THE INFLUENCE OF INNOVATION ON COMPETITIVE ADVANTAGE: A CASE OF MPESA

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UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

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A Project Report Submitted to the Chandaria School of Business in Partial Fulfilment of the Requirement for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

SUMMER 2015
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.

Signed: ___________________________  Date: _______________________

Charles Opiyo Arunda (ID 632903)

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

Signed: ___________________________  Date: _______________________

Mrs. Leah Mutanu

Signed: ___________________________  Date: _______________________

Dean, School of Business
ABSTRACT

The purpose of the study was to examine how MPESA innovation has influenced competitive advantage of Safaricom. The research sought to answer the following questions: what is the influence of MPESA innovation on Safaricom’s competitive advantage as measured by market-share, profitability and customer loyalty? What product attributes make MPESA innovation attractive to customers? What benefits do MPESA innovation offers that earns Safaricom’s its competitive advantage?

This research adopted a descriptive research design. The population comprised 65,547 MPESA agents and 2,700 Safaricom staff. Stratified random sampling technique was used to select a sample size of 384 respondents. Data was collected using a structured questionnaire. Correlation technique was used to analyze data. The data was analyzed using SPSS and presented in figures and tables.

The findings showed that in terms of the influence of MPESA innovation on Safaricom’s competitive advantage, the innovation was strongly and significantly correlated to Safaricom’s market share and customer loyalty. With regards to product attributes that make MPESA innovation attractive to customers, majority of the respondents found money transfer function the most attractive. Concerning the benefits MPESA innovation offers that earns Safaricom’s its competitive advantage, there was a weak positive correlation between Safaricom’s competitive advantage and MPESA’s reliability, ease of use, affordability, speed of transaction, accessibility, convenience and security of transactions.

It was concluded that MPESA innovation positively influenced the competitive advantage that Safaricom enjoyed in terms of market share and customer loyalty. The most popular functionality was the transfer of money through the send money and withdraw cash feature. Most of the benefits of using MPESA had a weak influence on Safaricom’s competitive advantage.

It was recommended that Safaricom should increase its market power in the financial sector by aggressively marketing services such as M-shwari. It should collaborate with...
high-traffic retail outlets such as Nakumatt and institutions such as schools to come up with a loyalty program similar to the Bonga Points loyalty scheme. A research on the usage of mobile money transfer services of Safaricom’s competitors could be conducted for comparison.
ACKNOWLEDGEMENT

I appreciate the guidance and support I received from Supervisor, Mrs. Leah Mutanu throughout the undertaking of this project.
DEDICATION

To my all family and friends for the encouragement and support they accorded me.
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<tr>
<td>ATM</td>
<td>Automatic Teller Machine</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>FSD</td>
<td>Financial Sector Deepening</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GSM</td>
<td>Global System for Mobile communications</td>
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<tr>
<td>ICT</td>
<td>Information and Communication Technology</td>
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<td>IT</td>
<td>Information Technology</td>
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<td>MFS</td>
<td>Mobile Financial Service</td>
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<td>P2P</td>
<td>Person To Person</td>
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<tr>
<td>PIN</td>
<td>Personal Identification Number</td>
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<tr>
<td>SIM</td>
<td>Subscriber Identification Module</td>
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<td>SMS</td>
<td>Short Message Services</td>
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<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
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<td>VAS</td>
<td>Value Added Service</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the study

Competitive advantage, defined in terms of the characteristics that allow a firm to outperform rivals in the same industry (Markman & Phan, 2011) remains a fundamental concern for every business in today’s increasingly dynamic competitive environment. A company or business possesses a competitive advantage when its products or services perform better than those of its competitors within the target market. For a business to be effective, its competitive advantage has to be difficult to reproduce, applicable to a variety of situations, perform better than competition, and be unique (Porter, 2011). The distinguishing feature of a firm with a strong market position is that its products create unique value for purchasers (Nilsson & Rapp, 2005). This argument befits a definition of competitive advantage found in the research by Al-alak and Tarabieh (2011, p. 81) as follows: “competitive advantage is an advantage over competitors gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and services that justifies a higher price”.

Competitive advantage, however, does not just happen. The development and application of innovations and new technologies is crucial to a firm’s competitive advantage leading to superior economic performance (Kafouros, 2008). Hana (2013) suggest that organizations can gain competitive advantage only by managing effectively for today while simultaneously creating innovation for tomorrow. He argues that there is perhaps no more pressing managerial problem than the sustained management of innovation. In a study reported by Harris (2003) who asked 500 CEOs what their top priorities were for business survival in the twenty-first century, almost all 500 claimed that innovation was at the head of their list.

Michael Porter, quoted in Piperopoulos (2012) was one of the first scholars to recognize that innovation is one of the few ways in which competitive advantage is brought about. Porter (2011) includes in his description of innovation, both technology and methods, encompassing new products, new production methods, new ways of marketing, identification of new customer groups, all of which illustrate that innovation possibilities
can be endless. The most important characteristics of innovations, according to Hana (2013) include: a strong relationship between market performance and new products, new products that help maintain market shares and improve profitability, growth by means of non-price factors such as design and quality; ability to substitute outdated products and innovation of processes that lead to production time shortening and speed up new product development in comparison to competitors.

One industry that has witnessed innovation dynamism is the information and communication technology (ICT) sector. Information technology (IT) is identified by Noorani (2014) as a corner stone for service improvement and innovation helping companies in rendering better services to customers and attaining competitive advantage. Innovation differentiation advantage arises when a firm creates the most up-to-date attractive products by leading competitors in efficiency, quality, style and design innovations (Al-alak & Tarabieh, 2011).

In their discourse of innovation drivers, Kotler and Caslione (2009) assert that globalization and technology are the two main forces that help create a new level of interlocking fragility in the world economy. They suggest that in the modern day business environment, business leaders need a new view of the world and a new framework for dealing with it. In support of this view, Lenny (2009) observes that companies are increasingly looking outside their organizational boundaries to take advantage of ICT through the use of the internet, extranets and strategic alliances to improve their business processes and market offerings. The rationale behind it, according to Neuenburg (2010) is that when market turbulence is high, research and development driven innovation is more important for a firm’s competitive advantage than other forms of business response to changes in the market.

Extending the argument by Kotler and Caslione (2009), Dunning (2014) observe that globalization of markets which is characterized by instability induce inter-firm cooperation to meet the challenges of new competition and the convergence of consumer needs and preferences. Again, technology is seen behind these new challenges as increasingly ubiquitous use of machinery and metal working hardware and soft technology lead to a close relationship of industries hitherto completely distinct as
exemplified by the convergence of telecommunication and computing as well as technological diffusion leading to shorter product life cycles and a need for a more effective innovation activities (Curran, 2013). MacGregor and Carleton (2011) gives the example of the funds, technology, expertise and human capacity transferred to Kenyan telecom provider Safaricom from a consortium that included the UK Department for International Development, Sargentia, Vodafone, IBM and the Kenyan government, which produced for the world MPESA, a leading mobile transaction platform that introduced efficiencies, inventions, transfers and diffusions in both the banking and telecommunication industries through mobile banking on the African continent and worldwide. This particular innovation’s has seen collaboration and convergence extend to services in non-governmental organizations, schools, hospitals and retail outlets (Jerome, 2011).

In Kenya, MPESA mobile money transfer service has been described as an innovation which has achieved rapid growth, receiving significant attention with profound diffusion in the Kenyan economy (Gewald, Leliveld, & Pesa, 2012). According to Kibaara (2007), the term MPESA is a coinage in which ‘M’ refers to Mobile and ‘PESA’ is money. M–PESA is an innovation that was rolled out by the mobile phone operator Vodafone Company in March 2007. From its launch, Safaricom has undergone a remarkable rapid growth within its market, covering most of the geographical regions in Kenya as the main mobile phone money transfer service. According to research conducted by Kimenyi and Ndung’u (2009), the service attracted over 250,000 customers four months after its launched, yet this was expected to be achieved after one year from its launch. This was a clear indication that the service had the potential to attract a larger number of customers in its prospective years within a short period in the market.

The research by Kimenyi and Ndungu (2009) established that by the end of the first year of service in its market, it would attract close to 1 million customers registered as MPESA users. The study further indicates that by August 2009, approximately 7.7 million Kenyans had registered as MPESA customers. More than 14 million Kenyans are registered as users of MPESA, a number which represents 81 per cent of the customer base of Safaricom subscribers (Safaricom, 2013). This number was achieved by using an execution strategy, which focused on the Kenyan culture of sending money home at
lower transaction costs. Today, MPESA accounts for 12.4% of the total revenue of Safaricom, clear indication of how much gain the company makes from the service (Safaricom, 2013).

MPESA is advertised as a faster, easier and safer way of sending and receiving money from person to person, referred to as P2P. The service has electronic accounts where customers can save their money and withdraw at their convenience from MPESA agents. Deposits are made in the form of ‘hard’ cash at the location of MPESA agents. Besides making currency deposits and withdrawals, customers can also pay bills using the pay-bill function, as well as send and receive money (Safaricom, 2013). According to Chuhan-Pole and Angwafo (2011), Safaricom intended to use MPESA as its strategy of increasing customer base, and add value to its services. Findings from Chuhan-Pole and Angwafo indicate that Safaricom has managed to retain most of its customers with the network using MPESA, despite delays caused by the service. Soman, Stein and Wong (2014) reported a survey in which over 75 percent of the respondents indicated they were “extremely happy” with the MPESA service, rating it at 9 to 10 on a 10-point scale and 96 percent of the respondents indicated that they would experience a negative impact if MPESA were to shut down. They observe that this has made MPESA to deeply penetrate the personal banking market and position its service as virtually indispensable.

According to Al-alak and Tarabieh (2011), innovation-performance relationship is context dependent and factors such as the type of innovation, the cultural context and age of the firm affect the impact of innovation on organizational performance to a large extent. Chuhan-Pole and Angwafo (2011) define MPESA as a small-value electronic payment and store-of-value system in Kenya accessible from ordinary mobile phones. These authors note that the system processes more transactions domestically than Western Union does globally. According to them, MPESA’s market success is the result of the interplay of three factors: pre-existing country conditions that made Kenya a conducive environment for successful mobile money deployment; a clever service design that facilitated rapid adoption and early capturing of network effects; and a business execution strategy that helped MPESA rapidly reach a critical mass of customers.
1.2 Statement of the problem

One Douglas Engelbart, the inventor of the computer mouse is quoted as saying that while innovation is critical, it doesn’t amount to anything unless the rest of the world does something about it (Tucker, 2009). Thus, while MPESA is heralded as a success story of Safaricom, it is important to establish how the innovation is driving the company’s competitive advantage. Pyka and Burghof (2013) found that the empirical evidence on the impact of innovations on competitive advantage measures such as profitability and firm growth is mostly mixed. Several studies have assessed how MPESA has remarkably impacted the lives of Kenyans in the urban and rural areas, and Safaricom’s growth (Morawczynski 2008a, 2008b, Jack & Suri, 2009; and Camner & Sjoblom, 2008). However, these studies do not explain the relationship between MPESA services and competitive advantage of Safaricom. The researchers show greater interest in MPESA’s remarkable impacts on lives of users and Safaricom’s revenue growth, but ignore its contribution to competitive advantage. Furthermore, some of the studies were conducted prior to the introduction of MPESA services such as school fees payment, mobile banking, and paying bills. These have been crucial services that have potentially contributed to the competitive advantage of the company. This study therefore sought to establish the effect of MPESA innovation on the competitive advantage of Safaricom Ltd. Competitive advantage of Safaricom resulting from MPESA services is a significant concept that needed to be understood in order to enhance its competitiveness for the Kenyan market.

1.3 Purpose of the Study

The purpose of the study was to examine the influence of MPESA innovation on the competitive advantage of Safaricom.

1.4 Research Questions

The research sought to answer the following questions:

1.4.1 To what extent does MPESA innovation influence Safaricom’s competitive advantage as measured by market-share, profitability and customer loyalty?
1.4.2 What product attributes make MPESA innovation attractive to customers?
1.4.3 What benefits does MPESA innovation offer that earns Safaricom’s its competitive advantage?
1.5 Importance of the Study

1.5.1 Safaricom Limited
Safaricom Limited, being that owns the MPESA innovation, would gain market intelligence on the actual benefits that customers buy by undertaking financial transactions through MPESA. This would help them to develop strategies of further consolidating their market share to sustain their competitive advantage.

1.5.2 Mobile Money Transfer Providers
Other mobile money transfer service providers in the industry can learn from the findings of this study in order to understand the demand drivers of MPESA and develop their own value propositions geared towards achieving the same or better customer value.

1.5.3 MPESA Agents
MPESA agents, being an important link in the MPESA value chain would get to appreciate from this study, their contribution to the success of mobile money transfer services as well as help them direct their service focus on what is most important to customers.

1.5.4 The Academia
This research contributes to the body of knowledge by providing empirical evidence on the link between innovation and competitive advantage. Scholars who wish to extend research on the area of mobile money transfer would use this research as a reference point.

1.6 Scope of the study
This study focused only on the concept of competitive advantage resulting from MPESA services, and how this is a benefit to Safaricom Company Limited. Safaricom was selected from other companies in the industry because it has been able to attain the largest market share in the industry as a result of MPESA services. The research was undertaken in the months of April to June 2013.
1.7 Definition of Terms

1.7.1 Competitive Advantage
This exists when a company has services or products perceived to be better than that of competitors (Rinzing & Rajic, 2012). To be effective, competitive advantage must be difficult to mimic, applicable to multiple situations, unique, sustainable, and superior to the competition. Competitive advantage strategies include cost advantage strategy, differentiation strategy, and focus strategy (Porter, 2011).

1.7.2 Innovation
According to Ratan (2008) innovation entails introducing new ways or procedures of doing things. The change introduced as a result of innovation can either be incremental or radical, or could be applicable to processes, products, or services in any organization.

1.7.3 MPESA
This is a mobile money transfer service, which was developed by Vodafone, a mobile phone operator, and launched by Safaricom in March 2007 (Safaricom, 2013). MPESA enables customers to send, as well as receive money from various users, and pay bills using the pay bill function.

1.7.4 Mobile Money
This involves the convergence of financial services, as well as mobile telephony. The three elements applicable in “Mobile money” include an electronic account associated with a user’s mobile phone, a software allowing users to manage their accounts and a network of agents facilitating exchange between cash and electronic value (Ratan, 2008).

1.7.5 Product attributes
Product attributes are the characteristics of a product such as size, colour, functionality, components and features that make it distinct from other products and affect its acceptance in the market (Shimp, 2008).
1.7.6 Product benefit
Product benefit is the advantage or reward that consumers gain from using the product such as speed, convenience, safety or cost (Stoneman, 2010).

1.7.7 Product component
This refers to what the system is required to do and the circumstances under which it is to operate including constraints on how they will operate such as actions, sequences, inputs, outputs and other information that clearly describe how the product will be used (Kasse, 2008).

1.7.8 Product feature
Product features are defined as means for consumers to achieve desired ends such as Change PIN feature or Pay Bill feature (Haverila, Rod, & Ashill, 2013).

1.7.9 Product functionality
This is the opportunity for action afforded by a product such as instant messaging (Ziamou & Ratneshwar, 2003).

1.8 Chapter Summary
This chapter introduced the study by giving a background of the problem then it covered the problem statement; which explains why the study should be carried out. It also covers the purpose of the study, the research questions, and the importance of the study and the definition of key terms. The next chapter is literature review which gives an account of what other authors have said about the subject matter. After the literature review, chapter three follows which demonstrates the methodology of the research. Chapter four covers the analysis of the data collected while the fifth chapter covers discussions, conclusions and recommendations of the research.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents the theoretical and empirical literature pertinent to innovation and competitive advantage. It critically discusses existing scholarly work on the link between innovation and competitive advantage as measured by market share, profitability and customer loyalty. The chapter is divided into three sections based on the research questions. The first section looks at literature on the influence of MPESA innovation on Safaricom’s market-share, profitability and customer loyalty. The next section discusses product attributes that make innovation attractive to customers with respect to mobile banking and mobile money transfer such as MPESA. The last section presents a discourse on the benefits that mobile banking or mobile money offers for competitive advantage.

2.2 MPESA Innovation and Competitive Advantage

According to Birchall and Tovstiga (2005), leading innovating firms focus on evolving patterns of change in their environment and opportunities that emerge from them; these they monitor, reinforce and exploit for competitive advantage as indicated by their market share, profitability and customer loyalty. These three concepts are further discussed as follows:

2.2.1 Market Share

Market share is often considered one of the basic marketing objectives and measures of innovation performance (Enis & Roering, 2012). Market share is expressed as a percentage of sales in the total marketplace (Reid & Bojanic, 2009). According to Schwalbe and Zimmer (2009), a market share is defined by that share of sales of a certain good or service that a supplier has in the total quantity sold in the market or in the total sales value over a certain period of time. Graham (2011) argues that innovation tends to bring enhanced market share and indeed to create new markets.

Chandy, Hosono, Khara and Linn (2013) argue that Safaricom’s strong market share and the resultant trust in the Safaricom brand undoubtedly contributed to the success of mobile money in Kenya. While Safaricom took other actions to drive retention and
growth of its customers, these authors are of the opinion that the success of the company is evidence that MPESA was a major contributing factor in the growth of Safaricom’s total base and market share.

According to Soman et al. (2011), active demand needs to be generated. They put it in another way that from the perspective of the end user, the perception that a particular product, service, or intervention is a good value proposition needs to be created, even manipulated. They view MPESA as an excellent example of generating active demand for a socially innovative service. They note that MPESA system has already enrolled 14 million users and accounts for transaction volumes equal to one-third of Kenya’s GDP and over 75% of survey respondents report that they are “extremely happy” with the MPESA service, rating it at 9 or 10 on a 10-point scale.

The dramatic adoption of MPESA, expanding the market share of Safaricom is explained vividly by Chandy et al. (2013). The authors recount that within the first month of adoption, 20,000 customers signed up, exceeding the expectations of all involved. Within one year, MPESA had more than 2 million customers. Within three years there were almost 10 million customers – some 50 percent of Kenya’s adult population. They make a comparative analysis of MPESA performance by observing that in 2011, MPESA transacted an estimated $7 billion, which is equivalent to 30 percent of Kenya’s GDP and substantially larger than Western Union’s total operation in Africa.

Ignacio (2008) pointed out that early MPESA adopters were primarily banked customers, which suggests that MPESA did not acquire its initial critical mass customers through competition with the formal sector but rather as a complement to formal services for clients who were wealthier, more exposed to formal financial service options, and less risk averse. While MPESA services spread deeper into the Kenyan market, however, unbanked users are increasingly driving the expansion of MPESA services to other markets because it offers competitive advantages of mobile banking over other options.

According to Pagani (2004), personal experiences for a lot of people indicate that the current technology is user-friendly and previous studies of the adoption of mobile payments show that it is the usability, usefulness, speed and convenience of the service
itself that counts. Safaricom’s Annual Report for Year 2008/2009 shows that by end of March 2009, there were over 6.175 million registered MPESA customers with an average of 11,580 new registrations per day representing a growth of 198% from the previous year (Annual Report 2008/2009). This indicates the wide usage and satisfaction that the existing customers have reported which in turn has influenced new customers to take up the services.

2.2.2 Profitability
Armstrong (2001) defines profitability simply as income minus expenses and argues that it is the primary aim and best measure of efficiency in competitive business. O’connell (2012) posits that innovation is a key element to survival and profitability. Birchall and Tovstiga (2005) support this view by adding that innovation is probably the most important capability firms have today for driving profitable growth. A competitive advantage occurs when a company can make more profits selling its products or services than its competitors can (Harmon, 2010). This can be based on charging a premium because your product is more valuable, or it can result from selling your product or service for less than your competitors because your value chain is more efficient. According to Baldwin and Hanel, (2003), an innovation can also improve profitability by improving a firm’s product quality, its interactions with customers and suppliers, its market share and its need for skilled workers.

According to Greenhalgh and Rogers (2010), with process innovation, the firm gains profits via lower costs of production if they continue to sell the output at the same price. Alternatively, the firm can sell at a lower price and increase its market share by driving out competitors, possibly leading to later returns from increased market power with product innovation, the firm aims to raise profitability by increasing its market share and its sales. Also, a higher price can be charged for a higher quality product.

Blankery (2006) asserts that measuring the effects of technological innovation the performance of the firm and of the national economy is a key question for policy makers. Blankery reports a study which analyzed the impact of innovation on production and profitability. In this study, firms were asked to subjectively answer question on whether innovative activities had either a positive or negative impact on a range of production
activities and overall profitability. The results showed that there was an overall positive impact on profitability at the firm level, even though it was impossible to quantify these impacts. However, Stoneman (2010) highlight empirical reports that depict a link between profitability and innovation but do not clearly reveal the direction of causality. On the other hand, Pyka and Burghof (2013) find that the empirical evidence on the impact of innovations for profit and firm growth is mostly mixed. Their research findings find small positive impact upon profit margins for a firm’s successful innovations.

2.2.3 Customer Loyalty
Ranchhod and Marandi (2012, p. 79) construe the term loyalty as “an inner state that leads to an orientation toward the future, the willingness to continue the relationship, a commitment to the product, the brand or the supplier”. According to Glynn and Woodside (2009), the concept of loyalty has received much attention in existing literature and it has often been used interchangeable with its operational definition, referring to repeat purchase, preference, commitment, purchase intentions or customer retention. For example, Grigoroudis and Siskos (2009) defines customer loyalty as a deeply held commitment to re-buy or re-patronize a preferred product or service consistently in the future, despite situational influences and marketing efforts having the potential to cause switching behaviour.

Companies should be concerned with the development and maintenance of continuous relationships with their customers, always assuming that these relationships provide value for all the actors involved (Landroguez, Castro & Cepeda-Carrion, 2011). Osarenkhoe’s (2007) exploratory study findings suggest that relationships are not only a tactical weapon, but represent a different, strategic approach to buyer-seller exchange. Thus, a corporation needs to orient itself towards total customer relationships versus focusing on single transactions with a customer. He asserts that if the company does not succeed in continuing and extending the relationship based on earlier transactions, a customer will have to be “newly-acquired” prior to each transaction and corporation will incur additional acquisition costs each time.

A common denominator of consumers around the world is their quest for value for their money (Czinkota & Ronkainen, 2006). Weinstein (2012) for instance notes that many
companies trace their success to process innovations, leading to the creation of customer value and enhanced market performance. This is consistent with value based marketing which requires a commitment to innovation that is customer value focused in order to sustain competitive advantage (Doole & Lowe, 2005). According to Nasution and Mavondo (2007), customer value is created when the benefit to customers associated with products/services exceeds the cost of the offer to the customer. The authors identify four perspectives of value: value is low price, (2) value is whatever one wants in a product, (3) value is the quality that the consumer receives for the price paid, and (4) value is what the consumer gets for what they give.

In today’s business environment, the delivery of customer value is very important as a result of increasing growth of customers power as technology development, information ubiquity and globalization of markets effectively increase customer choice (Niemela-Nyrhinen & Ousitalo, 2013). The concept of customer value is becoming increasingly prominent as a crucial strategic factor in gaining a competitive advantage (Mele, 2007). According to Helm and Jones (2010) consumers are also generally better informed, educated, sceptical, more self-directed and increasingly seeking value in the form of self-realization from the brands that they feel are right for them. Being able to understand what customers value within a particular offering, creating value for them and then managing it over time have long been recognized as essential elements of firms’ business strategy (Landroguez, Castro, & Cepeda-Carrion, 2011).

Drawing from the ideas of Porter (2011), Czinkota and Ronkainen (2006) suggest that marketers have three general choices of strategies: cost leadership, differentiation and focus. They explain that in pursuing cost leadership, marketers offer an identical product or service at a lower cost than the competition. Differentiation takes advantage of the marketer’s real or perceived uniqueness on elements such as design or after-sales service. However, most global marketers combine high differentiation with cost containment to enter markets and expand their market shares.

According to Melton (2007), in dynamic, competitive environment a firm adjust to the changing preferences of consumers or loses out to competitors who do add value through innovation. Product innovations attract new customers, improve customer loyalty, open
new markets and build profitability of a firm’s existing product portfolio. Drawing from an interview report with its then managing director, Korngold (2014) noted that MPESA was designed to serve the company’s strategy of maintaining customer loyalty in order to build the bottom-line over the long term. According to Chandy et al. (2013), Safaricom management saw MPESA as an opportunity to extend a service to its existing customers, recognizing that the majority of them did not have bank accounts and would value the ability to transfer funds to other mobile users. In an increasingly competitive market, such a service could translate into strong loyalty from existing customers, protecting Safaricom’s market share and reducing customer churn. Safaricom therefore launched MPESA as a loyalty driver, intending to cover operating costs with service fees and not expecting to turn a profit. Safaricom was in fact investing in customer acquisition. According to Safaricom, with 80 percent of its subscribers using MPESA, growth is coming from additional transactions per customer, hence their focus on more “reasons to use” mobile money and on expanding the number of organizations with which it partners (Chandy et al., 2013).

### 2.3 Product Attributes which make MPESA Innovation Attractive to Customers

McCombs and Banh (2009) explain that product attributes are additional information provided to customers that enable them to make informed decisions about the products they are looking at. Pichler (2010) argues that customer needs and product attributes are at the heart of innovation and deserves close attention. By focusing on the needs, the product is viewed as a means to an end which is to serve the customer or user. Product attributes are therefore, the critical properties the product must have in order to meet these needs. Such attributes include functionality which refers to the utility that accrue from using MPESA such as money storage, transfer and investment, components which comprise the actions required of the customer to use MPESA such as providing identification card, sequences such as specifying the recipient’s account number before entering the amount to be transferred, input such as buying electronic money from an MPESA agent, outputs such as MPESA transaction code and features such as cash in cash out, person to person transfer, airtime top-up, bill payment, Mswhari (a paperless banking service offered through MPESA) and ATM withdrawals. These are distinguished as shown in table 2.1 below.
Table 2.1 MPESA Attributes

<table>
<thead>
<tr>
<th>Features</th>
<th>Components</th>
<th>Functionality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Send Money</td>
<td>Input (buy E-money)</td>
<td>Money transfer services</td>
</tr>
<tr>
<td></td>
<td>Actions (Identification)</td>
<td>Shopping</td>
</tr>
<tr>
<td></td>
<td>Sequences (Receiver account)</td>
<td>Purchasing data bundles</td>
</tr>
<tr>
<td></td>
<td>Outputs (Transaction code)</td>
<td></td>
</tr>
<tr>
<td>Withdraw Cash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buy Airtime</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pay Bill</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mshwari</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Gitonga (2009, p.10)

2.3.1 Features of MPESA

Features are defined as means for consumers to achieve desired ends (Haverila et al., 2013). According to Gewald et al. (2012), Safaricom has enhanced MPESA product by providing new features and services to customers. These include Pay Bill/Customer to Business Payments that allow MPESA customers to pay their bills to partner organizations via the MPESA menu. Send Money and Withdraw cash are key features widely used to by individuals remit and receive money to their loved ones. The other service is Business to Customer Payments, which makes it possible for organizations to disburse cash to large groups of people. The service is particularly useful for companies that pay salaries or wages to employees in the lower-income bracket who do not have bank accounts. Similarly, Mshwari is a paperless banking service offered through MPESA that provides accountholders with the ability to save money at no charge while earning interest as well as access microcredit.

Chandy et al. (2013) observe that today more than 500 organizations use MPESA to pay bills and conduct transactions. Companies also use MPESA to make payments for items as varied as social support and dividends and salaries. This number is growing rapidly as businesses and integrators become more adept at incorporating the new payment method into their supply chains. It is likely that governments will adopt mobile money to cost-effectively deliver benefits such as pensions to people without bank accounts.

Because Kenya’s value-added services (VAS) market is still in its early stages of growth, market leader Safaricom has limited options for launching the kind of VAS that form part of operators’ multi-play strategies in developed markets. However, given the high
penetration (over 78%) of its MPESA payment service, the operator has evolved a strategy of using MPESA as a platform for launching multi-play services tailored to the needs of the Kenyan market and the opportunities it represents for increasing revenues from VAS (Odhiambo, 2008).

MPESA competes with similar payment-based multi-play services such as Airtel Money, Orange Money, YuCash, MobiKash and Mobipay. MPESA has also recently evolved from offering peer-to-peer (P2P) payments to offering an integrated mobile financial service (MFS) that is now being bundled with other services to promote customer loyalty and reduce churn for Safaricom. Recently, the operator launched an MPESA airtime top-up bonus scheme promotion that could see users rewarded with 10% bonus airtime with every top-up using the service (Gitonga, 2009). Gardner (2011) avers that MPESA has been so successful that Vodafone and Citibank announced a partnership to extend the offer worldwide. Jain and Griffith (2011) observes that MPESA has continued to grow in sales and shares in Kenya, in part through customers who have developed new applications not conceived by Vodafone including paying for transport or drinks to vendors who refuse to take cash for security reasons.

Product features should also be flexible to the customer. Flexibility is defined simply as the ability to respond to changes in customer orders (Wisner, Tan, & Leong, 2008). According to Chuhan-Pole and Angwafo (2011), MPESA customers can send money to any GSM mobile phone subscriber on the Safaricom, Zain, Orange, or YU networks in Kenya, regardless of whether the receiving party is an MPESA customer. MPESA’s pricing is however quite different: customers pay high P2P charge during transaction to non-MPESA customers. However, the non-customer does not pay any amount to receive the money, while a registered customer pays a fee of approximately $0.30.

According to Hope (2011) the product concept of MPESA is very simple. An MPESA customer can use his or her mobile phone to move money quickly, securely, and across great distances, directly to another mobile phone through which the user can conduct other financial transactions. Neither customer needs to have a bank account. They register instead with Safaricom for an MPESA account. Customers transform cash into electronic money at Safaricom dealers and follow instructions via phones in order to make
transactions using MPESA accounts. The accounts are very secure, protected by personal identification numbers and supported by a 24-hour service provided by Safaricom.

2.3.2 Components of MPESA
According to Kasse (2008), product component define what the system is required to do and the circumstances under which it is to operate. They define the services that the product or product component should provide and establish constraints on how they will operate. This includes actions, sequences, inputs, outputs and other information that clearly describe how the product will be used. Typically, financial institutions require onerous documentation for account opening; given that Safaricom would not be providing any loans to customers, less information about the customer was needed (Chandy, et al., 2013). As described by Chuhan-Pole and Angwafo (2011), for MPESA service, customers only must first register at an authorized MPESA retail outlet. They are assigned individual e-money accounts connected to their telephone numbers and available via applications stored on Subscriber Identification Module (SIM) cards of their cell phones. Chuhan-Pole and Angwafo (2011) explain that for P2P transfers, the users are requested to input the destination phone numbers, the amount, and the Personal Identification Number (PIN) of the sender. After the data is collected, it is transmitted to customers for confirmation. The customers then press OK on their mobile phones and the information is conveyed to MPESA servers in one text message. Combining all the data into one message decreases the cost of sending messages and lowers risks associated with mobile money transactions. In addition, the application uses security keys in the SIM card of the user to encode texts from the handset of the user to MPESA server.

Chuhan-Pole and Angwafo (2011) further explains that the Central Bank of Kenya insisted that all customers funds be deposited in a regulated financial institution and reviewed the security features of the technology platform, but it allowed Safaricom to operate MPESA as a payments system outside the provisions of the banking law. However, interest earned on deposited balances had to go to not-for-profit trust and cannot be appropriated by Safaricom or passed on to customers. Further, to address anti-money laundering concerns, there are also limits on the size of MPESA transactions.
2.3.3 Functionality of MPESA

Innovation is a process of creative development or new idea implementation which is focused towards augmenting functionalities of a product or service to render more improved quality service to customers (Noorani, 2014). Goodwin and Young (2010) assert that products are designed and developed to perform some purposeful function or functions. They explain that these functions may be general or specific, wide or narrow applicability, be static or active; but they are the reason for the existence of the product. They further hold that the ability to perform a function or serve a purpose is the foundation of economic value, the reason that customers in a market will take part in an economic transaction to transfer the product to their ownership in exchange for value. The concept of functionality and value is thus intertwined because value is defined as the product’s functionality or performance per unit of cost to the customer (Mello, 2010).

Mohapatra and Ratha (2011) observed that the use of mobile phones to transfer money has enabled recipients to send smaller amounts of money but more often. They note that the average transaction size decreased by 30 percent between March 2007 and March 2009 from 3,300 Kenya shillings to 2,300 Kenya shillings. In addition, Chuhan-Pole and Angwafo (2011) highlight that the minimum MPESA deposit amount is approximately 100 Kenya shillings, but there is no minimum balance requirement. And because customers deposit money for free, there is no immediate barrier to taking up the service. MPESA charges customers only for “doing something” with their money, such as making a transfer, withdrawing money, or buying prepaid airtime. Further, unlike a bank account which limits the maximum that can be withdrawn through an ATM, often Ksh.30,000, with MPESA, one can withdraw Ksh.70,000 which is the maximum the account can hold. According to Safaricom (2015), customers can also increase the utility of MPESA through the Mshwari which facilitates savings and investment. Mshwari is described as a paperless banking service offered through MPESA which give customers an opportunity to save as little as one shilling and earn interest on their saving balance, besides having access to microloan instantly through the MPESA account.

2.4 Benefits of MPESA Innovation and Competitive Advantage

Benefits are the solutions to the customer’s problems that ultimately attract the customer to the product and this is related to the advantage found in the product feature such as cost saving, time saving and safety (Johnston & Marshall, 2013). According to Nasution
and Mavondo (2007), the concept of value needs to include the total bundle of benefits and sacrifices, which consists of both monetary and non-monetary aspects. Monetary benefits refer to affordability whereas non-monetary benefits can be discussed in terms of reliability of the service, availability, speed, safety and convenience.

2.4.1 Affordability

Achieving a higher competitiveness by means of innovations means producing less costly products of better quality compared to those manufactured by competitors (Hana, 2013). Sheth and Sisodia (2012) suggest five basic approaches that companies should consider to improve affordability of products. One is to make the product worth in the customer’s mind through functional improvements such as adding desirable features or improving quality. Secondly, make the product worth more in the customer’s mind through psychological factors such as improving its image or lowering risk. Third, lower the effective price (that is, everything the customer has to give to get the product) to the customer by reducing the time or effort required to purchase and use the product. Fourth, break through psychological price barriers by changing the product’s size or form factor. Fifth, devise a creative pricing mechanism that better links price to value and removes upfront barriers to purchasing.

Generally, the mobile-phone innovation in Kenya has resulted in efficient communication, payments and marketing systems for an increasing number of people (Gewald et al., 2012). Most Kenya’s poor and unbanked have embraced the use of mobile money transfer services to store and make payments because the service offer cheaper and more secure alternatives to the existing informal money transfer channels and everyday transactions. Chuhan-Pole and Angwafo (2011) further identify that there are no customer charges for the SMSs that deliver the service. Instead, fees are applied to the actual, customer-initiated transactions. All customers fees are subtracted from the customer’s account and outlets cannot charge any direct fees.

The costs associated with the sending of money using the mobile payment services is also very low as compared to those from the commercial banks and other money transferring companies (Omwansa, 2009). This is true since the cost of a transaction has a direct influence to the consumer if it is passed to them (Mallat, 2007). Traction costs are
supposed to be low if the transactions have to remain competitive. The cost of the mobile payment services should be lower than those of the banks and affordable to the micro enterprises. Recently there are many mobile handsets which are easy to operate and have the same functions as those of the banks (Arunga, 2007). By fully absorbing the cost of account opening, Safaricom was able to advertise it free account opening as even a small cost to open an account can put off potential users (Chandy et al., 2013).

2.4.2 Reliability
Reliability is defined as the performance of service dependably and accurately (Zailani, Din, & Wahid, 2006). The challenge for management, given the importance of reliability in defining service quality, is to close any gap that exists between expectations and ultimate delivery of service to customers (Stevens & Loudon, 2005). Reliability affects service credibility which in turn affects the long-term orientation of a customer and the trust that they have for a particular brand (Erdem et al., 2002). According to Osarenkhoe (2007), trust allows firms to reduce or avoid reliance on costly formal monitoring mechanisms to maintain partnerships, encourages mutual concerns for long term benefits, maintains flexibility and allows for information exchange and mutual learning. Consequently, interaction that lacks the element of trust, he explains, do not develop into relationships. In a series of service quality studies across 13 different services, customers rated reliability as the most important dimension in meeting their expectations in every case (Berry et al., 2006).

Roodman (2012) narrates that in Kenya, many rural families send a husband or son to Nairobi to work and support the family from afar. Before MPESA, physical transport of cash was costly and dangerous. One could spend a day or so taking cash home oneself and get robbed on the way. MPESA offered a radically safer, more reliable way to send money over long distances.

2.4.3 Speed
According to Voudouris (2008), the immediacy and expectation of much reduced waiting times, impacts the backend operations and service chains supporting the customer experience and determines the competitiveness of a company. Mohapatra and Ratha (2011) for instance state that transport companies indicated that MPESA was a major
competitor, especially because of MPESA’s remittance-transfer speed. Mobile money in Kenya allows people to move money at the speed of a text message and Kenyans no longer need to travel long distances to the nearest bank branch to send money nor queue for hours to pay school fees and electricity bills (Chandy et al., 2013).

In essence, the innovation has revolutionized cash flows in social and economic spheres and changed unsafe, slow and occasional barter trade into a safe, fast and 24/7 mobile-cash-based trade, fundamentally changing the management of the local economy (Gewald et al., 2012). Thoronjo, (2011) reemphasizes the findings of the study done by Pagani (2004) that found out that most people described the current technology as user friendly, suggesting that it is the usability, usefulness, ease of service operation and speed that people considered as bringing efficiency in the use of the mobile payment services.

### 2.4.4 Accessibility

According to Verma (2007), service accessibility is a key determinant of customer patronage. How easily the service site is approachable in terms of roads, congestion, and physical distance affects service use. Thus, distribution for services is defined as relating to the availability and accessibility of a service to clients, where availability means the service is available to the client whenever he/she wants it, and accessibility refers to the relative ease with which the client can conduct a transaction with the service provider (Strydom, 2005). Therefore, the distribution element adds value in terms of availability and accessibility of the service, delivering service to the customer and determining where the exchange should occur (Cant, Strydom, Jooste & Du Plessis, 2009).

Mazze (2013) argues that a common cause of failure of innovations is the poor distribution strategy. The term “place” refers to “placing products and services within reach of the consumer” (Young, 2008, p.211). According to Wright and Race (2004), location alternatives are evaluated in terms of accessibility by customers (which include distance to be travelled by customers) and transportation (or delivery system). To reduce time and effort, Ferrel and Hartline (2008) recommend that firms must increase product availability, thereby making it more convenient for customers to purchase the products.
According to Maimbo, Faye and Triki (2011), mobile phone banking offers two critical advantages over other delivery channels. First, it relies to a great extent on variable rather than fixed costs, which implies that even customers who undertake small and few transactions are viable or bankable relative to banking through conventional channels. Second, trust can be built much more easily by reducing the risk from the customer’s and the provider’s viewpoint. By overcoming these two barriers, mobile phone banking can help push out the access possibilities frontier to cover a large share of the adult population.

Chuhan-Pole and Angwafo (2011) expounds that from since Safaricom launched MPESA, it comprehended that key roles of mobile phone included the formation of retail outlets-based channels to facilitate cash-to-digital conversions. In order to have this cash-to-digital broadly available to the broader population, Safaricom developed channel structures able to support thousands of MPESA outlets across a broad geographical area. William and Suri (2009) explain that the popularity of MPESA was bolstered by the fact that Kenya’s bank branch infrastructures are far too sparse to compete with MPESA’s 16,900 cash-in/cash-out outlets. Chuhan-Pole and Angwafo (2011) also noted that there are nearly five times as many MPESA stores within Kenya as there are Postbank branches, post offices, bank branches, and automated teller machines combined. MPESA is rated as quicker, more convenient, safer and cheaper by over 95% of customers compared with alternatives.

Mas and Radcliffe (2011) observed that the number of MPESA retail agents in Kenya has been on a tremendous growth trajectory, almost as quickly as the number of MPESA clients. During the first year of service, despite Safaricom’s significant initial investment in new MPESA locations, the growth of agents lagged behind the demand created by an expanding customer base. This result, however, was partially by design. Since “store revenues are dependent on the number of transactions they facilitate, Safaricom was careful not to flood the market with too many outlets, lest it depress the number of customers per agent.” As of December 30, 2011, the number of MPESA retail agents has expanded to meet customer demand and there are now over 35,500 MPESA agents in such diverse sectors as supermarkets, fuel stations, and Safaricom dealers. Chandy et al. (2013) maintain that mobile money is attractive to Kenyans because of the low barrier to
entry and high accessibility compared to formal financial services. It offers a way for people to perform low-value transactions, making it possible for those at the middle and bottom of the income pyramid to access financial services.

2.4.5 Safety
In a mobile environment, it is necessary to have perceived security and trust in the vendors and the payment system (Siau, et al., 2004; Mallat, 2007). Security and safety of mobile payment transactions is one of the primary concerns for users (Nam, Yi, Lee, and Lim, 2005). They state that safety represents no delay, no transaction incompleteness and no private information disclosure during payment transactions. The use of the pin and secret code for the MPESA transactions enhances the security and privacy issues. In Kenya, by comparison, the most common channel for sending money before MPESA was informal bus and *matatu* (shared taxi) companies. Because these companies are not licensed to transfer money, there is considerable risk that the money will not reach its final destination (William & Suri 2009). Omwansa (2009) states that a lost or stolen mobile phone does not mean catastrophe as no one can access an MPESA account without a correct personal identification number (PIN).

2.4.6 Simplicity/Ease of Use
According to Chuhan-Pole and Angwafo (2011), the simplicity of MPESA’s message is matched to the simplicity of its user interface components. The MPESA service can be launched right from the main menu of a mobile phone, making it easy for users to find. And because the service resides on the phone and does not need to be downloaded from the network each time it is used, the menu loads very quickly and prompts the user for information step-by-step. Characterized by this simplification is the absence of registration fee, deposit fee, minimum balanced, simple user interface and easy access to a dense agent network (Kayser & Budinich, 2015). As noted by Matthews and Brueggemann (2015), this simplification helped MPESA to become established.
2.5 Chapter Summary
This chapter has presented the literature on previous scholarly work that has gone into the study of MPESA and the competitive advantage that it has earned for Safaricom. The chapter has discussed the nexus between innovation and competitive advantage as measured by market share, profitability and customer loyalty. The chapter has also explored innovation attributes that make MPESA attractive such as the innovation’s functionality, features and size of transactions. Lastly, the chapter has discussed the benefits inherent in MPESA that translates into competitive advantage for Safaricom. In the next chapter, the methodology that was used to guide the research is discussed.
CHAPTER THREE

3.0 RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The purpose of the study was to examine the influence of MPESA innovation on the competitive advantage of Safaricom. This chapter describes the methodology that was used to undertake the research. The chapter details the research design, the population and sampling design including sampling frame, sampling technique and sample size. The chapter also explains the data collection methods, research procedures and data collection method. Lastly, the data analysis tools and techniques applied are explained.

3.2 Research Design

This research adopted a descriptive research design. Saunders, Lewis and Thornhill (2009) hold that descriptive research is a research design which attempt to describe characteristics of a sample and relationships between phenomena, situations and events observed by the researcher. Cooper and Schindler (2005) point out that this research design seeks to answer the questions who, what, when, where and how from the population or phenomena under study. This approach provided the researcher with an opportunity to establish the relationship between innovations and enhancement of competitive advantage of Safaricom Ltd. The dependent variable was competitive advantage and the independent variables were MPESA innovation attributes and benefits.

3.3 Population and Sampling Design

3.3.1 Population

Population refers to the total elements or subjects that the researcher wishes to draw some inferences (Saunders et al., 2009). The population comprised 65,547 MPESA agents and 2,700 Safaricom staff (Safaricom, 2013; Cisco, 2013). This is because both classes of respondents have practical knowledge about the price structure of MPESA and customers perception towards the service. Besides, Safaricom staffs have the best understanding of the reactions of customers to their services as well as technical challenges of the services. This entailed their attitude towards dependability of delivery of MPESA services and the quality of MPESA services. The staffs also have an in-depth understanding of their technical system. On the other hand, Safaricom MPESA agents have direct contact with
customers and therefore are better placed to provide information regarding performance of the service.

Table 3.1 Population Distribution

<table>
<thead>
<tr>
<th>Area/branch</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPESA Agents</td>
<td>65,547</td>
</tr>
<tr>
<td>Safaricom Staff</td>
<td>2,700</td>
</tr>
<tr>
<td>Total</td>
<td>68,247</td>
</tr>
</tbody>
</table>

Source: Safaricom Limited (2013)

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

A sample frame is the list of elements from which the sample is actually drawn and contains the complete and correct list of the population members only (Cooper & Schindler, 2008). The sampling frame in this study was drawn from a list of MPESA agents and employee statistics as provided in Safaricom’s website by March 2013 (Safaricom, 2013).

3.3.2.2 Sampling Technique

Stratified random sampling technique was used. This technique is defined by Denscombe (2007) as one in which every member of the population has an equal chance of being selected in relation to their proportion within the total population. In this study, the sample was stratified in to two categories of respondents namely, MPESA agents and Safaricom staff.

3.3.2.3 Sample Size

Sample size refers to a portion of the subjects of study which is used represent the whole population (Cooper & Schindler, 2008). The question of an adequate size however depends on a number of factors connected to the research which need to be borne in mind and weighed up by the researcher in the process of reaching a decision about the necessary size of the sample. According to Fox and Bayat (2007), the choice of sample size is regulated by four parameters: the level of certainty of the collected data to be representative of the total population, the accuracy required as the basis for the estimates
made for the sample, the type of analysis that will be used as many statistical techniques have a minimum threshold of data cases for every variable and the size of the total population from which the sample will be drawn. The sample size in this study was determined using the following formula by Gill and Johnson (2010, p.128):

\[
n = \frac{P(100-P)Z^2}{E^2}
\]

Where:
N is the sample size required
P is the percentage occurrence of a state or condition
E is the percentage maximum error required. For the purposes of this study, a 5% margin of error will be accepted.
Z is the \(z\) value corresponding to level of confidence required, representing the degree to which we can be sure the characteristics of the population have been accurately estimated by the sample survey. In most researches, the typical levels of confidence used are 95 percent (equal to a \(z\) value of 1.96).

In the formula, the variance of a proportion is represented by \(P(100-P)\), where: \(P\) is the percentage of a sample having a characteristic. Gill and Johnson (2010) suggest that researchers should use 50% as an estimate of \(P\), as this will result in the maximization of variance and produce the maximum sample size.

Therefore,
\[
n = \frac{50 (100-50)1.96^2}{5^2}
\]

\[
n = 384
\]

This sample size was considered adequate because it offered the maximum sample that account for the heterogeneity of the population. Disproportionate stratified sampling was used to increase the sample size for Safaricom Staff since the sub-population was small. This was done so as to obtain more precise estimate of the sub-population as recommended by Marsden and Wright (2010, p.210). As Kothari (2004) argues, in this
case, disproportionate sample selection from each stratum where samples are apportioned equally to each stratum is more efficient even if the strata differ in sizes. Disproportionate sample sizes have been used in previous studies to estimate business reference value (Kumar, Petersen & Leone, 2013). In this study, this was necessary in order to ensure that the accuracy of sample estimates obtained per stratum is sufficiently high to be able to make meaningful comparisons between strata as has been applied by Ross (2005). Table 3.2 shows the sample size distribution.

### Table 3.2 Sample Size Distribution

<table>
<thead>
<tr>
<th>Area/branch</th>
<th>Population</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPESA Agents</td>
<td>65,547</td>
<td>192</td>
</tr>
<tr>
<td>Safaricom Staff</td>
<td>2,700</td>
<td>192</td>
</tr>
<tr>
<td>Total</td>
<td>68,247</td>
<td>384</td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

For the purpose of this study, the data collection instrument to be used was a structured questionnaire. The word “questionnaire” in research denotes a general term including all data collection techniques in which each person is asked to answer the same set of questions in a predetermined order (Saunders et al., 2009). A structured questionnaire is whereby a set of questions are constructed in a predetermined order and answer choices are provided for the respondent to simply tick the answer closely representing his or her opinion. This method was preferred because it presents respondents with a relatively easy task of picking one or more answers which are spelt, thus, the data collected are very unlikely to be contaminated through variations in the wording as variables are clearly spelt out.

The questionnaire for this study had two sections: the section for demographic information; and that about Safaricom’s competitive advantage from MPESA. The demographic variables included respondents’ age, gender, level of education among others. The section about the competitive advantage of Safaricom from MPESA includes variables measuring competitive advantage such as profitability, market share and customer loyalty as well as variables regarding the MPESA innovation itself such as attributes, features, components as well as benefits. Likert Scale questions were designed
in the form of 5-point scale from strongly disagree to strongly agree and no extent to very great extent.

3.5 Research Procedures
The research procedures entailed obtaining authorization from the university to collect data in the form of an introductory letter. This was used to seek permission from Safaricom to administer the questionnaires to the respondents. Once this authorization was obtained, the researcher undertook a pilot test of on a small sample of 10 respondents which was not included in the final report. The findings from the pilot test were used to help the researcher to refine the questionnaire for objectivity and reliability of the process. This is consistent with the views of Mugenda and Mugenda (2003) who explains that the purpose of pilot-testing the instrument is to ensure that items in the instruments are stated clearly and have the same meaning to all respondents. The refined questionnaire was physically administered by the researcher. The exercise took a period of one month.

3.6 Data Analysis Methods
The procedure for data analysis involved first coding the data into the Statistical Package for the Social Sciences (SPSS). Coding entails the attribution of a number to a piece of data, or group of data, with the express aim of allowing such data to be analyzed in quantitative terms (Denscombe, 2007). Statistical tests were used to draw different analysis. Descriptive statistics was used to determine the mean (M) distribution, frequency (f) and standard deviation (SD) of the data. The mean, according to Denscombe (2007), is what most people have in mind when, in common parlance, they think about “the average”. The standard deviation, on the other hand, measures the spread of data relative to the mean.

Spearman’s Rho was used to determine the interaction and degree of correlation (denoted by $r$) between the dependent variable and the independent variables. Alpha ($\alpha$) was accepted at .05 levels. This denotes the probability ($p$-value) and represents the level of significance of the relationships. Researchers look for a probability of less than 1 in 20 ($p<0.05$) that the results arose by chance (Denscombe, 2007). In other words, it means that there was 95% surety that the relationships established did not occur by chance.
3.7 Chapter Summary
This chapter has described the blueprint for the collection and analysis of data. It has described the research design, the population and sampling design. It has also explained the data collection methods, research procedures and data analysis methods. In the next chapter, the findings of the study are analyzed.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents the results and findings. The chapter begins with a descriptive analysis of the respondents’ demographic data. The rest of the chapter is thematically presented based on the research questions. These were: what is the influence of MPESA innovation on Safaricom’s market-share, profitability and customer loyalty? What product attributes make MPESA innovation attractive to customers? What benefits do MPESA innovation offers that earns Safaricom’s its competitive advantage? Out of the 384 questionnaires administered, a total of 253 questionnaires were successfully filled and returned. This placed the response rate at 65.9% as shown in table 4.1.

Table 4.1 Response Rate

<table>
<thead>
<tr>
<th>Strata</th>
<th>Category</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td>MPESA agents</td>
<td>Responded</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>Non-response</td>
<td>46</td>
</tr>
<tr>
<td>Safaricom staff</td>
<td>Responded</td>
<td>107</td>
</tr>
<tr>
<td></td>
<td>Non-response</td>
<td>85</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>384</td>
</tr>
</tbody>
</table>

4.2 Demographic Information

This section presents the descriptive analysis of demographic data from MPESA agents and Safaricom staff. The demographic data includes respondents’ gender, age bracket, level of education, Safaricom staff cadre and tenure.

4.2.1 Gender of Respondents

The distribution of respondents by gender is shown in figure 4.1. The figure shows that male MPESA agents who participated in the research were 56.2% and female respondents were 43.8%. On the other hand, among Safaricom staff, 55.0% of the respondents were male and 45.0% were female.
4.2.2 Age of Respondents

The distribution of respondents by age is shown in figure 4.2. The figure shows that MPESA agents in the age bracket of 18-28 years were 38.4%, followed by 29.5% of the respondents aged 29-39 years, 18.5% of the respondents aged 40-50 years and lastly, 13.7% of the respondents aged above 51. However, among Safaricom staff, the majority (39.5%) were in the age bracket of 29-39 years, followed by 26.4% aged 40-50 years and 24.0% and 10.1% aged 18-28 years and above 51 years, respectively.
4.2.3 Education Level
Respondents were asked to indicate their highest level of education. Figure 4.3 shows that 32.2% of the MPESA agents held bachelor’s degrees whereas holders of KCSE and college diploma/certificates were 26% each and lastly, 15.8% had master’s degree. Among Safaricom staff, bachelor’s degree holders were 36.7% and 23.3% had master’s degree. Thirty percent (30%) of the respondents obtained college diplomas/certificates whereas 10% attained KCSE.

![Bar Chart: Distribution of Respondents by Level of Education](image)

**Figure 4.3 Distribution of Respondents by Level of Education**

4.2.4 Safaricom Staff Cadre
The distribution of Safaricom staff who participated in the research by their employment cadre is shown in figure 4.4. The figure shows that 45.2% of the respondents were entry level staff, followed by 33.8% of the respondents in middle management and 16.7% of the respondents in management. Lastly, some 4.3% of the respondents were supervisory level staff.
4.2.5 Tenure of Respondents

The study sought to determine the number of years respondents had worked with Safaricom. Figure 4.5 shows that 34.9% of the respondents had worked with the organization for between 2 to 5 years, followed by those who had served for 6-9 years. The figure also shows that 20.9% of the respondents had worked with Safaricom for a year or less whereas on the other hand, 16.3% of the respondents had worked for ten years plus.
4.3 The influence of MPESA innovation on Safaricom’s Competitive Advantage

This section analyzes respondents’ views on the influence of MPESA innovation on Safaricom’s competitive advantage as measured by market-share, profitability and customer loyalty.

4.3.1 The influence of MPESA Innovation on Safaricom’s Profitability

Respondents were asked rate Safaricom products in terms of their profitability on a scale of 1 to 5 where 1 represented least extent and 5 represented great extent. Table 4.2 shows that voice calls and text messages leads with a mean score of 4.67 in terms of contribution to profitability, with 40.8% of the respondents saying it does so to a great extent and 38.2% said it does so to a very great extent. However, 21.0% of the respondents indicated that it did to a moderate extent while no respondent said it did to least extent or not at all.

MPESA innovation follows suit with a mean score of 4.38 whereby 45% of the respondents said the innovation contributes to Safaricom’s profitability to a great extent and a further 26.5% of the respondents said it contributes to the company’s profitability to a very great extent. However, 23.5% of the respondents said it did to a moderate extent but no respondent said it did to least extent or not at all.

Trailing closely behind is profitability of data bundles/internet services with a mean score of 3.99, whereby 22.1% and 20.9% of the respondents said they contribute to the company’s profitability to a great and very great extent, respectively. A significant percentage (44.4%) of the respondents however indicated that it contributes profitability to a moderate extent whereas 14.6% of the respondents said it contributed to profitability to the least extent. No respondent said data bundles/internet services did not contribute to profitability at all.

The innovation that contributed least to Safaricom’s profitability was MSWARI, with a mean score of 2.91 as 49% of the respondents said it does so to a moderate extent, 40.7% said it does so to a least extent and 10.3% of the respondents said it did not contribute to profitability at all. No respondent said it contributed to profitability to a great extent or very great extent.
Table 4.2 Rating of Safaricom’s Innovation by their Contribution to Profitability

<table>
<thead>
<tr>
<th>Safaricom products (innovations)</th>
<th>Rating</th>
<th>Mean</th>
<th>Not at all (1)</th>
<th>Least extent (2)</th>
<th>Moderate extent (3)</th>
<th>Great extent (4)</th>
<th>Very great extent (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA Bundles/internet services</td>
<td>Mean</td>
<td>3.99</td>
<td>0.0%</td>
<td>14.6%</td>
<td>44.4%</td>
<td>22.1%</td>
<td>20.9%</td>
</tr>
<tr>
<td>MPESA</td>
<td>Mean</td>
<td>4.38</td>
<td>0.0%</td>
<td>0.0%</td>
<td>23.5%</td>
<td>45.0%</td>
<td>26.5%</td>
</tr>
<tr>
<td>MSHWARI</td>
<td>Mean</td>
<td>2.91</td>
<td>10.3%</td>
<td>40.7%</td>
<td>49.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Voice calls and text messages</td>
<td>Mean</td>
<td>4.67</td>
<td>0.0%</td>
<td>0.0%</td>
<td>21.0%</td>
<td>40.8%</td>
<td>38.2%</td>
</tr>
</tbody>
</table>

4.3.2 The Influence of MPESA Innovation on Safaricom’s Market Share

Respondents were asked to rate the extent to which they would say that MPESA services have been successful in generating market share for Safaricom. Figure 4.6 shows that majority (54.1%) of the respondents were of the view that MPESA innovation contributed to Safaricom’s market share success to a very great extent, and 33.6% of the respondents said it does contribute to the company’s market share to a great extent. However, 10.3% and 2.1% of the respondents said it contributes to Safaricom’s market share success to a moderate and little extent, respectively.
4.3.3 The Influence of MPESA Innovation on Customer Loyalty

Respondents were asked to indicate how often they used MPESA services. Figure 4.7 shows that majority (43.8%) of the respondents used MPESA services once a week, with an additional 17.8% of the respondents using the service every day. Respondents who used the service at least once a month accounted for 27.4% of the sample, and those who used the service at least once in three months were 8.9%. Only 2.1% of the respondents indicated that they used the service once in a year.

![Figure 4.7 Frequency of use of MPESA Services](image)

4.3.4 Relationship between MPESA and Safaricom’s Competitive Advantage

Spearman’s rank correlation coefficient was run to establish whether there was a statistically significant relationship between MPESA innovation and the three measures of competitive advantage namely: profitability, market share and customer loyalty as shown in table 4.3. The table shows that MPESA innovation was weakly correlated to Safaricom’s profitability ($r=.462, p<.01$) but strongly and significantly correlated to market share ($r=.862, p<.01$) and customer loyalty ($r=.550, p<.01$). The table also shows that profitability was directly correlated to market share ($r=.678, p<.01$) and customer loyalty ($r=.790, p<.01$).
Similarly, the relationship between market share and customer loyalty was statistically significant ($r=0.978$, $p<0.01$). These results mean that MPESA innovation positively influenced Safaricom’s competitive advantage with respect to market share and customer loyalty. Further, profitability was inter-correlated with both market share and customer loyalty, meaning that customer loyalty potentially affects profitability directly or indirectly through its direct impact on market share. This is shown in the high correlation coefficient obtained which in each case was closer to 1, suggesting that the inter-correlation was significant to a great extent in terms of market share and profitability ($r=0.678$, $p<0.05$), customer loyalty and profitability ($r=0.790$, $p<0.05$) customer loyalty and market share ($r=0.978$, $p<0.05$).

Table 4.3 Correlation between MPESA and Competitive Advantage Variables

<table>
<thead>
<tr>
<th>Spearman's rho</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MPESA innovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Profitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.462(**)</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Market share</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.862(**)</td>
<td>.678(**)</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>4 Customer loyalty</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correlation Coefficient</td>
<td>.550(**)</td>
<td>.790(**)</td>
<td>.978(**)</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>107</td>
<td>107</td>
<td>107</td>
<td>107</td>
</tr>
</tbody>
</table>

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

4.4 Product attributes that make MPESA Innovation Attractive to Customers

The product attributes analyzed in this section include functionality of MPESA product, features and components.

4.4.1 Functionality of MPESA Product

Respondents were asked to rate various MPESA functions in order of frequency of use, where 1 represented “not used” and 5 represented “mostly used”. The results are presented in table 4.4. The table shows that 78.1% of the respondents mostly used the
MPESA function for person to person money transfer and 10.3% of the respondents often used it for this function. This functionality scored the highest mean of 4.44 on a scale of 1 to 5. However, there were 4.8% of the respondents who moderately used MPESA for sending/receiving money, 3.4% and another 3.4% of the respondents who rarely and never used it for this function, respectively.

In terms of paying bills, 31.5% of the respondents used MPESA often and 17.1% mostly used MPESA. However, 15.1% of the respondents moderately used it for paying bills, 14.4% rarely used it and 21.9% of the respondents never used it for bill payments. The mean score was 3.18, implying that respondents used the innovation moderately for paying bills.

Table 4.4 also shows that 40.1% of the respondents used MPESA mostly for buying airtime and another 24% often bought airtime using MPESA. Thirteen percent (13%) used MPESA moderately for buying airtime whereas there were 9.6% and 13.0% of the respondents who rarely and never used MPESA, respectively. A high mean score of 4.37 on a scale of 1.5 suggest that the innovation was often used for buying airtime.

With regards to shopping, 40.8% of the respondents did not use MPESA and 13.7% rarely used MPESA. Thirteen percent (13%) of the respondents used MPESA for shopping moderately whereas 19.9% and 15.8% of the respondents often used and mostly used MPESA, respectively. This scored a low mean of 2.46 on a scale of 1 to 5, suggesting that on aggregate, respondents rarely used MPESA for shopping.

Table 4.4 further shows that 29.5% of the respondents mostly used MPESA for saving and 17.8% often used it for saving. Thirteen percent (13.0%) of the respondents used it moderately for saving money, whereas 13.7% and 26.0% of the respondents rarely and never used it for saving money, respectively. The mean score was 3.11 which imply that MPESA moderately was used by the respondents for saving money.

In terms of usage of MPESA for purchasing internet bundles, 42.5% and 20.5% of the respondents mostly and often used the MPESA function, respectively. Eleven percent (11%) used it moderately for purchasing internet bundles whereas 8.9% of the respondents said they rarely used it and a further 17.1% of the respondents indicated that they never used it for buying internet bundles. A high mean score of 4.30 was established, meaning that respondents often used MPESA to purchase internet bundles.
Table 4.4 Rating of Usage of MPESA Functions

<table>
<thead>
<tr>
<th>MPESA functionality</th>
<th>Mean</th>
<th>Not used (1)</th>
<th>Rarely used (2)</th>
<th>Moderately used (3)</th>
<th>Often used (4)</th>
<th>Mostly used (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Money transfer services</td>
<td>4.44</td>
<td>3.4%</td>
<td>3.4%</td>
<td>4.8%</td>
<td>10.3%</td>
<td>78.1%</td>
</tr>
<tr>
<td>Paying bills</td>
<td>3.18</td>
<td>21.9%</td>
<td>14.4%</td>
<td>15.1%</td>
<td>31.5%</td>
<td>17.1%</td>
</tr>
<tr>
<td>Buying airtime</td>
<td>4.37</td>
<td>13.0%</td>
<td>9.6%</td>
<td>13.0%</td>
<td>24.0%</td>
<td>40.1%</td>
</tr>
<tr>
<td>Shopping</td>
<td>2.46</td>
<td>40.8%</td>
<td>13.7%</td>
<td>8.9%</td>
<td>19.9%</td>
<td>15.8%</td>
</tr>
<tr>
<td>Saving money</td>
<td>3.11</td>
<td>26.0%</td>
<td>13.7%</td>
<td>13.0%</td>
<td>17.8%</td>
<td>29.5%</td>
</tr>
<tr>
<td>Purchasing internet bundles</td>
<td>4.30</td>
<td>17.1%</td>
<td>8.9%</td>
<td>11.0%</td>
<td>20.5%</td>
<td>42.5%</td>
</tr>
</tbody>
</table>

4.4.2 MPESA Product Features

Respondents were asked to rate the extent to which ease of use of MPESA features such as Send money, withdraw cash, buy airtime, paybill and/or Mshwari made it a successful brand. Figure 4.8 shows that 42.5% of the respondents felt that the ease of use of these MPESA features contributed to the success of MPESA brand to a very great extent and another 34.2% of the respondents felt that it did so to a great extent. Fifteen percent (15.1%) of the respondents held the view that ease of use contributed to MPESA’s success to a moderate extent, whereas there were 4.1% of the respondents who felt that it did contribute to a little extent and a further 4.1% who held the view that ease of use of MPESA’s features did not contribute to its success at all.

Figure 4.8 Extent Ease of Use of MPESA contributed to its Success
4.4.3 MPESA Components

Respondents were asked to indicate the extent to which the simplicity of the MPESA registration and service requirements which entails inputs such as depositing cash with MPESA agent, actions such as identification, sequences such as keying in receiver account and output confirmation in the form of transaction code contributed to its success. Figure 4.9 shows that 46.7% of the respondents said that the simplicity of MPESA registration and service requirements contributed to the success of MPESA to a very great extent and 34.2% of the respondents felt that it contributed to the innovation’s success in the market to a great extent. Some 15.1% of the respondents were however of the view that its simple requirements contributed to MPESA success to a moderate extent whereas 2.9% of the respondents said that the contribution was to a little extent. Further, 1.1% of the respondents did not feel that the simplicity of registration and service requirements contributed to MPESA success at all.

![Figure 4.9 Extent Simplicity of Registration contributed to MPESA Success](image)

4.5 Benefits of MPESA Innovation and Competitive Advantage

In this section the relationship between MPESA innovation benefits and competitive advantage is analyzed. Table 4.5 shows Spearman’s rank correlation between the study variables with alpha coefficient significant at <0.01 levels. The table shows that there was a weak positive correlation between Safaricom’s competitive advantage and benefits of MPESA innovation namely: reliability \((r=.338, \ p<.01)\), ease of use \((r=.392, \ p<.01)\), affordability \((r=.287, \ p<.01)\), speed of transaction \((r=.412, \ p<.01)\), accessibility \((r=.434, \ p<.01)\), convenience \((r=.403, \ p<.01)\) and security of transactions \((r=.338, \ p<.01)\). The
correlation was weak because the coefficients were closer to zero. These results mean that Safaricom’s competitive was influenced by perceived benefits of MPESA innovation to a small extent.

Table 4.5 Correlation of Benefits of MPESA Innovation and Competitive Advantage

<table>
<thead>
<tr>
<th>Spearman’s Rho</th>
<th>Correlation Coefficient</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Competitive advantage</td>
<td>1.000</td>
<td>.</td>
<td>146</td>
</tr>
<tr>
<td>2 Reliability</td>
<td>.338(**)</td>
<td>.000</td>
<td>146</td>
</tr>
<tr>
<td>3 Ease of use</td>
<td>.392(**)</td>
<td>.000</td>
<td>146</td>
</tr>
<tr>
<td>4 Affordability</td>
<td>.287(**)</td>
<td>.000</td>
<td>146</td>
</tr>
<tr>
<td>5 Speed of transaction</td>
<td>.412(**)</td>
<td>.000</td>
<td>146</td>
</tr>
<tr>
<td>6 Accessibility</td>
<td>.434(**)</td>
<td>.000</td>
<td>146</td>
</tr>
<tr>
<td>7 Convenience</td>
<td>.403(**)</td>
<td>.000</td>
<td>146</td>
</tr>
<tr>
<td>8 Security</td>
<td>.338(**)</td>
<td>.000</td>
<td>146</td>
</tr>
</tbody>
</table>

4.5.1 Reliability of MPESA and Competitive Advantage

The study sought to determine the extent to which reliability of MPESA innovation contributed to Safaricom’s competitive advantage. Figure 4.10 shows that 60.3% of the respondents held the view that the reliability of MPESA innovation contributed to the company’s competitive advantage to a very great extent, and 26% of the respondents also said that it contributed to the company’s success to a great extent. However, 5.5% of the respondents felt that MPESA reliability contributed to the company’s success to a moderate extent, while 2.7% and 5.5% of the respondents said that reliability contributed to Safaricom’s competitive advantage to a little extent and not at all, respectively.
Figure 4.10 Extent Reliability of MPESA Contributed to Competitive Advantage

4.5.2 Ease of Use and Competitive Advantage

The distribution of respondents with regards to their views on the extent to which ease of use of MPESA innovation contributed to Safaricom’s competitive advantage is shown in figure 4.11. Fifty percent (50%) of the respondents said ease of use of MPESA contributed to the company’s competitive advantage to a great extent and a further 34.2% of the respondents said it did to a very great extent. However, 7.5% of the respondents said ease of use contributed to Safaricom’s success to a moderate extent; 5.5% of the respondents said it did to a little extent and 2.7% of the respondents said it did not at all.

Figure 4.11 Extent Ease of Use of MPESA Contributed to Competitive Advantage
4.5.3 Affordability of MPESA Services and Competitive Advantage

Respondents were asked to indicate the extent to which affordability of MPESA innovation contributed to Safaricom’s competitive advantage. Figure 4.12 shows that 43.2% and 24.7% of the respondents said it did to a great and very great extent, respectively. However, 22.6% of the respondents expressed that the MPESA innovation contributed to Safaricom’s competitive advantage to a moderate extent; 3.4% of the respondents said it did so to a little extent while 6.2% of the respondents said it did not contribute to Safaricom’s success at all.

![Figure 4.12 Extent Ease of Use of MPESA Contributed to Competitive Advantage](image)

4.5.4 Speed of MPESA Services and Competitive Advantage

Respondents’ views on the extent to which the speed of MPESA transactions contributed to the competitive advantage of Safaricom is shown in figure 4.13. The figure shows that 48.6% and 37.7% of the respondents said it did to a great extent and very great extent, respectively. The figure also shows that there were 4.8% of the respondents who were of the opinion that the speed of MPESA transactions contributed to Safaricom’s competitive advantage to a moderate extent. Finally, 4.1% of the respondents said it did to a little extent and 4.8% of the respondents said it did not at all.
4.5.6 Accessibility of MPESA Services and Competitive Advantage

The views of the respondents were sought as to the extent to which accessibility of MPESA services contributed to Safaricom’s competitive advantage. Figure 4.14 shows that 35.6% of the respondents said it did to a great extent and 48.6% of the respondents said it did to a very great extent. However, 7.5% of the respondents held the view that accessibility of MPESA services contributed to Safaricom’s competitive advantage to a moderate extent whereas 4.1% of the respondents said it did to a little extent and another 4.1% of the respondents said accessibility of MPESA services did not contribute to competitive advantage at all.
4.5.7 Convenience of MPESA and Competitive Advantage

Respondents’ opinions were sought on their perception of the extent to which convenience of MPESA services contributed to Safaricom’s competitive advantage. Figure 4.15 shows that 44.5% of the respondents felt that it contributed to the company’s competitive advantage to a very great extent, and 37.7% of the respondents said it did so to a great extent. However, 11.6% of the respondents were of the view that convenience of transacting through MPESA led to the company’s competitive advantage to a moderate extent. Some 2.7% of the respondents said the convenience of MPESA contributed to Safaricom’s success to a little extent whereas 3.4% of the respondents said that MPESA convenience did not lead to the company’s competitive advantage at all.

![Figure 4.15 Extent Convenience of MPESA contributed to Competitive Advantage](image)

4.5.8 Safety of MPESA and Competitive Advantage

The views of respondents were sought as to the extent to which safety and security of MPESA transactions contributed to Safaricom’s competitive advantage. Figure 4.16 shows that 47.9% of the respondents expressed that it did to a very great extent and another 32.9% of the respondents said it did to a great extent. Eleven percent (11.0%) of the respondents were of the view that the safety and secure transactions through MPESA contributed to the company’s success to a moderate extent. However, 2.7% of the respondents were of the view that it did to a little extent while 5.5% of the respondents said it did not at all.
Figure 4.16 Extent Safety of MPESA contributed to Competitive Advantage

4.5.9 Customer Perception of Benefits of MPESA

The distribution of respondents in terms of how they rated their experience using MPESA as a service is shown in table 4.6. The table shows that reliability of MPESA was rated excellent by 62.3% of the respondents and very good by 18.5% of the respondents. Those respondents who rated reliability as good was 11.6% whereas 5.5% and 2.1% of the respondents rated reliability as fair and poor, respectively.

With regards to efficiency, 47.3% of the respondents rated MPESA as very good and 34.2% of the respondents rated the same as excellent. However, 11.6% of the respondents rated the service as good and 4.1% of the respondents rated it as fair. Some 2.7% of the respondents rated MPESA’s efficiency as poor.

Table 4.6 also shows that 32.2% and 21.2% of the respondents rated affordability of cost of transaction as very good and excellent, respectively while 25.3% rated affordability as good. Eleven percent (11.0%) of the respondents rated it as fair while 10.3% of the respondents rated it as poor.

In terms of attractiveness, 40.4% of the respondents rated MPESA innovation as very good and 27.4% of the respondents rated it as excellent. Some 19.2% of the respondents rated MPESA attractiveness as good whereas 9.6% and 3.4% of the respondents rated the same as fair and poor, respectively.

47
Respondents were also asked to rate their experience with MPESA in terms of user-friendliness. Table 4.6 shows that 32.9% and 39.7% of the respondents rated MPESA as very good and excellent, respectively. However, 19.2% of the respondents rated the innovation’s user-friendliness as good whereas 6.2% of the respondents rated it as fair and another 2.1% of the respondents rated user-friendliness of MPESA as poor.

With regards to respondents’ evaluation of convenience of MPESA, 39.0% of the respondents rated it as very good and 30.8% of the respondents rated the same as excellent. However, 17.8% of the respondents rated convenience of MPESA as good; .2% of the respondents rated it as fair and another 6.2% of the respondents rated it as poor.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Poor (1)</th>
<th>Fair (2)</th>
<th>Good (3)</th>
<th>Very good (4)</th>
<th>Excellent (5)</th>
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<tr>
<td>Reliability</td>
<td>2.1%</td>
<td>5.5%</td>
<td>11.6%</td>
<td>18.5%</td>
<td>62.3%</td>
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<tr>
<td>Efficiency</td>
<td>2.7%</td>
<td>4.1%</td>
<td>11.6%</td>
<td>47.3%</td>
<td>34.2%</td>
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<tr>
<td>Affordability e.g. cost of transaction</td>
<td>10.3%</td>
<td>11.0%</td>
<td>25.3%</td>
<td>32.2%</td>
<td>21.2%</td>
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<tr>
<td>Attractiveness</td>
<td>3.4%</td>
<td>9.6%</td>
<td>19.2%</td>
<td>40.4%</td>
<td>27.4%</td>
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<tr>
<td>User friendly</td>
<td>2.1%</td>
<td>6.2%</td>
<td>19.2%</td>
<td>32.9%</td>
<td>39.7%</td>
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<tr>
<td>Convenience</td>
<td>6.2%</td>
<td>6.2%</td>
<td>17.8%</td>
<td>39.0%</td>
<td>30.8%</td>
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</tbody>
</table>

4.6 Chapter Summary
This chapter has presented the findings of the study. The analysis has shown that in terms of the influence of MPESA innovation on Safaricom’s market-share, profitability and customer loyalty, there was a weak correlation between MPESA innovation and Safaricom’s profitability while the relationship was strong and significant in terms of market share and customer loyalty.

With regards to product attributes that make MPESA innovation attractive to customers, majority of the respondents find MPESA’s function of money transfer through features such as send money, withdraw cash, buy airtime and pay bills attractive. Majority of the respondents felt that the ease of use of such MPESA features contributed to the success of MPESA brand to a very great extent. Majority of the respondents said that the simplicity
of MPESA registration and service requirements contributed to the success of MPESA to a great extent.

Concerning the benefits do MPESA innovation offers that earns Safaricom’s competitive advantage, there was a weak positive correlation between Safaricom’s competitive advantage and benefits of MPESA innovation such as: reliability, ease of use, affordability, speed of transaction, accessibility, convenience and security of transactions. The findings were presented in figures and tables. The findings are discussed in the next chapter, where conclusions and recommendations are made.
CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The previous chapter presented the analysis and interpretation of the study. This chapter begins with a summary of the research. The chapter then discusses the findings of the study based on the research questions. From the discussions, conclusions are then drawn and recommendations made for improvement as well as for further studies.

5.2 Summary

The purpose of the study was to examine the effect of MPESA innovation on competitive advantage of Safaricom. The research sought to answer the following questions: what is the influence of MPESA innovation on Safaricom’s market-share, profitability and customer loyalty? What product attributes make MPESA innovation attractive to customers? What benefits do MPESA innovation offers that earns Safaricom’s its competitive advantage?

This research adopted a descriptive research design. The population comprised 65,547 MPESA agents and 2,700 Safaricom staff. Stratified random sampling technique was used. A sample size of 384 respondents was used. Data was collected using a structured questionnaire. Spearman’s Rank Correlation Coefficient was used to analyze data with alpha significant at (α<.05). The data was analyzed using SPSS and presented in figures and tables.

The findings showed that in terms of the influence of MPESA innovation on Safaricom’s competitive advantage, The analysis has shown that in terms of the influence of MPESA innovation on Safaricom’s market-share, profitability and customer loyalty, there was a weak correlation between MPESA innovation and Safaricom’s profitability (r=.462, p<.01) while the relationship was strong and significant in terms of market share (r=.862, p<.01) and customer loyalty (r=.550, p<.01).

With regards to product attributes that make MPESA innovation attractive to customers, 78.1% of the respondents find MPESA’s function of money transfer through features
such as send money, withdraw cash, buy airtime and pay bills attractive; 42.5% of the respondents felt that the ease of use of such MPESA features contributed to the success of MPESA brand to a very great extent and another 34.2% of the respondents felt that it did so to a great extent; 46.7% of the respondents said that the simplicity of MPESA registration and service requirements contributed to the success of MPESA to a very great extent and 34.2% of the respondents felt that it contributed to the innovation’s success in the market to a great extent.

Concerning the benefits do MPESA innovation offers that earns Safaricom’s competitive advantage, there was a weak positive correlation between Safaricom’s competitive advantage and benefits of MPESA innovation such as reliability ($r=.338, p<.01$), ease of use ($r=.392, p<.01$), affordability ($r=.287, p<.01$), speed of transaction ($r=.412, p<.01$), accessibility ($r=.434, p<.01$), convenience ($r=.403, p<.01$) and security of transactions ($r=.338, p<.01$).

### 5.3 Discussions

#### 5.3.1 MPESA innovation and Safaricom’s Competitive Advantage

The findings showed that MPESA innovation contributed to Safaricom’s competitive advantage with at least 79% of the respondents agreeing that it did so to a great extent. In terms of Safaricom’s product offerings, MPESA ranks second only to voice and SMS with regards to its share of profitability. However, a weak positive correlation manifested between MPESA innovation and Safaricom’s profitability ($r=.462, p<.01$), suggesting that MPESA innovation only partially contributed to the company’s profitability. This is seen for instance, in the low mean rating of only 2.91 that MPESA features such as M-Shwari which rides on the MPESA platform returned on a scale of 1 to 5. These challenge the positions of scholars such as O’connell (2012) who hold that innovation is a key element to survival and profitability and others such as Birchall and Tovstiga (2005) who support this view by adding that innovation is probably the most important capability firms have today for driving profitable growth. However, the findings agree with the claim by Pyka and Burghof (2013) who suggest that the empirical evidence on the impact of innovations on competitive advantage measures such as profitability and firm growth is mostly mixed. Indeed, Safaricom (2013) itself report that MPESA
accounts for 12.4% of the total revenue, a clear indication that MPESA alone did not determine the profitability of the company.

The findings however showed that majority (54.1%) of the respondents were of the view that MPESA innovation contributed to Safaricom’s market share success to a very great extent, with an additional 33.6% of the respondents saying it did contribute to the company’s market share to a great extent. Similarly, correlation analysis revealed a strong positive relationship between MPESA innovation and Safaricom’s competitive advantage in terms of its market share ($r = .862, p < .01$), with the coefficient value showing that the correlation was high. The findings are consistent with the views of Graham (2011) that innovation tends to bring enhanced market share and indeed to create new markets. Chandy et al. (2013) also subscribe to the same point of view by asserting that Safaricom’s strong market share and the resultant trust in the Safaricom brand undoubtedly contributed to the success of mobile money in Kenya. While Safaricom took other actions to drive retention and growth of its customers, these authors collectively hold the opinion that the success of Safaricom is evidence that MPESA was a major contributing factor in the growth of its market share. The same school of thought is shared by Soman et al. (2011) who view MPESA as an excellent example of generating active demand for a socially innovative service, citing statistics such as the system’s enrolment of 14 million users, accounting for transaction volumes equal to a third of Kenya’s GDP.

The study has also established that the relationship between MPESA innovation and competitive advantage measured by customer loyalty was statistically significant ($r = .550, p < .01$). In terms of extent, the coefficient suggests that there was a relationship to a moderate extent. This is evident in the finding which showed that majority (61.6%) of the respondents used MPESA services at least once a week, with some 17.8% of the respondents using the service everyday. This depicts the operational definition of customer loyalty as given by Glynn and Woodside (2009) measuring loyalty in terms of repeat purchase or customer retention. The findings therefore provides empirical evidence in keeping with the views of Melton (2007) who held that product innovations improve customer loyalty and build profitability of a firm’s existing product portfolio. As discussed by Korngold (2014), MPESA was designed to serve the company’s strategy of
maintaining customer loyalty in order to build the bottom-line over the long term; a strategy for which the findings of this study show evidence that it has worked.

5.3.2 Product attributes that make MPESA innovation attractive to customers

The study established that majority (78.1%) of the respondents mostly used the MPESA function for sending/receiving money. This functionality scored the highest mean of 4.44 on a scale of 1 to 5 in terms of its usage, suggesting that the sending and receiving money was the core function of MPESA innovation as demanded by the market, making it attractive to customers. These results are consistent with the statistics reported in the research by Kimenyi et al. (2009) which showed that more than 14 million Kenyans are registered as users of MPESA, a number which represents 81 per cent of the customer base of Safaricom subscribers. Kimenyi et al. (2009) explain that this number was achieved by using an execution strategy, which focused on the Kenyan culture of sending money home at lower transaction costs. The findings also agree with an earlier research done by Chuhan-Pole and Angwafo (2011) which tabulates the various functionalities that MPESA offers to customers and the percentage of usage whereby receiving and sending money topped the list of usage of MPESA at 28% and 25%, respectively.

The study also revealed that other functionalities such as paying bills was used often by nearly half (47.6%) of the respondents. The mean score in terms of the usage of the pay-bill function was 3.18 on a scale of 1 to 5, implying that respondents used the innovation moderately for paying bills. This is consistent with Safaricom’s objective, which, intended to use MPESA as its strategy of increasing customer base, and add value to its services. In terms of mean score ranking, the usage of MPESA to pay bills ranked high ahead of storing or saving money in contrast to the research findings by Chuhan-Pole and Angwafo (2011). This is potentially explained by differences in research procedures or methodology used.

5.3.3 Benefits of MPESA innovation and Safaricom’s competitive advantage

The findings revealed that there was a weak positive correlation between Safaricom’s competitive advantage and reliability of MPESA innovation ($r=.338, p<.01$) although 60.3% of the respondents held the view that the reliability of MPESA innovation contributed to the company’s competitive advantage to a very great extent. This means
that although one of the value positions that the MPESA innovation offers is its reliability, there was more to the realization of the company’s competitive advantage than just the fact that MPESA was reliable. The findings contradict the observation by Roodman (2012) that MPESA offered a radically safer, more reliable way to send money over long distances as compared to the previous situation where physical transport of cash was dangerous. It should also be recalled that a survey report by FSD Kenya (2009) established that 43.6% of MPESA customers complained of agent’s lack of e-float, suggesting the service was not entirely reliable. Perhaps perceived reliability in this study is contributed by Safaricom’s extensive distribution network which, as of the year 2013, stood at 65,547. Past research has identified that the distribution element influences perceived reliability in terms of accessibility of the service (Cant et al., 2009).

Similarly, the relationship between affordability of MPESA services as a benefit and the company’s competitive advantage was weak \( (r=.287, p<.01) \) even though on aggregate, 67.9% of the respondents were of the view that the innovation’s affordability contributed to Safaricom’s competitive advantage to a great extent. This is contradicts the observation made by Omwansa (2009) that the costs associated with the sending of money using the mobile payment services is very low. This perspective may hold when both direct and indirect costs, including opportunity costs (e.g. of time and distance) are taken into account. Nevertheless, a weak positive correlation was established between the benefit of MPESA speed of transaction and Safaricom’s competitive \( (r=.412, p<.01) \) although majority (86.3%) of respondents believed that speed of MPESA transactions contributed to the competitive advantage of Safaricom to a great extent. It is worth noting that Safaricom is not the only company providing mobile money transfer service. Thus, from these results, it may also be speculated that Safaricom derives its competitive advantage from a bundle of benefits that collude with the company’s large subscriber base.

Related to speed is the accessibility of MPESA services which is another benefit which was positively correlated to Safaricom’s competitive advantage \( (r=.434, p<.01) \); whereby majority (85.2%) of the respondents felt that it did contribute to the company’s competitive success to a great extent. This finding resonates well with the argument by Verma (2007) that service accessibility is a key determinant of competitive advantage through customer patronage. It is also consistent with the perspective fronted by William
and Suri (2009) that MPESA’s popularity was bolstered by the fact that Kenya’s bank branch infrastructure is far too sparse to compete with MPESA’s 16,900 cash-in/cash-out outlets; with the likes of Chuhan-Pole and Angwafo (2011) reporting that there are now nearly five times as many MPESA outlets in Kenya as there are Postbank branches, post offices, bank branches, and automated teller machines combined.

The findings also showed that majority (76.7%) of the respondents felt that the ease of use of MPESA features contributed to the success of MPESA brand to a great extent, with a significant percentage (42.5%) of the respondents expressing that that it did so to a very great extent. This suggests that ease of use of an innovation feature is an important dimension of competitive advantage. In this case, the findings are reflective of the observation made by Arunga (2007) that there are many mobile handsets which are easy to operate and have the same functions as those of the banks; meaning, for instance that the account holder can perform the same function that an ATM performs, without having to visit the bank branch or queue to use an ATM service.

Further findings revealed that 46.7% of the respondents said that the simplicity of MPESA registration and service requirements contributed to the success of MPESA to a very great extent and 34.2% of the respondents felt that it contributed to the innovation’s success in the market to a great extent. This agrees with the description of MPESA product concept by Hope (2011) as very simple; enabling customers to move money quickly, securely, and across great distances, directly to another mobile phone, without either customer needing to have a bank account. All the customer needs is to follow simple instructions on their phones to make payments or withdraw cash through their MPESA accounts which are securely protected by personal identification numbers and supported by a 24-hour service provided by Safaricom.
5.4 Conclusions

From the foregoing discussions, the following conclusions were drawn:

5.4.1 MPESA innovation and Safaricom’s Competitive Advantage

MPESA innovation positively influenced the competitive advantage that Safaricom currently enjoys. This manifested in two of the measures of innovation impact to the performance of a company which are market share and customer loyalty. This was because of the exponential growth that the company has recorded in terms of MPESA subscriptions, the patronage that MPESA customers demonstrate for the service as indicated by repeat purchase as frequent as weekly usage of MPESA service. The innovation potentially created new possibilities for Safaricom such as penetrating the banking industry with mobile money products such as MSHWARI and mobile money transfer services which earned it huge transaction volumes. However, it contributed relatively little to Safaricom’s profitability, ranking third after Voice and SMS. This was partly because products and features such as MSHWARI which rode on MPESA platform were yet to pick up. Nevertheless, the innovation helped achieve the company’s bottom-line by maintaining customer loyalty.

5.4.2 Product attributes that make MPESA innovation attractive to customers

MPESA product attributes innovatively attracts and locks in customers through its functions, features and components. The most popular functionality remains the transfer of money through the send money and withdraw cash feature. These made MPESA innovation attractive to customers. Other features such as paying bill, buy goods and services and buy airtime as well as storing money experienced moderate usage. These features were a source of value addition to the MPESA experience that customers enjoyed. Value addition was reflected in the popularity of using MPESA to pay bills more than its usage to store or save money. Hence, the attractiveness of the MPESA innovation to customers resided in satisfying the customer’s need to transact in a cheaper, safer and time-saving way. This held true irrespective of whether the transaction was about sending or receiving money, paying bills, buying air time or buying internet bundles. However, the innovation was not yet popular for transactions related to shopping.
5.4.3 Benefits of MPESA innovation and Safaricom’s competitive advantage

Most of the benefits of using MPESA, such as relative affordability, speed of MPESA transactions compared to alternative means of money transfer, accessibility of MPESA services through Safaricom’s numerous agents and the guarantee of a safe and secure transaction thanks to a secret personal identification number known only to the customer collectively influenced Safaricom’s competitive advantage. The ease of use of MPESA also contributed to the success of MPESA brand. This was reinforced by the simplicity of MPESA registration and service requirements, enabling customers to move money quickly and securely across great distances, by following simple instructions on their phones to make payments or withdraw cash through their MPESA accounts. However, the impact of benefits of MPESA on Safaricom’s competitive advantage was moderated by the cost of transaction levied by Safaricom in the form of various MPESA charges. It was also mediated by the speed of MPESA services over other forms of money transfer services, bolstered by the convenient access of MPESA agents relative to a bank’s infrastructure.

5.5 Recommendations

The researcher makes recommendations for improvement and suggestions for further studies as follows:

5.5.1 Recommendations for Improvement

5.5.1.1 MPESA innovation and Safaricom’s Competitive Advantage

In order to consolidate its competitive advantage through the MPESA innovation to positively impact on profitability, the company should increase its market power in the financial sector by offering incentives to member-based institutions that disburse their cash benefits and such other transactions in bulk to individual accounts by developing a function that rides on the concept of bulk messaging.

5.5.1.2 Product attributes that make MPESA innovation attractive to customers

In order to increase the popularity of other MPESA features and functionalities such as paying bills and buying goods using MPESA, Safaricom should collaborate with high-traffic retail outlets such as Nakumatt and institutions such as schools to come up with a loyalty program similar to the Bonga Points loyalty scheme. This would help lure
customers to pay goods using MPESA instead of carrying cash or making deposits at the bank. In addition, it could increase the value of Bonga Points earned on airtime bought through MPESA to motivate customers to buy electronic airtime rather than the printed airtime. This way, Safaricom would cut production costs and increase its profit margin on the MPESA innovation as well as being eco-efficient.

5.5.3 Benefits of MPESA innovation and Safaricom’s competitive advantage
While Safaricom enjoys a high rating on all the dimensions of customer experiences with the MPESA innovation, it can further enhance the attractiveness of the service by aggressively marketing services such as M-shwari. This can be achieved by embedding a promotion message that accompanies every MPESA transaction code.

5.5.2 Recommendations for Further Studies
In retrospect, like any other research, this study was not without its limitation. One limitation worth mention is that data was not collected from customers of Safaricom’s competitors. Therefore, a research on the usage of mobile money transfer services of Safaricom’s competitors could be conducted for comparison. Also further research is needed in products such as M-Shwari, M-Soko, M-Ledger, buying airtime and saving money, among other products of MPESA. However, this research forms a stepping stone for further studies in this area.
REFERENCES


APPENDICES

Appendix I: Introduction Letter

Charles Arunda

United States International University

P.O. Box 14634-00800

Nairobi

Dear Respondent,

Re: Driving Competitive Advantage through Innovation: A Case of MPESA

I am carrying out a research on the topic: “Driving Competitive Advantage through Innovation: A Case of MPESA”. This is in partial fulfilment of the requirement of the Masters of Business Administration (MBA) degree program at the United States International University. This is an academic research and confidentiality is strictly emphasized. Kindly spare some time to complete the questionnaire attached.

Thank you in advance,

Yours sincerely,

Charles Arunda

(0721 103 047)
Appendix II: Questionnaire to MPESA agents

I am carrying out a research on Driving Competitive Advantage of Safaricom through innovation-A Case of MPESA. Please take a few minutes to answer the following questions. The information you provide is confidential and the data collected will only be used for purposes of statistical research.

SECTION 1: DEMOGRAPHIC INFORMATION

1. Gender
   Male ( ) Female ( )

2. What is your age bracket?
   18-28 ( ) 29-39 ( ) 40-50 ( ) above 51 years ( )

3. Level of education
   KCSE ( ) College diploma/certificate ( )
   Bachelor’s degree ( ) Masters’ degree ( )

SECTION 2: DRIVING COMPETITIVE ADVANTAGE THROUGH INNOVATION

4. Other than voice and messaging, which one of the following Safaricom services do you use always?
   MPESA ( ) Internet services ( ) Okoa Jahazi ( )
   Bonga Points ( ) Others ( )

5. Please rank the reason for your choice above in order of your level of agreement, where 5= Strongly Agree, 4= Agree, 3=Neutral, 2= Disagree and 1= Strongly Disagree

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<th>Reason (Benefits)</th>
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<th>3</th>
<th>4</th>
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<td>It is reliable</td>
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<td>It is easy to use</td>
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<td>It is affordable</td>
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<td>It is fast</td>
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<td>It is easily accessible</td>
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<td>It is convenient</td>
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<td>It is safe to use</td>
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6. How often do you use the MPESA as a service?

   Every day (   )  Once a week (   )
   At least once a month ( )  At least once in 3 months (   )  Once a year (   )

7. Please rank the following MPESA functions in order of your frequency of use.
   Where 1=mostly used, 2=moderately used, 3=often used, 4=rarely used, 5=not used

<table>
<thead>
<tr>
<th>Service</th>
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<td>Paying bills</td>
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<td>Buying airtime</td>
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<td>Shopping</td>
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<td>Saving money</td>
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<tr>
<td>Purchasing internet bundles</td>
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</table>

8. In terms of accessibility to MPESA agents, to what extent are MPESA agents available to serve customers?

   Very Great Extent (   )  Great Extent (   )
   Moderate Extent (   )  Little Extent (   )
   No Extent (   )

9. Please rank your experience when using MPESA as a service, where 1=Poor, 2=Fair, 3=Good, 4=Very good 5=Excellent

<table>
<thead>
<tr>
<th>Factors</th>
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<tr>
<td>Reliability</td>
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<td>Efficiency</td>
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<td>Affordability e.g. cost of transaction</td>
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<td>Attractiveness</td>
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<td>User friendly</td>
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<td>Convenience</td>
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10. In your opinion, to what extent would you agree or disagree that MPESA has earned Safaricom competitive advantage in the market?

   Strongly disagree ( )
   Disagree ( )
   Neutral ( )
   Agree ( )
   Strongly agree ( )

11. To what extent would you say that MPESA services have been successful in generating market share for Safaricom?

   Very Great Extent ( )
   Great Extent ( )
   Moderate Extent ( )
   Little Extent ( )
   No Extent ( )

12. To what extent do the following features of MPESA make it a successful brand?

   Where 5= very great extent, 4= great extent, 3=moderate extent, 2= little extent
   1= no extent

<table>
<thead>
<tr>
<th>Features</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed of sending and receiving money</td>
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<tr>
<td>Security of money</td>
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<tr>
<td>Accessibility of the service</td>
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<tr>
<td>Ease of use</td>
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<tr>
<td>Affordability</td>
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<td></td>
</tr>
<tr>
<td>Creativity</td>
<td></td>
<td></td>
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<tr>
<td>Popularity</td>
<td></td>
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<tr>
<td>Simplicity of registration and service process</td>
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</tbody>
</table>
Appendix III Questionnaire to Safaricom Staff

I am carrying out a research on Driving Competitive Advantage of Safaricom Through innovation - A Case of MPESA. Please take a few minutes to answer the following questions. The information you provide is confidential and the data collected will only be used for purposes of statistical research.

SECTION 1: DEMOGRAPHIC INFORMATION
1. Gender
   Male (  )  Female (  )

2. What is your age bracket?
   18-28 (  )  29-39 (  )
   40-50 (  )  above 51 years (  )

3. Level of education
   KCSE (  )  College diploma/certificate (  )
   Bachelor’s degree (  )  Masters’ degree (  )

4. Which category best describes your position within your organization?
   Entry-level (  )  Middle-level (  )
   Management (  )  Supervisory (  )

5. How many years have you worked in Safaricom?
   0-1 (  )  2-5 (  )
   6-9 (  )  10 or more (  )

SECTION 2: DRIVING COMPETITIVE ADVANTAGE THROUGH INNOVATION
6. On a scale of 1 to 5 where 1=very poor and 5=excellent, what is your evaluation of MPESA innovation in terms of the following dimensions:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Speed</td>
<td></td>
<td></td>
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<tr>
<td>Simplicity/user friendly</td>
<td></td>
<td></td>
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<tr>
<td>Affordability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uniqueness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed</td>
<td></td>
<td></td>
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<tr>
<td>Other</td>
<td></td>
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</tbody>
</table>
7. In terms of revenues collected from the following Safaricom products, please rate their profitability extents; where 1 = No Extent  2 = Little Extent  3. =Moderate Extent  4 = Great Extent  5= Very Great Extent

<table>
<thead>
<tr>
<th>Safaricom products (innovations)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATA Bundles/ internet services</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>MPESA</td>
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<tr>
<td>MSHWARI</td>
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<tr>
<td>Voice calls and text messages</td>
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</tbody>
</table>

8. Consider MPESA as a product, what are the factors that necessitated the spread of MPESA in Kenya?

<table>
<thead>
<tr>
<th>Ease of Operation</th>
<th>Not at all</th>
<th>Low Extent</th>
<th>Moderate</th>
<th>Great Extent</th>
<th>Very Great</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordability</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Accessibility</td>
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<tr>
<td>Efficiency</td>
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<tr>
<td>Safety</td>
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</tbody>
</table>

9. Please rank the extent to which the following MPESA services are used by Safaricom customers; where 1=not used, 2= rarely used, 3= moderately used, 4=often used, 5= mostly not used

<table>
<thead>
<tr>
<th>Service/Product</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buying airtime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send and withdraw cash</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Pay bills</td>
<td></td>
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<tr>
<td>Buy data bundles</td>
<td></td>
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<tr>
<td>Mshwari</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buy goods</td>
<td></td>
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</tr>
</tbody>
</table>