exploratory sequential mixed methods research. The point of integration is where the two findings (qualitative and quantitative) are combined. The study discussed the findings of the two phases in line with the current literature, with an examination to determine whether the findings conform or depart from existing literature and whether the findings revealed new issues. Based on the findings, the study developed a conceptual framework of TOE, entrepreneurial factors, marketing performance and sustainability of SMEs in Accra. The next

chapter presents the conclusion of the entire work, with a discussion of the study contributions, implications, and limitations, as well as direction for future studies.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND CONTRIBUTION

7.1 Introduction

This chapter sets out to summaries the main findings, draw a conclusion based on the analysis and interpretation of the results and suggest some recommendations for consideration by SME owners/managers and policymakers in Ghana. Even though the study was confined to Accra, the outcomes are of great importance to all SMEs in Ghana, as well as policymakers. The first part of this chapter provides a summary of empirical findings based on the qualitative phase (chapter 5) and quantitative phase (chapter 6), in addition to the study objectives and hypotheses. The chapter provides a summary of key findings, both theoretical and practical contributions of the study, the limitations and directions for future studies, and a conclusion to the entire work.

7.2 Summary of the key findings

The key findings of this study are summarized as follows:

- The adoption of social media by SMEs in Abeka Lapaz in Accra is influenced by organisational, environmental, and entrepreneurial factors.
- Environmental factors such as cost and complexity did not significantly influence SME adoption of social media in Accra.
- Social media adoption has a significant influence on SME financial and non-financial marketing performance in Accra.
- Non-financial marketing performance significantly influences SME financial marketing performance in Accra.
- Financial marketing performance of SMEs influences the environmental and social sustainability performance of SMEs in Accra.

7.3 Conclusion based on sub-objectives and hypotheses

The main aim of this study was to investigate the implications of SMM for SME sustainability in Accra. This section provides the conclusion of the various sub-objectives and hypotheses tested in the study.

Sub-objective 1: To evaluate how technology, organization, environment (TOE), and entrepreneurial factors influence SME social media adoption

The interest of this sub-objective was to examine the factors of the TOE and entrepreneurial factors that influence the decision of SMEs to adopt social media in their organizations. The basis of the study design commenced with the qualitative phase in chapter five, and the outcome from the qualitative phase enabled the development of the quantitative phase in chapter six. As stated, the quantitative phase chapter validates the findings from the qualitative phase chapter, collecting data from 234 SMEs in Accra and testing 16 hypotheses.

The outcome from the qualitative phase chapter indicated all 16 SMEs that participated admitted the influence of some technological, organisational, environmental and entrepreneurial factors on their social media adoption. Under the environmental factors, the factors considered from both the qualitative phase and quantitative phase influence the adoption of SMEs. The findings from the qualitative phase chapter align with the findings of extant empirical past studies except for institutional pressure. These SMEs were also present on more than one social media platform, such as Facebook, Twitter, and Instagram. Notably, all 16 SMEs that participated were on Facebook and Instagram, making these platforms the most dominating platforms used by these SMEs.

The findings from the quantitative phase revealed the various technology, organisational, environmental and entrepreneurial factors influencing SME adoption of social media. Results from the technological factors influencing SME social media adoption revealed that price and complexity were not considered important factor influencing the adoption of social media. The outcome is not surprising, because there are inconsistent outcomes from these factors in the extant literature, and researchers such as Qalati *et al.* (2021: 8) have called for more studies to be conducted to gain a better understanding of these technological factors.

The study identified nine factors, namely interactivity, perceived trust, entrepreneurial orientation, and management and staff support, as well as personality trait, resources available to the entrepreneur, industry competition, the bandwagon effect, along with market pressure, as important factors influencing social media adoption by the SME owners/managers who participated in the study. Conversely, factors such as complexity and perceived cost were not considered important factors influencing the decision by SMEs in Accra to adopt social media. In all, the study tested 11 hypotheses, with nine hypotheses accepted and two rejected.

Sub-objective 2: To analyse how social media adoption influences non-financial and financial marketing performance outcomes of SMEs

The interest of this objective is to understand how SME social media adoption influences non-financial marketing performance outcomes, such as brand image, customer satisfaction and loyalty, in addition to financial marketing performance outcomes, such as sales growth and profitability. The outcome shows all participants used social media platforms for their marketing activities, with participants also indicating the numerous benefits received from social media. For instance, participants indicated they use social media for branding, advertising, promotion, and building customer relationships, as well as communicating with customers. Consequently, these SMEs can increase customer satisfaction and customer loyalty. Furthermore, they also indicated social media had increased their sales volumes, growth, and profitability. These findings reveal how SMEs benefit from non-financial and financial marketing performance outcomes in Accra. Under this sub-objective, the study tested for two hypotheses, and both hypotheses (H2:1 and H2.2) were accepted.

Sub-objective 3: To examine how non-financial marketing performance outcomes influence SME financial marketing performance

Sub-objective three concerns understanding how SME non-financial marketing performance outcomes would translate into financial marketing performance outcomes. The findings show when SMEs build their image and improve on their customer satisfaction and loyalty, it translates into an increase in sales volume and, eventually, profitability. The study established this outcome, suggesting that non-financial marketing performance impacts SME financial performance outcomes. The study tested one hypothesis under this sub-objective, and found support for the relationship between non-financial marketing performance and financial marketing performance. Hence, this hypothesis (H3:1) was accepted.

Sub-objective 4: To examine how financial marketing performance outcomes influence SME Environmental Sustainability

Sub-objective four sought to examine how financial marketing performance outcomes would enable SMEs to embark on environmental sustainability. The idea is, because of the numerous challenges facing SMEs, which have been documented in the extant literature, such as lack of funds, it is important to understand that when SMEs are financially sound, it will influence them to undertake sustainability activities, particularly in a developing country where the collapse of SMEs is a frequent occurrence.

From the outcome, the study confirms SME owners/managers who participated are mindful of their environment, which was evident during the interview process, as reported in chapter five. This relationship was also established quantitatively in chapter six. The implication is that financial marketing performance also enables SMEs to undertake sustainability, with sustainability practices not only limited to large organizations. Under this sub-objective, the study tested one hypothesis, with the results showing a significant positive relationship between financial marketing performance and environmental sustainability. Hence, the study accepts hypothesis H4:1.

Objective 5: To analyse how financial marketing performance outcomes influence SME social sustainability

Apart from finding out whether financial marketing performance outcomes would enable SMEs to undertake environmental sustainability, the study also sought to understand how financial marketing performance outcome influences SME social sustainability. The study confirmed that financial marketing performance enables SMEs to undertake activities to help the society in which they operate. For instance, during the interview, participants indicated their support for community development and employing people in their community. The relationship was also confirmed quantitatively. The outcome concurs with the findings of previous studies and indicates that SME owners/managers in Accra who participated, are involved in social sustainability.

Sub-objective 6: To develop a conceptual framework to test the complex relationship between technology adoption, social media, marketing performance and SME sustainability in Accra

A final conceptual framework was developed for SMEs in Accra, indicating the influencing factors of social media adoption and the relationship between social media adoption, non-financial and financial marketing performance, and sustainability for SMEs in Accra. Based on the findings, the study developed a revised conceptual framework for the adoption of social media, marketing performance and sustainability of SMEs in Accra to take advantage of social media. The study has achieved this sub-objective through the development of a conceptual framework for SMEs in Accra., with the revised conceptual framework (Figure 5) presented in this chapter. A summary of the relationships of the entire conceptual model is also presented in Table 5.26 in chapter five (5).

7.4 Contributions of the study

The current study provides both theoretical and practical contributions. The study, therefore, discusses each of the individual contributions in this section.

7.4.1 Theoretical contributions

Theoretically, this study contributes to the TOE theory, social media adoption and technology adoption in general, as well as marketing performance and sustainability literature. More importantly, the study enriched the robustness of the TOE by examining technology, organization, environmental and entrepreneurial factors to understand factors influencing the adoption of social media in an organisational context such as SMEs. In this regard, the study offers four contributions related to the TOE factors by identifying technology, organisational, environmental and entrepreneurial factors as influencing the adoption of social media.

In addition, this study employed the use of an exploratory sequential mixed-methods approach to understand the issue of the TOE and social media adoption from the Ghanaian context, where such studies are hardly seen, while in the extant scholarship of the TOE and social media adoption, several studies either use qualitative (Eze *et al.* 2019: 164; Zamani 2022: 738; Santos *et al.* 2022: 5) or quantitative (Tajudeen *et al.* 2018: 311; Oyewobi *et al.* 2022: 12) to explore the issue of the TOE factors and social media adoption. In scanning through the literature, it was found that limited studies have attempted both methods (Mujahed *et al.* 2022: 562) and most studies have employed the use of a quantitative method (Maduku *et al.* 2016: 715; Abed 2020: 5; Maroufkhani *et al.* 2020: 7; Chege and Wang 2020: 6; Qalati *et al.* 2021: 4).

This situation allows the present study to enrich the understanding of TOE factors influencing social media adoption among SMEs, from both a qualitative and a quantitative approach, which builds on the current literature, particularly from a developing country perspective. For instance, under the qualitative phase, the entrepreneurial factor emerged with two sub-themes, personality traits and resources available to the entrepreneur, adding to the TOE factors and as factors influencing social media adoption. These factors were also later confirmed in the quantitative study phase. Extending the TOE theory to include other factors builds on the theory, allowing it to apply to other country contexts and gain more insight into the TOE theory.

Another important theoretical contribution of this study, is that the study did not only provide the factors influencing the adoption of social media by SMEs in Accra, but also proceeded to examine how social media adoption would translate into their marketing performance outcomes

(financial and non-financial performance). The literature indicates how most studies have examined the TOE factors on SME adoption of social media, without proceeding to investigate the impact of the adoption on their marketing performance. Admittedly, some researchers have examined social media adoption and their performance in general. However, more research is needed to examine social media adoption and marketing performance from both financial and non-financial perspectives in a single study in the marketing scholarship, particularly in the study context.

This study, therefore, makes a substantive contribution to the literature by enhancing the understanding of how social media adoption would impact SME non-financial performance outcomes such as brand image, customer loyalty, and customer satisfaction, and how these SME non-financial marketing performance outcomes translate into financial marketing performance outcomes, such as profit and return on their investment. This adds to the current understanding and knowledge of the importance of SME social media use from a marketing point of view, thus enriching social media adoption and marketing literature.

The study also further touched on how SMEs would embark on sustainability practices as a result of their financial performance, by examining SME environmental and social sustainability practices. This brings a better understanding of how SMEs, through social media adoption, would impact their marketing performance, leading to SME involvement in sustainability activities. In doing so, the study engaged different important domains of the academic field by drawing insight from technology innovation adoption, social media, marketing, and sustainability, which provides a broader perspective of issues than only focusing on one area of academic discipline.

Besides these contributions, another major contribution of this study is the development of a statistically validated TOE conceptual framework model that not only examines the TOE factors influencing SME social media adoption, but a comprehensive model that examines TOE factors influencing social media adoption, marketing performance and sustainability of SMEs in Accra. This study, therefore, restates the importance of the TOE theory as flexible and accommodative in nature. Scholars are thus able to further replicate or add other constructs, in testing the conceptual framework developed by this study, in a different country context, to enhance a deeper understanding of the various constructs studied. This study supports the findings of several studies claiming the TOE factors provide a solid theoretical foundation to

study the adoption of technological innovation and several have received empirical support (Tajudeen *et al.* 2018: 311; Oyewobi *et al.* 2021 12).

7.4.2 Practical contributions

The current study offers practical contributions that would be useful for owners/managers of SMEs by developing a conceptual framework that can be relied on by SMEs in Ghana to examine TOE factors influencing social media adoption, marketing performance, and sustainability. The framework will enable SME owners/managers to determine the conditions under which social media can be adopted and be aware of the different factors that could influence their decision to adopt social media. This study enables SMEs owner/managers to understand the numerous benefits associated with using social media, with regard to marketing, and be able to apply strategies to deploy social media.

Further to this, the study shows how SMEs would take advantage of social media to enable them to become sustainable and competitive, both in the short- and long-term. The conceptual framework would also serve as a point of reference for SMEs yet to adopt social media in the future to remain abreast with the factors influencing the adoption of social media, how social media impacts marketing performance and making SMEs sustainable through engaging in sustainability practices.

Another important practical contribution emerging from the finding, is that complexity is not considered an important issue among the respondents in the quantitative phase. The finding suggests social media is seen as user-friendly and easy-to-use technology, which implies it is important for SME owners/managers not to see complexity as a hindrance in adopting social media in their organizations.

In the environmental context, the findings suggest no difference among industries regarding social media adoption. This implies SMEs owners/managers should understand social media is not made for a particular industry and, irrespective of the industry, they can still adopt social media, since it can be useful in various industries; meaning SMEs should not see the type of industry as preventing them from using social media.

7.4.3 Policy contribution

The study provides an important guide for government players and policymakers, such as the Microfinance and Small Loans Centre (Masloc), which supports the interest of SMEs in Ghana.

Regarding the study aim and findings, players and policymakers must draw insight from the findings to enable them to enhance and promote how SMEs could benefit from adopting social media to enhance their marketing performance and become more sustainable. The study developed more robust TOE factors, indicating their influence on social media adoption, marketing performance and sustainability among SMEs in Ghana. Particularly, the conceptual framework has provided the influencing of eight technological (Interactivity, Perceived Trust), organisational (Entrepreneurial Orientation, Management and Staff Support), environmental (Industry Competition, Market Pressure) and entrepreneurial factors (Personality Trait, Resources Available to the entrepreneur) as factors influencing the decision of SMEs in Accra to adopt social media. This model will assist policymakers and players in developing strategies to increase the understanding of why SMEs should pay serious attention to social media and encourage those yet to use it, to consider the advantages of social media use.

It was additionally found that trust is a vital issue, which has important implications for policymakers in Ghana, as they can capitalise on this finding by directing efforts to enhance trust and increase awareness of how social media providers are making efforts to improve trust. With these efforts, it would likely motivate SMEs that have adopted social media to extend its current use (branding, advertising and promotion, obtaining referrals, and developing customer relationships, as well as communicate with customers, customer service activities, and receiving customer feedback) to other online areas such as receiving online payments, where trust is key. This would enable policymakers to increase awareness of laws protecting online transactions and laws governing the online environment, such as cyber security. Moreover, this would enable policymakers to organise training and introduce campaigns that target improving SME knowledge regarding the current legal framework protecting cybercrimes and data protection with regard to online transactions.

7.5 Recommendations based on the study results

The main aim of this study was to identify the implications of SMM for the sustainability of SMEs in Accra. The study developed and tested 16 hypotheses in total. Based on the findings, the following recommendations are made to SMEs and policymakers in Ghana.

- The study recommends that SMEs owner/managers take advantage of the conceptual framework developed by the study, which identifies the TOE and entrepreneurial factors influencing the adoption of social media. SMEs in Accra and Ghana would benefit from using

the conceptual framework developed by this study to examine their conditions and the factors to pay attention to with regard to social media adoption. The study also recommends that policymakers such as Masloc utilise the conceptual framework developed in formulating strategies to increase awareness of why there is a need for SMEs who are yet to use social media, to take advantage of and educate them on the benefits of social media use. When this is done, it could improve SME social media use, which would put them in a better position to contribute toward the country's development.

- The study recommends that SME owners/managers formulate strategies around these identified factors and train their employees to effectively manage their social media presence to take advantage of social media and become sustainable. The training should cover how to create relevant, informative, and interesting content that appeals to the target audience. Furthermore, the training should cover how to use each platform effectively, such as how to use hashtags, tagging, and posting times. In addition, the training should cover how to use social media analytics tools to track and analyse these metrics. In terms of aspects to avoid, the study recommends the training should emphasise the need to avoid inappropriate content, offensive language, or negative comments regarding competitors. It is also important to avoid spamming customers with too many promotional messages or irrelevant content. Overall, the focus of the training should be on creating a positive and engaging social media presence that builds brand awareness, engages customers, and drives business growth.

- The study findings posit that social media is less expensive to use and is almost free when it comes to usage, which means it does not require a huge investment to use social media, making it affordable for SMEs. Compared with technologies such as Enterprise Resource Planning (ERP) systems, social media is more affordable. Therefore, the study recommends SMEs take advantage of social media to compete with their large counterpart firms and become more competitive. By focusing on building a strong social media presence, creating high-quality content, leveraging social media advertising, and collaborating with influencers, as well as monitoring social media metrics, SMEs can become more competitive and reach their business goals.

- The study recommends policymakers make the necessary efforts to enhance trust in social media and create awareness of how these social media providers address the issues. This would motivate the current purpose of SME social media use, such as promotion and advertising, communicating and reaching new customers, to other equally critical technological

areas where trust is crucial, such as online payments. Policymakers can launch awareness campaigns to educate SMEs and the general public on the benefits of social media and online payment systems. This could include webinars, workshops, and online training resources to help SMEs understand how to use these tools effectively and securely. In addition, policymakers can foster partnerships between SMEs and financial institutions to promote the use of online payment systems. This could include providing incentives for financial institutions to develop easy-to-use payment systems that meet the needs of SMEs, and collaborating with payment providers to ensure secure and efficient payment transactions. These measures would build confidence among SMEs in using online payment, which would boost the government's drive to encourage digitisation in the country.

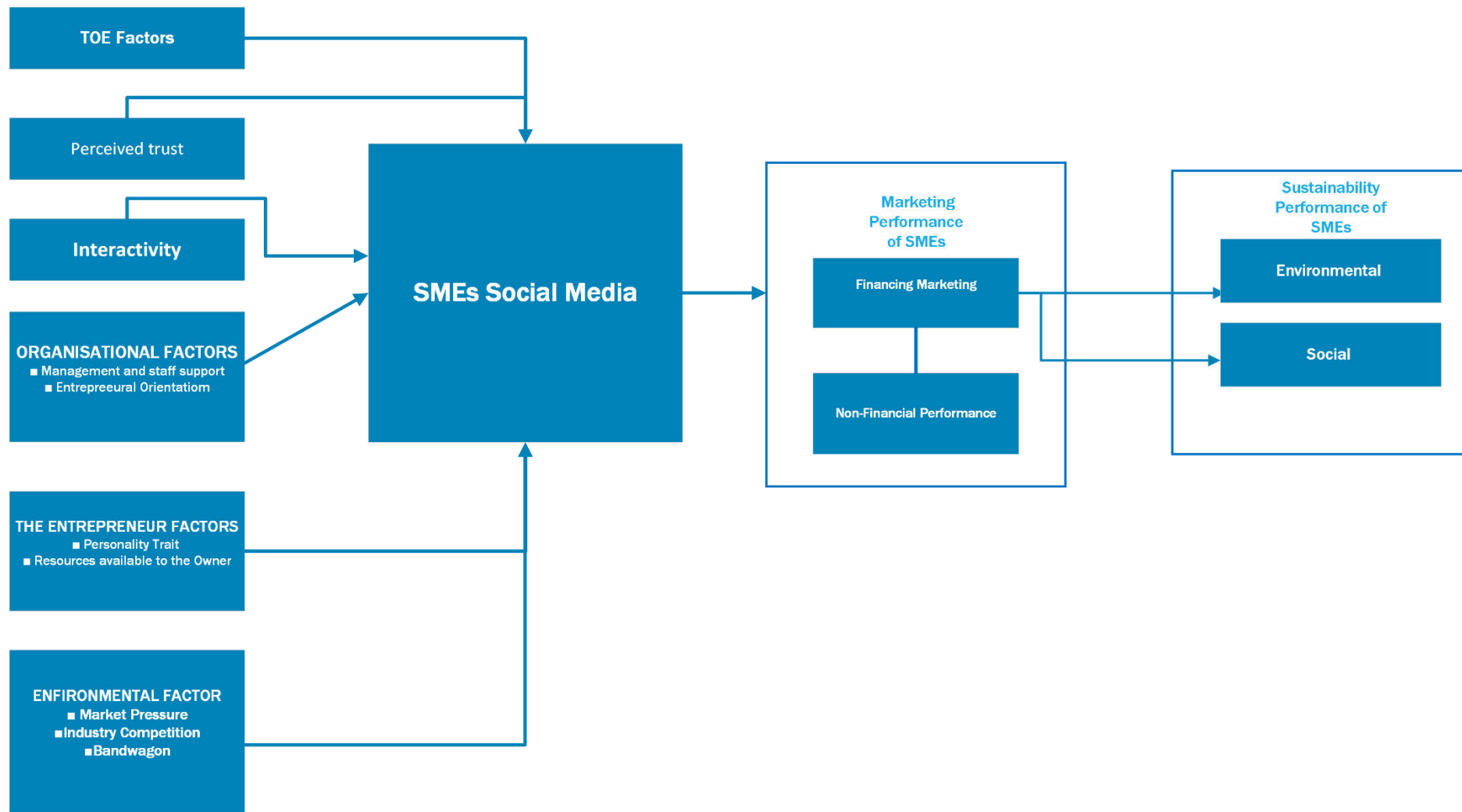
- Further to the above, the study recommends policymakers create awareness of current laws and legal frameworks addressing cybercrimes and protecting online payments. This should be done through training and campaigns targeting SMEs, to improve their knowledge on issues that deal with cybercrimes and the protection of online payments. Policymakers can create posts, videos, and infographics that explain these laws and frameworks in an easy-to-understand way, and provide links to more detailed resources.
- Develop a SMM Strategy for SMEs: Policymakers can support SMEs in Accra by developing a SMM strategy that can help these small enterprises to leverage social media platforms effectively. The strategy could include training and mentoring programmes that will equip SMEs with the skills and knowledge needed to create and manage social media campaigns.
- Provide Access to Funding: Policymakers can facilitate access to funding for SMEs in Accra to support their SMM efforts. This could be done through partnerships with financial institutions and other stakeholders in the ecosystem to create specialised funding schemes for SMEs.
- Establish Support Networks: Policymakers can establish support networks that connect SMEs in Accra with mentors, consultants, and other industry experts. This will enable SMEs to access specialised knowledge and resources that can help them navigate the complexities of SMM and achieve sustainability.
- Develop Digital Marketing Infrastructure: Policymakers can invest in digital marketing infrastructure such as Wi-Fi hotspots, high-speed internet access, and other digital resources

SMEs can leverage for SMM. This will create an enabling environment for SMEs to access digital resources and improve their SMM efforts.

- **Enhance Data Privacy and Security:** Policymakers can enhance data privacy and security laws to protect SMEs from cyber threats, data breaches, and other security risks associated with SMM. This will build confidence among SMEs and encourage them to invest more in SMM.

7.5.1 Recommended conceptual framework for SME social media adoption, marketing performance and sustainability in Ghana

In accordance with the study findings, a conceptual framework for SME social media adoption, marketing performance and sustainability in Accra is proposed. The recommended conceptual framework would improve social media use and ensuring these small enterprises are better placed to compete with their counterpart large organizations, while serving as a reference point for SMEs yet to take advantage of social media. Figure 7.1 depicts the recommended conceptual framework for SMEs in Accra and Ghana.



7.6 Limitations of the research

This study was set out to advance knowledge of the factors influencing social media adoption by SMEs in Ghana and how the adoption translates into their marketing performance and sustainability. This has been achieved through the objectives and hypotheses set in Chapter one of this study. However, irrespective of the contribution of this study towards the academic and practical domains, this study has limitations. Hence, the findings should be considered in light of these limitations. The various limitations are discussed in the subsequent paragraphs.

- The first limitation associated with this study is that it focused on only SMEs who have adopted social media in their enterprise. The study did not consider non-adopters of social media, since the exclusion criteria (Chapter three) do not allow for those not on social media to be part of this study. Another concern is the selection of the study sample frame. As stated earlier in this study, the entire population of SMEs is unknown; hence, the selection of a sample representative of the entire population was problematic. However, efforts were made to address this issue through a careful examination of the same and by relying on past empirical studies.
- The study, furthermore, only considered the relative significance of the individual influencing factors (independent variables) on the dependent variables without examining the intra-relationships among the independent variables. This was outside the objective of the current study. Another issue is the influence of the TOE factors on each other in the same context was also not considered. For example, the impact of interactivity (technological factor) on trust (technological factor) in the context of SMEs in Accra was not considered.
- Another limitation noted in this study is the selection of the sample from one geographical area, which is Accra, the capital of Ghana. Ghana currently has 16 regions in all, and the selection of just one region limits the generalisation of the findings to the rest of the country's regions. Limiting the study to the capital is because the researcher has limited information regarding the SMEs in other regions of the country. Regardless of this limitation, the similar cultural and socio-economic situation across the country would have a small impact on the findings of limiting the study to only Accra.

- In addition, the study was limited to SMEs in Accra, Ghana, which is a developing country and readers should be guided when generalising the result to the context of similar developing countries. The findings of this study provide a foundation to probe these constructs in developing countries with similar contexts.

7.7 Directions for Future Research

The current study provides several opportunities for researchers to empirically build on the findings and address the issues raised as study limitations, to bring a deeper insight into the topic under study. The first avenue for scholars is to replicate this study among the rest of the 15 regions of Ghana. This is important because the research was limited to Accra and studying the different regions of Ghana would enhance the generalisability of the findings and provide us with the likely differences between SMEs in Accra and the other regions of Ghana.

Another avenue scholars can explore is to conduct a multi-country study, by comparing Ghana with other similar developing countries such as Nigeria, Kenya and so on, and a developed country, in the context of SMEs. As a consequence, it would provide a deeper understanding and knowledge concerning social media adoption, marketing performance and sustainability of SMEs.

In addition, future studies could be conducted by investigating this study on large organizations, as this study is focused on SMEs. Examining this through the same theoretical framework and methods used by the current study will add insight into the variation across SMEs and large organizations. Besides, a single industry focus (for example, banking, wholesale and retail, tourism and manufacturing) would also be an avenue for researchers to study since the study focused on several industries simultaneously.

The study also provides a future research avenue for scholars to explore the views of other stakeholders, such as customers and suppliers, on social media adoption, marketing performance and sustainability. This will enable a deeper understanding of the issues from different stakeholder perspectives, which would provide SMEs with a better understanding of social media adoption, marketing performance and sustainability decisions. Finally, the study recommends a future study be carried out by investigating the influence of sociocultural factors influencing SME social media adoption, drawing insight from the seminal works of Hofstede's cultural dimensions to enrich our understanding of social media adoption, marketing performance and sustainability.

7.8 Conclusion

The current study contributes to understanding social media adoption, marketing performance outcomes and sustainability through the lens of the TOE theory by extending the TOE theory to include another factor from the perspective of a developing country's context, where more studies are needed. The study commenced with chapter one, which set the tone for the entire study, indicating the background, problem statements, main and sub-objectives, as well as hypotheses, limitations and delimitations, and the organisation of the study. Chapter two followed with an extensive literature review of the TOE theory, the entrepreneurial factor, social media, marketing performance and sustainability.

The next chapter, the methodology chapter, details how the entire study will be done. The chapter detailed how the study employed a pragmatism research paradigm and an exploratory explanatory sequential mixed-methods approach; based on this approach, a qualitative study is conducted first, chapter four (first phase-qualitative). A semi-structured interview guide was used to collect data from 16 SMEs in Accra, and the analysis performed using a thematic approach with the help of NVivo (software for qualitative data analysis). The result of the first phase (chapter four-qualitative) served as the basis for the second phase (chapter five-quantitative). In accordance with the qualitative phase results, an empirical review was conducted to determine the relationship between the constructs, leading to the formulation and development of 16 hypotheses. The quantitative phase collected data from 234 SME owners/managers through a questionnaire, with data analysed using PLS-SEM.

The study proceeded by integrating the findings of the two phases (qualitative and quantitative) into one chapter, chapter six, which is the discussion chapter, wherein the findings are examined in line with the literature, considering any matters emerging from the qualitative result validation. The study concluded with this last chapter, indicating the key findings, drawing a conclusion based on sub-objectives and hypotheses, contributions, recommendations, and limitations as well as offering direction for future research.

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APPENDICES

Appendix 1: Letter of Information



LETTER OF INFORMATION

Title of the Research Study: The implications of social media marketing on the sustainability of SMEs in Accra

Principal Investigator/s/researcher:

Co-Investigator/s/supervisor/s:

Brief Introduction and Purpose of the Study: My name is Hayford Amegbe, a PhD student at the Durban University of Technology, South Africa. I am undertaking a study by looking at the implications of social media marketing on the sustainability of SMEs in Accra and kindly invite you to partake in this research voluntarily. SMEs are considered to play a key role in contributing toward job creation, reduction in unemployment and poverty alleviation in most developing and or emerging economies such as Ghana. One of the technological tools advancing this course is social media. So, the objective of this study is to investigate the Implications of social media marketing for the sustainability of SMEs in Ghana. Specifically, this study would look at the following sub-aims

1. To examine how Non-Financial outcomes, influence Economic Sustainability of SMEs
2. To examine how Economic Sustainability influences Environmental Sustainability of SMEs
3. To analyse how Social Media Adoption influences Non-Financial Marketing Performance Outcomes of SMEs
4. To analyse how Economic Sustainability influences Social Sustainability of SMEs
5. To evaluate how Technology, Organisation, and Environment (TOE) influences Social Media Adoption of SMEs
6. To develop a conceptual framework to test the complex relationship between technology adoption, social media, marketing performance and sustainability of SMEs in Accra

Outline of the Procedures: Mixed method approach is employed in this study. Qualitatively, SMEs owners/managers in Greater Accra would be interviewed with an interview guide developed by the researcher. Also, a survey has been designed to collect quantitative data from SMEs owners/managers in Greater Accra as well. I would like to also assure you that the questionnaire and the interview guide do not contain any item that would identify you, and that of your organisation. You would spend approximately 10 minutes to complete the questionnaire, and the interview also would last about 20 minutes. Please note that there are no right or wrong answers during the interview and the filling of the questionnaire.

Risks or Discomforts to the Participant: There are no risks or anything that will make the participants feel any discomforts. The data collection instruments are free from words that would cause discomfort, regrets and risks to the respondents.

Reason/s why the Participant May Be Withdrawn from the Study: Please note, that you, are free to withdraw from this study at every stage of the process, because it is not compulsory and it is on your free will

Benefits: This study is not only important for the individual SMEs in the country but also for all the regulatory authorities such as (The National Board for Small-Scale Industries (NBSSI) and Microfinance and Small Loans Centre (Masloc). This study will enable them to better understand SMEs characteristics and to identify how social media marketing enhances the performance and sustainability of SMEs in Ghana and provide the necessary support

Remuneration: Please, there is no remuneration for participating in this study. The study is mainly for academic purposes only and a partial requirement for the award of a PhD in Marketing. Therefore, there is no remuneration in agreeing to participate in this research.

Costs of the Study: All the necessary costs are born by the researcher

Confidentiality: The information provided by the participant will be strictly anonymous and strictly confidential and will be used solely for the purpose of this academic exercise

Result: At the end of the study, the findings would be published in accredited journals and conferences. Also, a copy of the report would be made available to The National Board for Small-Scale Industries (NBSSI) and Microfinance and Small Loans Centre (Masloc).

Research-related Injury: There is no performance of an act that can result in any form of physical, psychological or emotional injury of the participants.

Storage of all electronic and hard copies including tape recordings: The data would be collected in both hard and soft copies, and these would be kept by the researcher and would personally guarantee its security and confidentiality. The hard copies would be destroyed after five years of storage. The softcopies would be stored on my personal laptop and password protected.

Persons to Contact in the Event of Any Problems or Queries:

In the event of any problem or queries, kindly contact the following:

1. The researcher: Hayford Amegbe on +233-54-3501783 or at 22175098@dut4life.ac.za,
2. The supervisor: Dr. Nkululeko PraiseGod Zungu on 0027 89944786 or at Nkululekoz1@dut.ac.za
3. The Director: Research and Postgraduate Support: Dr. L. Linganiso on 0027 31 373 2577 or researchdirector@dut.ac.za.
4. The Institutional Research Ethics administrator on 0027 31 373 2900.

Appendix 2: Consent



CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _____,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant Hammond Danso Date Time 21/6/2022 Signature

I, Hayford Amegbe herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Name of student Hayford Amegbe Date 21/6/2022 Signature

Full Name of Witness (If applicable) Date Signature

Full Name of Legal Guardian (If applicable) Date Signature

Please note the following:

Research details must be provided in a clear, simple and culturally appropriate manner and prospective participants should be helped to arrive at an informed decision by use of appropriate language (grade 10 level - use Flesch Reading Ease

Scores on Microsoft Word), selecting of a non-threatening environment for interaction and the availability of peer counseling (Department of Health, 2004).

If the potential participant is unable to read/illiterate, then a right thumb print is required and an impartial witness, who is literate and knows the participant e.g. parent, sibling, friend, pastor, etc. should verify in writing, duly signed that informed verbal consent was obtained (Department of Health, 2004).

If anyone makes a mistake completing this document e.g. wrong date or spelling mistake a new document has to be completed. The incomplete original document has to be kept in the participant file and not thrown away and copies thereof must be issued to the participant.

Please note the following:

Research details must be provided in a clear, simple, and culturally appropriate manner and prospective participants should be helped to arrive at an informed decision by use of appropriate language (grade 10 level - use Flesch Reading Ease Scores on Microsoft Word), selecting of a non-threatening environment for interaction and the availability of peer counseling (Department of Health, 2004)

If the potential participant is unable to read/illiterate, then a right thumb print is required and an impartial witness, who is literate and knows the participant e.g. parent, sibling, friend, pastor, etc. should verify in writing, duly signed that informed verbal consent was obtained (Department of Health, 2004).

If anyone makes a mistake completing this document e.g. wrong date or spelling mistake a new document has to be completed. The incomplete original document has to be kept in the participant file and not thrown away and copies thereof must be issued to the participant.

References:

Department of Health: 2004. *Ethics in Health Research: Principles, Structures and Processes* <http://www.doh.gov.za/docs/factsheets/guidelines/ethnics/>

Department of Health. 2006. *South African Good Clinical Practice Guidelines*. 2nd Ed. Available at: http://www.nhrec.org.za/?page_id=14

Appendix 3: Gatekeepers Letter



GATEKEEPERS' LETTER

Faculty of Management Sciences
Department of Marketing and Retail Management
South Africa

17th June 2021

The Owner/Manager
Amenuveve Enterprise
Accra

Dear Sir/Madam

REQUEST FOR GATEKEEPER LETTER

My name is, Hayford Amebe a DPhil student at the Durban University of Technology, South Africa. Would you please help me to research the topic: "The implications of social media marketing on the sustainability of SMEs in Accra" by signing the letter of informed consent (attached).

The gatekeeper information is part of the requirement for my proposal to be accepted at the Durban University of Technology and is also a confirmation that I would be able to collect data on the rest of the SMEs in Accra, Ghana. Attached is the letter of information, the letter of consent, and the questionnaire for more insight into the research.

As a gatekeeper, I would like you to sign the letter of informed consent if you want to help facilitate my study.

Please, feel free to ask or contact me if you need more clarification on the research.

Thank you so much for accepting to be part of this study

Kind regards,

Hayford Amegbe
+233-0543501783
Email: 22175098@dut4life.ac.za/dansohay@yahoo.com

AMENUVEVE ENTERPRISE

Tel: 0551546338

Loc: Lapaz, Accra



Email: barkoh72@gmail.com

8th July 2022

Department of Marketing and Retail Management

Faculty of Management Sciences

Durban University of Technology

South Africa

Dear Sir/Madam,

RE: GATEKEEPER PERMISSION TO CONDUCT RESEARCH

The above subject refers upon request by Mr. Hayford Amegbe, who is a Ph.D. student in the Faculty of Management Sciences and conducting a research project titled "The implications of social media marketing on the sustainability of SMEs in Accra Ghana".

This letter serves to confirm that Mr. Amegbe has been granted permission to collect primary data from SMEs in Accra Ghana. We are satisfied with his letter of information, the approved proposal, and the items in the research instruments, and glad to extend to him all deserving courtesies.

Please, do not hesitate to contact the undersigned in case you will require further information.

Thank you.

Yours faithfully,

Hammond Danso

Owner/Manager

Appendix 5: Research Instrument



Research Instrument

Dear SME Owner/Manager,

I am Hayford Amegbe doing my DPhil at the Durban University of Technology, concentrating on Marketing at the Faculty of Management Sciences. My study is focusing on the implications of social media marketing on the sustainability of SMEs in Accra. The main aim is about studying the implications of social media marketing on the sustainability of small and medium enterprises (SMEs) in Accra. The outcome of this study is not only beneficial to SMEs but also to the Authorities in charge of SMEs to identify areas of support for them to assist SMEs in Ghana. Your company and you are invited to be part of this research because you are part of SMEs operating in the Capital, Accra.; Your acceptance to be part of this study is very important to the success of the study. Your time is much valued, and I sincerely appreciate your agreeing to be part of this study. All the responses you will be provided will be anonymous and strictly confidential and is mainly for this academic exercise. There are no financial benefits in agreeing to participate in this intellectual exercise.

Please, you are free to withdraw from the interview if you decide to do so. Let me take this opportunity to thank you for agreeing to participate in this interview. Please it takes up to 20 minutes for the interview

Please, if you have any issues or questions concerning this study, please contact me through the information provided below

Mobile Phone:+233-543-3501783

Appendix 6: Proposed research instrument with respondent recommendations and suggestions after pilot test (QUAL)

1. SMEs Background information

- 1.1 I would like you to tell me a little bit about your educational background
- 1.2 I would like you to tell me a little bit about your business
- 1.3 Are you the owner and what is your role?
- 1.4 How many employees do you have?
- 1.5 What are your key services or industry?
- 1.6 How many years have you been in business?

2. Social Media Adoption

- 2.1 What social media strategies has the company embraced or is currently using?
- 2.2 How do you make decisions on how to implement social media innovation in your company?
- 2.3 How good do you believe your company is at using modern technology?
- 2.4 What factors influenced the company's decision to use or not use social media?
- 2.5 What are the key reasons for not using social media sites in your business?
- 2.6 What was expected for your company to embrace social media platform(s)?
- 2.7 How much do you believe your company is aware of social media? Please elaborate.

3. Technological Factors

- 3.1 What technological factors do you believe would have an effect on your company's adoption of social media? Explanation
- 3.2 What aspects do you see social media platforms differing from other technologies the company uses in terms of technological factors?
- 3.3 How has social media helped your company? Give examples to illustrate your point.
- 3.4 How well has social media integrated with your business processes?
- 3.5 What effect does (relative advantage, compatibility, complexity, observerability and triability) have on social media adoption?
- 3.6 Are there any other technological factors that you believe can influence your decision to use social media in your business?

4. Organisational Factors

4.1 What organizational factors do you believe can have an effect on your company's adoption of social media? What is the reason for this?

4.2 Do you believe the company's status as a SME affected the adoption decision? What are the advantages and disadvantages of each?

4.3 How has top management supported the adoption of social media?

4.4 Has innovativeness helped the adoption of social media in your company?

4.5 Has your previous experience with other similar technologies affected the adoption of social media in your business? Please explain

4.6 Are there any other organizational factors that have influenced how you view social media?

5. Environmental Factors

5.1 What environmental factors has affected the adoption of social media in your business? Please give reasons

5.2 How has (competitive pressure, industry, market scope, external computing support) affected the adoption of social media? How?

5.3 What, if any, part did your family and friends play in your decision to use social media in your business?

5.4 Are there any other environmental factors that you believe might influence your decision to use social media in your business?

6 Entrepreneurial Factor

6.1 Do you have the financial resources for the adoption of social media?

6.2 Are you able to obtain financial support from banks or other financial institutions to support the adoption of social media?

6.3 Do you always welcome new ideas and experiences in your organisation?

6. Non-Financial Performance

6.1 Apart from financial performance, tell me how adoption of social media has helped the performance of you enterprise

7. Financial Performance

7.1 Can you please tell me how the adoption of social media has helped sales growth, sales volume, profit and return on investments

8. Sustainability

8.1 Please tell me how you handle your business environment when it comes to reducing waste, energy consumption and complying with environmental issues

8.2 Can you please tell me the kind of relationship between your enterprise with your community and stakeholders?

8.3 How has your enterprise contributed towards improving the quality of life in the communities you operate?

Thank you for your time

Appendix 7: Recommendations and suggestions after pilot test (QUAL)

No	Respondents	Interview guide No.	Interview guide	Responses
1	A	1.2	Are you the owner and what is your role?	Added comma after the owner
		2.1	What social media strategies has the company embraced or is currently using?	Deleted has and replaced with have
		8.3	How has your enterprise contributed towards improving the quality of life in the communities you operate?	Deleted towards
		7.1	Can you please tell me how the adoption of social media has helped sales growth, sales volume, profit and return on investments	Putted a comma after Profit.
		5.2	How has (competitive pressure, industry, market scope, external computing support) affected the adoption of social media? How?	Added and after-market scope
		4.6	Are there any other organizational factors that have influenced how you view social media?	<i>Deleted any, have and changed influenced to influencing</i>

2	B	8.2	Can you please tell me the kind of relationship between your enterprise with your community and stakeholders?	<i>Deleted kind and with Replaced with and</i>
		2.5	What are the key reasons for not using social media sites in your business?	<i>Redrafted the sentence to: What are the key reasons for your business not using social media sites?</i>
		6.1	Apart from financial performance, tell me how adoption of social media has helped the performance of you enterprise	<i>Added the after how</i>
		5.1	What environmental factors has affected the adoption of social media in your business? Please give reasons	<i>Deleted has and replaced with have</i>
		4.5	Has your previous experience with other similar technologies affected the adoption of social media in your business? Please explain	<i>Deleted other and deleted the after affected</i>

		4.2	Do you believe the company's status as a SME affected the adoption decision? What are the advantages and disadvantages of each?	<i>Deleted a and replace with an</i>
		3.1	What technological factors do you believe would have an effect on your company's adoption of social media? Explanation	<i>Deleted an effect on and replaced with would affect</i>
		3.6	Are there any other technological factors that you believe can influence your decision to use social media in your business?	<i>Redrafted the question to: Are any other technological factors influencing your decision to use social media in your business?</i>
		4.1	What organizational factors do you believe can have an effect on your company's adoption of social media? What is the reason for this?	<i>Deleted effect on and replaced with affect</i>
3	C	2.2	How do you make decisions on how to implement social media	<i>Deleted make decision on and replaced with decide</i>

			innovation in your company?	
		2.6	What was expected for your company to embrace social media platform(s)?	<i>Deleted for and replaced with of</i>
		5.3	What, if any, part did your family and friends play in your decision to use social media in your business?	<i>Redrafted the sentence to: What part did your family and friends play in your decision to use social media in your business?</i>
		5.4	Are there any other environmental factors that you believe might influence your decision to use social media in your business?	<i>Redrafted the sentence to: Are other environmental factors influencing your decision to use social media in your business?</i>

Compiled by the Author, 2022

Appendix 8: Research Instrument



Research Instrument

Dear SME Owner/Manager,

I am Hayford Amegbe doing my DPhil at the Durban University of Technology, concentrating on Marketing at the Faculty of Management Sciences. My study is focusing on the implications of social media marketing on the sustainability of SMEs in Accra. The main aim is about studying the implications of social media marketing on the sustainability of small and medium enterprises (SMEs) in Accra. The outcome of this study is not only beneficial to SMEs but also the Authorities in charge of SMEs to identify areas of support for them to assist SMEs in Ghana. Your company and you are invited to be part of this research because you are part of SMEs operating in the Capital, Accra.; Your acceptance to be part of this study is very important to the success of the study. Your time is much valued, and I sincerely appreciate your agreeing to be part of this study. All the responses you will be provided will be anonymous and strictly confidential and is mainly for this academic exercise. There are no financial benefits in agreeing to participate in this intellectual exercise.

Please, you are free to withdraw from filling this questionnaire if you decide to do so. Let me take this opportunity to thank you for agreeing to participate in the filling of this questionnaire. Please its takes a few minutes to fill the questionnaire

Please, if you have any issue or questions concerning this study, please contact me through the information provided below

Mobile Phone:+233-543-3501783

Appendix 9: Proposed research instrument with respondents' recommendations and suggestions after pilot test (QUAN)

SECTION ONE: Demographic Information

1.1 Please indicate your Gender:

	Please cross here
(1) Male	Please cross here
(2) Female	Please cross here

1.2 What is the age of the CEO/Manager

(1) <u>18-20 years</u>	Please cross here	(2) 21 – 29 years	Please cross here	(3) 30 – 39 years	Please cross here	(4) 40 – 49 years	Please cross here	(5) 50 and above years	Please cross here
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1.3 Please indicate your highest educational qualification:

Educational qualifications	Please cross here	Educational qualifications	Please cross here
(1) BECE	Please cross here	(2) WASSCE	Please cross here
(3) Diploma	Please cross here	(4) HND	Please cross here
(3) Diploma	Please cross here	(5) Degree	Please cross here
(6) Masters	Please cross here	(7) PhD	Please cross here
(8) Other please specify:	Please cross here	Please specify here	

SECTION TWO: Enterprise related information

2.1 Please indicate your position in the company (If you indicated other, please specify)

(1) Owner, CEO or MD	Please cross here	(2) Manager	Please cross here	(3) Accountant	Please cross here	(4) Other:	Please specify here
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2.2 In which industry does your company operate in? Please indicate below (You can choose more than one answer with a cross (X)).

(1) Agriculture and Agro-Processing	Please cross here	(2) Textiles and Garment	Please cross here
(3) Food Processing	Please cross here	(4) Health	Please cross here
(5) Oil and Gas	Please cross here	(6) Tourism	Please cross here
(7) Mineral processing	Please cross here	(8) Utilities	Please cross here
(9) Other, please specific	Please cross here	Please specify here	

2.3 How many people does your company currently employ? Please indicate below:

(1) One person	Please cross here	(2) 2-5 employees	Please cross here
(3) 6-9 employees	Please cross here	(4) 10-19 employees	Please cross here
(5) 20 – 49 employees	Please cross here	(6) 50 – 99 employees	Please cross here
(7) 100 – 249 employees	Please cross here	(8) 250 and above	Please cross here

2.4 What is the approximate annual sales figure of your business? **Please indicate below:**

			Please cross here
(1) Less than Gh 5000	Please cross here	(2) 2-5 Gh5000 to Gh 10000	Please cross here
(3) Gh 10000 to Gh 15000	Please cross here	(4) Gh 15000 to Gh 20000	Please cross here
(5) Gh 20000 and above	Please cross here		

2.5 Which of the following best describe your market area? **Please indicate below:**

			Please cross here
(1) Local Market	Please cross here	(2) International market	Please cross here
(3) Regional market	Please cross here	(4) National market	Please cross here

SECTION THREE: Social media related general questions

3.1 Do your enterprise have a presence on social media (Facebook, Twitter, Instagram, etc)? **Please indicate below:**

		Please cross here
(1) Yes		Please cross here
(2) No		Please cross here

3.2 Please indicate which of the following platforms your enterprise has a presence **you can choose more than one option) Please indicate below:**

							Please cross here
(1) Facebook	Please cross here	(2) Twitter	Please cross here	(3) Instagram	Please cross here	(4) Linked In	Please cross here
(5) MySpace	Please cross here	(6) Google +	Please cross here	(7) Telegram	Please cross here	(8) Hi5	Please cross here
(9) Four Square	Please cross here	(10) Others	Please cross here	please specify here			Please cross here

3.3 Currently for what purpose does your organisation use social media (**choose more than one option) Please indicate below:**

(1) Information and search	Please cross here	(2) Branding	Please cross here
(3) advertising and promotion	Please cross here	(4) Conduct market research	Please cross here
(5) getting referrals (word-of-mouth via likes, shares, and followers on Facebook, Twitter, etc)	Please cross here	(6) Develop customer relationship	Please cross here
(7) Communicate with customers	Please cross here	(8) customers service activities	Please cross here
(9) receive customer feedback	Please cross here	Other	Please cross here
		Please specify here	

3.4 Which of the following phrases best describe your enterprise's intention with regards to social media intend and to adopt social media platforms: **Please indicate below:**

	Please cross here
(1) Intend to adopt social media platforms	Please cross here
(2) Do not intend to adopt social media platforms for the foreseeable future	Please cross here

3.5 If your enterprise intends to adopt social media platforms how soon do you think your enterprise will adopt social media platform? **Please indicate below.**

	Please cross here		Please cross here
(1) Less than 6 months	Please cross here	(2) 6 months to 11 months	Please cross here
(3) 12 months to 18 months	Please cross here	(4) 19 months to 24 months	Please cross here
(5) no plans at all	Please cross here		

3.6 If you do not intend to adopt social media in your enterprise, please identify the reasons from the following: **Please indicate below**

	Please cross here
(1) The enterprise feels that it does not gain any benefits from using social media	Please cross here
(2) Social media is risk for information security	Please cross here
(3) Not enough skills to implement social media	Please cross here
(4) Not enough (monetary) resources	Please cross here
(5) The enterprise does not know how to utilize social media in business	Please cross here
(6) Fear of critique or negative feedback	Please cross here
(7) Bad experience of social media	Please cross here
(8) The enterprise can do without social media	Please cross here

SECTION FOUR: Technological Factors

The objective of this sections is to find out from the owner/manager about the extent of technological factors adoption of social media.

4.1 Technological Factors: Perceived Cost (PC). Please indicate below

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
PC1	Using Twitter/Facebook helps my business to reduce the cost of Communications for marketing.	1	2	3	4	5
PC2	Using social Media helps us save saves costs associated	1	2	3	4	5

	to Marketing, branding and Customer Service.					
PC3	For us, Twitter/Facebook is more cost-efficient than Conventional media	1	2	3	4	5

4.2 Technological Factors: Perceived Trust (TRus). Please indicate below

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
TRus 1	Social Media takes into account acceptable measure to protect posted information	1	2	3	4	5
TRus 2	Information transactions are secured and reliable when using social media.	1	2	3	4	5
TRus 3	Satisfactory technical and legal efforts have been put in place to address issues using social media	1	2	3	4	5
TRus 4	Social media provides reliable information	1	2	3	4	5
TRus 5	My business can depend on social media	1	2	3	4	5

4.3 Technological Factors: Interactivity (IntRa). Please indicate below

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
IntRa1	Communication with customers through social media is very inter	1	2	3	4	5
IntRa2	Value co-creation is with our clients are assured because of the interactive nature of social media.	1	2	3	4	5
IntRa3	Social media is capability to engage customers with managed message content through mentions and replies	1	2	3	4	5

4.4 Technological Factors: Complexity (ComPI). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

ComPI 1	It is more convenient for my business to use social media to do what the business like to do.	1	2	3	4	5
ComPI 2	It is less complex to be skillful when using social media	1	2	3	4	5
ComPI 3	Using social media is very easy	1	2	3	4	5
ComPI 4	When it comes to social media, interaction is clear and understandable	1	2	3	4	5
ComPI 5	Social media offers more flexibility and very interactive.	1	2	3	4	5

SECTION FIVE: Organisational Factors

The objective of this section is to find out from the owner/manager about the extent of organisational factors adoption of social media.

5.1 Organisation Factors: Management and Staff Support (ManSS). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
ManSS 1	Management and Staff are very keen in adopting social media	1	2	3	4	5
ManSS 2	Social media adoption is given a top priority by Management and Staff.	1	2	3	4	5
ManSS 3	There is total support by Management and Staff when it comes to social media adoption.	1	2	3	4	5

5.2 Organisational Factors: Entrepreneurial Orientation (EO). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
EO 1	Our business have launched several new products or services on the market in the	1	2	3	4	5

	last five years through the use of social media.					
EO 2	Above all else, inventions are valued in our organisation.	1	2	3	4	5
EO 3	In our organization we stress the risk-taking of staff and management.	1	2	3	4	5
EO 4	Many people in our organisation want to take risk.	1	2	3	4	5

SECTION SIX: Entrepreneurial factors

The objective of this section is to find out from the owner/manager about the extent of organisational factors adoption of social media.

6.1 Entrepreneurial Factors: Personality trait (PTr). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
PTr 1	The owner/manager always welcome new ideas and experiences.	1	2	3	4	5
PTr 2	Owner/Manager is very reliable.	1	2	3	4	5
PTr 3	When engaging with others or participating in events, the manager/owner feel energized and uplifted.	1	2	3	4	5
PTr 4	The manager/owner is inclined to satisfy others.	1	2	3	4	5
PTr 5	Owner/manager expresses powerful negative thoughts.	1	2	3	4	5

6.2 Entrepreneurial factors: Resources available to the entrepreneur (RAE).

Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

RAE 1	Our owner/manager have the financial resources for the adoption of social media.	1	2	3	4	5
RAE 2	Our owner/manager is able to obtain financial support from banks or other financial institutions to support our adoption of social media.	1	2	3	4	5
RAE 3	Our company takes social media serious because the owner/manager has all the necessary resources to support the adoption.	1	2	3	4	5

SECTION SEVEN: Environmental Factors

The objective of this section is to find out from the owner/manager about the extent of adoption of environmental social media adoption.

7.1 Environmental Factors: Market pressure (MKTP). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
MKTP1	Our customers can turn to another company for similar services or products easily because of social media.	1	2	3	4	5
MKTP2	Our customers can find many goods or services on the market that are distinct from ours yet execute the very same functions through social media.	1	2	3	4	5

7.2 Environmental Factors: Industry Competition (InDCop). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
InDCop1	The use of social media will give our business a greater competitive edge.	1	2	3	4	5
InDCop2	We would be able to outperform our competitors through the use of social media.	1	2	3	4	5

InDCop3	The use of social media would allow us to be ahead of the competition.	1	2	3	4	5
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7.3 Environmental Factors: Bandwagon (BaDw). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
BaDw1	In embracing social media, our business follow others.	1	2	3	4	5
BaDw2	Our business would embrace social media because it is already being used by several other businesses.	1	2	3	4	5
BaDw3	Social media is a common app, so our company would also like to use it.	1	2	3	4	5

SECTION EIGHT: Marketing Performance

The objective of this section is to find out from the owner/manager about the extent of marketing performance outcomes of social media adoption.

8.1 Marketing Performance: Non-Financial Performance (NFP). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
NFPCuSat1	The use of social media has increased customer satisfaction in our organization.	1	2	3	4	5
NFPCusat2	The use of social media has enhance the satisfaction of our partners and suppliers.	1	2	3	4	5
NFPBd1	The use of social media has helped us to build a strong image in our market.	1	2	3	4	5
NFPBd2	The use of social media has given us a good reputation.	1	2	3	4	5

NFPLoy1	Loyalty and retention of customers have been increased because of using social media	1	2	3	4	5
NFPLoy2	Social media has contributed to building strong brand loyalty.	1	2	3	4	5

8.2 Marketing Performance: Financial Performance (FP). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
FPSG	Adoption of social media has increase our sales growth.	1	2	3	4	5
FPSV	Adoption of social media has increase our sales volume.	1	2	3	4	5
FPP	Adoption of social media has increased our profit	1	2	3	4	5
FPRol	We have return on our investment because of social media adoption	1	2	3	4	5

SECTION NINE: Sustainability Performance

The objective of this section is to find out from the owner/manager about the extent of sustainability performance outcomes of social media adoption.

9.1 Sustainability Performance: Environmental Performance (EP). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
EP1	Our company does everything possible to reduce solid waste.	1	2	3	4	5
EP2	Our company does well when it comes to energy consumption reduction.	1	2	3	4	5
EP3	Our top priority is to comply with environmental standards.	1	2	3	4	5

9.2 Sustainability Performance: Social Performance (SP). Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
SP1	In our company we have good safety work environment.	1	2	3	4	5
SP2	We pride ourselves as having a good working relationship with our community and stakeholders.	1	2	3	4	5
SP3	We have helped improved the quality of life in the communities we operate.	1	2	3	4	5

SECTION TEN: Social Media Adoption

The objective of this section is to find out from the owner/manager about the extent of social media adoption.

10.1 Social Media Adoption (SMA): Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
SMA 1	My company adopts social media to conduct market research	1	2	3	4	5
SMA 2	Adopting social media helps my company to get referrals (word of mouth via likes, shares and followers in Facebook)	1	2	3	4	5
SMA 3	My company adopts social media to advertise and promote product/services”	1	2	3	4	5
SMA 4	My company adopts social media to deliver customer services					
SMA 5	My company adopts social media to communicate with customers					

SECTION ELEVEN: Access to Finance

11.1: Access to Finance: Please indicate below:

	Statements	Responses (Scale of 1-5) 1=Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree

ACF 1	Our business is able to obtain finance from banks and other financial institutions.	1	2	3	4	5
ACF 2	Our business is able to obtain finance from investors	1	2	3	4	5
ACF 3	Our business is able to obtain finance from family and friends	1	2	3	4	5

Thank you for your time

Appendix 10: Proposed recommendations and suggestions after pilot test (QUAN)

Questionnaire Respondents Responses

No	Respondents	Question No.	Question	Responses
1	1,2,4, 8, and 9	N/A	N/A	Did not find anything wrong with the questionnaire
2	3 and 5	3.7 and 10.1	Access to Finance/ Social Media Adoption	The respondents suggested the inclusion of Access to Finance and Social Media Adoption after examining the conceptual framework.
3	6, 7 and 10	10.1	Social Media Adoption	The respondents suggested the inclusion of the measurement items for social media constructs since it was not in the questionnaire

Appendix 11: Classification of the main themes

No.	Themes	Codes
1	Technology Factors	TF
2	Organisational Factors	OF
3	Entrepreneurial factors	EF
4	Marketing Performance	MP
5	Sustainability Performance	SP

Source: compiled by the Author, 2022

Appendix 12: The subthemes identified to relate the data

No.	Themes	Code	Code Abbreviation
1		Perceived Cost	PC
2	Technological Factors	Perceived Trust	TRus
3		Interactivity	IntRa
4		Complexity	Compl
5	Organisational Factors	Management and Staff Support	ManSS
6		Entrepreneurial Orientation	EO
7		Personality Trait	PTr
8	Entrepreneurial factors	Resources available to the entrepreneur	RAE
9		Market Pressure	MKTP
10	Environmental Factors	Industry Competition	InDcop
11		Institutional Pressure	InstP
12		Bandwagon	BaDw
13	Marketing Performance	Non-Financial Performance	NFP
14		Financial Performance	FP
15	Sustainability Performance	Environmental Performance	EP
16		Social Performance	SP

Source: compiled by the Author, 2022

Appendix 13: Summary of findings–Qualitative Phase

No.	Subthemes	Support	Proof of support from SMEs
Technological Factors			
1	Perceived Cost	Supported	SMEA01, SMEA02, SMEA04, SME06, SMEA08, SMEA09, SMEA10, SMEA11, SMEA12
2	Perceived Trust	Supported	SMEA01, SMEA02, SME06, SME07, SMEA11
3	Interactivity	Supported	SMEA02, SMEA04, SMEA05, SMEA09, SMEA13, SMEA14
4	Complexity	Supported	SMEA02, SMEA04, SMEA05, SMEA09, SMEA13, SMEA14
5	Organisational Factors		
6	Management and Staff Support	Supported	SMEA01-SMEA16
7	Entrepreneurial Orientation	Supported	SMEA01-SMEA16
8	The Entrepreneurial factors		
9	Personality Trait	Supported	SMEA04, SMEA05, SMEA07, SMEA09, SMEA10, SMEA12, SMEA15
10	Resources available to the entrepreneur	Supported	SMEA01, SMEA03, SMEA06, SMEA08, SMEA11, SMEA13, SMEA14, SMEA16
11	Environmental Factors		
12	Market Pressure	Supported	SMEA06, SMEA07, SMEA09, SMEA10, SMEA11, SMEA16
13	Industry Competition	Supported	SMEA01, SMEA05, SMEA09, SMEA010, SMEA13, SMEA14, SMEA16
14	Institutional Pressure	Not Supported	SMEA01-SMEA16
15	Bandwagon	Supported	SMEA02, SMEA06, SMEA10, SMEA12, SMEA14, SMEA16

16	Social Media and Marketing Performance Outcomes					
17	Non-Financial Performance	Marketing	Supported	SMEA02, SMEA12, SMEA14, SMEA15	SMEA04, SMEA14, SMEA15	SMEA08, SMEA12, SMEA14, SMEA15
18	Financial Performance	Marketing	Supported	SMEA05, SMEA12, SMEA16	SMEA06, SMEA13, SMEA16	SMEA08, SMEA10, SMEA14, SMEA16
19	Non-Financial Marketing Performance and Financial Marketing Performance					
	Non-Financial Performance and Marketing Performance	Marketing	Supported	SMEA02, SMEA10, SMEA15, SMEA16	SMEA05, SMEA13, SMEA16	SMEA06, SMEA08, SMEA14, SMEA14, SMEA16
20	Financial Marketing Performance and Sustainability Performance					
	Environmental Performance		Supported	SMEA01, SMEA07, SMEA14, SMEA16	SMEA02, SMEA10, SMEA16	SMEA04, SMEA13, SMEA13, SMEA16
21	Social Performance		Supported	SMEA03, SMEA11, SMEA12, SMEA15	SMEA06, SMEA12, SMEA15	SMEA09, SMEA11, SMEA12, SMEA15

Summary of findings –Qualitative Phase

Appendix 14: Ethics Certificate



Zertifikat
Certificat

Certificado
Certificate

Promouvoir les plus hauts standards éthiques dans la protection des participants à la recherche biomédicale
Promoting the highest ethical standards in the protection of biomedical research participants



Certificat de formation - Training Certificate
Ce document atteste que - this document certifies that

Hayford Amegbe
a complété avec succès - has successfully completed
Introduction to Research Ethics
du programme de formation TRREE en évaluation éthique de la recherche
of the TRREE training programme in research ethics evaluation

Release Date: 2020/11/30
CID: 06BA3A8L7

Professeur Dominique Sprumont
Coordonnateur TRREE Coordinator



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Swiss Academy of Medical Sciences (SAMM/ASSM/AMF) (www.samms.ch) - Commission for Research Partnerships with Developing Countries (www.ircp.ch)

[REV : 20170310]



Appendix 15: Ethical Clearance Approval Letter

Institutional Research Ethics Committee Research and Postgraduate Support Directorate 2nd Floor, Berwyn Court Gate 1,
Steve Biko Campus Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375

Email: lavishad@dut.ac.za

http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

24 August 2022

Mr H Amegbe
PMB 69
Accra
Ghana

Dear Mr Amegbe

**The implications of social media marketing on the sustainability of SMEs
in Accra Ethical Clearance number IREC 083/22**

The DUT-Institutional Research Ethics Committee acknowledges receipt of your final data collection tools for review.

We are pleased to inform you that the data collection tools have been approved. Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letter.

Please note that **FULL APPROVAL** is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the DUT-IREC according to the DUT-IREC Standard Operating Procedures (SOP's).

Please note that any deviations from the approved proposal require the approval of the DUT-IREC as outlined in the DUT-IREC SOP's.

Yours Sincerely

Prof J K Adam
Chairperson: DUT-IREC

Appendix 16-Certificate of Language Editing

Helen Richter Advanced Editing, Proofreading
& Copywriting feetjieding@gmail.com +27 729538169

16 April 2023

To whom it may concern

**CERTIFICATE OF EDITING &
AUTHENTICATION**

I have proofread and language edited the PhD thesis titled:

**“THE IMPLICATION OF SOCIAL MEDIA MARKETING ON THE SUSTAINABILITY OF
SMEs**

IN ACCRA”

by

Hayford Amegbe

To the best of my knowledge, the work is free of spelling, grammar, structural and stylistic errors

and the contents are certified as the author’s own work.

With thanks.

H. S. Richter

Appendix 17: Turnitin Report



Digital Receipt

This receipt acknowledges that Turnitin received your paper. Below you will find the receipt information regarding your submission.

The first page of your submissions is displayed below.

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Assignment title:	Chapters1-7
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File size:	906.39K
Page count:	261
Word count:	84,606
Character count:	481,874
Submission date:	24-Apr-2023 04:04PM (UTC+0200)
Submission ID:	2074019906



