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**Examining the Impact of Technology Adoption and Employee Attitude on Performance of
Small and Medium Enterprises in Ghana**

By

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DECLARATION

I hereby declare that this submission is my own work towards MBA Marketing degree, and that to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgment has been made in the text.

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DEDICATION

I dedicate this study to God Almighty for how far he has brought me through this program.

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I am highly grateful to the Almighty God whose favor, abundant mercies, faithfulness and everlasting care helped me reach this height of the academic ladder.

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My final appreciation goes to Dr. Samuel Akomeah who supervised this thesis. I really appreciate your advice, encouragement and style you adopted in helping me to come out with this work.



ABSTRACT

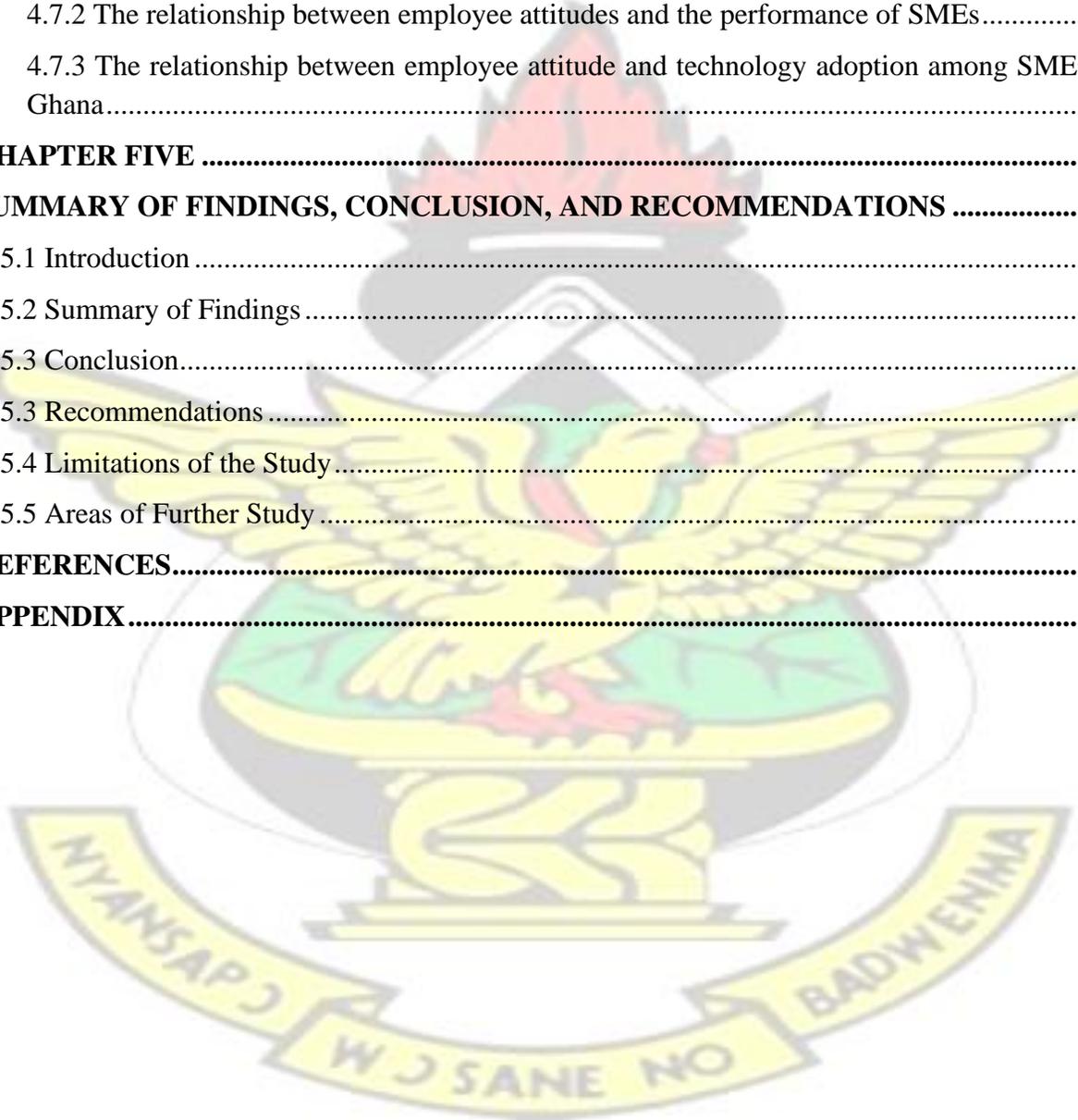
This research study sought to examine the relationship between technology adoption, employee attitudes, and performance in SMEs in Ghana. The study adopted a cross-sectional survey design using quantitative approaches. A sample of 209 SMEs was determined from the population using the Yemane sample size determination formula to choose from a population of 442 small and medium enterprises operating in Kumasi, Ghana. Data were collected using a combination of an online structured questionnaire (Google form), and a self-administered questionnaire physically delivered by the researcher at different SMEs. A response rate of 89 percent (185 returned questionnaires) was obtained from the study. Analysis was done using SPSS 23. Pearson's correlation statistics indicated positive and significant relationships between technology adoption and SME performance; employee attitudes and SME Performance; plus technology adoption and employee attitudes. Results showed that technology adoption was a stronger predictor of SME performance compared to employee attitudes. Since the correlation findings indicate a strong relationship between technology adoption and SME performance, the researcher recommends that SMEs effectively ensure a higher level of adoption of information and communication technologies in their operations as a way of encouraging better employee productivity and better business performance. The researcher further recommends that SMEs design policies that nurture positive employee attitudes to ensure better business performance.

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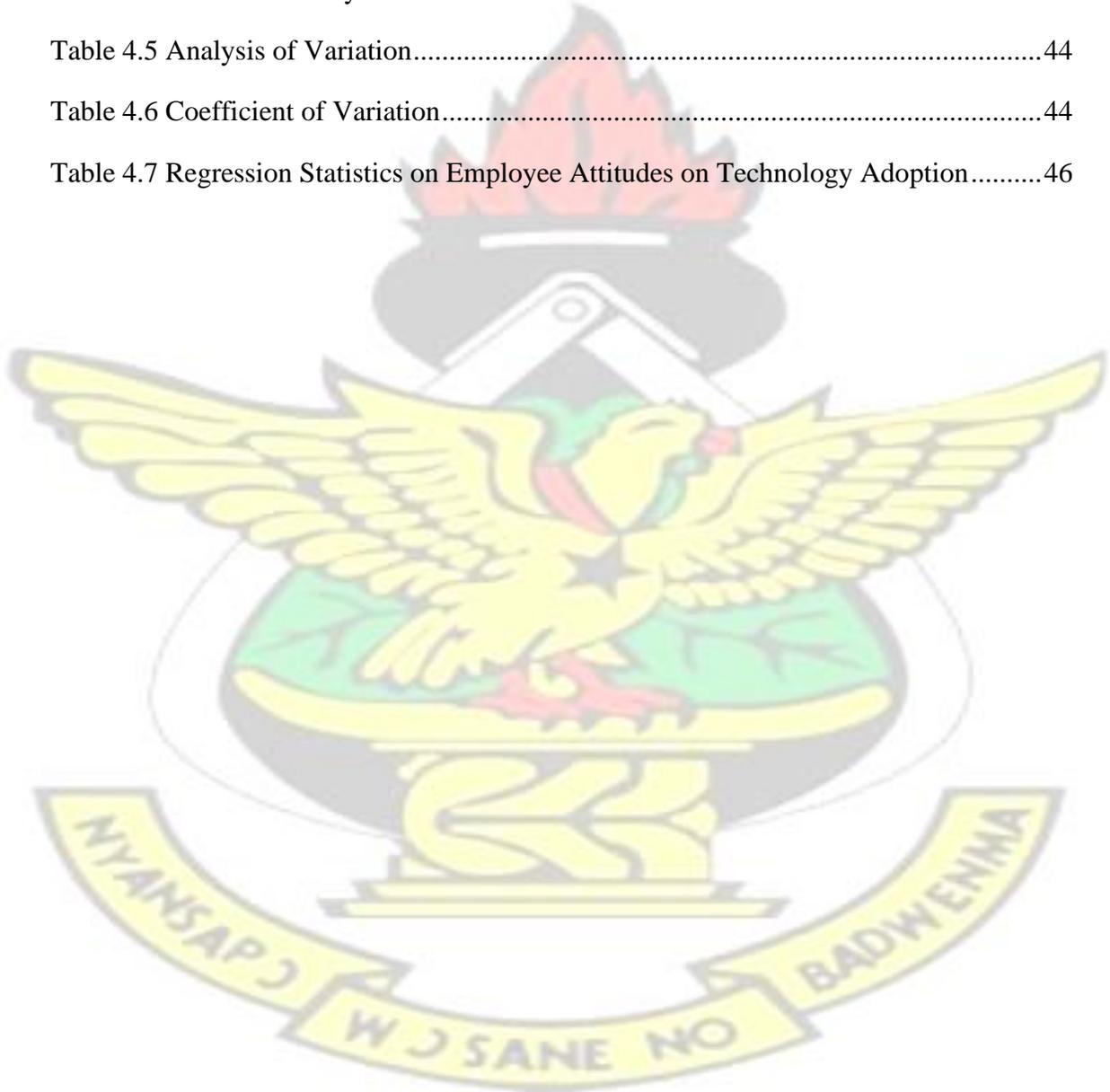
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LIST OF ABBREVIATIONS

AVE – Average Variance Extracted

BACs – Business Advisory Centers

CA – Cronbach Alpha

CR – Composite Reliability

CVI - Content Validity Index

DOI - Diffusion of Innovations

GDP - Gross Domestic Products

ICT - Information & Communication Technology

ITC - International Trade Center

PEOU - Perceived Ease of Use

PU - Perceived Usefulness

ROE - Return on Equity

ROI - Return on Investment

ROS - Return on Sales

SME - Small and Medium Enterprises

SPSS - Statistical Package for Social Scientists

TAM - The Technology Acceptance Model

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CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Small and medium enterprises (SMEs) have become a critical catalyst for the growth of any economy in both developed and developing countries (Asgary et al., 2020). These are notably the major creators of jobs with a contribution of 90% in the emerging markets, main contributors to poverty reduction and social inclusion, and are a driving force to achieving the social development goals (SDGs). They are central to the sustainability of economies and play a great role in industrial ecosystems, economic resilience, and technological sovereignty. The growth of SMEs is pivotal for prosperity both in developing and developed countries (Tripathi & Brahma, 2018).

Developed economies already exhibit the role of SMEs in economic growth and development. In China, SMEs make up for 98 percent of businesses accounting for 60.42 percentage of China's business revenue, 51.13 percent of China's total employment (Mbih et al., 2018), whereas in India, about 51 million SMEs contributed 37.5 percent of India's GDP, 37 percent of the manufacturing output, 46 percent export contribution and housed 14 percent of India's working class between 2015-2016. This is largely attributed to the adoption of digital technologies that have increased their economies of scale and fostered process upgrades, causing them to scale faster. Those SMEs that have embraced digital technologies reported nearly twice the revenue growth trajectory than those yet to digitize their operations during this period (Atroley, 2017). Furthermore, Werngren (2013) reports that according to the Boston Consulting Group survey of 4000 SMEs across the United States, Germany, China, India, and Brazil, regardless of origin,

SMEs that embrace technology increased their annual revenues by 15% faster than their competitors. Therefore, if only 30% of SMEs in these five markets adopted modern technology, they could increase their combined revenues by five-hundred and seventy billion (€570 billion) and create more than six million new jobs.

In Sub-Saharan Africa, SMEs continue to be the largest business sector, representing more than 90% of businesses and employing over 60% of workers, the majority of whom are women and youth (International Trade Center, 2018). Usif and Salifu (2020) observe from Ghana, Nigeria, and Togo, that majority of the small enterprises' operators are engaged in the services sector, simple industrial sectors and a few are in highly developed and complex large industries. The SME sub-sector plays a pivotal role in the provision of goods and services directly consumed by the fast-growing African population, and also provide inputs and services to the few existing large industries. Small and Medium Enterprises contribute over 50% to the region's gross domestic products (GDP), employ over 80% of the population, and as such is a great engine towards poverty reduction, income generation, growth, development, and the efforts towards the achievement of the Sustainable Development Goals in these countries (Disse and Sommer, 2020; ITC, 2018; International Monetary Fund, 2020; Usif and Salif, 2020). However, most of these SMEs continue to suffer hurdles that cripple their performance, like lack of access to finance, less productivity compared to larger firms, wide-scale informality (which exacerbates the problem of access to formal financing and limits investment options for them (ITC, 2018). Olivier, Carrère, and Strauss-Kahn, as cited by the ITC (2018) for instance observes that the productivity gap between registered and unregistered SME firms in a study of 24 African countries is estimated at around 120%. Despite these hurdles, these business organizations hold

the promise to faster economic development, more employment, and of recent, recovery from the economic effects of the Covid 19 pandemic.

In West Africa, not all has been lost, Abor and Quartey (2017) and United Nations (2012), posit that Ghana's SME competitiveness increased by 47% after the adoption of ICTs in SMEs increasing from almost none existent in 2001 to 80.1 % computer technology usage and 56.6% internet technology usage, the annual growth rate of manufactured export by 30.9% in the period between 2006-2010. As a whole, the general growth rate of the country has increased by 6.5% per year in the past decade (Sitorus, 2017).

The role of technology in small and medium enterprises (SMEs) has been further articulated in the recent pandemic that saw businesses transform from brick and mortar into totally or partially online entities. The need for technology adoption is more urgent today due to the effects of the COVID-19 pandemic. With COVID-19 has come the demand for less physical interaction, forcing almost all organizations to have virtual operations. Therefore, SMEs must digitize their operations or risk running out of business as a result of the removal of trade barriers and thus escalated competition. This competition is no longer segmented as just between small firms, large firms, and by location, but in the recent years since the pandemic, companies are competing despite size and location. For instance in the United States, small businesses had their sales improved from 10 percent to 17 percentage by moving their retail aspect from brick and mortar to purely digital, (U.S. Chamber of Commerce, 2020). Brazil saw a 55 percent improvement in customer relationships, process agility, and customer acquisition (Mari, 2020), and a 98 percent increase in profit and 99 percent increase in efficiency for the South African SMEs in just two years of the pandemic.

Despite this obvious need for the adoption of technology for the survival of SMEs, in Ghana, there is still hesitancy to adopt them. In a study by (UNCDF, 2020) the rate of usage of ICTs and technologies by SMEs is still very low with only approximately 40 percent of them using online channels for e-commerce, only 30% have taken to innovative procurement and supply delivery channels, and as low as 27% relying on the mobile door to door delivery. Only 35% of companies in the accommodation and catering sector use digital and online solutions. This is very low a number compared to the ever-sprouting small and medium enterprises in the country. This hesitancy in adoption is attributed to the uneasiness caused by the ever-changing e-business technologies (National Small Business Survey Report, 2015). Technologies are rapidly changing, leaving SME owners overwhelmed and unable to know which technology to adopt to function effectively. There is also a failure by the SMEs to make a connection between technology adoption and their strategic business motives and expectation, causing an unwillingness to invest and adopt the technology. In addition, there is a general lack of trust by the people supposed to operate these technologies and a lack of capacity to learn how to adopt, assimilate and diffuse the technologies. SMEs are simply brushing off technology as unsuited for their business, saying that technology doesn't suit their type of business and/or product (Kyakulumbye & Pather, 2021). Nevertheless, SMEs can no longer dismiss the importance of technology in their business operations and so must embrace it for a competitive advantage. But for the technology to bear the needed benefits, it must be adopted.

On the other hand, to achieve optimal results from the use of technology, it must be accepted by employees and fully used. However, this is dependent on the employee's attitudinal behaviors, among other factors (Afolayan et al., 2015). The Theory of Reasoned Action (TRA) developed by Martin Fishbein and Leek Ajzen in 1975 predicts behavioral intent caused by two factors:

attitudes and subjective norms. The Theory of Reasoned Action will be applied in this study to explain the process of adoption while using these technologies. In many cases, there is resistance to new ways of doing things among employees who are settled and stuck in old ways, and this resistance can affect the performance of the organization. This is because an employee's attitude has the potential to impact work performance (Xiong & King, 2020).

1.2 Problem Statement

There have been several studies on the aspect of challenges and impediments to survival and performance of SMEs (Ojiambo, 2016; Kyatusimire, 2018; Dieleman & Boddewyn, 2012), but hardly are there any studies based on technology adoption and employee attitudes, especially in the Ghanaian context. It is not clear to what extent the low technology adoption is affecting the performance of SMEs in Ghana. Extant literature shows that about five percent of SMEs have ever surveyed the attitude of their employees, with the vast majority claiming that it is an unnecessary cost which in fact will affect the profits of the company (NBSSI, 2016). This is against evidence that staff in many of these SMEs have poor attitudes towards work (Abor and Quartey, 2017).

In Africa, SMEs perform poorly and most of them are struggling to survive past their first birthday yet to this day, technology is being used up to only forty-five percent for financial transactions, for instance sending or receiving money, thirty-four percent to access business information, and twenty-six percent to carry out marketing of products and services (Ninsiima, 2021). Kyakulumbye and Pather (2021), consistent with Lobo, (2017) observe that SMEs in most African countries fail to adopt information technologies due to several factors, including low ICT learnability, inadequate user confidence, and lack of user-friendliness in existing

technologies. Eton, et al., (2019) mentions cost hindrances, skills gaps, information deficiency, negative attitudes, and poor ICT infrastructure among factors that prohibit adoption.

From the review of literature, it is clear that there is a research gap in the study of the performance of SMEs in Ghana. The studies linking technology and performance of SMEs have been conducted outside the Ghanaian borders, further, these studies have been qualitative in nature and most of them have been limited only to descriptive statistics without more advanced statistics which can give a clear conclusion on how technology affect performance SMEs. Limited studies have been conducted on the effect of technology on performance of SMEs in Ghana, particularly in Kumasi. However, this research study sought to examine the relationship between technology adoption, employee attitudes, and performance in SMEs in Ghana.

1.3 Objectives of the Study

1.3.1 Main Objective

The research seeks to examine the relationship between technology adoption, employee attitudes, and the performance of Small and Medium Enterprises (SMEs) in Ghana.

1.3.2 Specific Objectives

1. To examine the relationship between technology adoption and the performance of SMEs in Ghana.
2. To assess the relationship between employee attitudes and the performance of SMEs in Ghana.
3. To examine the prediction potential of technology adoption and employee attitude on SMEs performance in Ghana.

1.4 Research Questions

1. What is the relationship between technology adoption and the performance of SMEs in Ghana?
2. What is the relationship between employee attitudes and the performance of SMEs in Ghana?
3. What is the relationship between technology adoption and employee attitude on SMEs performance in Ghana?

1.5 Significance of the study

The findings study analyse how technology adoption and employee attitudes towards technology can be leveraged for improved SMEs performance. This is expected to assist SME and startup business owners to come up with the most efficient business technology and innovation policies for their enterprises for improved operational efficiency.

Also, the study enriches the management with a range of information pertaining to employee behaviour, employee inter-personal relationship and their performance with regards to technology. This will enable the organization to make decision in adopting a new technology and helps to provide training to its employees in learning the technology to maximize firm performance.

To researchers and academicians, since there is little data about this area of study, this study provides a building block for scholars and research students for future studies on the best way to roll out technology adoption, the need to consider employee attitudes to maximize the impact on the performance of SMEs.

Last but not the least, this study provides more information to statutory and regulatory bodies like the Ghana Enterprise Agency (GEA), Association of Ghana Industries (AGI) and the

Ministry of Trade and Industry, about the policy and regulatory frameworks and strategies that must be put in place to improve the adoption of technology among SMEs, and their performance in the country.

1.6 Scope of the Study

Conceptually, the study focuses on examining the relationship between technology adoption, employee attitudes, and the performance of SMEs. The aim is to establish the importance of integrating and utilizing technology in business processes, the effect of employee attitude in this adoption, and how this adoption can boost performance in SMEs in Ghana.

Geographically, the study will be undertaken in Kumasi Metropolis, in Ashanti Region and one of the central hubs of SME business operations in the country. According to the National Board for Small Scale Industries Summary Report (2015), there are 442 registered small and medium enterprises operating in Kumasi Metropolis. The study focused on combination of small (5- 49 or 50 employees) and medium (up to 100 employees) enterprises in Kumasi and its environs.

1.7 Summary of Methodology

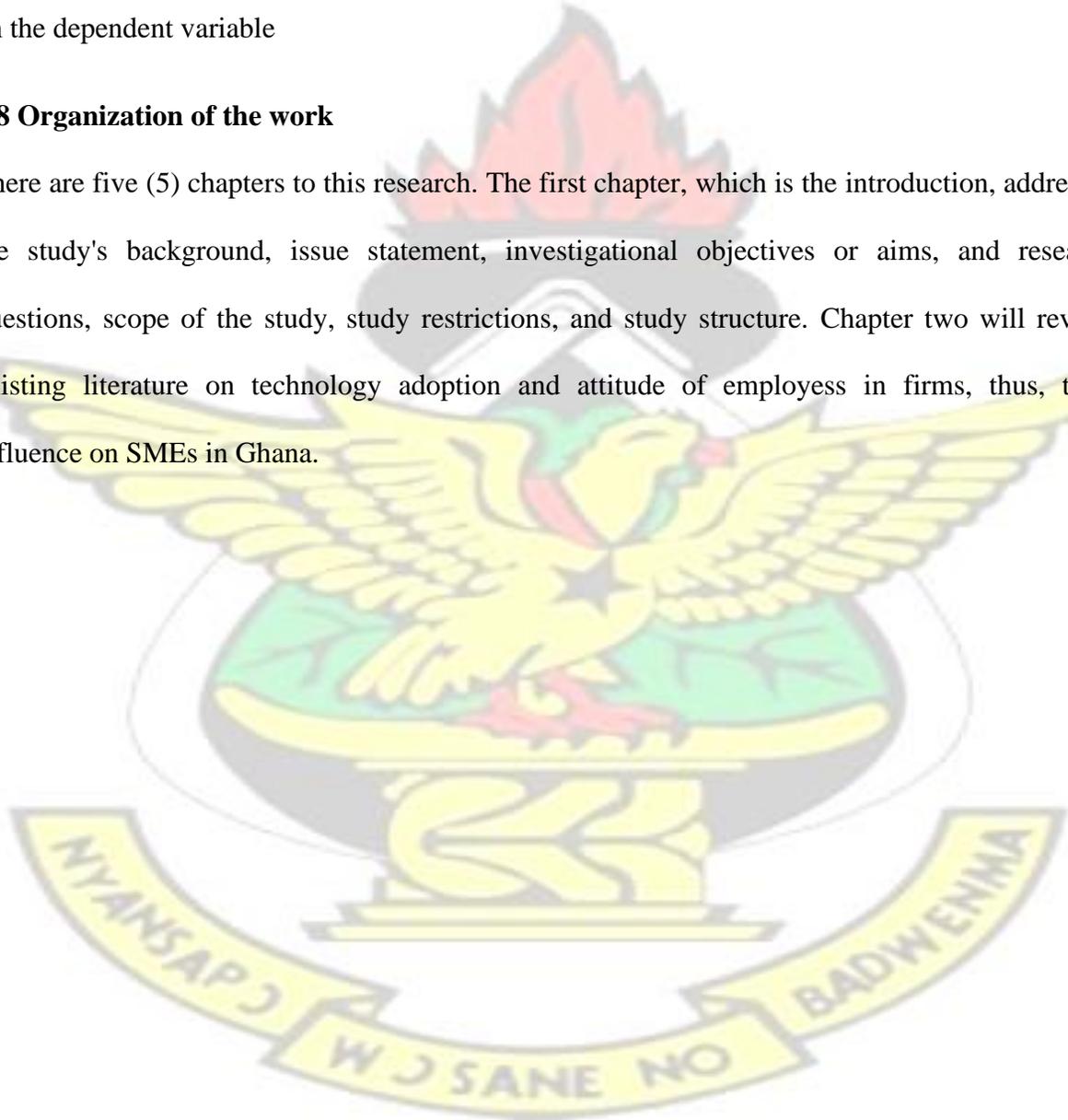
The study will adopt a cross-sectional survey design using quantitative approaches. A cross-sectional survey is suitable for such a study that intends to get information at a given point in time, rather than from a given period (Babbie, 2014). The SMEs will be selected using a simple random sampling design from the study population. The respondents chosen for the study analysis will comprise of owner-managers, managers and employees of the selected sample size.

The researcher collected primary data from SMEs across Kumasi, Ashanti Region. Secondary about the performance analysis of SMEs in Sub Saharan Africa and Ghana in particular were also used in reviewing literature from books, academic journals and articles.

A survey questionnaire was used to collect data. The questionnaires asked different types of close-ended questions tapping the different variables of the concept. Questions and statements anchored on the five-point Likert scale (1- Strongly Disagree to 5- Strongly Agree) where respondents will be asked indicate their level of agreement with them. Reliability of results will be tested using Cronbach Alpha. The data collected will be coded, cleaned, and exported to the Statistical Package for Social Scientists (SPSS 23) computer software for analysis. Also, regression analysis will also be used to measure the predictive power of the independent variables on the dependent variable

1.8 Organization of the work

There are five (5) chapters to this research. The first chapter, which is the introduction, addresses the study's background, issue statement, investigational objectives or aims, and research questions, scope of the study, study restrictions, and study structure. Chapter two will review existing literature on technology adoption and attitude of employees in firms, thus, their influence on SMEs in Ghana.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section highlights in detail work done by researchers and scholars on the constructs of technology adoption, employee attitudes, and performance of SMEs. It is organized in sections; the first section gives a description of the variables and the second section describes the relationship between the variables.

2.2 Conceptual Review

Conceptual review can be defined as reviewing the various concepts and ideas about a topic. In this study, the main concepts or constructs in the study includes technology adoption, employee attitude and SME performance.

2.2.1 Technology Adoption

Both individuals and organizations tend to adopt new technology when there are some potential benefits that could increase their market competitiveness (Munday, and Roche 2021). Technology adoption is defined as the choice or decision, by individual or organization, to acquire and implement a new innovation technology (Sani et al. 2021, Beynon). In the growing technology needs environment and increasing failures of technology adoption in the organization, a reliable behavior predicting tool has become an interesting topic for many companies. The adoption of technology not only depends on organizational strategies, policies, and action, but it also relies on the employee's attitude. Nevertheless, technology adoption requires strong managerial efforts and commitments in the organization (Achieng & Jagero, 2014). Hence, organizations require providing sufficient facilitating conditions such as

technology and resource support which would eventually influence them on using new technology. Generally, people tend to resist or refuse to adopt the changes, unless they can be convinced that the changes are beneficial to them. However, many studies are failed to carry out reliable behavior measures that help to explain technology acceptance or rejection (Davis, 2019).

Information and communication technologies (ICTs), particularly the use of the internet to conduct online business, have been changing the conventional way of doing business among brick-and-mortar companies (Beynon-Davies, 2018). In the SME sector, several proponents suggest there is a need for early adoption if business sustainability is to be achieved (Beynon-Davies, 2018). Information technology has been around for a long, long time as long as people have been around (Kamkarian, 2016). Information Technology came into existence in four main stages; the pre-mechanical stage when humans started communicating using pictures to tell a story, the mechanical stage defined when we see connections between our current technology and its ancestors, the electromechanical stage that introduced telecommunications as we know it today. Inventions such as the telephone, the radio came into existence in this stage and lastly electronic age was when machines used electronic switches, in the form of vacuum tubes, instead of the electromechanical relays seen in the previous era (Kamkarian, 2016). Information Technology is used to acquire and process data to a form that can be used in specific applications and disseminate the processed data (Rajaraman, 2010). Information technology, therefore, is defined as capabilities offered to organizations by computers, software applications, and telecommunications to deliver data, information, and knowledge to individuals and processes (Attaran, 2018). Therefore, Information Technology is a terminology that covers all forms of expertise used to create, store exchange, and uses information in its various forms (Pipek & Wulf, 2019).

Information technology has many favorable consequences but before an organization can reap these benefits, they must adopt and use it. The process of this adoption and use is determined by some factors as explained by the Technology Acceptance Methodology theory (TAM). These factors include perceived ease of use, perceived usefulness, and relative advantage. Perceived ease of use is defined as “the degree to which an individual believes that using a particular system would be free from physical and mental effort” (Davis, 2019). It has also been defined as a user’s subjective perception of the effortlessness of a computer system. This follows from the definition of the word “ease”: “freedom from difficulty or great effort.” Perceived ease of use may contribute towards performance whilst lack of it can cause frustration and impair technology adoption (Venkatesh, 2020). The impact of perceived ease of use on users’ intention to adopt technology has been documented well in the literature. However, its role in TAM research remains controversial. For example, Fang et al. (2015) found that the nature of technology may influence its perceived ease of use. Perceived ease of use can be explained by usability characteristics which have been empirically validated by Lederer et al. (2020).

Perceived usefulness has been defined as a person’s subjective perception of the ability of the technology to increase job performance when completing a task, which affects their perceived usefulness thus having an indirect effect on users’ technology acceptance. It is defined as ‘the degree to which a person believes that using a particular technology will enhance his or her job performance (Bagozzi, 2018). In the words of Warshaw (2019), perceived usefulness refers to consumers’ perceptions regarding the outcome of an experience. Gender, age, experience, and voluntariness of use are posited to moderate the impact of the four key constructs on usage intention and behavior.

2.2.2 Employee Attitudes

Managing employees' attitudes is a critical management function. Managing these employee attitudes is greatly managing expectations and contributions from employees and employers (Gopinath & Kalpana, 2020). This entails what the employers expect from employees for their contributions towards organizational goals in return for the pay and likewise what employees expect from their employers for their efforts towards achieving the organizational goals (Ile, 2021). These expectations are anchored on the employment relationship between the organization and employees. The employee must provide efforts and skills to do work for the employer while the employer must provide the employee with salary or wage for agreed work done, Olajide (2020) cited in Obijuru and Emenike (2017). Employee attitude entails job satisfaction, job involvement, and organizational commitment (Gopinath & Kalpana, 2020).

2.2.2.1 Job Satisfaction

Job satisfaction is one of the most researched phenomena in the domain of human resource management and organizational behavior. It is commonly defined as a “pleasurable or positive emotional state resulting from the appraisal of one’s job or job experiences” (Schneider & Snyder, 2018). Job satisfaction is a key element of work motivation, which is a fundamental determinant of one's behavior in an organization. According to Gopinath (2020), employee satisfaction at work is one of the most complex and ambiguous concepts to define and understand. This is because it is too subjective and multidimensional, as every employee has their own needs and goals; the satisfaction of a person depends on their ambition, role in the company, expectations at work, and their experiences in daily life.

2.2.2.2 Job Involvement

Job involvement represents a type of attitude toward work and is usually defined as the degree to which one identifies psychologically with one's work, i.e., how much importance one places on their work. A distinction should be made between work involvement and job involvement. Work involvement is conditioned by the process of early socialization and relates to the values one has concerning work and its benefits, while job involvement relates to the current job and is conditioned with the one's current employment situation and to what extent it meets one's needs (Brown, 2016).

2.2.2.3 Employee Commitment

Employee or organizational commitment represents the degree to which the employees identify with the organization in which they work, how engaged they are in the organization, and whether they are ready to leave it (Greenberg & Baron, 2018). Employee commitment has been defined by Boehman (2016), as the extent to which an individual accepts, internalizes, and views his or her role based on organizational values and goals. Several studies have demonstrated that there is a strong connection between organizational commitment, job satisfaction, and fluctuation (Porter et al., 2017), as well as those people who are more committed to an organization, are less likely to leave their job. Organizational commitment can be thought of as an extension of job satisfaction, as it deals with the positive attitude that an employee has, not toward his or her job, but the organization. The emotions, however, are much stronger in the case of organizational commitment and it is characterized by the attachment of the employee to the organization and readiness to make sacrifices for the organization.

It is that form of strong desire to stay with an organization because of a robust and powerful connection with this organization Normative Commitment on the other hand is that feeling of

obligation to remain employed by the organization (Meyer et al., 1993). Normative commitment concentrates on the moral aspect of an employee's feeling about their work. It is based on the feeling of whether it is right or wrong to leave an organization. Employees with strong normative commitment remain because they feel they ought to (Farouk et al., 2018). Normative commitment has similar consequences with affective commitment, though often to a lesser degree. Nakate (2021) indicates that continuance commitment is based on the costs that employees associate with leaving the organization. Therefore, employees are compelled to stay with the organization because they feel a need to be there. Continual employment to the firm, therefore, becomes a matter of necessity and sometimes survival (Meyer & Allen, 1997). According to Kwan (2017), continuance commitment may also be looked at in terms of the material sacrifices of leaving the job. He indicated that people may have, for example, benefits, which make them believe that they are in the organization because they need to do so. According to Muda and Fook (2020), employees tend to be effectively committed if they feel that the organization is supporting them, treating them fairly, and respecting them and that they will exhibit all or at least one of the three TCM components as introduced by Allen and Meyer.

2.2.3 Performance of SMEs

Conțu (2020; pp.339) defines organizational performance as “the degree to which the organization, with some informational, financial, and human resources, positions itself effectively on the business market”. Harmanzi (2020) observes that business organizations gauge their performance in terms of “effectiveness” in achieving their mission, purpose, or goals. Organizational performance can be measured using various variables like profitability, ratio analysis, and net assets among others. Internally, performance is driven by the organization's motivation to perform, which refers to the organizational culture, history, mission, values, and

incentive systems. These factors affect the quality of work, the nature of how the organization competes, and the degree of involvement of internal stakeholders in decision-making processes (Wamala, 2019). It is impossible to dissect the concept of organizational performance without delineating the processes of determining what performance is. Organizations need this to determine what performance is, and what it is not, to avoid ambiguity in organizational and individual evaluations and appraisals, respectively. In measuring performance, different metrics are used, depending on the kind of organization or entity one is looking at. In business organizations, organizational performance are usually measured in financial ratios like return on equity (ROE) and return on investment (ROI), liquidity, and profitability ratios, among other quantitative tools (Tavitiyaman et al., 2012). Kras and Piech (2017) indicate that enterprise performance can be measured using subjective assessment of six values including average annual growth in employment, average annual growth in total sales, market share dynamics (measured with sales), an average return on sales (ROS), an average return on equity (ROE), profitability compared with competitors- in the last 3 years.

According to Devi (2021) marketing is a vital function in the success of any business, and as such, SMEs should endeavor to see that this function is well exploited for competitiveness. Often, small enterprises need to seek external support to drive businesses into new markets or get a stronghold of the existing market. Therefore, the small enterprises should work at innovating in such areas as the complexity of marketing decisions which most of the time is one of the key performance indicators for improved performance.

Small business performance is of key concern in Ghana because SMEs dominate the Ghanaian economy. Micro, Small, and Medium Businesses (MSMEs) are generally regarded as the “backbone of the economy” (Kirby & Kaiser, 2016). These businesses constitute a majority of

the economic growth and development that is derived. However, the entrepreneurial performance is very low; it is therefore in the interest of the country to increase the performance of these enterprises (Nang et al., 2017). These companies are spread across all sectors with 49 percent in the service sector, 33 percent in commerce and trade, 10 percent in manufacturing, and 8 percent in other fields. They account for approximately 90 percent of the entire private sector, over 80 percent of manufactured output, and contribute about 75 percent to the gross domestic product (GDP). The sector employs more than 2.5 million people equivalent to 90 percent of total non-farm sector workers and comprises about 1,100,000 enterprises which make the sector one of the largest employers in the country (NBSSI, 2016).

According to Shehu et al., (2013) SMEs are operating in an economy that is knowledge-based and whose entrepreneurial growth and development are majorly pushed by innovation. As global economic boundaries are being erased, small enterprises' business strategies ought to evolve to allow continuous development if they are to stay competitive and relevant in the global value chain. This is the only way SMEs will ensure long-term sustainability and continuously improve performance (Saqib et al., 2018).

2.3 Theoretical Review

Theoretical review explores theories that expound on the topic under study and which, thereby help in better understanding of the study in question while at the same time putting forth a justification for the current study. Two theories have been used in the study. This includes the Technology Acceptance Model (TAM), Diffusion of Innovation Theory (DOI) and the Theory of Reasoned Action (TRA).

2.3.1 The Technology Acceptance Model (TAM)

Over several years various models and theories have been developed to explain the vexing problem of ICT adoption. In this section, I briefly assess one of the seminal adoption theories to examine the usage and non-usage contexts of ICT among SMEs in a developing country. From an adoption perspective, a widely used theory is the Technology Acceptance Model (Scherer, Siddiq, & Tondeur, 2019). In the original model Davis (1985), posits that a potential user's overall attitude towards using a given system is assumed to be a major determinant of whether one will or will not use it. Attitude towards use is a cognitive issue for which Davis highlights two dimensions which includes perceived usefulness and perceived ease-of-use. Moreover, a cognitive response results in an effective response (attitude towards using) which later predicts actual use (Verma & Sinha, 2018). However, inherent in ease-of-use and usefulness is the concept of perception which is behavioral and attitudinal (Kyakulumbye, Muhenda, & Anaclet, 2012; Verma & Sinha, 2018; Scherer et al., 2019). Over the years there have been several studies that render the original TAM variables insignificant. For instance, Sin Tan et al. (2009) found that relative advantage, compatibility, complexity, observability, and security are significant factors influencing internet-based ICT adoption.

Other studies have correlated adoption and diffusion challenges among SMEs to ICT design issues (Aleke, Ojiako, & Wainwright, 2011). Namankani (2019) has argued that to ensure successful diffusion of innovation, a balance must be maintained between the amount of effort expended in the design of ICT and social factors such as language and traditional life. Given the foregoing, and taking into account the low explanatory prediction by the originator of TAM that 'Only 36% of the variance in the adoption of ICTs is explained by TAM constructs, implying that 64% comprises other cognitive and contextual issues,' (Davis 1993), further extensions have

been made to the model. For this study, however, the researcher shall stick to TAM as a guiding theory of the variables.

2.3.2 The Diffusion of Innovation Theory (DOI)

Diffusion of Innovation Theory is a widely recognized and influential concept in the field of sociology and communication studies. Developed by Everett Rogers in 1962, this theory provides valuable insights into the process by which new ideas, products, and technologies spread and are adopted by individuals and communities (Dearing and Cox, 2018). At its core, the Diffusion of Innovation Theory suggests that the adoption of new innovations follows a predictable pattern. Rogers identified five stages in this process: knowledge, persuasion, decision, implementation, and confirmation. These stages highlight the various steps individuals go through when considering and adopting a new innovation (Dintoe, 2019).

The first stage, knowledge, occurs when individuals become aware of the existence of a new innovation. This can happen through various channels, such as mass media, interpersonal communication, or personal observation. The second stage, persuasion, involves individuals seeking information and evaluating the advantages and disadvantages of adopting the innovation. During this stage, individuals may engage in conversations with others to gather more information and opinions.

The third stage, decision, is when individuals make a conscious choice to adopt or reject the innovation. Factors that influence this decision include the perceived benefits, compatibility with existing values and needs, and the individual's level of risk tolerance. The fourth stage, implementation, involves the actual adoption and use of the innovation. This stage may require individuals to acquire the necessary skills and resources to effectively utilize the innovation.

The final stage, confirmation, is when individuals evaluate the outcomes of their adoption decision. If the innovation meets their expectations and produces positive results, individuals are more likely to continue using and advocating for the innovation. On the other hand, if the outcomes are negative, individuals may discontinue the use of the innovation or seek alternatives.

The Diffusion of Innovation Theory is supported by numerous empirical studies across various fields. For example, in the context of healthcare, this theory has been applied to understand the adoption of new medical treatments, preventive measures, and health behaviors. In the field of technology, the theory has been utilized to explain the adoption of smartphones, social media platforms, and other digital innovations (Huang et al., 2021).

To further support the understanding of the Diffusion of Innovation Theory, several key concepts are worth mentioning. The first is the concept of innovation attributes, which refers to the characteristics of the innovation that influence its adoption (Lal & Li, (2021). These attributes include relative advantage (the perceived superiority of the innovation over existing alternatives), compatibility (the fit between the innovation and existing norms and values), complexity (the perceived difficulty in understanding and using the innovation), trialability (the ability to experiment with the innovation before fully committing), and observability (the visibility of the innovation's benefits).

Another important concept is the notion of adopter categories. Rogers identified five categories of adopters based on their time of adoption: innovators, early adopters, early majority, late majority, and laggards. Innovators are the first to adopt new innovations, while laggards are the last (Wang et al., 2018). The adoption of an innovation typically follows a bell-shaped curve, with the majority of individuals falling in the early and late majority categories.

In conclusion, the Diffusion of Innovation Theory provides a comprehensive framework for understanding how new ideas, products, and technologies spread and are adopted. By recognizing the stages of adoption and the factors that influence decision-making, individuals and organizations can better plan for and promote the successful implementation of innovations. This theory has proven to be valuable in a wide range of fields and continues to be an essential tool for researchers and practitioners alike (Valente, 2015).

2.3.2 The Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (TRA) is a social psychology theory developed by Martin Fishbein and Icek Ajzen in the late 1960s. This theory aims to explain and predict human behavior based on an individual's attitudes, beliefs, and intentions. The TRA suggests that people's actions are influenced by their intentions, which are in turn shaped by their attitudes and subjective norms. According to the TRA, attitudes are evaluations or judgments about a specific behavior. They can be positive or negative and are influenced by a person's beliefs about the outcomes of that behavior. For example, if someone believes that regular exercise leads to better health and has a positive attitude towards exercising, they are more likely to engage in physical activity.

Subjective norms, on the other hand, refer to the perceived social pressure or influence to perform or not perform a behavior. These norms are influenced by the individual's beliefs about what important others think they should do. For instance, if someone believes that their friends and family expect them to recycle; they are more likely to engage in recycling behavior.

The TRA proposes that intentions are the key determinants of behavior. Intentions are influenced by attitudes and subjective norms. The stronger the intention to perform a behavior, the more likely the individual is to actually engage in that behavior. However, the TRA also acknowledges

that intentions do not always translate into actual behavior due to external factors and constraints.

Several studies have examined the effectiveness of the TRA in predicting and explaining various behaviors. For instance, a study by Sheeran and Orbell (2020) investigated the TRA's applicability in predicting exercise behavior. The results showed that attitudes, subjective norms, and intentions significantly predicted exercise behavior.

Another study by Armitage and Conner (2010) examined the TRA's ability to predict condom use. The findings indicated that attitudes and subjective norms were strong predictors of intentions to use condoms, which in turn predicted actual condom use.

In conclusion, the Theory of Reasoned Action provides a framework for understanding and predicting human behavior. It suggests that attitudes, subjective norms, and intentions play crucial roles in determining behavior. By understanding these factors, researchers and practitioners can develop effective interventions to promote positive behaviors.

2.4 Empirical Review

2.4.1 Technology Adoption and Performance of SMEs

The problem of low adoption of ICT amongst this sector is well documented in the literature (Nguyen 2009; Mramba et al. 2016; Pather & Abiodun, 2017). This problem is further compounded in practice wherein SMEs fail to make the connection between ICT adoption and their profit-motive on the one hand and their motive gain expectations on the other. There is a widely accepted consensus that if SMEs harness ICTs, it is likely to improve performance, growth, and sustainability for more inclusive employment, increased mobility, ability to organize customer information, and improved inter-connectedness to other microenterprises (Francis &

Willard 2016). Durojowu (2017) points out that the goal of technological change under study is the ability of SMEs to accept new innovative methods that will lead to higher performance of humans and machines for increased productivity. She adds that spending much money on the acquisition of new technology means a deviation from manual (simple) to sophisticated and automatic ways.

Technological change in most cases requires more training and is capital intensive despite the achievement of new business opportunities for organizations. In SMEs engaged in manufacturing goods, slack time is discouraged in production. Also, service providers where ICT makes information processing becomes faster to network clients, customers, and other stakeholders worldwide through internet facilities technological change is embraced. That is why many dynamic organizations through the adoption of new technologies can move ahead while others are left behind in competitive markets.

In general, digital technologies will foster improved performance because of the need for high-risk tolerance, heavy investment in the recruitment of talent, and leaders with transformative visions helping a company to keep up to date with the latest developments in the business digital arena thus sustaining competitiveness.

2.4.2 Employee Attitudes and Performance of SMEs

Many studies have shown a strong relationship between employee attitudes and morale and workplace productivity. It makes a lot of sense that people will work harder, faster and better when they are happy and positively motivated (Browne, 2018). Employers expect personnel to behave in a manner consistent with the company's mission and goals. By establishing standards for business conduct, company executives set expectations about acceptable behavior. A positive attitude toward maintaining high standards for work ethics usually creates a productive

environment in which people take pride in the work, and customers, suppliers, and partners want to conduct business (Duggan, 2020).

When attitudes of personal accountability are dominant in organizations, more of the vital works get done. Individuals and teams overcome seemingly impossible obstacles when they have a high sense of personal and organizational accountability, the belief that our actions or inactions are the major cause of success or failure (Senn & Hart, 2009). Organizations looking for ways to improve worker productivity can start by evaluating the attitude their employees bring to the job each day. A positive or negative attitude affects how workers approach their jobs, and attitudes can have a ripple effect on those around them. In general, a positive attitude will have a positive impact on productivity while the reverse is also true (Joseph, 2019).

2.4.3 Technology Adoption and Employee Attitude

Kyakulumbye and Pather (2021) posit that before any intervention to address low ICT adoption, there is a need to understand the underlying perceptual beliefs, attitudes, and expectations about ICTs amongst SME owners. Employee attitudes can be either positive or negative. Furthermore, pre-usage beliefs and attitudes of ICT could influence and determine the use of ICTs (Ceresia & Mendola, 2019). For instance, when assessing the usage of mobile-based payments, Almazroa and Gulliver (2018) reveal that personal characteristics have a positive influence on actual ICT use. Similarly, Alruwaie, El-Haddadeh, and Weerakkody (2020) also found that demographic characteristics are crucial in influencing citizens' continuous use of e-government services. Moreover, such expectation beliefs and attitudes may be likened to tangible and intangible elements from technology-based innovations (Jawed & Siddiqui, 2019). In terms of negative and positive attitudes influencing ICT usage, Gholami et al. (2013) found a significant positive

effect. On the other hand, Verma and Sinha (2018) did not find a significant influence of ICT usage attitudes on perceived wellbeing.

The theory of reasoned Action (TRA) as developed by Martin Fishbein and leek Ajzen as an improvement over Information Integration theory (Ajzen & Fishbein, 1975). Reasoned Action predicts that behavioral intent is created or caused by two factors: our attitudes and our subjective norms. As in Information Integration theory, attitudes have two components. Fishbein and Ajzen call these the evaluation and strength of a belief. The second component influencing behavioral intent, subjective norms, also have two components: normative beliefs (what I think others would want or expect me to do and motivation to comply (how important it is to me to do what I think others expect). The components which construct the theory of reasoned action are Behavioral Intentions (BI), Attitudes (A), and Subjective Norms (SN). The theory suggests that a person's behavioral intentions will be depending on his attitudes and Subjective norms.

The rationale of the technology acceptance model is that the influence of external variables on technology acceptance behavior is mediated through user beliefs and attitudes, in which beliefs represent a degree of instrumentality tied to action and attitudes are purely affective. This shows a link between employee attitudes and technology adoption in an SME setting.

2.5 Conceptual Framework

According to Mugenda (2008), a conceptual framework is a hypothesized model portraying the relationship between variables graphically or diagrammatically. Conceptual framework helps in quickly seeing the proposed relationship and is put to test in order to establish the significance of the proposed relationship. The conceptual framework illustrates the independent (predicting) and dependent (outcome) variables.

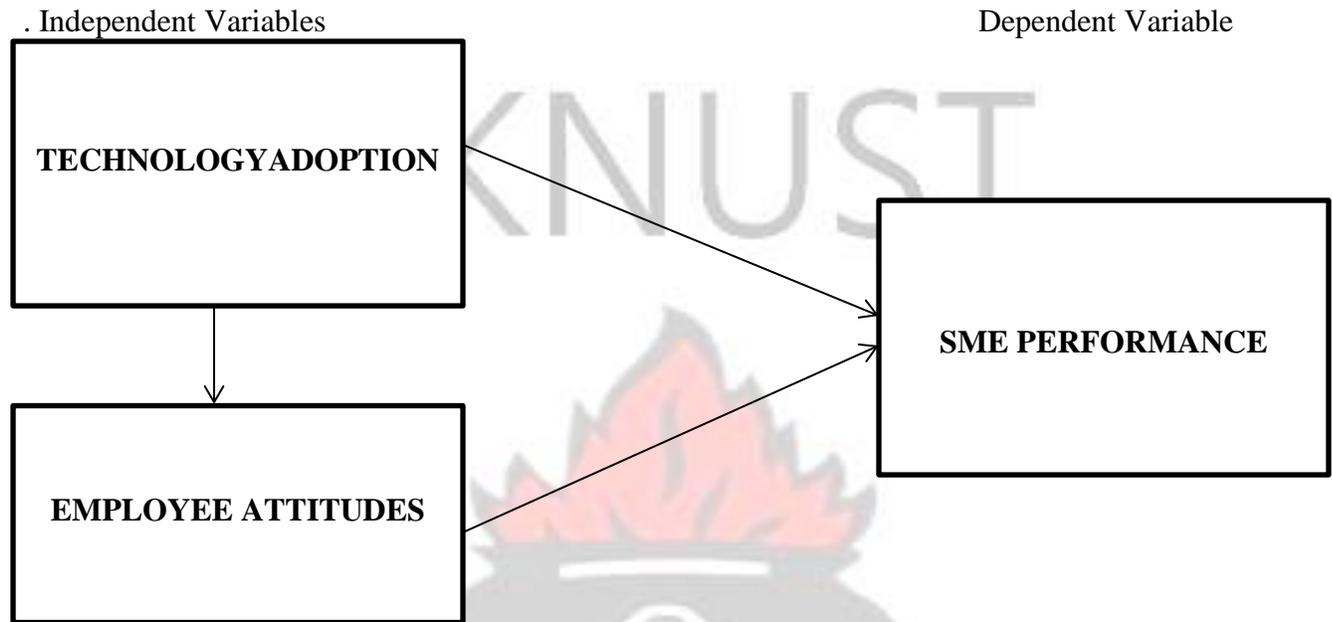


Figure 2. 1: Conceptual Framework on Technology Adoption, Employee Attitude and SME Performance.

Source: Author's Construct (2022)

From the conceptual framework in figure 2.1 above, technology adoption and employee attitude are independent variables while SME performance is dependent variable. Technology adoption is indicated by perceived ease of use, perceived usefulness and relative advantage of use (Anh & Minh, 2016), employee Attitude is indicated by satisfaction, involvement and commitment (Venkatech and Davis, 2000), while SME performance is indicated by customer retention, returns and sales growth (Louise et al 2015, Diaz et al 2016).

Technology adoption leads to perceived SME performance. Such technology should be easy to use, helpful when doing the work and employees should be willing to use it. Technology adoption also increases employee engagement through getting connected and informed with current information.

Highly engaged employees are dedicated to their work and can even achieve beyond the set targets. They love work, show a lot of energy and engage other employees in their work.

Both technology adoption and employee attitude enhances firm performance. Technology adoption and usage increases employee engagement which helps employees not only to achieve their tasks but also explicit good behaviours towards others which help them to enhance firm performance.



CHAPTER THREE

METHODOLOGY

3.1 Introduction

This section presents the description of the methodology that was used in collecting and processing data about the topic under study. It covers the research design, study population, sample size and selection, sampling techniques, and procedures. It also addresses the various methods of data collection and data analysis that were used in the study.

3.2 Research Design

The research design provides shape to the research process. The design of a research helps in conceptualising the problem of research with the use of suitable research tools and methods. The research design helped the researcher to link the thought of research problem with an appropriate research tool to make the research achievable (Bell, 2014). Research design gives a researcher insight into the general tactics to utilize to acquire data to answer various research questions provided.

The study seeks to adopt a cross-sectional survey design using quantitative approaches. A cross-sectional survey is suitable for such a study that intends to get information at a given point in time, rather than from a given period (Babbie, 2014). Cross-sectional analysis has the advantage of avoiding various complicating aspects of the use of data drawn from various points in time. It also has the advantage that the data analysis itself does not need an assumption that the nature of the relationships between variables is stable over time.

However, one weakness here is that it is difficult to determine whether the outcome followed exposure in time or exposure resulted from the outcome (Schmidt & Kohlman, 2008). Cross-

sectional surveys differ from time series analysis, in which the behavior of one or more economic aggregates is traced through time (Trochim, 2006).

3.3 Study Population

The population of any research is a group of people or other units who are the study's focus and to whom the results are meant to generalize. Individuals, things, or events with similar characteristics and information that the researcher is interested in might be included (Taylor, 2012). This is supported by Saunders et al.'s (2009) contention that a population includes variables, persons, and objects collected for specific research. As per Saunders et al. (2009), such individuals and variables share comparable characteristics and represent the accessible quantity of people for a certain research project. As a result, those on whom the researcher is likely to rely to submit answers to research questionnaires (Saunders et al., 2009).

Therefore, the target population for this study is small and medium enterprises operating in Kumasi Metropolis. The unit of analysis was an individual and the units of inquiry are the employees and owner-managers or managers of these SMEs who are actively engaged in running these SME businesses. The respondents are chosen because all of them are in the best position to provide information related to the study.

3.4 Sampling Procedure

3.4.1 Sampling Frame

It is characterized as components of the population from which a sample is drawn (Kuada, 2012). The owners or managers of 442 SMEs in the Kumasi Metropolis serve as the sampling frames for this study (NBSSI, 2020). A sample frame is necessary to identify and give each member of the population an equal opportunity of being included in the study (Collins and Hussey, 2009)

3.4.2 Sample Size and Sampling Technique

Sampling refers to the researcher's decisions on the sampling procedures to utilize, the number of instances to analyze or investigate, and determining the precise unit of analysis to be used for a study (Fletcher and Plakoyiannaki, 2012). In any social science research, the issue of how many respondents should be included in a study or what sample size is adequate remains a puzzle that has received varied opinions. In such regard, varied views have been expressed by different researchers (Mugenda and Mugenda, 2003). In the view of Gorsuch (1983) and Kline (1979), the sample size should be at least 100. Others advise that researchers should get the maximum sample size possible.

First, in determining the size of the sample, the following formula was used by Yamane (1967):

$$n = \frac{N}{1+N(e)^2}$$
 where, n denotes the sample size; N signifies the total population, and e denotes the error margin, was adopted at 5% (0.05) margin of error as shown below:

$$\text{thus, } n = \frac{442}{1+442(0.05)^2} = 209$$

However, sample of 209 SMEs were determined from the sampling frame and the SMEs were selected using a simple random sampling approach. Simple random sample advantages include ease of use and accuracy of representation. No easier method exists to extract a research sample from a larger population than simple random sampling (Dhivyadeepa, 2015).

3.5 Sources of Data

Primary data for this study comprised original or first-hand information provided by sampled respondents which provided access to raw data for the researcher to address the objectives of the

study (Hair et al, 2011). While primary data constitutes the first-hand or original information provided to the research by sampled respondents to help address the research objectives.

Hence, the researcher will collect primary data from SMEs across Kumasi.

3.6 Measures of Variables

This section describes the nature of each of the variables under study and how variable constructs of the study were measured in the following sub-sections.

3.6.1 Technology Adoption

Technology adoption refers to the process of individuals or organizations accepting and integrating new technological innovations into their daily lives or operations. It involves the usage, implementation and assimilation of technology for improved efficiency, productivity and convenience (Sani et al. 2021, Beynon, Munday, and Roche 2021). This instrument measures perceived usefulness, perceived ease of use and relative advantage of technology adoption by SMEs. It makes use of a five point response scale (strongly disagree to strongly agree). The sample items include “using the technology enhances my effectiveness on the job, the internet to be flexible to use for interaction, technology saves costs” and many others.

Studies by Faisal et al., (2022) tested the reliability of technology adoption and achieved a Cronbach’s alpha value more than 0.7 which shows that the instrument used for the present study was reliable for the data collection of the variable.

3.6.2 Employee Attitude

Employee attitude refers to the overall outlook, emotions and opinions that employees hold towards their work and the organisation they work for. It encompasses their beliefs, values,

behaviours and level of satisfaction which can greatly impact on their motivation and performance in the workplace (Conțu, 2020)

Employee attitude is a predicting variable and its measurement was adopted from Gopinath and Kalpana, (2020) used in this study. The scale contains three sub-dimensions of employee attitude which included satisfaction, job involvement and commitment. For example, meaning: ‘I have been provided opportunities for career growth in this firm; competence: ‘I am always aware of the affairs of the business: ‘I have significant influences over what happens in my department; ‘This firm inspires me to keep supporting its existence. The respondents indicated the extent to which they agreed with each statement on a five-point scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

Test reliability has been shown to be strong and validity estimates for the dimensions are around 0.80 (Gopinath and Kalpana, 2020)

3.6.3 SME Performance

SME performance is the dependent or outcome variable and its measurements was adopted from (Saqib et al., 2018). The questionnaire makes use of a 5-point Likert-scale response format (1-strongly disagree to 5 strongly agree). Sample items include “internet use has increased sales volume, service quality of SMEs is improved, SMES increasing efficiency”.

Saqib et al., (2018) tested the reliability of employee performance and achieved a Cronbach’s alpha value of 0.870. Although, the alpha coefficient for the average scale was 0.70 and it is also acceptable and shows that the instrument used for the present study was reliable for the data collection of the variable.

3.7 Data Collection Instrument

A survey questionnaire will be used to collect data. A self-administered survey will be distributed to individual respondents via a Google form and physically to target respondents as a way of gathering the important data needed to obtain results for the study. The respondents will be required to complete the questionnaire without being interrupted by the researcher conducting the survey. The questionnaires will ask different types of close-ended questions tapping the different variables of the concept. Questions and statements anchored on the five-point Likert scale (1- Strongly Disagree to 5- Strongly Agree) where respondents will be asked to indicate their level of agreement with them.

3.8 Reliability and Validity of Instrument

The result from the measurement model will be tested with two psychometric properties – validity and reliability. Both tests are necessary for measurement model since it evaluates the accuracy of measures developed and each construct. Reliability measures the degree to which a set of two or more measures are measuring the same construct and error-free (Hair et al., 1998).

However, validity measures the extent to which data collected truly represents the phenomenon being studied (Neuman, 2017).

3.8.1 Reliability

Reliability is dependability or trustworthiness and in the context of measuring an instrument, it is the degree to which the instrument consistently measures whatever it is measuring (Amin, 2013; Field, 2019). An instrument is reliable if it produces the same results whenever it is repeatedly used to measure traits or concepts from the same respondents even by other researchers. The more reliable a test is the more confidence we can have that the score obtained from the test are essentially the same scores that would be obtained if the test was re-administered. The level of

reliability that the researcher should expect from a test is determined largely by the nature of the research in which he plans to use the measure. Cronbach's alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another. Cronbach and alpha are computed in terms of the average inter-correlation among the items measuring the closer Cronbach alpha is to 1 the higher the internal consistency reliability (Sekaran, 2013). This study will conduct a Reliability Analysis on the questionnaire and the results.

3.8.2 Validity

Validity is the ability to produce findings that are in agreement with theoretical or conceptual values, in other words, to produce accurate results and to measure what is supposed to be measured. A research instrument is said to be valid if it measures what it is supposed to measure (Amin, 2003 & Field, 2009). The validity of an instrument can be checked in two ways; empirical validation and theoretical validation. With empirical validation, the validity of a measure is checked against empirical evidence.

To ensure the validity of the instrument, the drafted questionnaires were given to supervisors and business practitioners for a critical assessment of each item. They requested to state the relevance or non-relevance (NR) of each item. They were also asked to check for language and clarity of the questions. In addition, the researcher takes full control of data collection and documentation of sources. To meet the acceptable standards for research, all alpha reliabilities (α) for all scales are expected to be above 0.7 (Nunna, 2018).

3.9 Data Analysis

Data collected were be extracted from the Google form as an Excel CSV file. Additional data from hard copy questionnaires collected will be entered into this excel sheet. The data were then

coded, cleaned, and exported to the Statistical Package for Social Scientists (SPSS) computer software for analysis. Correlation and regression were run to establish the levels of association (relationships) between the dependent variable and independent variables of the study, per Field, (2009). The researcher used these cross-sectional design tools to establish the associations between the independent variables (technology adoption and employee attitudes), and the dependent variable (SME performance). Regression analysis was used to measure the predictive power of the independent variables on the dependent variable. Thus, analysis was done to determine the effect, or variation that the independent variables have on the dependent variable. In addition, the data will be presented using tables, as well as correlation and hierarchical regression analysis.

3.10 Ethical Considerations

Ethics are the moral principles that a person must follow, irrespective of the place or time (Akaranga & Makau, 2016). Research ethics focus on the moral principles that researchers must follow in their respective fields of research (Fouka & Mantzourou, 2011).

An introductory letter from the university will be requested to the prospective respondents who are given hard copy questionnaires. Permission will be sought from the relevant authorities in the SMEs to carry out the study. Consent will also be sought from all participants in the SMEs and they are allowed to withdraw from the study at any point without any preconditions. All information that will be given is going to be kept confidential and for strictly academic purposes.

CHAPTER FOUR

PRESENTATION OF DATA, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study entitled technology adoption, employee attitudes, and performance of small and medium enterprises in Kumasi. Data was collected using a combination of an online structured questionnaire (Google form), and a self-administered questionnaire physically delivered, translated and interpreted by the researcher at different SMEs, especially where respondents were found to be illiterate or had no access to the internet. The findings are presented in terms of descriptive statistics, correlation, and regression analysis, as extracted from SPSS to ascertain the correlation and contribution of the independent variables on the dependent.

4.2 Data Collection and Response Rate

The study which aimed at an investigation into technology adoption, employee attitudes, and performance of small and medium enterprises in Kumasi was conducted on two hundred and (209) respondents in Kumasi, Ashanti Region of Ghana. A response rate of approximately 89% (185 respondents of a targeted 209) was obtained from the study that generated useful information for analysis. This backs up Bailey's (2000) assertion that a response rate of 50% is appropriate, while a rate of more than 70% is great. As a result, in this circumstance, a 89 percent response rate is ideal. SPSS version 23.0 was also used to examine the data.

4.3 Demographic Characteristics of Respondents

Table 4.1 above presents research findings relating to the demographic characteristics of respondents. Findings from the study indicate that majority of the SME practitioners studied

were females, representing 57%, while males constituted 43% of all respondents. These findings attest to the fact that the data were collected from both sexes and is representative of the population demographics of SMEs in Kumasi and its environs. According to the survey 16.0% of those surveyed were between ages of 20 and 29, 30.0% had between ages of 30-39, 22.0% also were in between ages of 40 and 49, 19.0% were between ages of 50 and 49 and 11.0% of are above 60 years. This suggests that the majority of the responders were not in their thirties.

In the questionnaire, the respondents indicated their highest level of education. The findings in the table 4.1 showed that the majority, 32.0% had degree followed by 22.0% who had senior high school education. Others had attained post graduate education, 14.0% and 11.0% had technical/vocational education. These findings show that the respondents had a good education, which would enable them to analyse issues that were being investigated. So it can be argued that they provided reliable information.

The respondents also indicated their job positions. Results from the study indicate that majority of the respondents studied were employees of SMEs (41.0%), followed by business owners (27.0%), managers (19.0%), and others who performed other roles, like supervisors in these SMEs (14.0%). These findings imply that majority of the respondents who provided the data for this study were in positions that afforded them sufficient information about the study variables.

The study also presents research findings relating to the period of time that each SME has been in operation. When asked about their firm's years of operation, respondents indicate that majority of the SMEs studied had stayed in business for at least to 1to 5 years (41.0%), followed by those that had been in business for about 6 to 10 years (30%), 11to 20 years (16.0%), and those of over 21 years were about 14.0%. These findings indicate that SMEs of different ages and experiences were considered for this study.

Again, table 4.1 presents research findings relating to the number of employees in the studied SMEs, ranging from between 1 and 20 to over 80 employees. Findings from the study indicated that majority of SMEs studied had at least 1-20 employees (95, representing 51.0%), followed by those with about 20 to 40 employees (45 SMEs representing 22.0%), then those with over 80 employees (5 SMEs, representing about 3.0%), and then those with between 41 and 60 employees (25 SMEs, representing 14.0%) and lastly those with between 61 and 80 employees (15 SMEs, representing 8.0%). SMEs with a range of other numbers of employees were also studied. This indicates that all forms of SMEs, of different sizes, were well represented in this study.

The study revealed why technology adoption is relevant to the SMEs, the outcome of the study showed that 80(43.0%) of respondents indicated they adopted technology use in their operations is 2 to 5 years, 55(33.0%) were those that said they adopted technology use in 6 to 10 years, 17(9.0%) were those between 11 to 15 years and 10(5.0%) were the respondents that adopted technology use above 16 years. Hence the study showed that most of the respondents indicated appreciable period of technology use in their SMEs operations.

The study finally revealed that 8.0% of respondents income level is below Ghc 10,000, 32.0% respondents are earning between Ghc11,000-20,000, 30.0% respondents are earning between Ghc 21,000-30,000, 19.0% respondents income level are between Ghc 31,000-40,000 and 11.0% respondents earnings are above Ghc40,000.

Table 4.1: Respondents' Demographic Characteristics

Variables	Frequency	Percentage (%) Approximate
Gender		
Male	80	43.0
Female	105	57.0
Age		
20-29	30	16.0
30-39	55	30.0
40-49	45	22.0
50-59	35	19.0
60 and above	20	11.0
Level of Education		
JHS	35	19.0
SHS	45	22.0
Technical/vocational	20	11.0
Tertiary	60	32.0
Postgraduate	25	14.0
Position in Firm		
Owner	50	27.0
Manager	35	19.0
Supervisor	25	14.0
Employee	75	41.0
Duration of SME Operation		
1-5 years	75	41.0
6-10 years	55	30.0
11-20 years	30	16.0
21 and above years	25	14.0
Length of Service		
Less than 1 year	15	8.0
1-5 years	60	32.0
6-10 years	75	41.0
10 years and above	35	19.0
Number of Employees		
1- 20	95	51.0
21 - 40	45	22.0
41 - 60	25	14.0
61- 80	15	8.0
80 and above	5	3.0
Period of Technology Use		
Never	3	2.0
—≤ 1 years	10	5.0
2-5years	80	43.0
6-10 years	55	30.0

11-15 years	17	9.0
16 years and above	10	5.0
Income Level (Ghc)		
Below 10,000	15	8.0
11,000-20,000	60	32.0
21,000-30,000	55	30.0
31,000-40,000	35	19.0
Above 40,000	20	11.0

Source: Field Survey (2022)

4.4 Confirmatory Factor Analysis

Prior research has stated the importance of testing the validity and reliability of the measurement, since the structural model may be meaningless unless it is established that the measurement model holds (Bagozzi & Yi, 2012; Jöreskog & Sörbom, 2016). Therefore, the assessment of the measurement models is the first step in any SEM process as it ensures that statements (unobserved variables) are actually measuring construct (observed variables). The measurement models were assessed with the use of three main criteria: (1) Convergent validity; (2) Reliability; and (3) Discriminant validity following the suggestion of Hair et al. (2013). Table 4.2 depicts the assessment of the measurement model. Convergent validity of the items was assessed by outer loadings and average variance extracted (AVE). The outer loading analysis is driven by the theoretical relationships among the observed and unobserved variables (Schreiber, Nora, Stage, Barlow, & King, 2006). With the outer loadings, the measurement model is revised by dropping items that shares a high degree of residual variance with other items (Koo, Chung, & Kim, 2015). All outer loadings for items are above 0.7, which are above the minimum threshold value of 0.70 as suggested by Hair, Sarstedt, et al. (2014). This, therefore, provided support for convergent validity (see in Hair, Sarstedt, et al., 2014). The AVE values of 0.737 to 0.863 are

well above the minimum required level of 0.50, as suggested by Fornell and Larcker (1981), thus also demonstrating the convergent validity for all constructs. The reliability of each item was assessed by calculating Cronbach's alpha (CA) and composite reliability (CR). The reliability measures in this study are above the acceptable satisfactory levels (Cronbach's alpha > .70, composite reliability > .70) as recommended by scholars (Hair et al., 2013).

Table 4.2: Reliability of Variables

	Loadings	AVE	CR	α
<i>Perceived Usefulness</i>		0.827	0.929	0.913
Using technology improves performance of my tasks assigned	0.767			
Using technology enables me to have more accurate and updated information	0.786			
Using technology in my job increases my productivity	0.769			
Using the technology enhances my effectiveness on the job	0.638			
Using technology enables me to share ideas with other employees and managers	0.787			
I find the internet useful in my job	0.782			
<i>Perceived Ease of Use</i>		0.781	0.882	0.716
It is easy to learn how to operate the internet	0.743			
It is easy to find information with technology adoption	0.726			
My interaction with the internet is clear and understandable	0.788			
I find the internet to be flexible to use for interaction	0.734			
It is easy for me to become skillful at using the technology	0.656			
I find the internet easy to use	0.754			
<i>Relative Advantage</i>		0.784	0.920	0.862

The internet is compatible with the firm's infrastructure	0.756		
The internet usage is consistent with the company's beliefs and values	0.726		
The adoption of technology is consistent with the company's business strategy	0.753		
Technology saves costs (time and effort in marketing)	0.765		
<i>Employee Attitude</i>		0.658	0.726 0.772
<i>SME Performance</i>		0.729	0.889 0.828
Internet use has increased sales transactions	0.779		
Internet use has increased sales volume	0.743		
Technology use has improved profit margin	0.759		
Technology use has improved Service quality	0.788		
Internet use has increased the number of customers	0.722		
Frequency of usage per week	1.00	1.00	1.00

Source: Field Data, 2022

4.5 Correlations Analysis

Correlation is a statistical technique that is used to measure the strength of association between two variables (Hair, 2019). The table below shows the association between the variables that were used in the study. The correlation coefficient of 0.01 or more is said to be a strong relationship whilst a coefficient below 0.01 is said to be a weak relationship between the variables in question. The correlational analysis is detailed in the table below;

Table 4.3: Correlation statistics of variables

Variables		Technology Adoption	Employee Attitudes	SME Performance
Technology Adoption	Pearson Correlation	1		
Employee Attitudes	Pearson Correlation	.489**	1	
SME Performance	Pearson Correlation	.632**	.638**	1

****.** *Correlation is significant at the 0.01 level (2-tailed)*

The findings in table 4.3 above reveal a strong relationship between the variables. This means, the findings show that technology adoption, employee attitude and SME performance were positive correlates of each other. The result as presented in the table 4.3 below shows a positive and significant relationship between technology adoption and SME performance ($r = .632^{**}$, $\text{Sig.} < .05$). These findings imply that SME performance is moderately associated with their adoption of information and communication technologies.

The results from the study also indicate a positive and significant relationship between employee attitudes and SME performance ($r = .638^{**}$, $\text{Sig.} < .05$). These findings imply that SME performance is moderately associated with the attitudes of their employees towards the adoption of information and communication technologies. Additionally, when relating the two independent variables, Pearson's correlation statistics from the study indicate a positive and significant relationship between technology adoption and employee Attitudes, ($r = .489$, $\text{Sig.} < .05$). These findings imply that employee attitudes are associated with to the adoption of information and communication technologies by their SMEs, but the relationship was found to be a weak one.

4.6 Regression Statistics

4.6.1 Predictive strength of Technology Adoption and Employee Attitudes on change in SME performance.

Table 4.4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.728 ^a	.565	.561	5.258	.565	131.542	2	226	.000

a. Dependent Variable: SME Performance

b. Predictors: (Constant), Employee Attitudes, Technology Adoption

Table 4.5 Analysis of Variation

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6315.502	2	3157.751	140.067	.000 ^b
	Residual	5710.152	226	25.268		
	Total	12026.070	228			

a. Dependent Variable: SME Performance

b. Predictors: (Constant), Employee Attitudes, Technology Adoption

Table 4.6: Coefficient of Variation

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
		1	(Constant)	2.043		
1	Technology Adoption	.242	.031	.400	7.857	.000

Employee Attitudes	.213	.023	.462	9.066	.000
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From tables 4.4, 4.5 and 4.6, research findings from regression analysis, specifically highlighting the predictive potential of the independent variables (Employee Attitudes Technology Adoption) on the dependent variable (SME Performance). Regression statistics indicate an R of .728^a, an adjusted R of .562, and an R Square of .557. These results indicate that independent variables (predictors), including technology adoption and employee attitudes, contribute a 56.1% approximate change in the dependent variable (SME performance). Among the two independent variables studied, employee attitudes was found to be a stronger predictor of SME performance compared to technology adoption (Beta figures of .462 for technology adoption, compared to .400 for employee attitudes, and both predictors are significant at $p < .001$). This implies that while employee attitudes increase SME performance by 46%, technology adoption increases performance by 40%. These regression statistics confirm the existence of strong relationships between the independent variables and the dependent variables, and also indicate a high level of significance of the dependent variables in predicting the dependent variable.

4.6.2 Regressing Employee Attitudes on Technology Adoption

Table 4.7: Regression Statistics on Employee Attitudes on Technology Adoption

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	.496 ^a	.246	.255		11.218	
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9398.406	1	9398.406	74.679	.000 ^b
	Residual	28819.828	229	125.851		
	Total	38218.234	230			
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	31.866	4.953		6.433	.000
	Employee Attitudes	.392	.045	.496	8.642	.000

a. Dependent Variable: Technology Adoption

b. Predictor: (Constant), Employee Attitudes

Table 4.7 presents research findings from regression analysis, specifically highlighting the predictive potential of employee attitudes on technology adoption. When employee attitudes was regressed onto Technology adoption, results indicated that employee attitudes was significantly related to technology adoption, with a sig $p < .001$, an adjusted R square of .255, and a beta figure of .496 for technology adoption. This implies that a positive change in employee attitudes leads to a 49.6% change (improvement) in technology adoption among SMEs studied.

4.7 Discussion of Results

This study was conducted to assess the influence of technology adoption and employee attitude on SMEs performance in Ghana. Construct relationship were tested using the standardized path coefficients. The findings have been discussed in line with the objectives of the study below.

4.7.1 The relationship between technology adoption and the performance of SMEs

Findings from the study indicated a positive and significant association between technology adoption and SME performance. These findings imply that SME performance is strongly related to their adoption of information and communication technologies. There are several other studies in Africa and the world that attest to the fact that the adoption of technology adoption is strongly related to and improves SME performance. Tresna and Rivani (2019) for example indicate that ICT adoption has several positive contributions to SME performance, in terms of increased business efficiency and effectiveness, better operational financial performance (in terms of reducing costs of operation), increased productivity, higher profit margins, and greater market share. Some of the measures for SME performance, like sales performance and profit margins, used by Tresna and Rivani (2019) are the same measures used in this study.

The findings from the current study are also in line with those from Mallin and Zoltan (2020) that indicate that the adoption of information communication technologies among Kenyan SMEs, reflected in the proportion of the business' capital budget (financial resources) spent on these technologies was closely related with the average growth in sales and sales performance in general among the 101 SMEs they studied. These results according to Mukaman (2018), posited to the fact that ICT adoption and its perceived benefits enhance innovation among SMEs. Anjum (2018) studies the effect of ICT adoption on business performance among SMEs in India.

The findings from this study are also in line with Eton et al., (2019) who studied the ICT adoption and SME growth in Kampala. The author found that ICT adoption increases business efficiency, the ability of SMEs to utilize capital to and generate profits increases the levels of customer orders, increases in income, and the ability of a business to sell multiple products provides wider access to new markets and better access to a cheap source of raw materials.

The authors indicate that technology adoption is associated with a 70% increase in total sales.

Frelyn (2021) similarly observes in their study that there is a strong correlation between the attitude of employees toward their work and their work performance. The researcher adds that positive cognitive and emotional attitudes towards work are usually a result of improved employees' knowledge and skills, which energize them to accomplish their work and consequently increase productivity. All of this leads to improved organizational performance.

4.7.2 The relationship between employee attitudes and the performance of SMEs

Correlation statistics from the study indicate a positive and significant association between employee attitudes and SME performance. These findings imply that SME performance is strongly related to the attitudes of their employees towards the adoption of information and communication technologies. Nandi and Ado (2018) observe that employee attitudes are psychological states of mind, reflecting the way employees think about situations, and ultimately determining their behavior at the workplace. These attitudes can be either positive or negative, and without a doubt, they are strongly related to how employee task performance, and overall organizational performance. The findings in the current study reflect these very sentiments. SME performance is therefore likely to be higher when the attitudes of their employees are particularly positive.

The findings of the current study are in line with findings by Soale (2021) who report in his study about employee attitudes and job performance, that changes in employees' job performance can be attributed to changes in their attitudes; and that attitudes are mostly spurred by encouraging employee innovations and change, and total quality management. All of these lead to better performance of employees and their organizations. Managing attitudes is very important if employees are to perform well in their jobs, and if the organization is to fulfill its mission. The findings from the study are also in line with other authors like Lazaroiu, (2019), consistent with Mohan and Sudarsan (2018) who posit that positive or favorable employee attitude positively influence their job satisfaction, job commitment, job involvement, task performance and by extension institutional/organizational performance.

The findings are also supported by similar findings by Damianus, et al., (2021), especially regarding the fact that positive attitudes are reinforced by the knowledge and skills of employees. The findings in the current study indicated that employee attitudes are reinforced by their ICT skills, and this leads to improved performance of the organization.

The findings of the study also reflect results from Idua (2016), who examines the mediating role of job-related attitudes on the relationship between employee empowerment and organizational performance; and finds that attitudes significantly mediate this association. Empowerment in the current study can be looked at in terms of providing employees with the required technology and environment for them to execute their tasks. This in turn leads to improved task performance and better business performance.

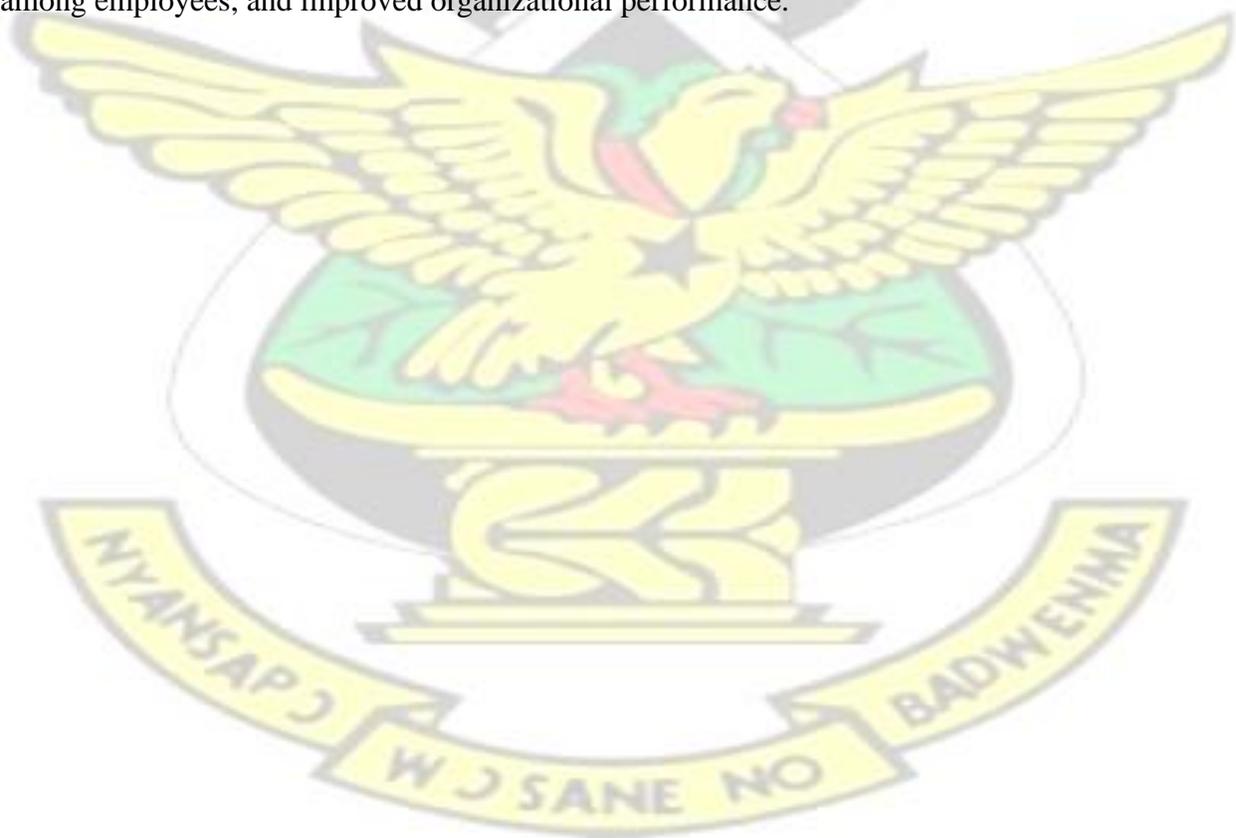
4.7.3 The relationship between employee attitude and technology adoption among SMEs in Ghana

The results of this study found a positive and significant relationship between employee attitudes and technology adoption. These findings imply that employee attitudes are strongly related to the adoption of information and communication technologies by their SMEs. These results are demonstrated in earlier studies by Baskaran et al., (2020), who finds that adopting information technology by an organization is strongly premised on the attitudes and sentiments of an employee, reflected in statements from employees who indicated that; “I feel that using technology gives them a sense of personal satisfaction; “I take pride in doing their job as well as they can when I use technology”, and that “I think of using technology enables me to do my job effectively.” These findings are especially true in the sense that a positive attitude towards technology influences higher rates or levels of use among employees, and higher levels of adoption among their business organizations. These statements reinforce the findings in the current study.

The findings from the current study of SMEs are further in line with findings by Al-Khattab and Saeed (2016) who indicate that positive employee attitudes are significantly related to the adoption and implementation of innovative technology, which in turn has a positive impact on employee performance. Vasiljeva, Kreituss, and Lulle (2021) found several technology-related factors that employees’ base on to have a positive work attitude towards these technologies and choose to adopt them. These include trust, relative advantage, cost, and social factors. The current study used some of these antecedents to measure technology adoption and the results of the study are in line with the results from Vasiljeva, et al., (2021). The findings from the current study are also in agreement with findings from Hwang, Chung, and Sin (2018), who found that

technology adoption factors including perceived usefulness, appropriateness, and perceived behavioral control are strongly influenced by attitudes toward information systems. The findings of the current study also reinforce findings from Agboola et al., (2019) who look at attitudes of employees towards technology in terms of employee behavior, this being positive or negative. In this study, positive employee behavior strongly affects technology usage, promotes individual learning, increases efficiency and effectiveness, and improves organizational performance, all of which are reflected in the theoretical framework guiding this study.

The current study also confirms observations by Susitha (2021), that enhanced positive attitude, and behavioral intention of an individual towards a technology usually lead to technology acceptance and use can, in turn, create a feeling of greater work engagement and motivation among employees, and improved organizational performance.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings presented in chapter four; conclusions from the findings, and recommendations that can be drawn from the study, areas of further study, and limitations of the study.

5.2 Summary of Findings

The main purpose of the study was to assess the influence of technology adoption and employee attitude on SMEs performance in Ghana. The study was guided by three specific objectives: (a) to examine the relationship between technology adoption and the performance of SMEs in Ghana; (b) to assess the relationship between employee attitudes and the performance of SMEs in Ghana; (c) to examine the prediction potential of technology adoption and employee attitude on SMEs performance in Ghana.

This study used quantitative research design approach. The study employed simple random sampling technique. The study's primary data gathering tools were questionnaires.

Findings of the study suggested that perceived usefulness, perceived ease of use and cost effectiveness are significantly related to technology adoption by SMEs in Ghana. The result of the analysis also provides evidence that technology adoption coupled positive employee attitude, positively impacts SMEs performance. These processes include increase in sales transactions, increase sales volume, and increase number of customers as it helps aligning customer needs with sales and marketing activities. In today's era the digital advertisements especially the internet usage has help reduced the cost of advertising to a great extent which is an important

impact factor for SME's considering their financial constraints. Customer relations are improved by allowing customers direct access to information for which they would previously have had to telephone, or e-mail. Moreover, organizations can get the information about their potential customers through google search rating.

5.3 Conclusion

In conclusion, the study found positive and significant relationships between technology adoption and SME business performance, attitudes, and technology adoption, plus attitudes and SME performance. Key among the findings were the facts that employee attitudes were found to be a stronger predictor of SME performance compared to technology adoption. A positive predictive potential of employee attitudes on technology adoption was also found in this study. These results point to the importance of information technology and social-cognitive factors like attitudes, norms, and perceptions of employees in ensuring that SME businesses perform, meet expectations of their stakeholders, fulfill their goals and thrive. However, since a further review of literature indicates that information technology adoption also facilitates positive employee attitudes towards work (Baskaran, et al, 2019; Panari, Lorenzi, and Marian, 2021), a further inquiry is also necessary to find out which particular factor has a greater influence on the other.

5.3 Recommendations

Since the findings from this study indicate a significant relationship between technology adoption and SME Performance, it is necessary for SMEs to effectively ensure a higher level of adoption of information and communication technologies in their operations as a way of encouraging better employee productivity and better business performance. Hence, SMEs owners/managers should invest in, and encourage full adoption of technology programmes geared towards competitive advantage. This is necessary because the study revealed that the

identified factors predicts adoption of technology and also enhance sales performance of SMEs. Systems like bookkeeping applications, stock management software, and other information systems, plus hardware tools to encourage higher adoption must be invested in by SMEs. Secondly, SME employees should be encouraged to use these systems to improve their task execution and performance.

The other important findings were that employee attitudes were found to be significantly related to technology adoption and SME Performance. These findings point to the fact that positive attitudes are a very strong ingredient to higher levels of technology adoption and ultimately better organizational performance. SMEs must establish policies that nurture positive attitudes among their employees for them to actively use information systems and other technologies that their organizations have procured/ adopted.

5.4 Limitations of the Study

The study concentrated on only a few components in the technology acceptance model and the diffusion of innovation theory to examine the relationships between the independent variables (technology adoption and employee attitudes), and Dependent Variable (SME performance). However, components like behavioral intention to use information technologies, user behavior, and social factors that are part of technology acceptance models were not studied.

Also, the results of this study are only for Kumasi and only limited to the respondents that were sampled and reached. These findings cannot however be generalized to represent the SME population of Ghana.

5.5 Areas of Further Study

The researcher recommends a further examination of the mediating role of employee engagement on the relationship between technology adoption and SME performance.

Further studies can be conducted in SMEs in other parts of Ghana for generalization of conclusion

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APPENDIX

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI

FACULTY OF BUSINESS

This questionnaire has been designed to solicit for your views for a study entitled **“EXAMINING THE IMPACT OF TECHNOLOGY ADOPTION AND EMPLOYEE ATTITUDE ON PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES IN GHANA”**. It is purely for an academic purpose and your honest responses will determine the credibility of this study. You are therefore assured that your responses will be accorded with the highest level of confidentiality. Thank you for your co-operation.

INSTRUCTIONS: Please tick [] or complete with the most appropriate response.

SECTION A: GENERAL BACKGROUND INFORMATION

The section is asking for your background information. Please indicate your answer by ticking (✓) Or (X) on the appropriate box.

1. Please indicate your gender

Male	
Female	

2. Please indicate your age category

20 - 29 years	
30 - 39 years	
40 - 49 years	
50 – 59 years	
60 years and above	

3. Please indicate your highest level of education

JHS	
SHS	

Diploma	
Degree	
Post Graduate	
Other (Specify)	

4. Please indicate the years you have worked in this firm

0 - 5 years	
6 - 10 years	
11 - 20 years	
21 years and above	

5. Please indicate your position in the firm

Owner	
Manager	
Supervisor	
Other (Specify)	

6. Please indicate the number of employees in the firm

1- 20	
21 - 40	
41 - 60	
61- 80	
80 and above	

7. Please indicate your firm's years of operation

1- 5 years	
6 – 10 years	
11 – 20 years	
21 years and above	

8. How many years have you used technology such as computers, internet, smart phone, facebook and whatsapp?

Never	
Less than one year	
2 - 5 years	
6 – 10 years	
11- 15 years	
16 – 20 years	
21 – 25 years	
26 ears and above	

9. Firm income level (Ghc)

Below 10,000	
11,000-20,000	
21,000-30,000	
31,000-40,000	
Above 40,000	

SECTION B: TECHNOLOGY ADOPTION

To what extent do you agree with the following statements regarding Technology Adoption of your firm. **Please indicate your response using a scale 1- 5; 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), 5 = Strongly Agree (SA). Choose ONLY one response from each statement**

Perceived Usefulness (PU)	1	2	3	4	5
Using technology improves performance of my tasks assigned					
Using technology enables me to have more accurate and updated information					
Using the technology enhances my effectiveness on the job					
Technology adoption increases productivity in this firm					
Using technology enables me to share ideas with other employees and managers					
I find the internet useful in my job					
Perceived Ease of Use (PEU)					

It is easy to learn how to operate the internet					
It is easy to find information with technology adoption					
My interaction with the internet is clear and understandable					
I find the internet to be flexible to use for interaction					
I find the internet easy to use					
It is easy for me to become skillful at using the technology					
Relative Advantage (RA)					
Technology saves costs (time and effort in marketing, branding and customer service)					
The adoption of technology is consistent with the company's business strategy					
The internet is compatible with the firm's infrastructure					
Using information technology gives me a clear advantage over other people at work					

SECTION C: EMPLOYEE ATTITUDES

Kindly indicate by ticking (√) regarding Employee Attitudes. Use a scale of 1-5 where: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5 = Strongly Agree.

Satisfaction	1	2	3	4	5
I know what I am expected to do at work.					
I have the necessary tools to enable me to do my work right					
My supervisor and colleagues at work care about me as a person					
There are people in the firm who encourage my development					
This firm makes me feel my job or role is important					
My job in this firm is secure					
Our clients recognise the good work I do around here					

I have been provided opportunities for career growth in this firm					
Involvement					
I am always aware of the affairs of the business					
I pick interest in all minute details of the business					
My involvement in business affairs is important					
I encourage others to take interest in the business matters					
Commitment					
I find the work that I do full of meaning and purpose					
I am enthusiastic about my job					
This business organisation deserves my loyalty					
I would not leave my organization right now because of my sense of obligation to it.					
This firm inspires me to keep supporting its existence					
I will do all that is possible to ensure the success of this business					

SECTION D: FIRM PERFORMANCE

To what extent do you agree with the following statements regarding the influence of technology adoption on your firm performance? **Please indicate your response using a scale 1- 5; 1 = Strong Disagree (SD), 2 = Disagree (D), 3 = Neutral (N), 4 = Agree (A), 5 = Strong Agree (SA). Choose ONLY one response from each statement**

SME Performance	1	2	3	4	5
Internet use has increased sales volume					
Service quality of the our firm is improved					
Internet use has increased sales transactions					
Technology use has improved profit margin					
Our customers recommend us others to use our business services					