IMPACT OF MOBILE PHONE COMMUNICATION ON SME PERFORMANCE;
A CASE OF SELECTED UNITS

BY

EDITH KARIMI SEKERE

A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT FOR THE
REQUIREMENTS OF THE AWARD OF A DEGREE IN MASTERS IN
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNITED STATES
INTERNATIONAL UNIVERSITY

SUMMER 2016
STUDENT'S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Edith Karimi Sekere

ID: 629629

Signed ___________________________    Date ___________________________

This project has been presented for examination with my approval as the appointed supervisor.

Dr. Paul Katuse

Signed ___________________________    Date ___________________________

Dean, School of Business

Signed ___________________________    Date ___________________________
DEDICATION

TO MY BELOVED FATHER

Eliphas Sekere Ngai

AND

LOVELY MOTHER

Rose Muthoni Sekere

AND

HEARTY BROTHER

Teddy Mugendi Sekere

“Never put a tag on your family as they are too valuable to be valued, mine has been my Solid Rock”
ACKNOWLEDGMENT

I would like to thank the following for their support during the period of compiling the project. Firstly the Almighty lord for giving me the strength and perseverance when I was at the verge of giving up due to intensive pressure of balancing with the other units, especially being a very short semester. Secondly, my parents who have offered their unconditional support that is financially and moral support. Thirdly, to my lecturer Dr. Paul Katuse for guiding me through the compilation of the project in order to ensure that the project is up to the examiner’s standards.
ABSTRACT
The purpose of the research was to get a clearer picture on the impact of mobile phone communication on SME performance; a case of selected units. The research questions were directed at finding out the impact of technology, costs, security and regulatory framework has on SME performance. The importance of this study was beneficial to the management of organizations, the Kenyan government, academicians and researchers; scope of the study was focused on geographical scope where the research will be carried out within African Boarders, while the population scope in focus was one of Kenya’s economic hub and capital, Nairobi County, with its SMEs forming the target. The study was conducted from the month of November 2014 - January 2015 and in conclusion definitions of the terms are stated. An explanatory research design was used. The target of the study was 4380 business units within Nairobi County, out of which 129 SMEs were sampled. Primary data was sourced through the use of a self-administered, semi-structured questionnaire. Data was analysed through the use of both descriptive (mean and standard deviation) as well as inferential (correlation and regression) analysis.

The study found that all the three independent variables have a significant influence on SME performance, with operational costs affecting SME performance negatively while efficiency of business operations and marketing and sales affect it positively. The independent variables explain a significant 18.42% of the changes in SME performance in Nairobi County, with a good fit for the model as were indicated by an F-value of 8.888 reliable up to 97.5% level.

The study concluded that the continued use of mobile phone communications by SMEs in Nairobi County and the wider nation can boost the overall performance and profitability of the SMEs. There is low participation by SMEs in developing mobile phone business applications, and this increases their operating costs. The use of mobile money transfers in the SME sector is widespread. Additionally, SMEs use the cheap mobile platform for relying relevant product and market information to customers which reduces operational costs while increasing sales. Moreover, use of mobile phone communication ensures that
customer confidence in the selling process is in its highest, while at times reducing delays, with increased efficiency and effectiveness.

The study recommends that the government takes regulatory measures to provide universal access of mobile communications network coverage. Further, the government should also be more proactive with the provision of better learning facilities where small business owners can learn new trade tricks that would enhance their operations and increase creativity. ICT policy makers need to address initiatives that would support eradication of mass illiteracy among the disadvantaged/poor. The policy initiatives should encompass basic computer/internet training, information processing management and creation of more awareness about the potentials of ICT in improving the quality of life.
# TABLE OF CONTENTS

Student’s Declaration........................................................................................................ ii
Dedication .......................................................................................................................... iii
Acknowledgment .............................................................................................................. iv
Abstract .............................................................................................................................. v
List of Tables .................................................................................................................... ix
List of Figures ................................................................................................................... x
List of Abbreviations ......................................................................................................... xi

## CHAPTER ONE: INTRODUCTION .................................................................................. 1

1.1 Background of the Study ............................................................................................ 1
1.2 Problem Statement ....................................................................................................... 4
1.3 Purpose of the Study .................................................................................................... 5
1.4 Specific Objectives ...................................................................................................... 5
1.5 Significance of the Study ........................................................................................... 5
1.6 Scope of the Study ...................................................................................................... 6
1.7 Definitions of Operational Terms .............................................................................. 6
1.8 Chapter Summary ....................................................................................................... 7

## CHAPTER TWO: LITERATURE REVIEW .................................................................... 8

2.1 Introduction .................................................................................................................. 8
2.2 Operation Costs and SME Performance .................................................................... 8
2.3 Business Operations Efficiency and SME Performance ........................................... 12
2.4 Marketing and Sales and SME Performance .............................................................. 16
2.5 Chapter Summary ....................................................................................................... 20

## CHAPTER THREE: METHODOLOGY ......................................................................... 22

3.1 Introduction .................................................................................................................. 22
3.2 Research Design ......................................................................................................... 22
3.3 Population and Sampling ............................................................................................ 22
3.4 Data Collection Methods ............................................................................................ 24
LIST OF TABLES

Table 3.1: Target Population .............................................................................................................. 22
Table 4.1: Analysis of the Respondents’ Demographics ................................................................. 28
Table 4.2: Use of Mobile Technology and SME Performance .......................................................... 33
Table 4.3: Mobile Technology and SMEs’ Operational Costs ......................................................... 34
Table 4.4: Mobile Technology and Business Operations Efficiency ............................................. 38
Table 4.5: Mobile Technology and Marketing and Sales ................................................................. 40
Table 4.6: Correlation of the Study Variables .................................................................................. 42
Table 4.7: Model Summary .............................................................................................................. 42
Table 4.8: ANOVA ............................................................................................................................ 43
Table 4.9: Coefficients ...................................................................................................................... 44
LIST OF FIGURES

Figure 4.1: Respondents’ Gender ................................................................. 30
Figure 4.2: Respondents’ Highest Level of Academic Qualification ............... 31
Figure 4.3: Number of Years of Business Existence ..................................... 32
Figure 4.4: Influence of operational costs on SME Performance in Kenya ....... 36
Figure 4.5: Extent of Business Operations Efficiency on SME Performance ......... 39
Figure 4.6: Extent of Marketing and Sales on SMEs Performance ..................... 41
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPM</td>
<td>Business Process Management</td>
</tr>
<tr>
<td>BPR</td>
<td>Business Process Re-engineering</td>
</tr>
<tr>
<td>CRM</td>
<td>Customer Relation Management</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
</tr>
<tr>
<td>RFID</td>
<td>Radio Frequency Identification</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Enterprises</td>
</tr>
<tr>
<td>SMS</td>
<td>Short Message Services</td>
</tr>
<tr>
<td>TQM</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
</tbody>
</table>
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Since the mid-1990s, the penetration of mobile phones has been explosive. Whereas in 1997 only 215 million people were using mobile communication devices worldwide, by 2001 this had grown to a massive 961 million, further growing to 1.16 billion by 2003. Today, Western Europe exhibits the highest penetration of mobile phones (79%), followed by North America (48%) and Asia (12%) (Kearney 2013). While the first text message ever was sent in 1992, the first commercial text message first appeared in Europe in 1997 and in the United States around 2001. Over the last 20 years, texting has become increasingly popular in every primary age group. In this context the short message service (SMS) has exceeded all initial expectations and become a great market success. In 2002, the total number of SMS messages sent globally totaled 670 billion and rose to 2.6 trillion by 2007 (Hepburn, 2013).

This recent development in mobile communication technology, along with the rapid proliferation and inherent characteristics of mobile devices, has made the mobile phones to emerge as a new, potential tool for business activities (Mei & Yun 2008). In view of this development, Small and Medium Enterprises (SMEs) are becoming increasingly interested in using the mobile technology as a medium for their business operations (Chogi, 2007).

The description of Small and Medium Enterprises (SMEs) vary from country to country. However, most of the time the choice whether or not a company is an SME is based on the number of employees, value of assets or value of sales. In Japan for example, the new Small and Medium Enterprise Basic Law set the definition of SMEs based on number of employees, capital size and industry. For the USA, it is 500 employees and for European Union countries, it is 250 employees (Hallberg, 2000). In Kenya SMEs are described as any non-farm enterprise, formal or informal, with less than 50 employees, including sole proprietorships, part-time businesses, and home-based businesses (GoK, 2012).

Though significantly less growth-oriented and productive (on average) than larger firms, SMEs share a basic similarity with all enterprises; each combines investments
in capital with some labor (their own, their families’ or their employees) in the hopes of yielding a product or service whose market value exceeds the cost of those inputs (Biswas & Roy, 2007).

Evidence suggests that some small and medium enterprises have begun using mobile technology to grow their businesses. A mobile phone is a handheld pocket sized computing device with a small screen for output and a mini keyboard or touch screen as an input device (Sarker & Wells, 2003). First generation mobile phones allowed people to talk and listen to each other anywhere and anytime without the wire. The third generation (3G) phones allow people to see each other anywhere and anytime in addition to exchange of speech (audio) (Rafael, 2003). Mobile phones are easily available to everyone with key services being mobile calls, mobile instant messaging, M-pesa remittances, Mobile bills payments; Mobile internet browsing and lately banking services (Arunga & Kahora, 2007).

Mobile services have become strategic weapons for enhancing business performance among SMEs. Indeed Mobile phones offer them the opportunity to grow through the simplified business information exchange, making it easier access customers, goods, services and other business opportunities. The phenomenal success of mobile phones is attributed to its key features, such as ease of use, low cost, message forwarding ability, and unobtrusive nature (Rao & Soumya, 2007). Pangani (2004) mentions mobility, availability (anytime, anyplace), and personalization as important benefits of mobile services.

Mobile phones have changed ways and means by which business information is received and transferred leading to more efficiency and performance (Chogi, 2007). SMEs performance can be measured in two basic ways: relating to results (outputs or outcomes such as competitiveness or financial performance) and focusing on the determinants of the results (inputs such as quality, flexibility, resource utilization, and innovation). This suggests that performance measurement can cab be based on financial and operational Performance (non-financial) (Abraham, 2007). However performance as a proxy for competitiveness builds on the universal notion that sustainable success of an enterprise is a function of its ability to deliver (in absolute terms or relative to its competitors) more real value for its customers, without using
more factor inputs (also, in absolute terms or relative to its competitors). Generally, from the performance perspective, the competitive effect of mobile phone derives from the effects that the mobile phones have upon the performance of the factor inputs. In this regard, mobile phones can improve efficiency and increase performance by different ways including, improving efficiency in business operation, reducing transaction costs, and improvement in communication with customers (Devaraj & Kohli, 2003).

Mobile phone communication increase efficiency of business processes such as ordering; transaction, delivery, inventory control and accounting are streamlined and connected regardless of location (Elder & Rashid, 2009). Mobile phones enhance information and knowledge management within SMEs by facilitating immediate connectivity to customers, suppliers and staff thereby improving small and medium enterprises efficiency. At the same time allowing firms to store, share and use the acquired knowledge and know-how within the firm. For instance customer databases with a history of client specific correspondence help managers and employees to respond more effectively to customers (Esselaar et al., 2007). The use of mobile phones: reduce transaction costs and among SMEs while increasing the speed and reliability of transactions Example: real-time interaction reduces the time it takes to negotiate, purchase and deliver orders (Frempong, 2009).

Mobile phone communication improves access to business information within firms, thus enabling more effective and more rapid decision-making by employees and managers (OECD, 2003). It also allows the SMEs to communicate with its suppliers and customers without having to pay a visit to the individual customer or small and medium enterprises. It also makes communications within the firm faster and helps to make management of the firms’ resources more efficient (Shanker et al., 2003). The effective use of mobile phone communication can help SMEs gain market share by facilitating the creation and delivery of products and services to their customers and widening the geographic scope and access of potential markets at the cost of less productive enterprises, which raise overall performance of SMEs. In addition, the use of mobile may help enterprises innovate, for instance by helping them to expand their product range, customise the services offered, or respond better to client demand (Jagun, Heeks & Whalley, 2008).
1.2 Problem Statement

SMEs still face the challenge of effective performance, largely attributed to many factors such as: the lack of access to credit, inadequate information to make informed decision, the lack of expertise, digital illiteracy, high cost of access to information technology infrastructure and high taxation. However mobile technology is perceived as critical in harnessing business opportunities and achieving high performance and growth. Thus, there is significant potential for mobile use to increase SMs performance as mobile phones allow entrepreneurs to communicate at a distance and exchange information instantaneously; to serve existing customers more effectively; check market prices and to bypass middlemen in the marketplace but SMEs level of mobile technology usage remains low. Without using mobile technology today, to obtain competitive advantages, produce high added value products and processes and develop competitive strategies within a business, SME performance and growth will continue being constrained.

A number of previous studies have focused on mobile use among business enterprise. For instance Jensen’s (2007) in his research on the fishermen of Kerala, worked with five-year time series data at three fish markets in coastal India and found that the adoption of mobile phones by fishermen and wholesalers was associated with a dramatic reduction in price dispersion, the complete elimination of waste, and near-perfect adherence to the law of one price. Jagun, Heeks, and Whalley’s (2008) examined the mobile’s role in mediating supply chains in the Nigerian market for traditional hand-woven ceremonial cloth and found out that mobile calls at a distance reduce the time of trades and replace costly journeys and that the use of mobile phones by traders better position them to effectively coordinate with a wider range of downstream customers and to maintain a more dynamic and responsive set of relationships with weavers. In Kenya, there is a general notion in which mobile phones can be applied in business; however limited effort has been taken to exactly determine the effects of mobile phone services in enhancing enterprise performance and growth especially in the SMEs sector. Hence this study sought to fill this gap by examining the effects of mobile phone communication on Small and Medium Enterprise (SMEs) performance in Kenya.
1.3 Purpose of the Study
The objective of this study was to examine the effects of mobile phone communication on Small and Medium Enterprise (SMEs) performance in Kenya. A case of SMEs in Nairobi County was selected.

1.4 Specific Objectives
The study was guided by the following specific objectives
1.4.1 To examine the effects of mobile phone communication on operation cost on Small and Medium Enterprises in Kenya
1.4.2 To determine the effects of mobile phone communication on business efficiency of Small and Medium Enterprises in Kenya
1.4.3 To establish the effects of mobile phone communication on marketing and sales of Small and Medium Enterprises in Kenya

1.5 Significance of the Study
The study is of value to various stakeholders including the SME sector in Nairobi, the telecommunication sector, the regulator and policy makers, as well as academia.

1.5.1 SMEs Based in Nairobi
In practical terms the study findings will be of value to small and medium enterprises located in Nairobi country and the SME sector as it will give insights on the importance of the mobile phone communication to the performance and growth of SMEs hence will be able to take appropriate action to enhance the use of mobile phone communication in both business operations and marketing in the SMEs.

1.5.2 Telecommunication Sector
The study will also be importance to the telecommunication sector as it will be able to understand and appreciate the effects of mobile communication on the operations of SMEs and facilitate the development of necessary features or application in the phones to support businesses operations among SMEs.

1.5.3 Government and Policy Makers
The study will also be of value to the government and policy makers as they will appreciate the effects of mobile communication to the performance growth of SMEs
sector as a whole which will in turn have a positive effect on the economy. Thus they will be able to take necessary action either policy or operational to enhance the use of mobile technology in the sector.

1.5.4 Academia
In theory the findings of the study will add to the body of knowledge in the areas of the relationship between mobile technology and the performance of SMEs. The study will provide the background information to research organizations and scholars who will want to carry out further research in this area. The study will facilitate individual researchers to identify gaps in the current research and carry out research in those areas.

1.6 Scope of the Study
This study was limited to examining the effects of mobile phone communication on Small and Medium Enterprise (SMEs) performance in Kenya with special focus on SMEs in Nairobi County. The study population was drawn from SMEs located in Nairobi County and will consist of owner/managers. The study focused on the effects of operational cost, efficiency of business operations and marketing and sales.

1.7 Definitions of Operational Terms
1.7.1 Small and Medium Enterprises
Refers to any non-farm enterprise, formal or informal, with less than 50 employees, including sole proprietorships, part-time businesses, and home-based businesses (Hepburn, 2013)

1.7.2 Mobile Phone
A handheld pocket sized computing device with a small screen for output and a mini keyboard or touch screen as an input device (Sarker & Wells, 2003)

1.7.3 Cost Efficiency
Refers to minimizing operational expenses while maximizing output or achieving the greatest amount of operational output for the least amount of financial investment (cost) (Leibenstein, 1966)
1.7.4 Efficiency

Efficiency is a concept which indicates the ability to transform inputs into outputs according to a given production process (Leibenstein, 1966)

1.8 Chapter Summary

The chapter examined the background of the study and the purpose of the study, which was to investigate the effects of mobile phone communication on Small and Medium Enterprise (SMEs) performance in Kenya, while the specific objectives include examining the effect of operational cost, efficiency of business operations and marketing and sales. The study findings are of importance to individual SMEs and the SMEs sector, telecommunication companies and the Government. The study was limited to examining the effects of mobile phone communication on Small and Medium Enterprise (SMEs) performance in Kenya with special focus on SMEs in Nairobi County. The study population was drawn from SMEs located in Nairobi County and consisted of owner/ managers and supervisory staff.

Chapter two is a review past literature on the effects of mobile phone communication on Small and Medium Enterprise (SMEs) performance. Important theoretical and practical problems related to the study variables pertaining to the effect of operational cost, efficiency of business operations and marketing and sales will be discussed.

Chapter three describes the methods and procedures used to collect and analyze (obtain and process) data. Lastly chapters four and five present the results and findings and subsequent discussions, conclusions and recommendations respectively.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction
In this chapter, literature, which is related to and consistent with the objectives of the study, is reviewed. Important theoretical and practical problems are brought out; relevant literature on the aspects pertaining to the factors affecting the choice of mobile technology in marketing approaches in insurance industry is discussed.

2.2 Operation Costs and SME Performance
The section looks at the Blue Ocean strategy as a model that SMEs can adopt in order to enhance their performance. It also looks at how SMEs can successfully employ mobile technology to cut down on their operational costs in the face of competition to better operating performance.

2.2.1 Use of the Blue Ocean Strategy in SMES
In highly competitive industries and sectors like the SME sector where there are high exit and entry levels due to limited barriers of exit and entry, business owners need to develop a proper strategy in order to secure the long term viability of the firm. Traditionally, the focus would be on cutting costs, concentrating on core competencies and exploiting unique selling propositions (USPs). Other than cutting down on costs, the other elements might be limited in use due to the perfectly competitive markets the SMEs operate in. Kim (2005) refers to fiercely competitive industries where the only way to success is to constantly beat the competition, through the creation of a competitive edge and synergy creation. In these industries, boundaries are defined and accepted. Kim calls this ‘Red Oceans’. In Red Oceans, “companies try to outperform their rivals to grab a greater share of existing demand. As the market space gets crowded, prospects for profits and growth are reduced. As such, products become commodities, and cutthroat competition turns the red ocean bloody” (Kim, 2005)

In contrast to this model, there are the ‘Blue Oceans’. Basically, the idea is that to survive in a market, companies ought to look for uncontested new markets. In addition, instead of costly and bloody fights in the marketplace, companies should pay more heed to the possible benefits of collaboration in the form of strategic alliances.
In his seminal work ‘Blue Ocean Strategy’ Kim puts forward numerous examples of companies that have created new market space simply by adopting an innovative approach to operations and to look beyond the accepted boundaries of an industry. These companies “realized that to win in the future, they must stop competing with each other. The only way to beat the competition is to stop trying to beat the competition” (Kim, 2005, 4). Red oceans would be the equivalent of known market space whereas blue oceans represent all industries not in existence today, the so called ‘unknown market space’. Kim (2005:4) notes that “blue oceans are defined by untapped market space, demand creation, and the opportunity for highly profitable growth. Although some blue oceans are created well beyond existing industry boundaries, most are created from within red oceans by expanding existing industry boundaries. In blue oceans, competition is irrelevant because the rules of the game are waiting to be set”.

In order to create the uncontested, new market space ‘value innovation’ is paramount. This element consists of two separate aspects that create synergy when brought together. The authors of ‘Blue Ocean Strategy’ describe value as bringing value to consumers in terms of price, user friendliness, and design. However, value by itself is not enough to create a blue ocean. It will distinguish you from your competitors but only to a small extent. Innovation, more precisely technical innovation, is the other key element to create blue oceans. While it is generally accepted that innovation is crucial in creating a competitive advantage, innovations are not always welcomed by consumers, especially when they are too complicated to understand and use. Another example would be that they are too expensive as was the case when many technical innovations were launched over the last decade. So by combining ‘value’ and ‘innovation’ companies should be able to create new blue oceans (Kim, 2005).

2.2.2 Mobile Phone Communications and SMES’ Operating Costs
SMEs use mobile communication to facilitate customer purchase and other transaction through phone inquiries, confirmation and transaction. This reduces costs such as time, activity; energy and/or opportunity cost which the customer will have incurred and expended in case they were do that physically. The mobile phone has the advantage of being able to reduce such costs by providing more convenience to customers. Convenience is a key advantage for customers who use their mobile
device to complete a broad range of activities in a more comfortable way, thereby reducing costs and/or time. SMEs customers with time pressures may opt to make phone communication inquiries for products and service and this reduces searching costs (Kannan et al., 2002).

Convenience is a key advantage for SMEs customers who use their mobile device to complete a broad range of activities in a more comfortable way, thereby reducing costs and/or time (Kannan et al., 2002). Mobile phone communication also saves some quality time for customers by offering the opportunity to use dead spots during the day to complete simple everyday activities. For example, enterprise consumers can handle their mobile transactions while they are stuck in the traffic (Anckar & D’Incau, 2002). Given that cost reduction depends on to what extent customers can complete activities on mobile devices, a wider range of services transacted over mobile phone would not only mean reduction in operation cost but more convenience to both customers and SMEs staff (Clarke, 2001).

Through mobile phones, a consumer can be offered a unique price without knowing what price another has received. This allows retailers to perform first-degree price discrimination, which refers to each buyer being charged a customized price. This pricing strategy is rarely if ever achieved in the general marketing environment, where prices are public knowledge and every customer is charged according to menu-based pricing. SMEs can be able to provide time-sensitive alerts to customers (credit card payment due dates), enabling them to protect customers from a potential loss, or other unnecessary problems caused by a lack of valuable information.

The way in which mobile phone diminishes the effect of distance means that it creates a variety of options for reorganizing the workplace. At a basic level, it can provide more flexibility in the office, allowing resource sharing and a degree of location independence within the work place. It also permits the dispersion of work teams, thus saving costs of relocation and travel.

Mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs. Besides lower costs therefore directly translate into extra income. Services supplied by mobile money are considered to be much safer than carrying important sums of cash in person hence preventing loss of cash. Mobile
money is to date being used for sending money savings, obtaining credit and insurance which has become cost effective to SMEs. Mobile money is particularly attractive to SMEs because the services are considered far cheaper than the alternatives such as Western Union when transferring money from one person to another (Omwansa, 2009). This benefit is extended to the transfer of money from the buyer to the seller during routine business transactions. This can be achieved in real time since mobile money services are almost instantaneous; similar to cash transactions. Therefore, transaction time is reduced while increasing convenience of not dealing with cash and maintaining almost liquid value of cash within the mobile money service. World Bank (2012) declares that mobile money is considered liquid enough to allow for easy, fast conversion. This is aided by convenient access to agents in various locations to aid in transactions.

Integrating the use of mobile phone communication in small and medium enterprises operation is essential in reducing cost of operation and increasing efficiency within the small and medium enterprises processes and in becoming competitive in the marketplace (Calantone et al., 2002). Porter (1980) points out that a firm can become competitive by pursuing cost leadership strategy, through exploiting all sources of cost advantage which derive from increasing efficiency in the processing and delivery of services to the customers and in the interaction with customers. The use of mobile phones by fishermen and wholesalers was associated with a dramatic reduction in price dispersion, the complete elimination of waste, and near-perfect adherence to the law of one price.

2.2.3 Use of the Mobile Payment and SMES in Kenya

The rapid spread of the mobile phone usage in Kenya means that the number of mobile users exceeds by far the number of banked people. Mobile phones offer easy communication and the current M-Pesa facilities have reduced the average transaction costs for the consumer (Vaughn, 2009). The Annual Report 2008/2009 show that person to person transactions stood at KShs. 120.61 billion for the same year against 14.74 billion for the year 2007/2008. The total cumulative person to person transactions stood at KShs. 135.38 billion as at 31st March 2009 since inception of the mobile payment service. This indicates that M-Pesa mobile payment is reaching the unbanked (Vaughn, 2009). Omwansa (2009) argues that the benefits associated with
M-Pesa are so enormous that those who try to place regulatory pressure on it might feel guilty if they appear to frustrate it.

The extent to which the mobile payment usage would impact on performance depends largely on whether there is an enabling environment (Porteous, 2006). Porteous defines an enabling environment as a set of conditions which promote a sustainable trajectory of market development. Of particular interest are the environments in which widespread access is likely. M-Pesa has widespread access and requires an enabling environment to enhance the success of its consumers. The micro businesses are spread throughout the country with huge clusters in the market areas and near shopping centers. This enables them to easily access the M-Pesa service providers for registration and to make cash deposits into their accounts. The mobile payment providers’ agents are well distributed and easily accessible to the micro business owners for support of their services in Kenya.

2.3 Business Operations Efficiency and SME Performance
The section looks at business process management as a structured tool that SMEs can adapt to increase operational efficiency and thus their performance. The section also addresses the use of mobile technology in increasing operational efficiency of SMEs and profitability as a measure of performance.

2.3.1 Business Process Management for SMES
Business Process Management (BPM) is a structured method of understanding, documenting, modeling, analysing, simulating, executing and continuously changing end-to-end business processes and all relevant resources in relation to an organisation’s ability to add value to the business. It is the current term utilised to encapsulate a process-driven approach to attain enterprise operational efficiency (Smith & Fingar 2003). BPM covers the entire business process lifecycle and consolidates methodologies and techniques from a number of previous approaches including Business Process Re-Engineering (BPR), Process Innovation, Kaizen, Lean Management, Total Quality Management (TQM) and Constraint-based Theory.

BPM utilises current technology to provide organisations with the ability to map and/or re-model their business processes, deploy processes as applications that are integrated with existing software systems, and provide managers with the
functionality to monitor, analyse, control and improve the execution of those processes in real time. In fact, the BPM market, which includes all communication, telecommunication, computer, internet and software applications that support BPM system, was valued at approximately $1.1 billion in 2005 and is expected to reach $3.8 billion by 2012 (WinterGreen Research 2006). This shows the importance and international acceptance of BPM in the business world today.

BPM seems to encompass the most important strengths and advantages of its predecessor BPR without some of the limitations that would prevent it from being applicable on a universal scale (Harmon 2003; Smith & Fingar, 2003). According to Puah & Tang (2000), TQM and BPR approaches are the two expressions of an increasing sophistication in management techniques and principles. Both approaches claim to establish a framework for effective management action, only that BPR is intellectually different in a fundamental way from TQM. By expounding on the two concepts and considering their differences in the context of business excellence, the principles of BPM are established. The most important insight that characterises BPM (as well as newer ‘revisionist’ variants of BPR) is a ‘process view’ of management that eschews the functional boundaries of an organisation's various departments in favour of a more ‘holistic’ approach (Baker & Maddux 2005; Rosemann & de Bruin 2004). It is within this rubric that each step of the production value-chain, from supplier to customer, can be monitored and explicitly linked to corporate strategy, operational efficiency and competitive advantage (Harmon 2003). This implies a role for a cross-functional managerial team that oversees the value-adding process as it passes from department to department and eventually to the point of sale. In this way, shortfalls in customer satisfaction can be traced back to the offending step in the value-chain and dealt with appropriately.

Although the body of research into the adoption of process-oriented management paradigms is devoted primarily to large organisations (Baker & Maddux 2005), preliminary evidence seems to suggest that, despite some minor discrepancies in terms of relative importance, the aforementioned characteristics are also largely applicable to the Small and Medium-Sized Enterprises (SMEs) sector (Baker & Maddux 2005; Hale & Cragg, 1996; Murphy & Ledwith 2006; Perry 2005; Raymond et al., 1998). The benefits of a successful process improvement effort include: better
operational efficiency; increased profitability; better customer relations; shorter process-cycle times; lower operating costs; increased accountability; and improved market competitiveness (Ahadi 2004; Raymond et al., 1998).

However, the relative paucity of research that exists in relation to BPM implementations by SMEs has resulted in the widespread propagation of a false impression that process-driven optimization frameworks are only applicable to large corporations (Raymond et al. 1998; Riley & Brown, 2001). Despite the prevalence of this assumption, it is evidenced in a few studies that BPM or process optimisation techniques can be equally effective when applied to SMEs (Hale & Cragg 1996; Raymond et al. 1998; Fu et al., 2001; Riley & Brown, 2001). BPM is also often viewed from highly diverse angles ranging from a management strategy to a software system, so much so that there is still no common consensus even about the definition of ‘Business Process Management’ itself (van der Aalst et al. 2003). In spite of its obvious advantages, the diverse points of view on BPM cause major roadblocks for organisations moving towards BPM solutions. Thus, it is argued that the current upsurge of BPM adoption in organisations denotes an ideal time to conduct a study on the identification of issues which will be of critical importance to SMEs considering or embarking on BPM initiatives.
2.3.2 Mobile Phone Communication, Operational Efficiency and SME Performance

Efficiency is a concept which indicates the ability to transform inputs into outputs according to a given production process. Efficiency makes it then possible to appreciate the performances as well as the potential of development of an entity and to locate it compared to its competitors (Evanoff & Örs, 2002).

The use of mobile phone communication enhances operational efficiency within SMEs. Efficiency practices facilitate SMEs to design, produce and market its products more efficiently than its competitors. Reducing the cost of doing business, increasing the speed of delivery, enhancing the flexibility, and achieving economies of scale are the main characteristics of production and efficiency practices in small and medium enterprises. These activities work together to achieve better productivity performance, lower cost of production, higher quality, and better customer service. In practical terms, production and efficiency practices are often associated with making production processes “lean” and more responsive to market changes. Firms re-engineer their business process in order to achieve efficiencies in the form of lower cost, higher product quality and better customer service. More extensive use of mobile phone can help firms achieve the potential gains of reengineering (OECD, 2002).

The mobile phone can also be seen as an ideal medium for SMEs customer service delivery. Several customer related activities, such as order tracking, response to customer queries, and after-sale service are now offered through the mobile, suggesting another way to satisfy customer needs by enhancing the convenience of shopping (Shankar et al., 2010).

The main goal of use of mobile devices within small and medium enterprises is to increase efficiency in small and medium enterprises activity by means of acquisition of information processing, adequate information and document management. The information systems involve data processing - collecting and processing small and medium enterprises daily transactions (accounts, invoices, credits, rates, stocks. Daily transaction processing provides information for SMEs tactical and strategic planning and is essential to their operation.
The use of mobile devices enables small and medium enterprises to create and manage databases which are important for use in all management levels: strategic, tactical and operation. Since final users of information systems may belong to various user categories in the small and medium enterprises, the system must respond in real time (directly and instantly) to any type of operational and customer request hence assisting in decision making. It is widely believed that the use of mobile devices, enables SMEs management and staff in enhancing the effectiveness and efficiency of coordination processes hence lowering coordination costs, this may lead to an overall increase in performance.

2.4 Marketing and Sales and SME Performance
The use of marketing and sales can be studied through the resource based theory presented herein, with an assessment of the effect of mobile phone communication on SME performance being presented as well.

2.4.1 Resource Based Theory
The resource-based view of the firm argues that competitive advantage and hence performance depend on resource endowments (Hooley & Greenley, 2005). Newbert (2007), in his review of empirical research on the resource-based view of the firm, emphasizes capabilities rather than resources, in terms of relevance and potential impact on performance. Resources per se cannot do anything. What is important is the capacity to utilize resources effectively, that is, a capability. Recent work (Liao, Kickul, & Ma, 2009) also emphasizes the greater relevance and importance of capabilities compared to resources.

Day (1994) especially focuses on marketing capabilities, with a special focus on market sensing and customer-linking capabilities. Subsequent conceptual literature has endorsed the relevance of marketing capabilities to understanding firm strategy and performance (Srivastava, Shervani, & Fahey, 1998, 1999; Varadarajan & Jayachandran, 1999). Varadarajan and Jayachandran (1999), in their seminal marketing strategy review, propose a way forward in terms of understanding and explaining firm behavior in the realm of deploying marketing resources for competitive advantage. Their review article frequently refers to intangible market based assets (capabilities) such as brand equity and customer equity. The subsequent
decade of academic research (for example: Berthon et al., 2008; Li & Mitchell, 2009; Weerawardena, O’Cass, & Julian, 2006; Wong & Merrilees, 2008) has picked up the two main suggestions for moving forward, namely emphasizing firstly marketing capabilities in what is usually referred to as the resource-based theory of marketing strategy and secondly the link from marketing capabilities to performance.

Empirically, evaluation of the contribution of marketing capabilities to firm performance is surprisingly scant. Two early studies, Capron and Hulland (1999) and Grewal and Tansuhaj (2001) demonstrate the role of marketing capabilities in two very specific circumstances, namely horizontal acquisitions and managing an economic crisis. Other studies seeking a more general assessment of the contribution of marketing capability to performance divide into two approaches. One approach, especially the earlier studies, conceptualize marketing capabilities in terms of the mid-level marketing processes supporting strategy and include the marketing mix (4Ps) elements, market research and market management (Vorhies, 1998; Vorhies & Morgan, 2005). A limitation of this stream, recognized by one of the proponents (Vorhies & Morgan, 2005) is that it precludes any assessment of higher-level integrative capabilities, such as brand management, innovation and customer relationship management, which is the second approach. Vorhies and Morgan (2005) leave this opportunity to future researchers. However, in the same year, Hooley et al. (2005), building on preliminary work in Hooley et al. (1999) provide an assessment of several higher-level marketing capabilities, including brand reputation, customer relationship marketing and innovation.

2.4.2 Mobile Phone Communication, Marketing and SME Performance

Through the use of mobile phones, consumers can now access detailed information about products or services at the point-of-sale, allowing for a better purchasing decision to be made in the moment (Mort & Drennan, 2002). Through the use of SMS marketing, small and medium enterprises are able to effectively establish brand recognition and recall with push advertising. Sending ad text messages assures high consumer exposure to the brand because messages are likely to reach the target almost every time. After reaching customers, the messages are kept in the mobile phone’s storage and can be read at customers’ convenience. Unlike e-mail, SMS does not have a subject line. Thus, the message is guaranteed to be opened before being deleted
Mobile phone messages can be precisely adapted to individual preferences. They are thus more relevant to the consumer than non-personalized messages. However, the personal relevance of advertising messages also depends on the individual’s propensity to receive information. Two-way communication is another feature that substantiates the potential of mobile devices in marketing. Mobile devices allow for greater two-way communication than any other tool because of their “always on” connectivity and short set up times.

With mobile phones SMEs are able to target location-specific products or services to potential customers. It is predicted that in the near future, location-based marketing will create many more business opportunities through innovative applications like Bluetooth and RFID (radio frequency identification) (Komulainen, et al 2004). SMEs can make the best use of mobile technology to offer customers products or services that are relevant to their current location, which could result in more traffic to local stores with an immediate purchase (Bauer et al., 2005; Kannan, Chang, & Whinston, 2001).

Mobile technology offers small and medium enterprises the potential to promote products and services in a personalised and interactive way. Marketing content can be personalised based on a combination of parameters, such as demographic profile, customer purchasing behaviour, situation, and location (Clarke, 2001; Varshney & Vetter, 2002). Because a mobile phone is always carried by its user, the channel provides small and medium enterprises with almost permanent opportunities to directly reach potential customers.

The mobile device allows customers to reach (or be reached by) the enterprises anywhere and anytime, in real time. Such conditions are important, particularly when there is time or location-sensitive information to be delivered (Anckar & D’Incau, 2002). In other words, the mobile phone increases consumer connectedness. In addition, the mobile phone allows for two way communication. The business value of this feature lies in its ability to enhance customer relations.
Offering products or services that meet customer needs and wants is an important part of mobile technology (Bovee, Houston, & Thill, 1995; Kotler & Armstrong, 2006). To achieve this, small and medium enterprises create database. The interactive capability of mobile phone campaigns allows small and medium enterprises to build up-to-date customer databases by inviting customers to sign up for a campaign, or text back information. The value of the captured information is then analyzed and used as the main factor in determining which products or services should be offered, and to whom. The desired result is in personalised offers being sent to individual customers, in response to specific customer needs and wants. Customised offerings lead to positive consumer attitudes toward that which is advertised (Xu, 2007), an increase in campaign response rates (Barutcu, 2007), and stronger relationships between firms and their customers (Vesanen, 2007).

Another major influence of mobile devices on the customer could be related to customer Relation Management (CRM). Kannan et al. (2001) suggested four attributes that make the mobile medium a perfect channel for CRM: ability to offer personalised content, ability to track consumers across media, ability to provide service when customers need it, and ability to offer content with highly engaging characteristics. Similarly, Sinisalo, Salo, Karjaluoto and Leppäniemi (2007) asserted that the key characteristics of the mobile medium for CRM are flexibility, interactivity and personalisation. Mobile customer relations management services are already in place in some countries, such as Italy, where most services are used in after-sales services to maximize customer satisfaction (Valsecchi, Renga, & Rangone, 2007).

Competition in the market places the importance on customer relations and customer satisfaction. To satisfy customers, firms must design, manufacture, and deliver products and services that meet their tangible and intangible needs better than their competitors, and provide superior value. In order to retain and maintain customers and build loyalty, firms provide quality after-sales and other services (Monga, 2000). ICT are playing a key role in the growth of customer relations management (CRM) practices. For example, to communicate with clients, sales forces in the field are supplemented by interactive web sites and call centres. In addition, advanced database technology, world-wide web integration, sales force automation and multi-media-
based front office applications are emerging as key elements of CRM. Evidence from surveys of managers and case study literature shows that the most important reasons for investing in ICT are product quality improvements, especially customer service, timeliness, and convenience (Bresnahan et al., 2002)

Small and medium enterprises in developing countries are increasingly utilizing mobile technology to increase their commercial potential. According to a World Bank study released in 2012, the benefits for small and medium enterprises who use mobile phones includes access to business information concerning stock piles and prices, data visibility for value chain efficiency and being able to tap into new and existing markets. When small and medium enterprises have access to information about prices and products, it helps them to reduce the risk of under-selling and of either over or under-supplying their products in a given market. The World Bank study shows that access to price information by small and medium enterprises has helped to increase farming income by 24%. Sellers realized even greater gains of up to 57% with overall price reductions for consumers of around 4%.

Mobile services can also enable better access to markets and other value-chain stakeholders. Sellers are increasingly using their websites to relay on-line information on transport and logistics, with some of these services being provided on mobile phones. For example, through the use of voice and short message service (SMS) in Morocco, small and medium enterprises coordinate with local truckers to improve product transport and to identify where the best locations are for them to deliver their products. Some small and medium enterprises also make use of two-way trade by bringing products back from larger, regional markets to sell in their own rural communities

2.5 Chapter Summary
The chapter covered the theories that underlie the effects of mobile phone communication on small and medium enterprise performance. The chapter discusses the study variables such operational cost, efficiency of business operations and marketing and sales. Mobile phones communication is an effective tool for SMEs as they use mobiles phones communication to mitigate constraints of size, scale, resources, training, credit, cash flows, and security. Mobile phones offer operational
efficiencies due to reduced travel, better procurement, scheduling, more effective multi-tasking, access to new customers and removal of middlemen,

The next chapter (chapter three) will focus on the research methodology which contains the procedures and methods used to collect and analyze (obtain and process) data. The chapter will look at study area, study design, target and study populations, sampling frame & techniques, research instruments, ethical considerations, data collection, data quality control, data management and analysis.
CHAPTER THREE
METHODOLOGY

3.1 Introduction
The chapter covers research design, target population, sampling and sample size, data collection, validity of research instruments, reliability of research instruments, data analysis, and the chapter summary.

3.2 Research Design
The study adopted an explanatory research design which is suitable in situations where questions such as how, why and what are investigated on a certain phenomenon to give facts of the situation as it is, without interference by the researcher (Kothari, 2004). The design was considered appropriate because it seeks without bias to establish factors associated with certain occurrences, outcomes, conditions or types of behaviour and in this case the effects of mobile phone communication on SMEs performance.

3.3 Population and Sampling
3.3.1 Population
Population refers to the entire group of individuals or objects in which the researcher is interested in to generalize his conclusions (Kothari, 2004). The target population was drawn from medium enterprise located within Nairobi County as indicate by the population frame provided by the licensing office at Nairobi City Council containing 620 SME in Manufacturing, 2,100 SMEs in retail trade and 1,660 SMEs in the service industry that have renewed their business licenses in 2014 as indicated in table 3.1 below.

<table>
<thead>
<tr>
<th>Business Sub-sectors</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3.1: Target Population
Manufacturing 620 14.2
Retail Trade 2,100 47.9
Service 1,660 37.9

Total 4,380 100

Source: Licensing Office, Nairobi City Council, (2014)

3.3.2 Sampling Design and Sample Size
Sampling design is a working plan or structure, which specifies the population frame, sample size and sample selection and how the sample size is estimated. The aim of the sampling design is to identify the characteristic of the population (Kombo & Tromp, 2006). According to Trochim (2005), Sampling is the process of selecting units (people, organizations) from a population of interest so that by studying the sample we may fairly generalize our results back to the population from which they were chosen.

3.3.2.1 Sampling Frame
Denscombe (2007) defines a sample frame as an objective list of the population from which the researcher can make his or her selection. The sampling frame for this study was obtained from the licensing office at Nairobi City Council containing 620 SME in Manufacturing, 2,100 SMEs in retail trade and 1,660 SMEs in the service industry that have renewed their business licenses in 2014 consisting of owner managers.

3.3.2.2 Sampling Technique
Sampling technique is the procedure a researcher uses to gather people, places or things to study (Orodho & Kombo, 2002). And in this case it refers to the procedure the researcher uses to select the final sample to study. A sample is part of the target (or accessible) population that has been procedurally selected to represent it and whose properties are studied to gain information about the whole. Multi-stage sampling technique involving the use of purposive sampling, the stratified and random sampling techniques will be employed to obtain the final study sample.


3.3.2.3 Sample Size

The study used multi-stage sampling technique to obtain study sample. In the first stage purposive sampling was done based on years of enterprise existence hence SMEs which have been in existence for a period of three years and above were picked thus 1,290 were obtained. SMEs were then stratified into three groups manufacturing, retail trade and service and 10% were selected from each group given a sample of 217 SMEs and then simple random sampling technique was applied where each enterprise from manufacturing, retail trade and service were assigned a serial number in its respective category and the numbers picked at random. The final sample size was therefore 129 SMEs from which owner managers were sampled as shown in Table 3.2.

Table 3.2: Sample Size

<table>
<thead>
<tr>
<th>Business Sub-sector</th>
<th>Frequency</th>
<th>Sampling ratio</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>110</td>
<td>0.10</td>
<td>11</td>
</tr>
<tr>
<td>Retail trade</td>
<td>810</td>
<td>0.10</td>
<td>81</td>
</tr>
<tr>
<td>Service</td>
<td>370</td>
<td>0.10</td>
<td>37</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,290</strong></td>
<td></td>
<td><strong>129</strong></td>
</tr>
</tbody>
</table>

Source: Research Data (2014)

3.4 Data Collection Methods

3.4.1 Type of Data

The study sought primary and secondary quantitative data. Primary data was collected through the use of a questionnaire, while secondary data was collected through reviewing records of the study relevant to the subject.

3.4.2 Primary Data Collection Instrument

A self-administered questionnaire was the main instrument for gathering the study’s data. According to Cooper and Emory (2008), a self - completion questionnaire is convenient as respondents could fill them during free times or when workloads are manageable besides it is cheaper and quicker to administer,
The questionnaire contained demographic factors in the initial part, while the main body of the questionnaire focused on the effects of mobile phone communication on SMEs performance in Kenya; hence they focused on: 1) operational cost, 2) efficiency of business operations and 3) marketing and sales 1). Within each of these areas, each respondent was asked to rate or rank on a scale on 1 (strongly disagree); (2) disagree; 3 (somehow agree); 4 (agree); and 5 (strongly agree) on the contribution of the various aspects of the identified factors.

3.4.3 Reliability and Validity
To achieve content validity, questionnaires mainly consisted of questions on the variables. Content validity was further ensured by consistency in administering the questionnaires. A measure of reliability and validity was guaranteed by discussion of the instrument with experts and research supervisor and by ensuring high precision and minimal errors in the data entry through training of the research assistants.

To further strengthen the reliability and validity measures that would have been initially taken a pilot study was conducted in order to ascertain and detect any ambiguities, questions that were not easily understood or poorly constructed and even those that were irrelevant. The pilot study was conducted on seven respondents from the target population who were not included in the final sample. The questionnaires were administered to the group and thereafter the feedback was obtained through debriefing them individually and comparing the results. The results of the pilot study were analyzed using Cronbach alphas with a set lower limit of acceptability of 0.6830. From the responses, comments and results of the analysis, the entire questionnaire were refined and improved to take care of the observed shortcomings.

3.5 Data Collection Procedures
The researcher administered the questionnaires containing mainly closed ended questions to the sample respondents. Hence each respondent received the same set of questions in exactly the same way. The researcher arranged with respondents a convenient time and place so as to allow both the respondent and the researcher the opportunity to create rapport and facilitate the process of questionnaire administration in a relaxed atmosphere. During the meeting it was also made clear in the introduction
the purpose of the research. By clarifying the academic purpose and that they would not experience negative affects when contributing to the research.

3.6 Data Analysis and Presentation

Data, which was collected using questionnaires, was chronologically arranged with respect to the questionnaire outline to ensure that the correct code was entered for the correct variable. Data cleaning was then done and tabulated. Data was then analyzed using descriptive statistics, regression and correlation with the aid of Statistical Package for Social Sciences (SPSS). Correlation was used to find out whether dependent variables of operational cost, efficiency of business operations and marketing and sales are correlated with SMEs performance. Multiple regression analyses was used to determine whether independent variables (operational cost, efficiency of business operations and marketing and sales) have any significant effect on SMEs performance.

The model specified for this study is of the form:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon \]

Where:

- \( Y \) = SME Performance
- \( X_1 \) = operational cost
- \( X_2 \) = efficiency of business operations
- \( X_3 \) = marketing and sales
- \( \beta_1, \beta_2 \) and \( \beta_3 \) = Partial Slope Coefficients
- \( \epsilon \) = Error Term.

The purpose of presentation of data is to highlight the results and to make data or results more illustrative by presenting in the form of figures and tables so that it is easy to observe general trends. Thus presentation of data was in form of tables, pie-charts and bar graphs only where it provides successful interpretation of the findings.
3.7 Chapter Summary

The study used an explanatory design in collecting data from the respondents because it saves time, expenses and the amount of quality information yielded is valid, while interviewer bias is reduced. The target population consisted of four thousand three hundred and eighty (4,380) respondents drawn from SMEs located in Nairobi County. The study used multi-stage sampling procedure to select a study sample. Primary data for the study was collected using the questionnaires. Quantitative data was analyzed using the regression and correlation with the aid of Statistical Package for Social Sciences.
CHAPTER FOUR
DATA ANALYSIS, PRESENTATIONS AND INTERPRETATIONS

4.1 Introduction
The chapter looks at the findings and presentation of the same, as well as interpretation of the findings. Descriptive and inferential analyses are presented in the chapter.

4.2 Respondent Demographics
The study achieved a 67.44% response rate, with 87 fully filled questionnaires being returned out of the distributed 129 questionnaires, which is significant according to Zikmund et al. (2010) who posits that a response rate that is above 20% is significant to deduce conclusions from such data.

This section looks at the three respondent demographics that were studied, including gender of the respondents, highest level of education attained by the respondents, as well as the number of years the SME has been existent. The overall analysis of the respondents’ demographics is as shown in Table 4.1.

Table 4.1: Analysis of the Respondents’ Demographics

<table>
<thead>
<tr>
<th>Attribute</th>
<th>N</th>
<th>%age of the Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>62.07%</td>
</tr>
<tr>
<td>Female</td>
<td>31</td>
<td>35.63%</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>2.30%</td>
</tr>
<tr>
<td>Highest Level of Academic Qualification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td>2</td>
<td>2.30%</td>
</tr>
<tr>
<td>Diploma</td>
<td>24</td>
<td>27.59%</td>
</tr>
<tr>
<td>Certificate</td>
<td>39</td>
<td>44.83%</td>
</tr>
<tr>
<td>A-Levels</td>
<td>1</td>
<td>1.15%</td>
</tr>
<tr>
<td>O-levels</td>
<td>15</td>
<td>17.24%</td>
</tr>
<tr>
<td>Class 8</td>
<td>3</td>
<td>3.45%</td>
</tr>
<tr>
<td>No Response</td>
<td>3</td>
<td>3.45%</td>
</tr>
<tr>
<td>Number of Years of Business Existence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 1 year</td>
<td>23</td>
<td>26.44%</td>
</tr>
<tr>
<td>Between 1 and 3 years</td>
<td>27</td>
<td>31.03%</td>
</tr>
<tr>
<td>Between 4 and 6 years</td>
<td>19</td>
<td>21.84%</td>
</tr>
<tr>
<td>Between 7 and 9 years</td>
<td>11</td>
<td>12.64%</td>
</tr>
<tr>
<td>10 years and above</td>
<td>7</td>
<td>8.05%</td>
</tr>
</tbody>
</table>

Source: Research Findings (2014)
4.2.1 Gender of the Respondents

The respondents were distributed such that 62.07% were males, while 35.63% were females, with the remaining 2.30% of the respondents not responding as shown in Figure 4.1. The results imply that there are almost twice as many men in the informal sector (SME sector) in Kenya as there are women. This can be interpreted to mean that there are not enough incentives in the sector for women to venture in business, including issues like lack of family support for the women, capital issues, as well as securing location for business within Nairobi County.

Women comprise 49.6 percent of the world’s population but make up only 40.8 percent of the formal global labor market. This is untapped economic and productive potential, which matters because women’s economic empowerment is good not only for women but also for society, companies, and the economy. Educated and employed women help reduce poverty by helping their families and communities escape the cycle of poverty (IFC, 2013). Women influence the productivity and competitiveness of future generations by reinvesting 90 percent of their income into their families (World Bank, 2011) and rearing children for success (Silverstein & Sayre, 2009).

If women don’t have the opportunity to contribute economically, the years of investment in their education also is wasted. Lack of access to finance and financial services, such as commercial credit, is repeatedly identified as the major constraint for women entrepreneurs. Companies run by women are usually smaller than those operated by men in terms of number of employees, asset value, and annual turnover, besides being less profitable and productive (ILO, 2009).

One reason for these differences: a study using 2005 data from 34 countries in Western Europe, Eastern Europe and Central Asia, and East Asia and the Pacific showed that businesses owned or managed by women were 5 percent less likely to receive a loan, and that women-owned firms had interest rates that were on average 0.5 percentage points higher than those for men-owned firms (Muravyev et al., 2009). In more developed countries, the probability of women obtaining loans was higher, and women had to provide less collateral on average.
The results showed that there were 2.30% degree holders of all the respondents who took time to fill in the questionnaire; 27.59% diploma holders; 44.83% certificate holders; 1.15% A-level finalists; 17.24% respondents had achieved form four education; while 3.45% had achieved a class eight certificate, with the remaining 3.45% of the respondents not indicating their highest academic levels, as shown in Figure 4.2. High level of academic shows a better understanding of business ideas and concepts, though it does not necessarily guarantee business success. More educated business owners are more likely to require learning in the management of affairs to grow their enterprises unlike those with lower levels of education.

The results conform to results from previous research. The positive relationship between education and business success is empirically well-established (Rauch & Frese, 2000). A recent meta-analysis (Unger et al., 2006) reported a significant overall relationship between human capital indicators (including education) and success. This relationship remained positive and significant under all moderating conditions. Researchers agree that education leads to knowledge and skills that enable business owners to find opportunities and to cope with problems better and, therefore, be more successful (Cooper, Gimeno-Gascon, & Woo, 1994). Unfortunately, however, most often researchers do not distinguish between education and its presumed outcome:
knowledge. Education is simply used as a proxy for knowledge. This is problematic because such an approach overlooks individual differences in learning. All individuals are implicitly expected to learn equally well from experience. Clearly, this is not the case (Ford et al., 1998; Sonnentag, 1998). As previous knowledge assists in the accumulation of new knowledge (Davidsson & Honig, 2003), and education incorporates ongoing learning activities that may help individuals develop superior learning strategies.

![Figure 4.2: Respondents’ Highest Level of Academic Qualification](image)

Source: Research Findings

4.2.3 Number of Years of Business Existence

As shown in Figure 4.3, the number of start-ups from the studied businesses were 26.44%, having been existent for less than 1 year; 31.03% of the businesses have been doing business in the area for between 1 and 3 years; 21.84% have been in existence for between 4 and 6 years; 12.64% for between 7 and 9 years; while the remaining 8.05% of the businesses have been doing business in the Nairobi County 10 years or more. The results indicate a low rate of small and micro business success rate in Kenya, due to, in part, a lack of adoption of technology to lower operating costs, findings that are supported by observations from a study by Bowen, Morara and Mureithi (2009) who indicated that SMEs are faced with the threat of failure with three out of five start-ups failing within a few months of opening doors.
4.3 SMES Performance

The respondents were asked to indicate their level of agreement or disagreement to selected statements regarding the use of mobile technology and its influence on the performance of SMEs within Nairobi County. The respondents strongly agreed that mobile phone communication facilitates the increase in enterprise market coverage with a mean of 4.68 and an insignificant standard deviation of 0.47. This means that SMEs are able to use mobile phone communication to improve market access by facilitating communication with customers, competitive positioning, enable information acquisition and production of quality products, generation of market information, reduction in logistic costs, facilitating access to global markets, facilitating market research, networking, market transactions and market identification.

Respondents agreed that mobile phone communication enhances the increase in sales among SMEs with a mean of 3.97 and an insignificant standard deviation of 0.80, showing that SMEs are able to access more information on available market opportunities that they take, leading to increased sales; and mobile phone communication enhance the enterprise profitability with a mean of 3.84 and an insignificant standard deviation of 0.89. This implies that the continued use of mobile phone communication in SMEs lead to innovativeness and creativity that create a
competitive advantage for SMEs thus increasing sales and decreasing operational costs, with lead to higher profitability. These results are as presented in Table 4.2.

**Table 4.2: Use of Mobile Technology and SME Performance**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somehow Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>μ</th>
<th>σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile phone communication enhances the increase in Sales among SMEs</td>
<td>29.89%</td>
<td>36.78%</td>
<td>33.33%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>3.97</td>
<td>0.80</td>
</tr>
<tr>
<td>Mobile phone communication facilitates the increase in enterprise market coverage</td>
<td>67.82%</td>
<td>32.18%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>4.68</td>
<td>0.47</td>
</tr>
<tr>
<td>Mobile phone communication enhance the enterprise profitability</td>
<td>19.54%</td>
<td>56.32%</td>
<td>13.79%</td>
<td>9.19%</td>
<td>1.15%</td>
<td>3.84</td>
<td>0.89</td>
</tr>
</tbody>
</table>

**Source: Research Findings**

**4.4 Operational Cost**

The respondents strongly agreed that mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs as supported by a mean of 4.92 and an insignificant standard deviation of 0.27, indicating the willingness of SMEs to accept payment through mobile money transfers, and with at least half of the SMEs having pay bill numbers; and SMEs are able to provide time-sensitive alerts to customers hence protecting them from potential losses, caused by a lack of valuable information with a mean of 4.53 and an insignificant standard deviation of 0.64, implying that loyal customers are normally reached for with an aim of providing relevant information on mainly perishables that can easily go bad.

The respondents agreed that SMEs use mobile communication to facilitate customer purchases through phone inquiries, confirmation and transactions reducing time, activity; energy and/or opportunity cost as was supported by a mean of 3.69 and a standard deviation of 0.80 indicating that the key delay costs experienced by SMEs can be eliminated through the use of mobile phone communication. Such delays (which come with an extra cost) include customer lead times, and lost business
opportunities due to distance. Some SMEs have been innovative enough as to employ the services of couriers (either owned by these SMEs or leased) for convenience in order deliveries. The respondents also agreed that integrating the use of mobile phone communication in SME operation is essential in reducing cost of operation with a mean of 3.08 and an insignificant standard deviation of 0.89. This implies that SMEs are dedicating their resources to invest in mobile phone communication to achieve reduced operating costs, including the adoption of the use of applications that ease customer search costs, for instance the OLX platform. This decreases the warehousing costs (storage costs) as SMEs are able to turnover their inventories more frequently.

The respondents somehow agreed that SMEs’ customers with time pressures may opt to make phone communication inquiries for products and service and this reduces searching costs as supported by a mean of 2.99 and an insignificant standard deviation of 0.99, indicating that not all customers do searching as they are loyal to their distributors who are mainly left to match customer demands with supply of the same.

The respondents disagreed that mobile phone communication saves quality time for customers by offering the opportunity to use idle time such as when stuck in the traffic to complete business transaction with a mean of 1.95 and a significant standard deviation of 1.07 showing a significant observation scatter, implying that few customers use their idle time to complete business transactions. Additionally, respondents disagreed that through mobile phone communication, a consumer can be offered a unique price without knowing what price another has received allowing SMEs to do price discrimination with a mean of 1.10 and an insignificant standard deviation of 0.34. This shows minimal use of price discrimination, rather, customers buying in bulk negotiate for discounts. The results are as presented in Table 4.3.

**Table 4.3: Mobile Technology and SMEs’ Operational Costs**

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somehow agree</th>
<th>Agree</th>
<th>Somehow disagree</th>
<th>Agree</th>
<th>Strongly disagree</th>
<th>Agree</th>
<th>μ</th>
<th>σ</th>
</tr>
</thead>
</table>

34
### SMEs use mobile communication to facilitate customer purchases

<table>
<thead>
<tr>
<th></th>
<th>SMEs use mobile communication to facilitate customer purchases through phone inquiries, confirmation and transactions reducing time, activity; energy and/or opportunity cost</th>
<th>16.09%</th>
<th>41.38%</th>
<th>37.93%</th>
<th>4.60%</th>
<th>0.00%</th>
<th>3.69</th>
<th>0.80</th>
</tr>
</thead>
</table>

### SMEs customers with time pressures may opt to make phone communication inquiries for products and service and this reduces searching costs

<table>
<thead>
<tr>
<th></th>
<th>SMEs customers with time pressures may opt to make phone communication inquiries for products and service and this reduces searching costs</th>
<th>10.34%</th>
<th>9.20%</th>
<th>40.23%</th>
<th>26.44%</th>
<th>2.30%</th>
<th>2.99</th>
<th>0.99</th>
</tr>
</thead>
</table>

### Mobile phone communication save quality time for customers by offering the opportunity to use idle time such as when stuck in the traffic to complete business transaction

<table>
<thead>
<tr>
<th></th>
<th>Mobile phone communication save quality time for customers by offering the opportunity to use idle time such as when stuck in the traffic to complete business transaction</th>
<th>0.00%</th>
<th>12.64%</th>
<th>16.09%</th>
<th>25.29%</th>
<th>45.98%</th>
<th>1.95</th>
<th>1.07</th>
</tr>
</thead>
</table>

### Through mobile phones communication, a consumer can be offered a unique price without knowing what price another has received allowing SMEs to do price discrimination

<table>
<thead>
<tr>
<th></th>
<th>Through mobile phones communication, a consumer can be offered a unique price without knowing what price another has received allowing SMEs to do price discrimination</th>
<th>0.00%</th>
<th>0.00%</th>
<th>1.15%</th>
<th>8.05%</th>
<th>90.80%</th>
<th>1.10</th>
<th>0.34</th>
</tr>
</thead>
</table>

### SMEs are able to provide time-sensitive alerts to customers hence protecting them from potential losses, caused by a lack of valuable information.

<table>
<thead>
<tr>
<th></th>
<th>SMEs are able to provide time-sensitive alerts to customers hence protecting them from potential losses, caused by a lack of valuable information.</th>
<th>60.92%</th>
<th>31.03%</th>
<th>8.05%</th>
<th>0.00%</th>
<th>0.00%</th>
<th>4.53</th>
<th>0.64</th>
</tr>
</thead>
</table>

### Mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs.

<table>
<thead>
<tr>
<th></th>
<th>Mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs.</th>
<th>91.95%</th>
<th>8.05%</th>
<th>0.00%</th>
<th>0.00%</th>
<th>0.00%</th>
<th>4.92</th>
<th>0.27</th>
</tr>
</thead>
</table>

### Integrating the use of mobile phone communication in SME operation is essential in reducing cost of operation

<table>
<thead>
<tr>
<th></th>
<th>Integrating the use of mobile phone communication in SME operation is essential in reducing cost of operation</th>
<th>3.45%</th>
<th>28.74%</th>
<th>44.83%</th>
<th>18.39%</th>
<th>4.60%</th>
<th>3.08</th>
<th>0.89</th>
</tr>
</thead>
</table>

**Source:** Research Findings

The respondents were asked to indicate the extent to which they feel operational cost influence SME performance in Kenya, and as shown in Figure 4.4, 47.13% of the respondents indicated that there is a very large effect of operational costs on SME performance in Kenya, another 37.93% indicated a large extent, 13.79% showed a moderate extent while the remaining 1.15% of the respondents indicated a little extent of the influence. Overall, it can be concluded that operational costs influence SME performance to a large extent.
4.5 Business Operations Efficiency

The study sought to establish the respondents’ level of agreement/disagreement to statements relating to the influence of business operations efficiency as a result of mobile phone communication and its significance to SME performance in Nairobi County. With means of above 4.00, the respondents strongly agreed with the following statements: mobile phone communication increases the speed of service delivery (mean of 4.09 and a standard deviation of 0.77), which leads to increased consumer expectations, which in turn increases customer loyalty and eventually increased sales. Mobile phone communication enhances operation flexibility among SMEs ($\mu = 4.64; \sigma = 0.65$), which means that consumers are presented with a wide variety to choose from in terms of modes of doing business, which enhances their trust in SMEs and reduces conflict between SME owners and the consumers; mobile phone communication has become an important medium for SMEs customer service related activities, such as order tracking, response to customer queries, and after-sale service are now offered through the mobile ($\mu = 4.64; \sigma = 0.65$). This ensures that customer confidence in the selling process is in its highest, while at times reducing delays; and mobile phone communication enables SMEs management and staff to enhance the effectiveness and efficiency of coordination processes hence lowering coordination costs ($\mu = 4.64; \sigma = 0.65$).
With a mean of 3.29 and a significant standard deviation of 1.11, the respondents agreed that efficiency practices facilitate SMEs to design, produce and market its products more efficiently than its competitors. Competition among SMEs is cut-throat and those that are able to cut a competitive edge over their competitors survive longer. It so seems that the level of innovativeness and creativity among most of the respondents was low due to their small size of operations, though some had large enough operations to warrant innovation, creativity and differentiation. The respondents somehow agreed that the use of mobile phone communication enhances operational efficiency within SMEs with a mean of 2.99 and an insignificant standard deviation of 0.74. This indicates that some of the targeted business owners did not fully grasp the meaning of operational efficiency and might have confused it with profitability.

Finally, the respondents disagreed that mobile phone communication facilitate the achievement of economies of scale among SMEs as was supported by a mean of 1.97 and a standard deviation of 0.80. This implies that the targeted SMEs do not engage in large scale production due to a limitation of capital resources. These results are presented in Table 4.4.
## Table 4.4: Mobile Technology and Business Operations Efficiency

<table>
<thead>
<tr>
<th>Description</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somehow agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>μ</th>
<th>σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of mobile phone communication enhances operational efficiency within SMEs</td>
<td>2.30%</td>
<td>16.09%</td>
<td>63.22%</td>
<td>14.94%</td>
<td>3.45%</td>
<td>2.99</td>
<td>0.74</td>
</tr>
<tr>
<td>Efficiency practices facilitate SMEs to design, produce and market its products more efficiently than its competitors</td>
<td>21.84%</td>
<td>13.79%</td>
<td>35.63%</td>
<td>28.74%</td>
<td>0.00%</td>
<td>3.29</td>
<td>1.11</td>
</tr>
<tr>
<td>Mobile phone communication increases the speed of service delivery</td>
<td>34.48%</td>
<td>40.23%</td>
<td>25.29%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>4.09</td>
<td>0.77</td>
</tr>
<tr>
<td>Mobile phone communication enhance operation flexibility among SMEs</td>
<td>72.41%</td>
<td>20.69%</td>
<td>5.75%</td>
<td>1.15%</td>
<td>0.00%</td>
<td>4.64</td>
<td>0.65</td>
</tr>
<tr>
<td>Mobile phone communication facilitate the achievement of economies of scale among SMEs</td>
<td>0.00%</td>
<td>3.45%</td>
<td>19.54%</td>
<td>47.13%</td>
<td>29.89%</td>
<td>1.97</td>
<td>0.80</td>
</tr>
<tr>
<td>Mobile phone communication has become an important medium for SMEs customer service related activities, such as order tracking, response to customer queries, and after-sale service are now offered through the mobile</td>
<td>82.76%</td>
<td>17.24%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>4.83</td>
<td>0.38</td>
</tr>
<tr>
<td>Mobile phone communication enables SMEs management and staff to enhance the effectiveness and efficiency of coordination processes hence lowering coordination costs</td>
<td>39.08%</td>
<td>56.32%</td>
<td>4.60%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>4.34</td>
<td>0.57</td>
</tr>
</tbody>
</table>

Source: Research Findings

The study found that all the respondents indicated that there is at least a moderate extent of the effect of operational efficiency as a result of the use of mobile phone communication on the SME performance as presented in Figure 4.5.
4.6 Marketing and Sales

There was very strong agreement to the following statements: through the use of mobile phones communication, consumers access information about products or services at the point-of-sale, allowing for a better purchasing decision to be made in the moment; mobile phone communication can be precisely adapted to customer preferences; SMEs can make the best use of mobile phone communication to offer customers products or services that are relevant to their current location, leading to increased purchases; because a mobile phone is always carried by its user, the channel provides SMEs with almost permanent opportunities to directly reach potential customers anywhere and anytime, in real time; and mobile phones enhance performance of SMEs by facilitating offers of personalised content, ability to track consumers across media, ability to provide service when customers need it, and ability to offer content with highly engaging characteristics.

Respondents agreed that through phone communication, SMEs are able to effectively establish brand recognition and recall with push advertising; and mobile phone communication offers SMEs the potential to promote products and services in a personalised and interactive way.

Respondents disagreed that with mobile phones communication SMEs are able to target location-specific products or services to potential customers.
Table 4.5: Mobile Technology and Marketing and Sales

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somehow Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>μ</th>
<th>σ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the use of mobile phones communication, consumers access</td>
<td>85.06%</td>
<td>12.64%</td>
<td>2.30%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>4.83</td>
<td>0.44</td>
</tr>
<tr>
<td>information about products or services at the point-of-sale,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>allowing for a better purchasing decision to be made in the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Through phone communication, SMEs are able to effectively</td>
<td>18.39%</td>
<td>24.14%</td>
<td>26.44%</td>
<td>25.29%</td>
<td>5.75%</td>
<td>3.24</td>
<td>1.19</td>
</tr>
<tr>
<td>establish brand recognition and recall with push advertising</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile phone communication can be precisely adapted to</td>
<td>50.57%</td>
<td>22.99%</td>
<td>25.29%</td>
<td>1.15%</td>
<td>0.00%</td>
<td>4.23</td>
<td>0.87</td>
</tr>
<tr>
<td>customer preferences.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With mobile phones communication SMEs are able to target</td>
<td>0.00%</td>
<td>0.00%</td>
<td>31.03%</td>
<td>21.84%</td>
<td>47.13%</td>
<td>1.84</td>
<td>0.87</td>
</tr>
<tr>
<td>location-specific products or services to potential customers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEs can make the best use of mobile phone communication to</td>
<td>72.41%</td>
<td>12.64%</td>
<td>8.05%</td>
<td>5.75%</td>
<td>2.30%</td>
<td>4.45</td>
<td>1.02</td>
</tr>
<tr>
<td>offer customers products or services that are relevant to their</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>current location, leading to increased purchases.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile phone communication offers SMEs the potential to</td>
<td>34.48%</td>
<td>20.69%</td>
<td>22.99%</td>
<td>18.39%</td>
<td>3.45%</td>
<td>3.64</td>
<td>1.23</td>
</tr>
<tr>
<td>promote products and services in a personalised and interactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>way.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Because a mobile phone is always carried by its user, the</td>
<td>100%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>5.00</td>
<td>0.00</td>
</tr>
<tr>
<td>channel provides SMEs with almost permanent opportunities to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>directly reach potential customers anywhere and anytime, in</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>real time.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile phones enhance performance of SMEs by facilitating</td>
<td>66.67%</td>
<td>25.29%</td>
<td>8.05%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>4.59</td>
<td>0.64</td>
</tr>
<tr>
<td>offers of personalised content, ability to track consumers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>across media, ability to provide service when customers need it,</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and ability to offer content with highly engaging characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source: Research Findings**

The extent of the influence of marketing and sales on SME performance as a result of the use mobile phone communication was very large according to 51.72% of the respondents, large according to 31.03% of the respondents and moderate according to the remaining 17.25% of the respondents as shown in Figure 4.6.
4.7 Correlation Analysis

The study used Pearson’s Product Moment of Correlation (PPMC) to establish the levels of association between sets of variables. The findings in Table 4.6 show that there were significant associations between all the three independent variables and the dependent variable. There was a significant negative average correlation between operational cost and SME performance with a correlation coefficient of -0.502. This implies that when there is a unit change in operational costs as a result of a change in mobile communication, SME performance changes in the opposite direction by a magnitude of 50.2%. Further, there was an average significant positive correlation between efficiency of business operations and SME performance in Nairobi County with a correlation coefficient of 0.461; and a positive strong significant correlation between marketing and sales and SME performance with a correlation coefficient of 0.646, as shown in Table 4.6.
Table 4.6: Correlation of the Study Variables

<table>
<thead>
<tr>
<th></th>
<th>SME Performance</th>
<th>Operational Cost</th>
<th>Efficiency of business operations</th>
<th>Marketing and Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME Performance</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operational Cost</td>
<td>Pearson Correlation</td>
<td>-.502**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency of business operations</td>
<td>Pearson Correlation</td>
<td>.461**</td>
<td>-.733*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Marketing and Sales</td>
<td>Pearson Correlation</td>
<td>.646*</td>
<td>-.593**</td>
<td>.567**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed).

N = 87

Source: Research Findings

4.8 Multi-variate Regression Analysis

As shown by R, there is an association between the combined independent variables and the dependent variable, with an intensity of 0.4863. As shown by the adjusted R², the independent variables explain 18.42% of the changes in SME performance in Nairobi County. The difference between R² and the adjusted R² shows the size of the error in the error term as shown in Table 4.7.

Table 4.7: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
</table>

42
Table 4.8: ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1018.007</td>
<td>3</td>
<td>339.336</td>
<td>8.888</td>
<td>.025(a)</td>
</tr>
<tr>
<td>Residual</td>
<td>954.428</td>
<td>25</td>
<td>38.177</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1972.435</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following model was established from the coefficients matrix table (Table 4.9)

\[ Y = 0.9572 - 0.057X_1 + 0.073X_2 + 0.068X_3, \text{ measured without error.} \]

All the variables, other than the constant, were individually statistically significant at 5% significance level as was indicated by the p-values. The t-values further revealed that all the variables, including the constant, are statistically significant, with values that were greater than absolute 1.96. From the standard error results (non-standardised coefficients on Table 4.9); operational cost is the most representative individual variable of the three independent variables as it has the least standard error.
Table 4.9: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Non-standardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
<td>Std. Error</td>
<td>Beta</td>
<td>B</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>.9572</td>
<td>.3167</td>
<td>.759</td>
<td>3.0224</td>
</tr>
<tr>
<td>Operational Cost</td>
<td>–.057</td>
<td>.026</td>
<td>.055</td>
<td>–2.1923</td>
</tr>
<tr>
<td>Efficiency of business operations</td>
<td>.073</td>
<td>.030</td>
<td>.069</td>
<td>2.4333</td>
</tr>
<tr>
<td>Marketing and Sales</td>
<td>.068</td>
<td>.033</td>
<td>.060</td>
<td>2.0606</td>
</tr>
</tbody>
</table>

a Dependent Variable: SME Performance

Source: Research Findings
CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
The chapter presents the discussion of findings from chapter four and is organized as follows: summary of findings; conclusions; recommendations; and suggested areas of further study.

5.2 Summary
The respondents strongly agreed that mobile phone communication facilitates the increase in enterprise market coverage. They further agreed mobile phone communication enhances the increase in sales among SMEs; and mobile phone communication enhance the enterprise profitability.

The respondents strongly agreed that mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs; and SMEs are able to provide time-sensitive alerts to customers hence protecting them from potential losses, caused by a lack of valuable information. The respondents disagreed that mobile phone communication saves quality time for customers by offering the opportunity to use idle time such as when stuck in the traffic to complete business transaction; and that through mobile phone communication, a consumer can be offered a unique price without knowing what price another has received allowing SMEs to do price discrimination.

The respondents strongly agreed that mobile phone communication increases the speed of service delivery; mobile phone communication enhances operation flexibility among SMEs; mobile phone communication has become an important medium for SMEs customer service related activities, such as order tracking, response to customer queries, and after-sale service are now offered through the mobile; and mobile phone communication enables SMEs management and staff to enhance the effectiveness and efficiency of coordination processes hence lowering coordination costs.

There was very strong agreement to the following statements: through the use of mobile phones communication, consumers access information about products or services at the point-of-sale, allowing for a better purchasing decision to be made in the moment; mobile phone communication can be precisely adapted to customer
preferences; SMEs can make the best use of mobile phone communication to offer customers products or services that are relevant to their current location, leading to increased purchases; because a mobile phone is always carried by its user, the channel provides SMEs with almost permanent opportunities to directly reach potential customers anywhere and anytime, in real time; and mobile phones enhance performance of SMEs by facilitating offers of personalised content, ability to track consumers across media, ability to provide service when customers need it, and ability to offer content with highly engaging characteristics.

Inferential analysis results indicated that there were positive correlations between all the four independent variables and the respondent variable, individually. Moreover, mobile phone communication explain a significant 18.42% of the changes in SME performance in Nairobi County, with a good fit for the model as were indicated by an F-value of 8.888, with the model being reliable up to 97.5% level. Additionally, all the independent variables were individually statistically significant, with operational cost being the most representative individual variable of the three independent variables.

5.3 Discussion
The discussion on SME performance presented below draws from the findings of the study.

5.3.1 Operational Cost
The study findings on the impact of the performance of SMEs within Nairobi County revealed that it is immensely affected by the operating costs. Whereby 47.13% of the respondents indicated that there is a very large effect of operational costs on SME performance in Kenya, another 37.93% indicated a large extent, 13.79% showed a moderate extent while the remaining 1.15% of the respondents indicated a little extent of the influence. Overall, it can be concluded that operational costs influence SME performance to a large extent. These are, however, the use mobile communication to facilitate customer purchase and other transaction through phone inquiries, confirmation and transaction widely lowers the transaction costs of these small and medium enterprises. This is through the reduction of such costs as activity costs; and the opportunity cost which the customer will have incurred and expended in case they
were do that physically. The use of mobile phone communication aids in the creation of convenience to customers within Nairobi County. Additionally the findings agree that convenience is a key advantage for customers who use their mobile device to complete a broad range of activities in a more comfortable way, thereby reducing costs as well as time (Kannan et al., 2002). SMEs customers with time pressures may opt to make phone communication inquiries for products and service and this reduces searching costs.

The Findings also agree with (Clarke, 2001), given that cost reduction depends on to what extent customers can complete activities on mobile devices, a wider range of services transacted over mobile phone would not only mean reduction in operation cost but more convenience to both customers and SMEs operators. Through mobile phones, small and medium enterprises normally exercise price discrimination where unique prices are offered without a customer telling how much another customer has been charged for a similar commodity. This pricing strategy is rarely if ever achieved in the general marketing environment, where prices are public knowledge and every customer is charged according to menu-based pricing. SMEs are able to provide time-sensitive alerts to customers, enabling them to protect customers from a potential loss, or other unnecessary problems caused by a lack of valuable information.

The way in which mobile phone diminishes the effect of distance means that it creates a variety of options for reorganizing the workplace. At a basic level, it can provide more flexibility in the office, allowing resource sharing and a degree of location independence within the work place. It also permits the dispersion of work teams, thus saving costs of relocation and travel. Mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs, by reducing customer lead times as well as minimizing on warehousing costs. Besides lower costs therefore directly translate into extra income. Services supplied by mobile money are considered to be much safer than carrying important sums of cash in person hence preventing loss of cash. Additionally the findings agree mobile money is particularly attractive to SMEs as it is considered far cheaper than the alternatives such as Western Union when transferring money from one person to another (Omwansa, 2009). This benefit is extended to the transfer of money from the buyer to the seller during routine business transactions. This is achieved in real time since mobile money services are
almost instantaneous; similar to cash transactions. Therefore, transaction time is reduced while increasing convenience of not dealing with cash and maintaining almost liquid value of cash within the mobile money service. This is aided by convenient access to agents in various locations to aid in transactions.

5.3.2 Efficiency of Business Operations

The study findings on the impact of the use of mobile phone communication enhances operational efficiency within SMEs in Nairobi County through the potential development and the creation of a competitive advantage over competitors (Evanoff & Örs, 2002). Such practices of efficiency facilitate SMEs to design, produce and market its products more efficiently than its competitors. Additionally the findings agree that reducing the cost of doing business, increasing the speed of delivery, enhancing the flexibility, and achieving economies of scale are the main characteristics of production and efficiency practices in small and medium enterprises for SMEs in Nairobi County via reengineering (OECD, 2002). These activities work together to achieve better service quality, increase productivity performance, lower cost of production and/or distribution, and better customer service. The mobile phone is an ideal medium for SMEs customer service delivery. Several customer related activities, such as order tracking, response to customer queries, and after-sale service are offered through the mobile, to provide a medium through which SMEs within Nairobi County enhances the convenience of shopping. (Shankar et al., 2010).

The main goal of use of mobile devices within small and medium enterprises is to increase efficiency in small and medium enterprises activity by means of acquisition of information processing, adequate information and document management. Daily transaction processing provides information for SMEs tactical and strategic planning and is essential to their operation. The use of mobile devices enables small and medium enterprises to create and manage databases which are important for use in all management levels: strategic, tactical and operation. Since final users of information systems may belong to various user categories in the small and medium enterprises, the system must response in real time (directly and instantly) to any type of operational and customer request hence assisting in decision making. It is widely believed that the use of mobile devices, enables SMEs management and staff in
enhancing the effectiveness and efficiency of coordination processes hence lowering coordination costs, this may lead to an overall increase in performance.

5.3.3 Marketing and Sales

The study findings revealed that there is ease of access of detailed marketing and sales information by consumers about products or services at the point-of-sale through the use and application of mobile phone communication, allowing for a better consumer purchase decisions to be made instantaneously (Mort & Drennan, 2002). SMS marketing used by small and medium enterprises in Nairobi County has enabled the effective establishment of loyal customers to popular brands. Sending text messages assures high consumer exposure to the brand because messages are likely to reach the target almost every time. After reaching customers, the messages are kept in the mobile phone’s storage and can be read at customers’ convenience without the message being deleted (Rettie et al., 2005). Unlike e-mail, SMS does not have a subject line. Additionally the findings agree that SMS also supports viral marketing which is beneficial to SMEs brands not only in terms of increased brand awareness but also peer influence. (Doyle, 2000).

Mobile phone messages can be precisely adapted to individual preferences. They are thus more relevant to the consumer than non-personalized messages. Two-way communication is an important feature that substantiates the potential of mobile devices in marketing. With mobile phones SMEs are able to target location-specific products or services to potential customers. SMEs can make the best use of mobile technology to offer customers products or services that are relevant to their current location, which could result in more traffic to local stores with an immediate purchase. Because a mobile phone is always carried by its user, the channel provides small and medium enterprises with almost permanent opportunities to directly reach potential customers.

Additionally the findings agree that with innovative applications like Bluetooth and RFID (radio frequency identification) (Komulainen, et al 2004), the mobile device allows customers to reach (or be reached by) the enterprises anywhere and anytime, in real time. Such conditions are important, particularly when there is time or location-sensitive information to be delivered. In other words, the mobile phone increases
consumer connectedness. In addition, the mobile phone allows for two way communication. The business value of this feature lies in its ability to enhance customer relations.

The interactive capability of mobile phone campaigns allows small and medium enterprises to build up-to-date customer databases by inviting customers to sign up for a campaign, or text back information (Clarke, 2001; Varshney & Vetter, 2002). The value of the captured information is then analyzed and used as the main factor in determining which products or services should be offered, and to whom. The desired result is in personalized offers being sent to individual customers, in response to specific customer needs and wants. Customized offerings lead to positive consumer attitudes toward that which is advertised, an increase in campaign response rates, and stronger relationships between firms and their customers (Xu, 2007).

Additionally the findings agree that small and medium enterprises can tap into the mobile technology to increase their commercial potential (World Bank, 2011). The benefits for this includes access to business information concerning stock piles and prices, data visibility for value chain efficiency and being able to tap into new and existing markets. Once small and medium enterprises have access to information about prices and products, it helps them to reduce the risk of under-selling and of either over or under-supplying their products in a given market. Mobile services can also enable better access to markets and other value-chain stakeholders. Sellers are increasingly using their websites to relay on-line information on transport and logistics, with some of these services being provided on mobile phones.

5.4 Conclusions
The following conclusions were drawn from the research findings. The continued use of mobile phone communications by SMEs in Nairobi County and the wider nation can boost the overall performance and profitability of the SMEs. This is achieved through facilitating market access by the SMEs which widen the market, while providing more product information to customers, leading to increased sales. With proper cost control, this can increase profitability to these firms. The independent
variables explain 18.42% of the changes in SME performance in Nairobi County. The established model is reliable up to 97.5% level.

5.4.1 Operational Costs
SMEs use the cheap mobile platform for relying on relevant product and market information to customers which reduces operational costs while increasing sales. SMEs, consequently, eliminate business transaction delay costs through the use of mobile phone communication, which boosts service quality and customer satisfaction, all for the business’ wellbeing. SMEs were seen to dedicate resources to invest in mobile phone communication to achieve reduced operating costs, including the adoption of the use of applications that ease customer search costs, and speeds business transactions, thus increasing stock turnover, and decreasing accompanying inventory storage costs. On the downside, not all customers do searching as they are loyal to their distributors who are mainly left to match customer demands with supply of the same. This can result in these customers being exploited by the SMEs as a result, though such a practice could lead to better SME performance. Subsequently, there is minimal use of price discrimination, with a single marked price mainly carrying the day; customers buying in bulk negotiate for discounts. This helps SMEs in planning for the expected cash flows.

5.4.2 Efficiency of Business Operations
There is continued innovativeness and creativity by SMEs that further betters performance. On the downside, however, is the fact that most of the mobile phone communication innovativeness and creativity is secondary in that SME owners do not have the necessary expertise to develop their own mobile applications for business. They instead have to depend on developers for mobile phone products which lead to increased costs of doing business. There is a low degree of innovativeness and creativity, which only acts to worsen competition as there is little, if any, product differentiation and new products on offer. SMEs do not take advantage of the benefits of large scale production as their operations are constrained in terms of size, thus do not create synergies in business operations.

5.4.3 Marketing and Sales
The use of mobile phone communication increases consumer expectations, which in turn increases customer loyalty and eventually increased sales. Further, consumers have a wide variety to choose from terms of modes of doing business, which enhances their trust in SMEs and reduces conflict between SME owners and the consumers. Moreover, use of mobile phone communication ensures that customer confidence in the selling process is in its highest, while at times reducing delays, with increased efficiency and effectiveness.

5.5 Recommendation

5.5.1 Recommendation for the Research

5.5.1.1 Operational Costs
The study recommends that the government takes regulatory measures to provide universal access of mobile communications network coverage within Kenya to bridge the true access gap that cannot be covered on a commercial basis, to facilitate better business environments for SMEs. This will help all the participants in the small and medium enterprise sector, both the customers and producers (sellers) to take advantage of economies of scale and decrease their operating costs by adapting to cheaper and more efficient means of selling and buying.

5.5.1.2 Efficiency of Business Operations
First, ICT policy makers need to move beyond rhetoric and intensify real and concrete efforts at initiatives that would support eradication of mass illiteracy among the disadvantaged/poor. Findings suggest that high level of illiteracy among the SME operators served by the studied firms constitutes hindrance to improvement communication technology could contribute to business performance by decreasing the efficiency of business operations. The policy initiatives should encompass basic computer/internet training, information processing management and creation of more awareness about the potentials of ICT in improving the quality of life. These messages should be conveyed in local languages best understood by the target audience for ease of assimilation. The emphasis should be on imparting requisite knowledge that would make it easier for the disadvantaged/poor communities to be able to exploit the benefits of ICT to improve their quality of life.

5.5.1.3 Marketing and Sales
Small and medium enterprises in Kenya are not known to embrace mobile advertising and marketing for increased sales. Given the lack thereof, it is advisable that mobile application developers concentrate their efforts on customer friendly use interfaces in their business applications to ease the use of their services by both sellers and buyers in the sector. This will lead to increased marketing productivity and enhance the performance of SMEs in Kenya. It is also recommended that mobile phone companies develop cheaper smart phones targeting the participants in this sector to ensure that a large number is covered. Similarly, having financed acquisitions to such devices can play a major role in mass coverage of customers and producers in the SME sector.

5.5.2 Recommendations for Further Research
With the independent variables explaining only about 20% of the changes in SME Performance, a study trying to establish the factors that explain the remaining 80% of the changes should be conducted to better develop SME operating strategies and set better policies for SMEs. Further, a nationwide study on the adoption of mobile phone communication by counties could also be conducted.
REFERENCES


Andreou, A. et al. (2005). Key issues for the design and development of mobile commerce services and applications. *International Journal of Mobile Communications*


Balasubramanian S. et al. (2002). Exploring the implications of M commerce on markets and marketing. *Journal of the Academy of marketing science, Vol.30 No.4*


Chogi BF. (2007). The impact of mobile phone technologies on medium and small enterprises/jua kali (MSEs)


Kumar A, Rajput N, Agarwal S, Chakraborty D, Nanavati AA. (2008). Organizing the unorganized - employing it to empower the under privileged international conference on WorldWide Web, Beijing


Maximizing Mobile Technologies. INFODEV World Bank


Pangani, M. (2004). Determinants of adoption of third generation Mobile multimedia services, *journal of Interactive services marketing Vol. 18 No.3*


World Bank (2012) Information and communications for developing countries;


64


APPENDICES

APPENDIX I: LETTER TO RESPONDENT

Dear Respondent,

RE: EFFECTS OF MOBILE PHONE COMMUNICATION ON SMALL AND MEDIUM ENTERPRISE (SMES) PERFORMANCE IN KENYA

I’m a student at United States international university and currently pursuing a Masters of Business Administration Degree. As a requirement for partial fulfilment for the award of Masters of Business Administration, a research project must be done.

Kindly assist in filling the attached questionnaire that will facilitate me to prepare and complete the research project.

All the information provided herein shall be treated in strict confidence.

Thank you in advance

Yours sincerely,

Edith Karimi
Thank you for taking your time to fill this questionnaire. Your response to the questions herein will be treated confidentially.

Please answer all the questions as best as you can. Please Tick as appropriate

PART 1: DEMOGRAPHIC CHARACTERISTICS

1. Name: ________________________________ Optional
2. What is your gender a) Male [ ] b) Female [ ]
3. Respondents level of Education
   Certificate [ ] Diploma level [ ] Degree level [ ] others (specify)
6. Years of service in the organization
   ( ) 0-4 yrs [ ] 5-9 yrs [ ] 10-19 yrs [ ] 20 + yrs [ ]

PART 1: SMEs Performance

6. Please tick the numeric value corresponding to your personal opinion for each statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile phone communication enhances the increase in Sales among SMEs</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication facilitates the increase in enterprise market coverage</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication enhance the enterprise profitability</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone facilitates an increase in company profitability</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
PART 2: Operational Cost

2.1. Please tick the numeric value corresponding to your personal opinion for each statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEs use mobile communication to facilitate customer purchase and other transaction through phone inquiries, confirmation and transaction reducing time, activity; energy and/or opportunity cost</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>SMEs customers with time pressures may opt to make phone communication inquiries for products and service and this reduces searching costs</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication also saves some quality time for customers by offering the opportunity to use idle time such as when stuck in the traffic to complete business transaction</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Through mobile phones, communication a consumer can be offered a unique price without knowing what price another has received allowing SMEs to do price discrimination</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>SMEs are able to provide time-sensitive alerts to customers hence protecting them from potential losses, caused by a lack of valuable information</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs.

| Mobile phones facilitate payment of service and settling credit services among SMES resulting in lower costs. | 5 | 4 | 3 | 2 | 1 |

Integrating the use of mobile phone communication in small and medium enterprises operation is essential in reducing cost of operation

| Integrating the use of mobile phone communication in small and medium enterprises operation is essential in reducing cost of operation | 5 | 4 | 3 | 2 | 1 |

7. In your view does operational cost influence SME performance in Kenya?

    Yes [ ] No [ ]
PART 3: Business Operations Efficiency

10 Please tick the numeric value corresponding to your personal opinion for each statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The use of mobile phone communication enhances operational efficiency within SMEs.</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Efficiency practices facilitate SMEs to design, produce and market its products more efficiently than its competitors.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication increases the speed of service delivery</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication enhance operation flexibility among SMEs</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication facilitate the achievement of economies of scale among SMEs</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication has become an important medium for SMEs customer service related activities, such as order tracking, response to customer queries, and after-sale service are now offered through the mobile</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication enables SMEs management and staff in enhancing the effectiveness and efficiency of coordination processes hence lowering coordination costs.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

11. In your view does efficiency of business operations influence SME performance?

Yes [ ] No [ ]

PART 4: Marketing and Sales
15. Please tick the numeric value corresponding to your personal opinion for each statement

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through the use of mobile phones communication, consumers access information about products or services at the point-of-sale, allowing for a better purchasing decision to be made in the moment</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Through phone communication SMEs are able to effectively establish brand recognition and recall with push advertising.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication can be precisely adapted to customer preferences.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>With mobile phones communication SMEs are able to target location-specific products or services to potential customers</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>SMEs can make the best use of mobile phone communication to offer customers products or services that are relevant to their current location, leading to increased purchases</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Mobile phone communication offers small and medium enterprises the potential to promote products and services in a personalised and interactive way.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Because a mobile phone is always carried by its user, the channel provides small and medium enterprises with almost permanent opportunities to directly reach potential customers anywhere and anytime, in real time.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Mobile phones enhance performance of SMEs by facilitating offers of personalized content, ability to track consumers across media, ability to provide service when customers need it, and ability to offer content with highly engaging characteristics.

16. In your considered opinion does marketing and sales affect performance of SMEs performance in Kenya?

Yes [ ] No [ ]

THANK YOU