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**FACTORS INFLUENCING KENYAN
TELECOMMUNICATION OPERATOR LOYALTY TO
INTERNATIONAL SUPPLIERS OF WIRELESS EQUIPMENT**

By:

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**A MANAGEMENT RESEARCH PROJECT REPORT
SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS OF THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION (MBA)**

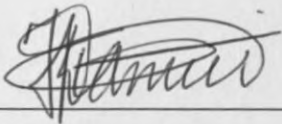
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DECLARATION

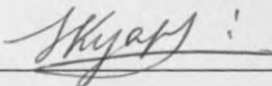
This research project is my original work and has not been presented for award of degree in any other university.

Signed 

Date 12/10/2007

John Kipchumba Tanui

This research project has been submitted for examination with my approval as the University Supervisor.

Signed 

Date 12/10/2007

Dr. John Yabs

DEDICATION

This research project report is dedicated to my wife Winnie and daughter Candence Chebet, the most special people in my life.

I am also grateful to my friend Eugene Ikeno for always being available for consultation and giving suggestions. Many thanks to my supervisor and Catherine Waireri for her guidance for her contributions and encouragement. I thank my pastor Rev. O. Nyong'o for his encouragement, spiritual support and always reminding me of importance of reading. I thank my few closest friends Marko Simi and Joyce Chebet for their friendship and support.

A special appreciation goes to my employer Wamba Technologies for funding my MBA studies and giving me a chance to offer my skills in working life through continuous learning.

I am deeply grateful to my family, above all my wife Winnie and daughter Candence for their encouragement, support and prayers, especially when I had to work late at night. A special appreciation goes to my parents for giving all to me that I got the best education and grace of the love of God.

Finally I thank God for his divine favour and grace and for the gift and joy of life.

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A special appreciation goes to my employer Huawei Technologies for funding my MBA program and giving me a chance to offer my skills in enriching life through communication.

I am deeply grateful to my family, above all my wife Winnie and daughter Chebet for their encouragement, support and patience, especially when I had to work late at night. A special appreciation goes to my parents for giving all to see that I get the best education and grow in the fear of God.

Finally I thank God for his divine favour and grace and for the gift and joy of life.

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ABBREVIATIONS

- CDMA - Code Division Multiple Access
- CCK - Communication Commission of Kenya
- Gbps – Giga bytes per Second (Unit of data volume)
- GSM - Global System for Mobile
- ICT – Information and Communication Technology
- IN - Intelligent Network
- ITU - International Telecommunications Union
- SNO - Second National Operator
- TDMA - Time Division Multiple Access
- IT – Information Technology

ABSTRACT

The objective of the study was to identify the factors that influence wireless telecom operators' loyalty and to identify the effect of switching barrier on customer loyalty in the telecommunications equipment supply industry.

To satisfy the research objectives the author used a descriptive research design comprising a census survey of wireless telecommunication operators in Kenya.

Primary data was collected using semi-structured questionnaires. The questionnaire was administered through telephone survey, face to face interviews, or through email depending on the interviewee. The target respondents were the wireless telecoms operator companies' staff and managers. The data analysis was done using mean scores, percentages and standard deviations. Where appropriate, the study results are presented in pie charts and graphs.

The results of the study showed that the leading factors of selecting a vendor are reliability of equipments, technical support and low cost. The study found out that there is high satisfaction in most vendors' operations and maintenance system (89%). 85% of the respondents were also satisfied with the performance of the equipments. Despite the willingness of the operators to switch vendors, there are still barriers that make this difficult. The cost of replacing equipments (37%) was considered to be prohibitive.

The study recommends that the international suppliers of wireless telecom equipments should focus on customer satisfaction. This should be through provision of good product and service quality, and also maintaining reasonable costs of the equipment and services. The study further recommends that customer loyalty should be as a result of product benefits and not as a result of the switching costs which may be prohibitive. The study therefore recommends that competition among vendors should be encouraged to ensure that delivery of high quality services is maintained. The study went further to recommend that switching barriers should be brought down so as to encourage competition in the industry.

CHAPTER ONE

INTRODUCTION

1.1 Customer Loyalty Concept

Customer loyalty is a company's ability to retain satisfied customers, other studies suggest that customer loyalty provides the foundation of a company's sustained competitive edge, and that developing and increasing customer loyalty is a crucial factor in companies' growth and performance (Lee & Cunningham, 2001; Reichheld, 1996). The loyalty business model is a business model used in strategic management in which company resources are employed so as to increase the loyalty of customers and other stakeholders in the expectation that corporate objectives will be met or surpassed, a loyal customer makes a repeat purchase and recommends other customers out of his own will.

According to Buchanan and Gilles (1990), the increased profitability associated with customer retention efforts occurs because the cost of acquisition occurs only at the beginning of a relationship. This and other theory of customer loyalty suggest that a business that retains its customers for longer results in more revenue at lower cost than one that is constantly paying to acquire new customers. Factors that influence customer's loyalty are however not definite but will depends on the industry and the specific customer and this research seeks to identify such factors.

Getting a customer's loyalty is not a trick that can be quickly learned and performed, creating loyal customers depends fundamentally on following good and sound business and marketing practices right across the business all the time. Some of the factors that are presumed to greatly affect a vendors' ability to build loyal customer base includes having products that are highly differentiated from those of the competition, higher-end products where price is not the primary buying factor, products with a high service component and multiple products for the same customer among other.

Loyalty differs in repertoire and subscription markets (Sharp, Wright and Goodhardt, 2002). In repertoire markets (e.g., consumer goods), purchases spread over a repertoire of brands and consumers regularly switch brands. Loyalty is polygamous and often operationalised as share of category (e.g., Cunningham, 1956; East, Harris and Lomax, 2000). In contrast, customers in subscription markets (e.g., telecommunications and utilities) typically exhibit sole-loyalty to one brand and often over long period. Switching thus entails stopping using a brand totally and allocating purchases entirely to a new brand (e.g., Sharp, Wright and Goodhardt, 2002).

The significance of customer loyalty is that it closely relates to the company's continued survival, and to strong future growth. Hence, for a company to maintain a stable profit level when the market is mature, and competition is fierce, a defensive strategy which strives to retain existing customers is more important than an aggressive one, which expands the size of the overall market by inducing potential customers (Fornell, 1992; Ahmad & Buttle, 2002).

1.2 Telecommunication and Loyalty

The central driving force behind global telecommunications is the desire of individuals and organizations to keep in touch and to be informed. The transmission of both voice and data is both pleasurable and profitable. There is increase connectivity globally for both individual and cooperate use. One can now transmit any information from the home, at the office, and even as while driving or flying. There is however shift from basic to enhanced services, from analog to digital networks, from wire line to wireless equipment, from regulation to liberalization, and hence from monopolies to a wide array of competition and cooperation among telecom vendors.

Communications Commission of Kenya (2007) lists the following operators in Kenya as operators with a wireless network.

1. Safaricom Limited
2. Celtel Limited

3. Telkom Kenya Limited (TKL)
4. Flashcom Limited
5. Popote Wireless

Among the international telecom operators who have operated in Kenya include Vodafone PLC of UK and Vivendi Telecom of France who have made a successful entry and operation in the Kenyan market through joint partnership with local firms, Safaricom and Kencell respectively. However, in 2003 Vivendi Telecom pulled out of the cellular telephony market. Sameer Group, the majority shareholders in Kencell negotiated with several firms, including MSI of Holland, for the purchase of Vivendi's shares which were finally purchased by Celtel International and the name changed to Celtel. The involvement of the international partners in the local operator's business has great influence in the equipment supply market, the foreign partner in most cases is responsible for finance and technology which is key in purchase of telecom equipment.

Telecommunications equipment consists of a vast array of telephone network and related apparatus used by the operators in their own facilities and marketed to households and organizations. The two major categories are switching and transmission equipment which is basically a hardware infrastructure and subscriber or customer premises equipment. A further distinction can be made between wire line and wireless equipment. The heart of wire line systems is the central office switching equipment, which routes messages between senders and receivers. Analog switching has given way to digital networks, resulting in better system performance in terms of higher speeds and more reliability. The net result is integration of voice and data communications and augmentation of subscribers' telephone sets with computer power. This is the market for which the international telecom equipment vendors are competing

Global Telecom Market

The global telecom market, according to the International Telecommunications Union (ITU), was worth USD1.4 trillion in 2003, up seven percent on 2002 figures. Telecoms services constituted 78 percent of revenue while telecoms equipment accounted for the

balance of 22 percent. 2004 saw a steady 7.1 percent increase in the worth of the communications industry to an estimated USD1.5 trillion.

Global System for Mobile (GSM) is the leading technology of wireless/mobile technologies, giving it a 76 percent share of the subscriber base, followed by Code Division Multiple Access (CDMA) with 12 percent, Time Division Multiple Access (TDMA) with 7 percent and PDC with 4 percent. In March 2004, 544 GSM networks in 183 countries were operational. The worlds leading equipment vendors include the following Motorola, Nokia, Siemens, Alcatel, Avaya, Cisco Systems, Ericsson, Fujitsu, Huawei Technology, Intel, Lucent Technologies, NEC, Nortel, Samsung, ZTE and UT Starcom

Consolidation of Telecom equipment vendors

The consolidation is largely attributed to the diminishing telecom market growth rates. The recent buildup of wireless communications and the Internet has slowed, so it has become difficult for equipment vendors to maintain historic revenue and profit growth rates.

The emergence of new suppliers has also put pressure on product pricing. Chinese networking vendors such as Huawei Technologies and ZTE, for instance, have been experiencing some success by offering low-priced systems. The end result is that network equipment pricing has been dropping. The merged companies expect that they will reduce their operating expenses by consolidating duplicate functions and reap from the benefits of economies of scale. Another factor for consolidation is the number of telecommunications carriers has been decreasing. Longstanding industry leaders such as and MCI have merged with or been acquired by other companies, thus the number of potential telecommunications customers has dwindled.

In the global telecom equipment market consolidation of equipment suppliers in year 2006 left three competitors as the market leaders and dominants. The merger of Alcatel and Lucent led to formation of very competitive telecom equipment vendor. Alcatel/Lucent is the leader in wire line products as well as CDMA wireless. Ericsson

currently is the leader in the overall wireless infrastructure market and also maintains strong positions in network services and wire line IMS. The joint venture between Nokia's networks business and Siemens' carrier business forms a meaningful number two competitor to Ericsson. Nortel possesses strong market positions in optical equipment

Telecommunication in Africa

Africa in general is still characterized by low telephone penetration, slow network growth, low key systems, suboptimal reinvestment of profits, high pricing, poorly dimensioned intercity telephone links and widely varying national network infrastructures.

In countries such as Mauritius and Madagascar, the prosperous islands that enjoy high tourism, value-added services are an essential part of the infrastructure. In comparison with other areas of the world, the sub-Saharan region, which excludes the Republic of South Africa and the North African countries of Algeria, Egypt, Morocco and Tunisia is characterized by chronic under funding for equipment. Lack of skilled labor and the absence of strategic planning and poor corporate management has contributed to the low state of telecommunications.

Telecom equipment supply market in Kenya

In Kenya the Telecommunication sector falls under the ministry of transport and communication, the mobile telephone services in Kenya started in 1992 with the analogue system that was widely known as the Extended Total Access Communication System (ETACS), which was commercially launched in 1993. During this entry period the services were so expensive that it was only a few who could afford them. The cost of owning a mobile handset was as high as Kshs.250, 000. This resulted in a marginal mobile subscriber growth of less than 20,000 for a period of seven years from 1993 - 1999 (Communications Commission of Kenya market Information 2005).

Improved use of wireless services

As the consumers' use of wireless telecommunication devices and services increased rapidly the use of wireless phones which were initially used for voice services only started to get new uses such as data services, text messaging, internet access, gaming, contact, and payment services.

The Kenyan wireless telecommunication services industry is entering a new transition period and this has been brought about by the fast market growth in the wireless telecommunications industry. The number of players in this industry continues to grow, in October 2006 the licensing body, Communication Commission of Kenya (CCK) named the Second National Operator (SNO) and this operator who will compete with both fixed and mobile operators will be issued with a unified license. The other existing telecomm operators will also be issued with a unified license as they apply. The established operators in the wireless industry Safaricom and Celtel are thus shifting their strategic focus away from only attracting new customers to also retaining existing customers through the promotion of customer loyalty and provision of new services. The new entrants or new services providers are focused in getting new users and getting part of the market, this has led to strong competition which can be seen in price wars, promotions, special offers and advertisement.

The stiff competition in Kenya's mobile telephone industry is set for higher stakes with the announcement by Safaricom that it would be launching a regional network soon. In reaction to Celtel's move Safaricom entered into discussion with Uganda's MTN and Tanzania's Vodacom, in a bid to establish a linkage for a regional network (East African Business Week (Kampala), October 30, 2006) and February 2006 the three of east africa's leading cellular phone operators - kenya's safaricom, uganda's mtn and tanzania's vodacom launched a seamless network to counter rival celtel's borderless network (The East African (Nairobi), February 6, 2007)

1.3 Statement of the Problem

In the Kenya's wireless telecommunication industry the number of registered services providers using wireless technology are increasing. There is increase in competition amongst the equipment suppliers each adopting different and sometimes similar strategies to enter and get a large market share. This has been witness by the fierce fight in tendering process and project delivery, mass cross over of telecom professionals from one vendor to another has been witnessed and is an indicator of the competition amongst the vendors.

For the equipment vendor it has been a tough battle to enter the markets, entry of Kenya telecom market is riddled with enormous challenges including political patronage, lack of qualified telecom professionals and the low technical strength of the operators. To secure entry of a vendors equipment to an operators network is not the end of challenges in the Kenyan market but rather the beginning, Siemens initially dominated Safaricom and Alcatel dominated Celtel but with time it changed. Huawei entered Safaricom to provide intelligent network (IN) services replacing the Siemens nodes and also provided optical network equipment. Ericson has recently entered Celtel replacing Alcatel and shrinking their market share. These events seem to aggravate the situation but indicate a gap between the vendors and the operators. The key question to the vendors in this industry at the moment is how to get, increase or sustain the market share in the Kenya wireless telecommunications industry. For this reason it is important to identify factors that influence the customer's satisfaction and loyalty.

This research will thus attempt to answer the question, what factors influence telecom operator's vendor selection and loyalty? What is the level of satisfaction of the telecom operator with their vendor? And what can influence a telecom operator to switch its vendor?

This study therefore aimed to identify the factors that influence Kenya's wireless telecommunication operators' loyalty to global telecom vendors.

1.4 Objective of the Study

The study focused on the wireless telecommunications services in Kenya particularly in application of Global System for Mobile (GSM) and Code Division Multiple Access (CDMA). The objective of the study was to:-

- a. Identify the factors that influence a wireless telecom operator's loyalty to a vendor
- b. Identify the effect of switching barrier on customer loyalty in the telecom equipment supply industry

1.5 Importance of Study

The results of the study would be of great importance to the Wireless operators, Wireless equipment suppliers/manufacturers, Policy makers, and ICT regulating bodies. This study would contribute to the understanding of customer loyalty. It would further reveal the effect of customer satisfaction and switching barrier on the customer loyalty. For a telecom vendor it would reveal in detail the variable of customer satisfaction and help in customer retention and increasing the market share. The equipment operators too would value the result of the study as it could assist vendor selection. The regulatory body CCK and government policy making bodies would have clear understanding on policies that need to be put in place to guide the industry as it grows so as to meet the government objective of providing affordable and reliable communication with fast roll out by use of wireless technology. Other would be beneficiaries from the study finding include, Communications Commission of Kenya (CCK), Telecommunications operators and vendors, Higher education institutions, Internet service providers, Development partners, IT associations and societies, Computer vendors, ICT users, ICT equipment manufacturers and IT Parliamentary Committee among others.

The finding will directly influence the development of strategies that result in rapid ICT development, provide a framework to aid in coordinating all bodies in the ICT area, coordinate the setting of ICT standards and form basis to sensitize stakeholders on the role

of customer satisfaction and switching barrier on Customer loyalty. Last but not least was presented to the University of Nairobi as a partial fulfillment of the requirement of the degree of Master of Business Administration (MBA).

INTRODUCTION

The first objective of this review is to examine literature on the topic of study. It is a review of switching barrier, switching and their effect on customer loyalty. The main aim is to analyze the conceptual relationship among variables affecting customer loyalty. It is on the relationship derived that services quality enhanced customer satisfaction and switching and influence the switching barrier. Both switching barrier and the relationship influence customer loyalty.

The paper has reviewed the Kenya's telecom policy and global trends that has been adopted as the regulatory regulatory model. There is limited to almost no local supply of telecom equipment in Kenya except through agents which was envisaged in the early days of telecom. In local and international market in the past three decades, Alcatel and Ericsson were the major players in wireless equipment supply but the main players from China, Huawei and Ericsson have taken over. There is a competition in the market in terms of number of equipment capacity, supply to cellular operators, a contract of three operators over a period of time, contract of up to 5 years with supplier. The operators are outsourcing services including maintenance to the suppliers. The relationship between the supplier and the operator is changing in the telecom market. There is a growing dissatisfaction and loyalty is thus very important for the industry for most of the wireless operators at the moment where competition is very high.

The paper has reviewed the global trends in wireless and operators relationship in Kenya and its effect on customer loyalty.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter is consisting of review of existing literature on the topic of study. It focuses on customer satisfaction, barrier switching and their effect on customer loyalty. The model to be used to analyze the conceptual relationship among variables affecting customer loyalty is based on the relationship derived that services quality influences customer satisfaction and that switching cost influence the switching barrier. Both switching barrier and the customer satisfaction influences customer loyalty.

Following the reforms in the Kenya's telecom policy and global trends there has been consolidation in the equipment supplier market. There is limited or almost no local supply capacity of telecom equipment in Kenya except through agency which was stronger in the past but has now diminish due to local and international trends. In the past three suppliers Siemens, Alcatel and Ericsson were the major players in wireless equipment supply but recently two players from China Huawei and ZTE have joined. Siemens is a dominant in the Kenyan market in terms of number of equipment capacity. Supply to cellular operators revolves around a frame agreement over a medium term arrangement of up to 5 years with one supplier. The operators are outsourcing services including maintenance to the supplier to the point that the distinction between the supplier and the operator is blurring in day-to-day operations. Issue of customer satisfaction and loyalty is thus very important for business continuity for each of the vendors especially at the moment where competition is on record high.

The table below indicates the current main supplier and operator relationship in Kenya wireless equipment industry.

Supplier	Operator
Siemens	Safaricom
Ericsson	Celtel
Alcatel	Celtel
Huawei	TKL, Popote (Emcom)
ZTE	TKL, Flashcom
Harris	Safaricom, TKL

Local entrepreneurs who in the past acted as agents of some international vendors have no or little entry point into this market and opportunities are dwindling fast. The impact is a reducing access to the supply market for local entrepreneurs and consolidation of the market to few international suppliers.

According to the CCK Annual Report of 2003/2004, the overall Government objective for the sector is to optimize its contribution to the development of the Kenyan economy as a whole by ensuring the availability of efficient, reliable and affordable communication services throughout the country. According to this report the government has set the national telecommunications targets as follows:

1. Improve the tele-density in rural areas from the current 0.16 lines to 5 lines per 100 inhabitants by the year 2015;
2. Improve the tele-density in urban areas to 20 lines per 100 inhabitants by the year 2015;
3. To increase the number of mobile subscribers to 10 million by the year 2015;
4. Expand the current international internet bandwidth to 1 Gbps by the year 2015;
5. Ensure that all secondary schools and tertiary institutions have internet access by the year 2007

These targets translate to installation of 1.5 million fixed lines in rural areas and 2.4 million fixed lines in urban areas respectively from the year 2004. At an estimated average cost of about US \$ 1,500 per line, the total investment will amount to about US\$5.85 billion. This means that, on average, the annual requirements will be about US\$390 million. This is a good market size to attract great interest for the international vendors.

The fixed line services registered a downward subscriber growth trend of 8.9% in 2004 and a further declined by a further 6.8 % from 299,225 in June 2004 to 278,867 by June 2005. This downturn was due to termination of subscribers, who had given up service but were listed as subscribers under the “Temporary out of Service” status for a long period. The other possible reason can be attributed to the availability of mobile services, which offer a more convenient and readily available substitute to fixed line services (Communications Commission of Kenya Annual Report 2004/2005). To study the relationship of factors that influence customer loyalty and relationship of customer satisfaction, switching barrier and customer loyalty to international telecom vendors the model used by M.-K. Kim et al. Telecommunications Policy 28 (2004) will be used. The conceptual frame work of this model is shown below.

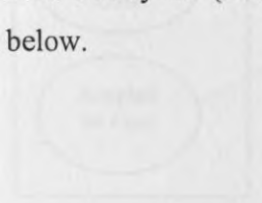
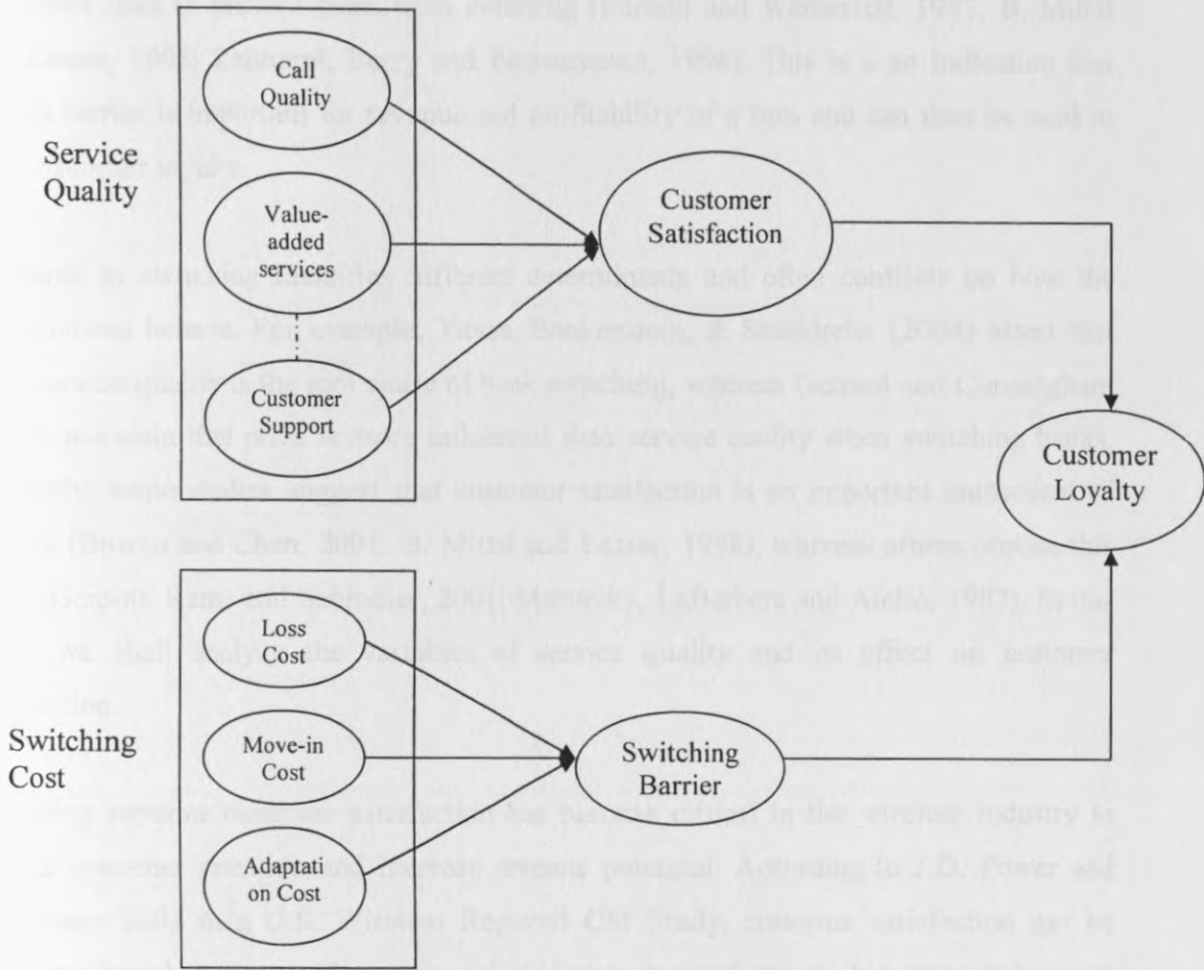


Figure 1: Conceptual framework



Source: M.-K. Kim et al., Telecommunications Policy 28 (2004)

Managerial and academic literature extols the benefits of preventing customers from switching service providers (Ganesh, Arnold and Reynolds, 2000; Keaveney and Parthasarathy, 2001; Reichheld, 1996). These studies share a key theme that switching reduces revenue and profit. Showing that reducing customer defections by 5% increased profit by 75% for credit card companies, Reichheld and Sasser (1990, p. 105) conclude that defections have a stronger impact on profitability than scale, market share, unit costs, and many other factors usually associated with competitive advantages. For continuous utilities such as mobile telecommunications, switching is particularly a serious problem. As these firms spread high fixed costs over an installed customer base, departing customers lower

future revenue streams, but not fixed costs. Furthermore, it costs more to acquire new customers than to prevent them from defecting (Fornell and Wernerfelt, 1987; B. Mittal and Lassar, 1998; Zeithaml, Berry and Parasuraman, 1996). This is an indication that switch barrier is important for revenue and profitability of a firm and can thus be used to gain customer loyalty.

Research in switching identifies different determinants and often conflicts on how the determinants behave. For example, Yavas, Benkenstein, & Stuhldreier (2004) assert that poor service quality is the root cause of bank switching, whereas Gerrard and Cunningham (2004) maintain that price is more influential than service quality when switching banks. Similarly, some studies suggest that customer satisfaction is an important antecedent of loyalty (Bowen and Chen, 2001; B. Mittal and Lassar, 1998), whereas others oppose this view (Gerpott, Rams and Schindler, 2001; Mazursky, LaBarbera and Aiello, 1987). In this study we shall analyze the variables of service quality and its effect on customer satisfaction.

Providing superior customer satisfaction has become critical in the wireless industry to bolster customer retention and increase revenue potential. According to J.D. Power and Associates 2003 in a U.S. Wireless Regional CSI Study, customer satisfaction can be measured based on 42 specific service-related issues grouped into six key areas that impact overall carrier performance. These are (in order of importance): call performance and reliability (26%); customer service (17%); service plan options (17%); brand image (14%); cost of service (14%); and billing (12%). For the Kenyan market vendors will low cost and excellent local support is presumed to take precedence and this study will seek to examine it. A vendors image is also considered to play a significant role for the operator during vendor selection.

Several studies document that the average company loses half its customers every five years and that it costs five to ten times as much to obtain a new customer as to keep an existing one. Businesses can thus improve their customer retention by developing and managing customer relationships with aim of achieving customer loyalty.

2.2 Review on Elements of Conceptual Framework

2.2.1 Customer loyalty

Approaches to the study of customer loyalty fall into three broad categories the behavioural approach, the attitudinal approach and the integrated approach (Oh, 1995) The behavioural approach examines the customer's continuity of past purchases, then measures customer loyalty by rate of purchase, frequency of purchase, and possibility of purchase. The attitude approach infers customer loyalty from psychological involvement, favouritism, and a sense of goodwill towards a particular product or service.

The integrated approach takes account of both behavioral and attitudinal variables, in order to create its own concept of customer loyalty. In this research the integrated theory of customer loyalty as our methodological framework is adopted. The concept of customer loyalty is understood as a combination of customers' favourable attitude and the behaviour of repurchase. Earlier studies of factors affecting customer loyalty usually set the focus on customer satisfaction and the switching barrier (e.g., Dick & Basu, 1994; Gerpott, Rams, & Schindler, 2001; Lee & Cunningham, 2001). Customers experiencing a high level of satisfaction are likely to remain with their existing providers and maintain their subscription. However, according to some research, customer satisfaction, while positively influencing customer loyalty, is not always a sufficient condition, and, in some cases, fails to produce the expected effect. Hence, these researchers suggest that it is necessary to analyse other potentially influential factors. It is in this context that the concept of the switching barrier was proposed (Jones, Mothersbaugh, & Betty, 2002). Further, it has been demonstrated that the switching barrier plays the role of an adjustment variable in the interrelationship between customer satisfaction and customer loyalty. In other words, when the level of customer satisfaction is identical, the level of customer loyalty can vary depending on the magnitude of the switching barrier (e.g., Colgate & Lang, 2001; Jones et al., 2002; Lee & Cunningham, 2001).

2.2.2 Customer satisfaction

Customer satisfaction generally means customer reaction to the state of fulfillment, and customer judgment of the fulfilled state (Oliver, 1997). In this paper, we borrow this definition of customer satisfaction. There are many benefits for a company from a high customer satisfaction level. It heightens customer loyalty and prevents customer churn, lowers customers' price sensitivity, reduces the costs of failed marketing and of new customer creation, reduces operating costs due to customer number increases, improves the effectiveness of advertising, and enhances business reputation (Fornell, 1992). The main factor determining customer satisfaction is the customers' own perceptions of service quality (Zeithamal & Bitner, 1996). In this study, we shall define service quality as the customers' satisfaction or dissatisfaction formed by their experience of purchase and use of the service (Parasuraman, Zeithamal, & Berry, 1988). In earlier studies on mobile telecommunication services, service quality has been measured by call quality, pricing structure, mobile devices, value-added services, convenience in procedures, and customer support (e.g., Kim, 2000; Gerpott et al., 2001; Lee, Lee, & Freick, 2001).

Many factors cause consumers to stay with their existing provider or switch to competitors. Most studies, as well as conventional wisdom, suggest that improving service quality satisfies customers and thus retains their loyalty (Keaveney, 2001; Zeithaml, Berry and Parasuraman, 1996). Conversely, customers with negative service experiences switch or consider switching to another service provider (Jones and Sasser, 1995; Lewis and Bingham, 1991). Determinants, however, go beyond service quality and customer satisfaction.

Price stands out as another overwhelming reason for switching, for example, in insurance (Roos, Edvardsson and Gustafsson, 2004) and banking (Gerrard and Cunningham, 2004). Brand trust leads to commitment, which then attenuates customers' propensity to switch (Moorman, Zaltman and Deshpandé, 1992; Morgan and Hunt, 1994). Yet consumers may switch brands or service providers for behavioural reasons such as variety seeking (Givon, 1984), impulse (Stern, 1962), and situational context (Skoglan and Siguaw, 2004).

Switching costs are also important switching determinants (Jones, Mothersbaugh and Beatty, 2000; Sharma and Patterson, 2000). For example, Burnham, Frels and Mahajan's (2003) cross-industry findings indicate that switching costs, such as monetary loss and uncertainties with the new service provider, deter switching despite dissatisfaction.

2.2.3 The switching barrier

Switching barriers or switching costs is used to describe any impediment to a customer's changing of suppliers. In many markets, consumers are forced to incur costs when switching from one supplier to another. These costs are called switching costs and can come in many different shapes Thompson and Cats-Baril (2002) defines switching costs as "the costs associated with switching supplier", while Farrell and Klemperer (2002) write that "a consumer faces a switching cost between sellers when an investment specific to his current seller must be duplicated for a new seller". As these definitions indicate, switching costs can arise for several different reasons. Examples of switching costs include the effort needed to inform friends and relatives about a new telephone number after an operator switch, costs related to training of staff on installation, operations and maintenance of a new equipment from a different vendor and costs in terms of time lost due to the paperwork necessary when switching to a new electricity provider. Types of switching costs include: exit fees, search costs, learning costs, cognitive effort, emotional costs, equipment costs, installation and start-up costs, financial risk, psychological risk, and social risk

The switching barrier refers to the difficulty of switching to another provider that is encountered by a customer who is dissatisfied with the existing service, or to the financial, social and psychological burden felt by a customer when switching to a new carrier (Fornell, 1992). Therefore, the higher the switching barrier, the more a customer is forced to remain with his or her existing vendor. From the above and for the purpose of this study the switching barrier is made up of switching cost, the attractiveness of alternatives, and interpersonal relationships.

Switching cost means the cost incurred when switching, including time, money and psychological cost (Dick & Basu, 1994), and is defined as perceived risk, insofar as there are potential losses perceived by customers when switching carriers, such as losses of a financial, performance-related, social, psychological, and safety-related nature (Murray, 1991).

For the purpose of this study, taking into account both findings from earlier studies, and Specificities pertaining to wireless telecommunication services, we have defined switching cost as loss cost, adaptation cost, and move-in cost. Loss cost refers to the perception of loss in social status or performance, when cancelling a service contract with an existing vendor, adaptation cost refers to the perceived cost of adaptation, such as search cost and learning cost; and move-in cost refers to the economic cost involved in switching to a new vendor, such as the purchase of a new device and the license fee.

Attractiveness of alternatives means the reputation, image and service quality of the replacing vendor, which are expected to be superior or more suitable than those of the existing vendor. Attractiveness of alternative vendors is intimately linked to service differentiation and industrial organization. If a company offers differentiated services that are difficult for a competitor to match or to provide with equivalents, or if few alternative competitors exist in the market, customers tend to remain with the existing vendor (Bendapudi & Berry, 1997).

The psychological, emotional, and social costs of switching are often overlooked or underestimated by both buyers and sellers. Gourville (2003) lists several rules of thumb to help understand why many consumers do not immediately switch from a product they currently use to the latest innovative improved product, even if the cost difference is minimal.

People are sensitive to the relative advantages and disadvantages of any change from the status quo. So a new, improved product, no matter how great it is on its own merit, must be significantly better than what the consumer is currently using before he will switch.

Different people have different reference points. For example, a hi-tech traveling salesman would evaluate the advantages of a cellular over a landline phone from a much different perspective than a home-bound, fixed-income retiree. People exhibit loss aversion. The pain of giving up a benefit is much more significant than the pleasure of gaining that benefit.

The Switching costs thus affect competition. When a consumer faces switching costs, the rational consumer will not switch to the supplier offering the lowest price if the switching costs in terms of monetary cost, effort, time, uncertainty, and other reasons, outweigh the price differential between the two suppliers. If this happens, the consumer is said to be locked-in to the supplier. If a supplier manages to lock-in consumers, the supplier can raise prices to a certain point without fear of losing customers because the additional effects of lock-in (time, effort, etc.) prevent the consumer from switching. This research aims to confirm if higher switching cost can result in higher levels of loyalty and retention of Kenyan wireless Telecom operators.

2.3 The relationship between customer satisfaction, the switching barrier and customer loyalty

Generally customer satisfaction and customer loyalty are very closely related. Customer satisfaction functions as an antecedent of customer loyalty. It prevents customer churn and consolidates retention, thereby constituting an important cause of customer loyalty (Fornell, 1992; Reichheld, 1996). Further, while affected by market structure, customer type and customers' individual ways of solving problems, the connection between customer satisfaction and customer loyalty is not always a linear relation, although it constitutes a positive relationship (Fornell, 1992; Soderlund, 1998). And when customers switch the service provider, they tend to perceive the burden of risks which becomes the switching barrier that influences customer loyalty.

To measure the factors that influence customer loyalty as per the foregoing review the variables are defined it as follows:

RESEARCH METHODOLOGY

1.1.1. Design

Quantitative design was used. This made possible the measurement of variables and testing the relationships among the variables. Cross-sectional design method was adopted as the hallmark of the type of the study.

1.1.2. Sites

Locations in this survey was five different operators in Kenya with a view to capturing wide coverage in the main service products. They were Safaricom, Celtel, Telkom, People's internet (Telecom Ltd) and Ushahidi.

Sampling method was used. This involved using all the five different operators in Kenya and also using the same sampling technique across the different operators. A random selection of the sites was made. The sample size was determined using the formula for determining sample size. They were two hundred respondents for each operator. The purposive and convenience sampling method was used. A total sample of 1000 was obtained from the five operators and used for the analysis.

The data was available from operators and the participating commission of Kenya. The results are shown in the table below. The results was then summarized as follows:

CHAPTER THREE

RESEARCH METHODOLOGY

Research Design

Survey research design was used. This made possible the measurement of variables and examining the relationships among the variables. Cross-sectional design method was adopted because of the limitation of the time of the study.

Population

The population for this survey was five telecom operators in Kenya with a wireless network providing voice service as the main service product. They were Safaricom, Celtel, Telkom Kenya, Popote wireless (Emcomm Ltd) and Flashcom

Sampling

Quota sampling method was used. This ensured that all the five wireless operators in Kenya were represented by using proportionate equipment network capacity of each operator, a consideration of the subscriber capacity and the stage of growth of the operator's service was considered. There were two important departments for each operator interviewed, the planning and implementation department and operations and Maintenance department. A total sample of 50 was considered convenient and sufficient to study the population.

From the data available from operators and the communication commission of Kenya the network capacity is as shown in the table below. The sample was thus constituted as follows

Table1: Network capacity

	Wireless Network capacity share in %	Number Surveyed	Remarks
Safaricom	54	25	National operator
Celstel	34	15	National operator
Telkom Kenya	5	6	New CDMA network and is the oldest national operator
Flashcom	0.7	2	Only in Nairobi
Popote Wireless	0.3	2	Only in Nairobi

The selection of respondents was based on the operator's organizational structure whereby the most senior officer in the department were responsible for responding to the questionnaire and where not available the immediate next were selected. Middle level to senior level managers of respective departments/products and teams were selected.

Data Collection Method

Data was collected through questionnaire. The questionnaire targeted Chief executives, senior managers and engineers of the operator. Key departments of project planning, engineering and operations and maintenance were targeted.

Table 2: Operationalization of operator loyalty to suppliers of wireless equipments.

Variable		Definition	Item to be measured
Product/ Service quality	Call quality	Call quality according to customer perception	Call clarity using the vendors equipment coverage
	Equipment cost/Pricing structure	Pricing and price schedule	Reasonability of equipment cost
			Availability of financing option
			Flexible payment method and schedule
			Reasonability of other cost such as spares, repair and maintenance service
	Equipment hardware and software	Equipment functionality and design	Quality of equipment and software
			Performance of the equipment
			Reliability of the equipment
			Ease and suitability of vendors operations and maintenance systems
			Compatibility with existing and future equipment of other vendors
			Size and Modularity of the equipment design
	Value-added services	Type and convenience of value-added services	Variety of value-added services
			Convenience of use of value-added services
			Whether value-added services are up-to-date
	Convenience in Procedures	Subscription and change procedures	Convenience of accessing the vendor
			Availability of reliable local support
Availability and procedures of spares, repair service and new requests			
Access of vendors support resources			
Compliance to service level agreement			
Customer support	Customer support system and complaint	Variety of customer support systems	
		Speed of complaint processing	

		processing	Ease of reporting complaint
			Friendliness when reporting complaint
			Competence of vendors support engineers
Switching cost	Loss cost	Perception of loss in status/image and performance associated with the switching from an existing vendor	Difficulty of changing equipment to another vendor
			Loss of benefits such as close relations with vendor's staff, discounts, existing support resources etc.
	Adaptation cost	Perception of cost of adaptation, associated with switching to a new vendor	Inconvenience of having to learn a new Equipment and it's operation and maintenance
			Need to search for information on new vendor, it's support team information and resources when switching vendor
	Move-in cost	Perception of economic cost involved in switching to a new vendor	Cost of replacing equipment with that of a new vendor
			Cost of training the staff on the new equipment
Attractiveness of alternatives	Alternative operator's reputation, image and service quality, according to the customer's perception	Alternative vendor's reputation	
		Alternative vendor's image	
		Alternative vendor's overall service quality	
Switching barrier	Economic and psychological difficulty perceived by customer, when switching vendors	Economic loss associated with switching vendors	
		Psychological burden associated with switching vendors	
Customer satisfaction	Customer's reaction to the state of satisfaction, and	Overall satisfaction with the vendor	
		Overall satisfaction with the service	

	customer's judgment of satisfaction level	
Customer loyalty	Combination of customer's favourable attitude toward the service and intention to re-purchase the service/equipment	Intention to stay with the current vendor
		Intention to recommend the current vendor to other operators.

The Questionnaires were administered through telephone survey, face to face interviews, or through email depending on the interviewee.

Data Analysis

Descriptive statistics was used to analyze the data. The use of frequency tables, percentages, mean scores and factor analysis was used.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

In this chapter data pertaining to the factors that influence a wireless telecom operator's loyalty to a vendor and the effect of switching barrier on customer loyalty in the telecom equipment supply industry is analyzed and interpreted.

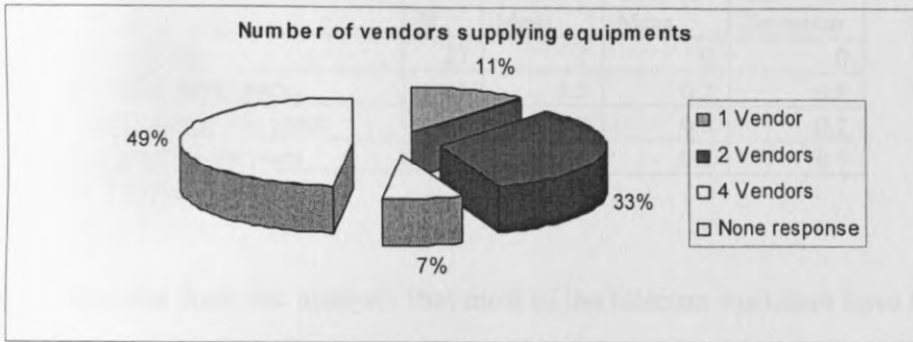
All the 5 mobile/wireless telecommunication companies in Kenya were studied, from which a sample of 50 respondents were drawn. The respondents comprised mainly of the companies chief executives, senior managers and engineers. Questionnaires were given to the respondents, out of which 27 respondents responded by completing and returning the questionnaire. This gave a response rate of 54%.

4.2 General information

In this section the study sought to know from the respondents whether or not they had wireless/mobile network. It became clear that up to 93 percent of the respondents had the networks. The study also found out from the analysis that majority of the respondents were not sure of the network capacities of their companies or the number of subscribers connected to their grid. 11 percent indicated that their network capacity was 5 million. 11 percent indicated that the number of users connected to their network was 6 million. There was however a high rate on none response.

The respondents were asked to indicate how many vendors have supplied them with network equipments. A majority of them (33%) indicated that they were being supplied by two vendors. Yet again none response rate was high (49%). (Figure 2)

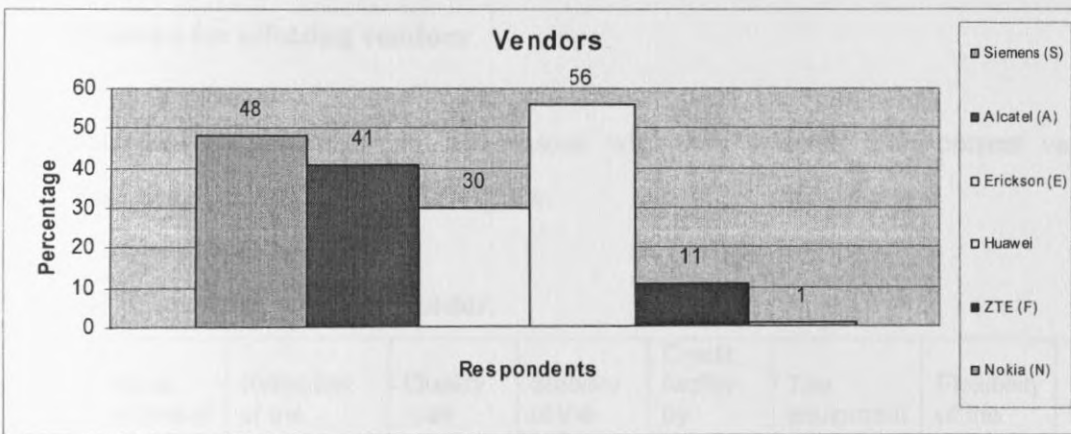
Figure 2: Number of vendors supplying network.



Source: Primary data

The respondents were asked to indicate their network vendors. The study found that Huawei is the most preferred vendor (56%). Siemens is the next preferred vendor (48%). Figure 3 show the findings of the analysis.

Figure 3: Wireless/Mobile vendors



Source: Primary data.

The study sought to know how long the companies have supplied with their current vendor. The findings of the analysis are depicted in table 3 below.

Table 3: Length of time been served with current vendor

	N	Mean	Std. Error of Mean	Std. Deviation
Less than one year	27	1	0	0
One and under three years	11	1.5	0.2	0.8
Three and less than five years	10	2.3	0.5	0.2
Five and less than ten years	10	2	0.2	0.7

Source: Primary data.

It is apparent from the analysis that most of the telecom operators have been served by the vendors for a period of between three and less than five years as is depicted by the mean of 2.3.

4.3 Factors influencing selection of vendors

The study here sought to establish the factors that influence the wireless/mobile operators in selecting their network vendors. The findings of the analysis are summarised next.

4.3.1 Reasons for selecting vendors

Respondents were asked to indicate reasons why they selected their current vendors. Responses are summarised in table 4 below.

Table 4: Reason for selecting vendor.

	Low cost	Good technical support	Reliability of the equipments	Quality (call clarity)	Stability of the company	Credit facility by vendor	The equipment capacity	Flexibility of the company	Not in category
Siemens	11	26	30	19	11	3	0	0	0
Huawei	22	19	30	15	11	0	3	0	0
Nokia	4	4	0	0	0	0	0	0	92
Alcatel	7	4	7	12	0	0	0	0	70
ZTE	4	4	0	0	0	0	0	4	88
NEC	7	15	15	0	0	0	0	0	63
Erickson	0	7	4	4	0	0	0	0	85

The results in table two above show that the respondents who preferred Siemens, looked at the reliability of the equipments (30%) and technical support (26%), while those who

preferred Huawei were driven into choosing the vendor because of reliability of the equipments (30%) and affordability in terms of costs of spares, repairs and maintenance (26%).

4.3.2 Rate of satisfaction with the preferred vendor

The study sought to find out the level of satisfaction of the operators on the listed items received from the vendors of network equipments. The findings of the analysis are depicted in table 5 below.

Table 5: Rate of satisfaction with the preferred vendor

	Extremely satisfied	Satisfied	Moderate	Dissatisfied	Extremely dissatisfied	None response	Total
Call clarity	26	33	22	11	0	7	100
Capacity and coverage	22	33	19	11	7	7	100
Reasonability of equipment cost	4	48	22	11	0	15	100
Availability of financing option	26	44	7	4	0	19	100
Flexible payment method and schedule	22	44	4	4	0	26	100
Reasonability of other costs as spares, repairs and maintenance	22	33	4	4	0	37	100
Stability of equipment and software	15	37	26	4	0	19	100
Performance of equipment	19	44	22	8	0	7	100
Reliability of equipment	15	44	22	7	4	7	100
Ease and stability of vendor operations and maintenance system	26	41	22	4	0	7	100
Compatibility with existing and future equipment of other vendors	19	37	19	4	11	11	100
Size and modularity of equipment design	15	37	19	15	4	11	100
Available value added services	7	33	41	7	7	4	100
Convenience of use of value added services	0	44	37	0	7	11	100
Value added services up to date	7	41	37	0	8	7	100

Source: Primary data

The data analysis revealed that 89 percent of the respondents indicate that they are satisfied with ease and suitability of vendors operations and maintenance system. The study further revealed that 85 percent of the respondents are satisfied with the performance of the equipments, reliability of the equipment and that the value added of the vendors is up to date.

4.3.3 Rate of satisfaction with the preferred vendor

In this section the study sought to establish how the respondents rate their preferred vendors. The findings of the analysis are as depicted in table 6 below.

Table 6: Rate of satisfaction with the preferred vendor

	Extremely satisfied	Satisfied	Moderate	Dissatisfied	Extremely dissatisfied	None response	Total
Convenience of accessing vendor	41	30	11	7	0	11	100
Availability of reliable local support	33	30	11	7	7	11	100
Availability of spares, repair services and new requests	15	52	7	7	7	7	100
Access to vendor support resources	19	37	11	7	15	11	100
Compliance to service level agreement	11	41	15	11	7	15	100
Variety of customer support systems and resources	7	37	19	11	7	19	100
Speed of complaint processing	11	30	30	4	11	15	100
Ease of reporting complaint	22	37	22	7	0	11	100
Friendliness when reporting complaint	22	44	11	0	4	19	100
Competence of vendor support team	37	37	7	4	7	7	100

Source: Primary data

The analysis show that 74 percent of the respondents indicated that they are satisfied with the competence of their vendors support team. 71 percent are satisfied with the convenience of accessing the vendor.

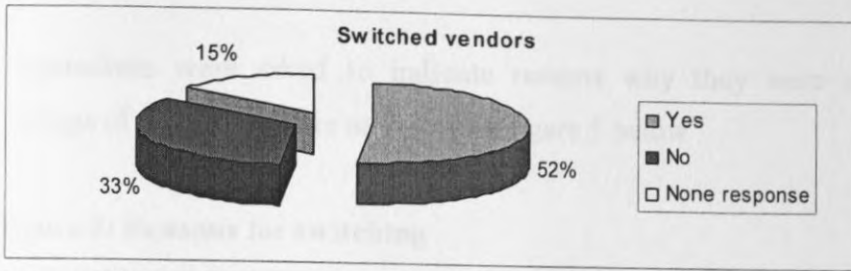
4.4 Switching vendors

In this section the study sought to establish factor inhibiting or promoting switching of the network vendors in the industry. Findings of the analysis are summarises below.

4.4.1 Have switched vendor

The respondents were asked to indicate whether or not they have switched vendors. The relevant results are shown in the figure 4 below.

Figure 4: Have switched vendors



Source: Primary data

It is clear from the results of figure 4 that 52 percent of the respondents have indicated that their companies have switched vendors. 33 percent have not switched vendors.

4.4.2 Switched from-to

The study sought to establish the direction of change. The respondents were asked to indicate where they migrated from and where they went to. The findings of the analysis are as depicted in the table 5 below.

Table 7: Switched from-to

	Frequency	Percent
Brite to Huawei	2	7
ZTE to Huawei	1	4
Motorola to Siemens	1	4
Alcatel to Siemens	2	7
Safaricom to Celtel	1	4
Alcatel to Erickson	1	4
Nokia to Alcatel	4	15
Siemens to Huawei	1	4
None response	14	51
Total	27	100

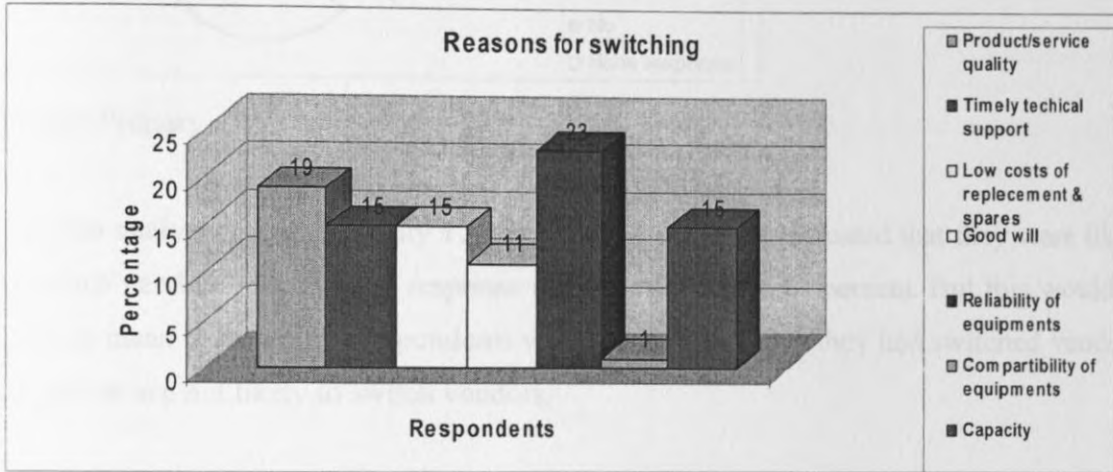
Source: Primary data

The results in table 5 show that majority of the respondents indicated that they migrated from Nokia to Alcatel (15%). Again majority of the respondents (51%) did not respond.

4.4.3 Reasons for switching

Respondents were asked to indicate reasons why they were switching vendors. The findings of the analysis are as shown in figure 5 below

Figure 5: Reasons for switching



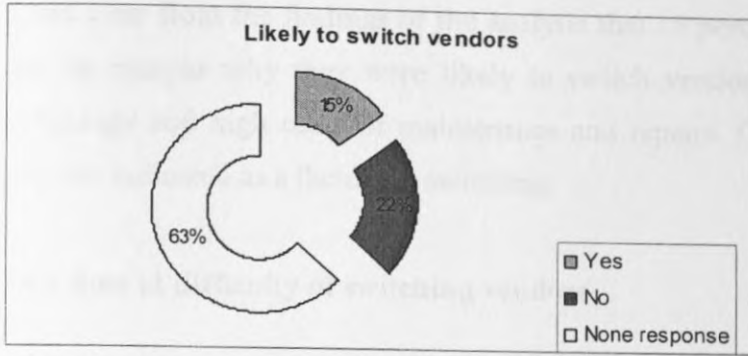
Source: Primary data

It is clear that 23 percent of the respondents have indicated that they switch vendors due to more reliability of equipments of the new vendor as opposed to equipments of the former. 19 percent switch due to better quality of products and services offered by the new vendor as opposed to the former vendor.

4.4.4 Likely to switch vendors

The respondents were asked to indicate whether they were likely to switch vendor in the future. The findings are summarised in the figure below

Figure 6: Likely to switch vendors



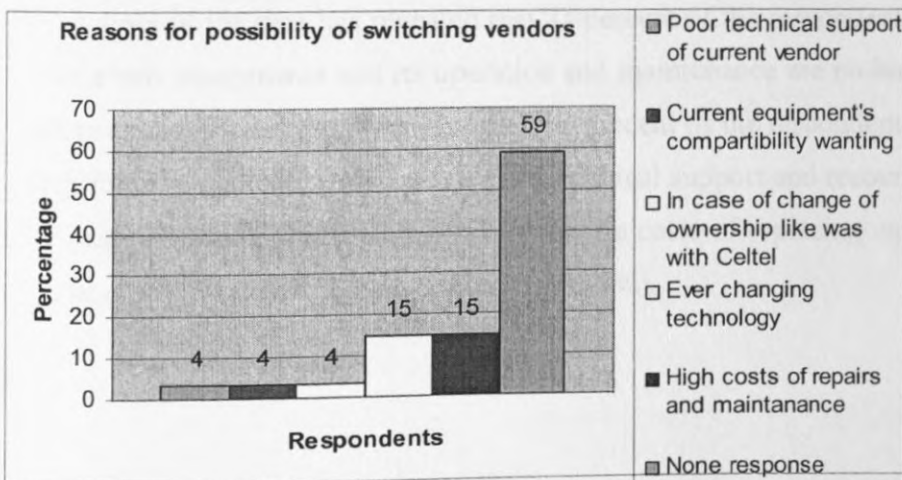
Source: Primary data

The data analysis found that only 15 percent of respondents indicated that they were likely to switch vendors. Again none response rate was so high at 63 percent. But this would be taken to mean that they are respondents who had indicated that they had switched vendors. 22 percent are not likely to switch vendors.

4.4.5 Reason for likelihood to switch

The study sought to establish the reasons why the operators are likely to switch vendors. The findings of the analysis are summarised in figure 7 below.

Figure 7: Reasons for likelihood to switch



Source: Primary data

It was clear from the findings of the analysis that 15 percent of the respondents indicated that the reasons why they were likely to switch vendors were as a result of changing technology and high costs of maintenance and repairs. Change of Operator's ownership was also indicated as a factor for switching.

4.4.6 Rate of difficulty of switching vendors

The study in this section sought to find out the difficulty associated with switching vendors. The findings of the study are summarised in table 8 below.

Table 8: Difficulty in switching vendors

	Very convenient/easy	Convenient/easy	Neutral	inconvenient/difficult	Very inconvenient/difficult	None response	Total
Limitations of interfaces compatibility etc	15	33	22	11	7	11	100
Loss benefits associated with current vendors.	11	30	30	7	7	15	100
Learning new equipment and its operation and maintenance	41	30	7	7	0	15	100
Search for information on new vendor, its technical support and resources	22	33	19	7	4	15	100
Cost of replacing equipments	11	15	26	22	15	11	100
Cost of training staff on new equipment	15	22	19	26	7	11	100

Source: Primary data

The analysis of the data has revealed that 71 percent of the respondents have indicated that learning new equipments and its operation and maintenance are no hindrance to switching vendors as they find these practices easy. 55 percent of the respondents have indicated that search for information on new vendor, its technical support and resources is also easy. The only factors that are considered difficult are the costs of replacing equipments (37%) and the cost of training staff on new equipments (33%).

4.4.7 Attractiveness of alternative vendor.

The respondents were asked to indicate how they would rate attractiveness of alternative vendor. The responses are represented in table 9 below.

Table 9: Attractiveness of alternative vendor

	Most likely	Likely	Neutral	Not likely	Not likely at all	None response
Alternative vendor's reputation	44	26	7	4	0	19
Alternative vendor's image	30	41	7	4	0	19
Alternative vendor's overall service quality	44	22	11	4	0	19

Source: Primary data

The analysis found that 71 percent of the respondents indicated that alternative vendor's image would most likely cause them to switch vendors. 70 percent indicated that alternative vendor's reputation was likely to cause them switch vendors.

4.4.8 Problems associated with switching to another vendor

The respondents were asked to indicate how they rate items regarding switching to another vendor. Responses are represented in table 10 below

Table 10: Problems associated with switching to another vendor

	Extremely costly/High	Costly/High	Normal	Not a problem	Not a problem at all	None response
Economic loss associated with switching	15	37	22	4	4	19
Psychological burden associated with switching	15	19	37	0	11	19

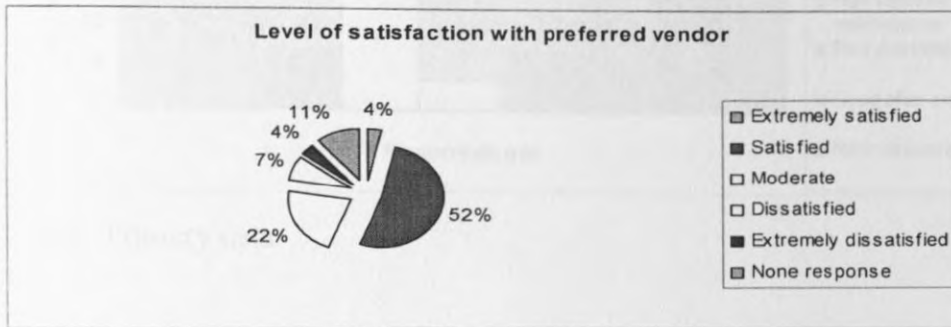
Source: Primary data

The data analysis revealed that 52 percent of the respondents indicated that economic loss associated with switching is high. The other 34 percent indicated that the psychological burden associated with switching is high.

4.4.9 Level of satisfaction with preferred vendor

The study sought to establish the level of satisfaction of the operators with their preferred vendors. The findings of the analysis are depicted in figure 8 below.

Figure 8: Level of satisfaction with preferred vendor



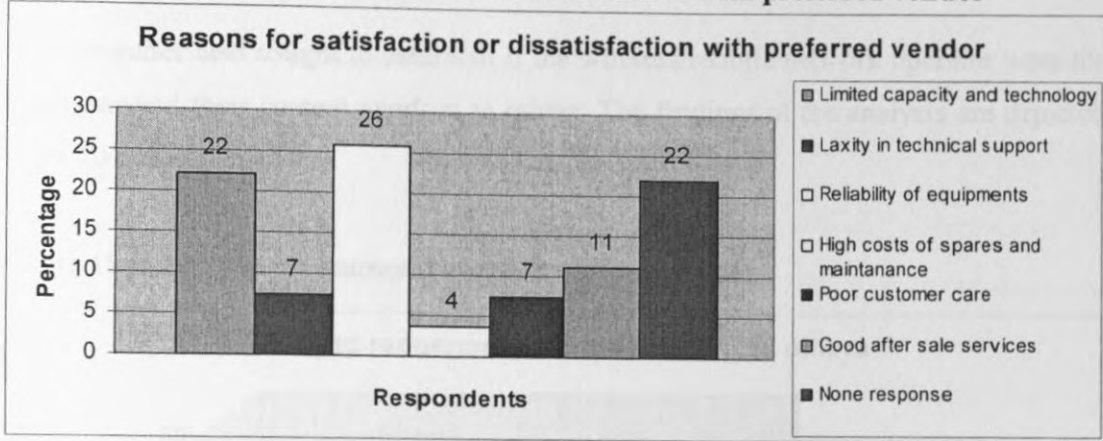
Source: Primary data

The data analysis revealed that 56 percent of the respondents indicated that they are satisfied with their preferred vendors. Only 11 percent are not satisfied.

4.4.10 Reasons for satisfaction or dissatisfaction with preferred vendor

The researcher further sought to establish the reasons for satisfaction or dissatisfaction of the operators with their preferred vendors. The findings of the analysis are summarised in figure 9 below

Figure 9: Reasons for satisfaction or dissatisfaction with preferred vendor



Source: Primary data

The results in figure 9 show that 26 percent of the respondents indicated that reliability of the equipments made them satisfied with their vendors. 22 percent have indicated that limited capacity of equipment and technology makes them dissatisfied with their vendor.

4.11 Possibility of remaining with the current vendor

The study also sought to establish if there were possibilities of wireless/mobile network operator sticking with their current vendors. The findings of the analysis are as represented in table 11 below.

Table 11: Possibility of remaining with the current vendor

	Frequency	Percent
Highly likely	4	15
Likely	15	56
neutral	2	7
not likely	3	11
None response	3	11
Total	27	100

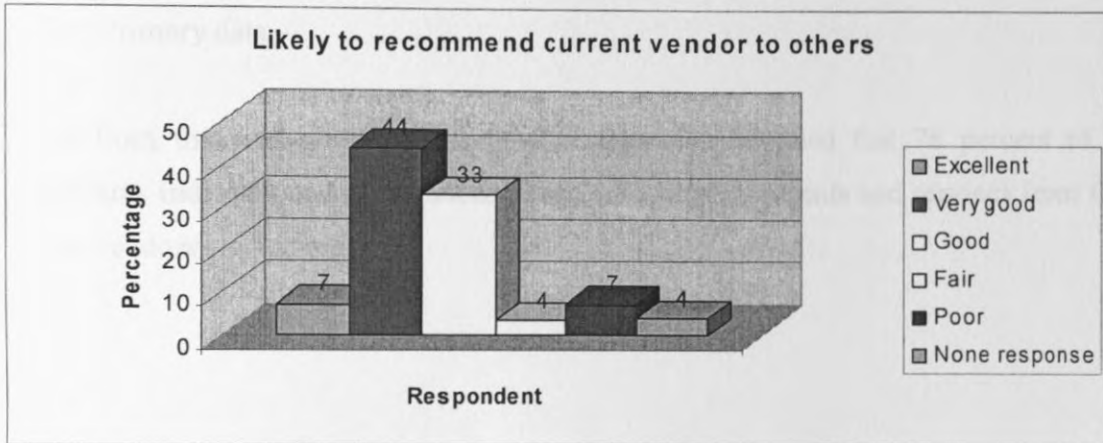
Source: Primary data

The results in table 11 show that a cumulative of 71 percent of the respondents indicated that they are likely to remain with their current vendors.

4.4.11 Likely to recommend current vendor to others

The researcher also sought to establish if the wireless/mobile network operator were likely to recommend their current vendors to others. The findings of the analysis are depicted in figure 10 below.

Figure 10: Likely to recommend current vendor to others



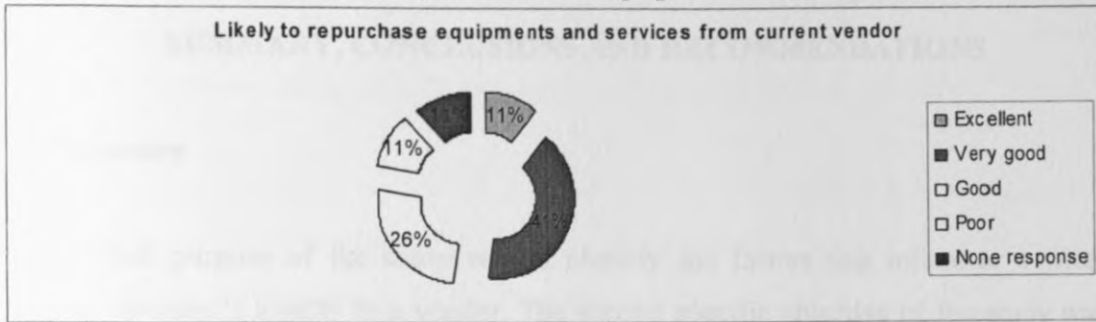
Source: Primary data

The results in figure 10 show that 83 percent of the respondent indicated that the chances for recommending their current vendors to others were good. Only 7 percent indicated that the chances were poor.

4.4.12 Likely to repurchase services and equipments from current vendor

The respondents were asked to indicate if they were likely to repurchase new equipments/services from their current vendors or not. Responses are represented in Figure 11 below

Figure 11: Likely to repurchase services and equipments from current vendor



Source: Primary data

Result from the analysis as represented in figure 11 revealed that 78 percent of the respondents indicated that the chances of repurchasing equipments and services from their current vendors were good.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The overall purpose of the study was to identify the factors that influence a wireless telecom operator's loyalty to a vendor. The second specific objective of the study was to identify effect of switching barrier on customer loyalty in the telecom equipment supply industry.

Out of the 50 chief executives, senior management and engineers that were sampled from the five wireless/mobile telephone operators, 27 responded. This gave a response rate of 54%.

5.2 Conclusion

5.2.1 Factors that influence a wireless telecom operator's loyalty to a vendor.

It is apparent from the study that the vendors supplying the wireless telecom operators are Huawei who take the largest share of 56 percent, followed by Siemens 48 percent and Alcatel 41 percent. Others include Erickson, ZTE and Nokia. The longest serving vendor is Alcatel with years between five and less than ten years. They have served 22 percent of the operators under this category. Erickson though have less years of service (one and less than three years) have the highest number of operators served (30%).

Reliability of equipments is a factor that most operators consider important in selecting the vendors for the supply of the network equipments. This study found out that 30 percent of the respondents indicated that they selected Siemens and Huawei based on reliability of their equipments. Other factors considered as important included the technical support provided by the vendor after sales, Siemens and Huawei score highly here too 22% for Siemens and 19% for Huawei. Costs associated with repairs and maintenance is a factor in

selection of vendors. 22 percent of respondents served by Huawei indicated that low costs drove them to choosing the vendor. The study also found that call clarity was a major factor that guides the choice of vendors by the wireless telecom operators.

Wireless telecom operators would only be loyal to the vendors if they are satisfied with the services offered, (Fornell, 1992; Reichheld, 1996). The study found out that 89 percent of the respondents indicated that they were satisfied with ease and suitability of vendors' operations and maintenance system. 85 percent of the operators were also satisfied with the performance of the equipments, and 74 percent further indicated that they have competence with the vendors' support team. Therefore in general the study found out that 56 percent of the operators were satisfied with their preferred vendors and hence the reason why 71 percent indicated that they were likely to remain with their current vendors.

5.2.2 Effects of switching barriers on customer loyalty in the telecom equipment supply industry.

According to the findings of the study 52 percent of the operators have switched vendors with Huawei and Erickson becoming the major beneficiaries (15% each). The major reasons for switching as were evident in the findings include reliability of equipments (23%) and call clarity (19%). Technological changes and high costs of operations (maintenance and spares) were also found to be causes of likelihood to switch vendors. Another notable factor to warrant switching is the change of operator's ownership.

Despite the willingness of the operators to switch vendors, there are still barriers that make this difficult. The cost of replacing equipments (37%) was considered to be prohibitive. Thompson and Cats-Baril (2002) refers to these costs as switching costs. This was followed by the cost of training staff on new equipments (33%). Otherwise analysis found that 71 percent of the operators indicated that learning new equipments and their operations and maintenance were no hindrance to switching vendors as they found this practice easy.

From the study, 52 percent of the respondents acknowledged that economic losses associated with switching vendors were high. It was also found that psychological burden associated with switching is high. These switching difficulties or barriers could be the reason why 71 percent of the respondents have indicated that they are likely to remain loyal to their current vendors. To confirm this 78 percent of the respondents indicated that there were good chances of them repurchasing new equipment and services from their current vendors. This confirms Fornell (1922) argument that high switching barriers force dissatisfied customers to remain with their existing vendors.

5.3 Recommendations

The study recommends that the international suppliers of wireless telecom equipments should ensure the telecommunication operators are satisfied. This should be through provision of good product and service quality, and also maintaining reasonable costs of the equipments and services.

The study further recommends that customer loyalty should be as a result of goodwill of the product and not as a result of the switching costs which may be prohibitive. The study therefore recommends that competition among vendors should be encouraged to ensure delivery of high quality services is maintained.

The study further recommends that switching barriers or costs should be brought down to manageable levels so as to encourage competition in the industry.

5.4 Limitations of the Study

The first limitation of the study was the fact that the response rate of 54% might have reduced the accuracy of research findings. Most data sought were considered confidential and this was a challenge in data collection. Lastly, some respondents did not provide all the information thus depriving the study of some required data.

5.5 Suggestions for future research

This study was done on the wireless telecommunications companies in Kenya only. It is suggested that similar study should be replicated in other countries. A more focused study on specific operator can be carried out to reveal more deep details and also a similar study can also be done in other sectors of the economy.

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Year	Value
2006	10
2007	10
2008	10

Appendix I: Questionnaire

1. Do you have a wireless/mobile network? Yes () No ()
2. The network capacity is _____ users and _____ are connected users.
3. How many vendors have supplied your wireless/mobile network equipment -----
4. Please indicate your wireless/Mobile vendor(s)

Siemen (S)	<input type="checkbox"/>	Alcatel (A)	<input type="checkbox"/>
Ericcson (E)	<input type="checkbox"/>	Huawei (H)	<input type="checkbox"/>
ZTE (F)	<input type="checkbox"/>	Other _____	
5. In total, how long have you been a customer of your current vendor?

Less than one year	<input type="checkbox"/>	Network Name.....
One to under three years	<input type="checkbox"/>	Network Name.....
Three to under five years	<input type="checkbox"/>	Network Name.....
Five to under ten years	<input type="checkbox"/>	Network Name.....
Ten years or more	<input type="checkbox"/>	Network Name.....
6. Please list the top three reasons for selecting your vendor (s) above in order of importance? Start with your preferred vendor (Vendor 'A')

	<u>Vendor 'A'.....</u>		<u>Vendor 'B'.....</u>
i)		i)	
ii)		ii)	
iii)		iii)	

7. On a scale of 1 to 5 where 1 represents “Extremely Satisfied” and 5 represents “Extremely Dissatisfied,” how would you rate each of the items below received from your preferred vendor for wireless network equipment for the items listed in the table below.

	1	2	3	4	5
Call clarity using vendors equipment					
Capacity and coverage					
Reasonability of equipment cost					
Availability of financing option					
Flexible payment method and schedule					
Reasonability of other cost such as spares, repair and maintenance service					
Stability of equipment and software					
Performance of the equipment					
Reliability of the equipment					
Ease and suitability of vendors operations and maintenance system					
Compatibility with existing and future equipment of other vendors					
Size and modularity of equipment design					
Available value added service					
Convenience of use of value-added services					
Whether value added services are up to date					

8. On a scale of 1 to 5 where 1 represents “Extremely Satisfied” and 5 represents “Extremely Dissatisfied,” how would you rate your preferred vendor?

	1	2	3	4	5
Convenience of accessing the vendor					
Availability of reliable local support					
Availability and procedures of spares, repair service and new requests					

Access of vendors support resources					
Compliance to service level agreement					
Variety of customer support systems/resources					
Speed of complaint processing					
Ease of reporting complaint					
Friendliness when reporting complaint					
Competence of vendor support team					

9. a) Have you ever switched your vendor? Yes [] No []

b) If yes, please indicate the change of vendor From To

c) Please indicate your reasons for switching

i) _____ ii) _____ ii) _____

d) If No to a) are you likely to switch from your preferred vendor to another vendor in the future? Yes [] No []

e) If yes to d) above please indicate your reason

i) _____ ii) _____ ii) _____

10. On a scale of 1 to 5 where 1 represents “Extremely Satisfied” and 5 represents “Extremely Dissatisfied,” how would you rate your difficulty of switching to another vendor?

	1	2	3	4	5
Difficulty and inconvenience of changing equipment vendor due to limitation of interfaces, compatibility etc.					
Loss of offers with current vendor such as discounts, relationship, support resource etc.					
Inconvenience of having to learn new equipment and its operations and maintenance.					
Need to search for information on new vendor, its support team and resources.					
Cost of replacing equipment with that of another vendor.					
Cost of training the staff on the new equipment.					

11. On a scale of 1 to 5 where 1 represents “most likely” and 5 represent “not likely at all” how would you rate the attractiveness an alternative vendor on the following items.

	1	2	3	4	5
Alternative vendor’s reputation					
Alternative vendor’s image					
Alternative vendor’s overall service quality					

12. On a scale of 1 to 5 where 1 represents “Extremely high/costly” and 5 represent “not a problem at all” how would you rate the following items in regard to switching to another vendor

	1	2	3	4	5
Economic loss associated with switching vendors					
Psychological burden associated with switching vendors					

13. On a scale of 1 to 5 where 1 represents “Extremely Satisfied” and 5 represents “Extremely Dissatisfied,” how would you rate your level of overall satisfaction with your preferred vendor?

1	2	3	4	5

14. Why do you say that? What specifically are you satisfied or dissatisfied with your vendor? Enter response below

15. On a scale of 1 to 5 where 1 represents “Extremely Satisfied” and 5 represents “Extremely Dissatisfied,” how would you rate your level of **overall satisfaction** with your preferred vendor’s service.

1	2	3	4	5

16. On a scale of 1 to 5 where 1 represents “Highly likely” and 5 represents “Not likely at all,” how would you rate your possibility of remaining with the current vendor.

1	2	3	4	5

17. How likely are you to recommend your current vendor to other operators? Would you say the chances are ...

- Excellent []
- Very Good []
- Good []
- Fair []
- Poor []

18. How likely are you to repurchase other or new services/equipment from your current vendor? Would you say the chances are ...

- Excellent []
- Very Good []
- Good []
- Fair []
- Poor []

19. Are there any other comments you would like to make:

On your satisfaction or dissatisfaction of service or the equipment from your vendor -----

About switching from your current vendor? -----

About your loyalty to the current vendor -----

Please give the following details about yourself (Optional):

Name:

Work Position:

Contact Tel:

Email:

Thank you for completing this questionnaire. Your response will be treated in confidence.