

**COMPETITIVE PRIORITIES BY MOBILE TELEPHONY  
FIRMS AND CUSTOMER PREFERENCES IN SELECTION  
OF MOBILE TELEPHONY SERVICE PROVIDER IN  
KENYA**

**DAVID NGUGI KARIUKI**

**ADMNO: D61/71143/2008**

**SUPERVISORS: ONSERIO NYAMWANGE**

**ERNEST AKELO**

**Research Project Proposal Submitted In Partial Fulfillment Of The  
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## DECLARATION

This is my original work and has not been submitted for a degree in any other university

Signed... .....

Date... 7/11/2012.....

David Ngugi Kariuki

Reg No. D61/71148/2008

This project has been submitted for examination with my approval of university supervisors

Signed... .....

Date... 07/11/2012.....

Mr. Ernest Akelo

Lecturer

Department of Management Science

School of Business

University of Nairobi

Signed... .....

Date... 07/11/2012.....

Mr. Onserio Nyamwange

Lecturer

Department of Management Science

School of Business

University of Nairobi

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## **DEDICATION**

I dedicate this project to my Parent Mrs. HotensiahWariara for her continued support and encouragement and to God who gave me the breath to complete the project.

## ABSTRACT

Competitive priorities have always played a key role in survival of companies in any sector. The mobile telephony sector in Kenya has not been spared as it has been characterized by stiff competition which has seen drastic drop in Call, SMS, Data rates. This research project sought to carry out a survey to establish how firms in this sector rank competitive priorities, what are customer preferences in selecting a mobile service provider and whether there is any significant difference in the way customers and firms rank competitive priorities. A structured questionnaire was used to collect the necessary data. Part one of the questionnaire collected general information and part two collected information regarding competitive priorities. The data was then analysed through non parametric tests, namely Wilcoxon matched pairs sign ranked which tested difference in ranking of competitive priorities. Mann-Whitney U-test was used to compare the differences in ranking between firms and customers.

The test results indicated significance difference in the way customers rank competitive priorities and hence the null hypothesis was rejected. This was the same case with the firms ranking of competitive priorities. On comparing whether any significance difference exist in the way customers and firm rank competitive priorities the null hypothesis was accepted an indication that there exist no significance difference in the way firms and customers rank competitive priorities. The study recommended that firms adopt other means of competition apart from what they are currently employing. Further studies should be carried out to include other competitive priorities and a larger sample comprising of all parts of the country should be considered.

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# CHAPTER 1: INTRODUCTION

## 1.1 Background

Competitive priorities are strategic preferences or the ways in which an organization chooses to compete in the marketplace (Hayes and Wheelwright, 1984). They include flexibility, reliability, speed of delivery, low cost / pricing and consistent quality. Key to note is that competitive priorities also constitute order winners and order qualifiers. An order qualifier is a characteristic of a product or service that is required in order for the product/service to even be considered by a customer e.g. An order winner is a characteristic that will win the bid or customer's purchase e.g. quality, price (Hill, 2000). Therefore, firms must provide the qualifiers in order to get into or stay in the market. To provide qualifiers, they need only to be as good as their competitors. Failure to do so may result in lost sales. Recently, the mobile telephony sector in Kenya has witnessed a vicious dynamic competitive environment where the competitive priorities are playing a major role in the quest to gain more customers and maintain a competitive edge over competitors.

Rapid price changes have defined this sector. The sector has seen a drastic reduction of call, SMS and data rates by all firms to the extent that some firms e.g. Essar YU is offering free calls from 6am-6pm among YU subscribers. Speed of delivery has also played a major role in this sector. With the introduction of Mobile number portability (MNP), firms have been hard pressed to resolve customer issues with speed lest he / she ports out without losing his/her number. The new Safaricom CEO Bob Collymore has outlined Speed as one of his core strategies in defining the new Safaricom way which puts the customer at the heart of the company(Safaricom, 2011).The sector has also seen

an introduction of new products and services especially mobile money telephony services which is the first of its kind in the world. Safaricom has created a niche in this area with its M-Pesa service which is not only well spread locally through a well organized distribution of dealers but has tapped into international markets through international money transfer (IMT) service. This has seen a steady flow of income from western economies such as Britain and America. As a result other mobile telephony companies have introduced their version of mobile money transfer service. Orange has introduced orange money (Telkom, 2011), YU has introduced YU cash and Airtel has introduced Airtelmoney (Airtel, 2011).

The aspect of quality cannot be overlooked in this sector. Billions of Shillings is being invested to improve network capacity to accommodate the increasing numbers of subscribers in order to reduce congestion. With voice rates reducing due to cut throat call rates, data has been identified as the major growth engine for the companies. As a result firms notably Safaricom is investing heavily to roll out 4G data services ahead of its competitors (Safaricom, 2011).

Currently there are four mobile phone operators namely Safaricom ltd, Airtel, Essar Yu, and Telkom Orange offering a wide variety of products namely; voice calls, short messaging services, data services, mobile banking services among others. To achieve their goals and objectives in such a dynamic sector, organizations must adjust to their environment (Pearce and Robinson, 1997). Competitive priorities play an important role in technology adoption, process choice, capacity management, manufacturing planning and control systems, employee skill development and quality assurance (Hayes and Wheelwright, 1984). Once identified, competitive priorities can guide pertinent resource

allocation to meet operations objectives. Several researches on competitive priorities in manufacturing and service have concluded that firms have and will continue to employ the right mix of competitive priorities to adapt to the environment. Nyamwange (2001), noted that from 1980's, strategic tradeoffs approach was adopted by firms primarily focusing on low cost, high quality, flexibility and speed. Obado (2005), concluded that sugar companies in Kenya employed cost leadership to maintain a competitive edge through eliminating non-essential activities and outsourcing some input variables. On the other hand Jua, kali artisans were keen to maintain favorable pricing of their products to compete against established manufactures (Muriuki, 2005).

### **1.1.1 Ranking of Competitive Priorities**

The management of any firm has to decide which parameters of performance are critical to the firm's success and then concentrate the resources of the firm on these particular activities e.g. If a company wants to focus on speed of delivery, it cannot be very flexible in its ability to offer a wide range of products. Similarly low cost strategy is not compatible with either speed of delivery or flexibility. For a firm to compete in its environment, it has to employ a combination of the specific competitive priorities (trade-offs) vital for its survival depending on its environment. The underlying logic of trade-offs is that an operation cannot excel simultaneously on all competitive dimensions. From 1980's, strategic tradeoffs approach was adopted by firms primarily focusing on low cost, high quality, flexibility and speed. As a result there were trade-offs associated with making choices hence a company had to differentiate itself along one of these basic strategies (Nyamwange, 2001).

Several studies have been carried out on price/cost as a competitive tool. Pricing and cost were major strategies used by branded fast food chains (Theuri, 2003). This is further supported by Obado (2005), who concluded that sugar companies in Kenya employed cost leadership to maintain a competitive edge through eliminating non-essential activities and outsourcing some input variables. Similarly, Jua kali artisans were keen to maintain favorable pricing of their products to compete against established manufactures (Muriuki, 2005). In Thailand quality was seen as the most important, followed by customer focus, dependability, innovativeness and cost. In Taiwan quality was the most important followed by innovativeness, cost, flexibility customer service and dependability. On the other hand, delivery (dependability) is thought to be the most important competitive priority for Chinese firms followed by customer focus, flexibility, quality cost and innovativeness. Similar to Thai manufacturers, Chinese firms concentrate on customer-focus or service as the second most important competitive priority (Kongkiti and Rapee, 2007)

### **1.1.2 Mobile Telephony Sector**

The mobile Telephony sector in Kenya has continued to witness drastic changes due to the stiff competition brought about by rivalry for market share and billions of profits realized in the sector. The stiff competition has led to introduction of cheap calling rates, sms, and browsing rates in a bid to defend one's market share. Companies like Safaricom limited have had to remove their monthly charge of Ksh 252 on postpaid accounts, Introduced permanent call rates of Ksh 1 to call Safaricom numbers between 10pm-10am (Safaricom, 2011). Airtel has reduced their calling rates to Ksh 1 to call Airtel numbers. Telkom orange on the other hand has introduced an offer to their customers. For only Ksh

100 top up, the new tariff also accords customers free on net calls from 10.00 a.m. to 5.00 p.m. daily (Telkom Orange, 2011). Essar-Yu has introduced free calls to YU numbers between 6am-6pm (YU, 2011). Outsourcing has also been adopted by various firms in a bid to save labor cost. Airtel recently outsourced its customer care staff to Indian business processing outsourcing (BPO) firm Spanco, effective February 1, 2011. Safaricom has also introduced contract based employment in its customer service (Kenya jobs website). This move is further strengthened by obado (2005), who noted that firms employing cost leadership strategies in their value chain activities end up eliminating non essential activities and using outsourcing as well as competitively procuring some input variables.

Takeovers have also been witnessed in the sector, Kencell was bought by Celtel later by Zain which recently was bought by Airtel Bharti which invested billions of Ksh (\$150 million) as part of its strategy in the Kenya market (Miriri, 2010). On the other hand Essar has denied International media reports that it is looking to sell off its 70% stake in Kenyan mobile operator Essar Telecom Kenya (ETK), which operates under the 'Yu' brand ("Essar Group denies plans to sell Yu," 2011). To maintain an edge in the data market, Safaricom has acquired several data companies among them a 51% stake in wimax provider One Communications in August 2008. This was followed a year later, in August 2009, with a 100% acquisition of wireless internet provider Packet Stream ("Safaricom gets nod to acquire firms", 2011). The shifting customer loyalty has not gone unnoticed. Safaricom which by September last year had recorded a subscriber base of 16.7 million, had a market share of 80.7 per in June, indicating a market share drop of 4.8 per cent. Telkom Orange recorded a 1.3 per cent increase in market share while Airtel recorded a market share growth of 4.4 per cent. During the quarter in review, Telkom

Kenya recorded a 58 per cent subscriber growth to 875,592 subscribers. Telkom's market share grew from 2.7 per cent in June to 4 per cent (CCK, 2009-2010)

## **1.2 Statement of the Problem**

Any organization that wants to successfully compete in the marketplace must focus on customer requirements. These requirements can be numerous even for a narrow customer segment. An organization must translate customer requirements into objectives for operations known as competitive priorities. Studies conducted in the Kenya telecommunication sector have mainly focused on perceived service quality e.g. Odhiambo (2003), in his study on Determinants of customer satisfaction in the mobile telephony service concluded that customer service was the most important factor in customer satisfaction. Maina (2001), in her study on Perceived service quality in Mobile Phone Services concluded that service providers do not meet the customer level of expectation on most of the service and product characteristics.

Worth noting is the fact that in spite of the high prices charged by Safaricom Ltd on its services/products and difficulty in accessing customer service, it still remains the leader in this sector in terms of market share and profit. One would then be interested to know what tactics has Safaricom employed to maintain its continued dominance and why are customers willing to remain loyal to Safaricom Ltd

There is therefore need to establish customer's preferences in the selection of a mobile service provider and how mobile telephony firms rank competitive priorities.

### **1.3 General Objective**

What are customer preferences in selection of mobile telephony service provider and how do mobile telephony firms rank competitive priorities.

#### **1.3.1 Specific Objectives**

The study will aim at identifying customer preferences in selection of mobile telephony provider. In addition it will aim finding out the ranking of competitive priorities by mobile telephony firms.

The study will also compare customer preferences in choice of mobile telephony service provider and ranking of competitive priorities by mobile telephony firms

### **1.4 Value of the Study**

The results of the study will offer guidelines to various stakeholders in the industry. It will guide potential business people (potential dealers) into contracting with the service provider that offers opportunities for revenue growth. The mobile telephony firms will be in a position to pursue the most effective competitive priority in a bid to maintain a competitive edge in the industry. The study will also guide government policy in deregulating the industry by making informed decisions with both the customer and the firm in mind and also form the basis for further research to the researchers who will be interested in this particular field.



## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter explains in detail on operation strategy, role of operation strategy in competition, notion of tradeoffs and tradeoffs models, competitive priorities namely price/cost, flexibility, quality, reliability and speed.

### **2.2 Operation Management**

Operation management has contributed immensely to the history of mankind. Several projects among them military campaigns have all relied heavily on operation management for success. Overtime operation management has continued to evolve especially during 1980 and 1990s where three unifying forces namely quality, the customer and teamwork weighed heavily. The voice of the customer demands higher levels of quality which requires team work in the delivery system. Key to successful OM is Strategy. Strategy is a means of establishing the purpose of a company by specifying its long term goals and objectives, action plans of resource allocation to achieve the set goals and objectives (Chandler, 1962).

Strategy involves defining the course of action taken to achieve a certain goal. This requires the company to have a clear perception of its environment to enable it adopt appropriate actions to outwit its competitor. It also calls for well coordinated steps in implementing the actions. (Mintzberg, 1987). Strategy involves undertaking a course of action to meet and exceed customer expectation all meant to outwit the competitor.

### **2.3 Role of Strategy in Competition**

Rapid technology change has created a new business environment where innovation has become a top competitive strategy. This has well been seen in the Kenya mobile telephony sector which is currently experiencing competition in the way of price wars and introduction of new products. The demand for high speed reliable and intelligent data communication service is growing exponentially. This has resulted to companies within the sector to invest billions of shillings in modernizing their network systems to improve on quality and reliability. Porter (1980) notes that competitive advantage is the ability of the firm to perform better than its rivals on the profitability aspect. The essence of business is to create competitive advantage that comes in a number of ways e.g. low cost production or market differentiation. Resources employed by the company, well defined strategic business units, structural systems and processes collectively lead to competitive advantage that creates value for the company. All these elements must be aligned to the company vision, goals, and objectives through strategy to produce competitive advantage that would lead to value creation. For the purpose of this research, we will limit our self to strategic business units principally the operations department.

### **2.4 Operation Strategy**

It consists of all the strategic actions, policies, and culture relations to operations. It provides a bridge between the input and output of a company. It aims at meeting customer satisfaction by enabling the company to decide what product/service to manufacture, technology to be adopted and how to plan capacity. Worth noting is that all organizations have competitors which are other organizations that already supply similar products. An organization can only survive by making products that customers view as somehow better

that those from competitors. A traditional view of marketing is that organizations compete by concentrating on the 4 'ps' (product, price, place and promotion.). A broader view says that they compete by cost, quality, service reliability, flexibility and speed of delivery (Donald, 2006).

## **2.5 Customer Requirements/ Competitive Priorities**

Competitive priorities play an important role in technology adoption, process choice, capacity management, manufacturing planning and control systems, employee skill development and quality assurance (Hayes and Wheelwright, 1984). Once identified, competitive priorities can guide pertinent resource allocation to meet operations objectives. Competitive priorities are course of actions adopted by an organization chooses to compete in its environment (Hayes and Wheelwright, 1984). It is a consistent set of goals for manufacturing to gain competitive advantage.

Competitive priorities have also been referred to as organizational priorities, content variables, dimensions of competition, core content, manufacturing tasks, order winners and qualifiers (Skinner, 1966). From long ago operational managers have continued to highlight the need to identify the right competitive priorities at the operations level. Over the years, several authors (Wheelwright, 1978; Hayes & Wheelwright, 1984) have advocated for expansion of the list of competitive priorities especially when the manufacturing industry comes into the picture. In 1984 Hayes and Wheelwright were of the opinion that companies compete in the marketplace namely through quality. Lead time, cost and flexibility.

Foo and Friedman (1992), gave a set of six competitive priorities, namely quality, Lead time, cost, flexibility, 'Service' and 'Manufacturing Technology'. Innovation and Dependability have also been considered important competitive priorities. Zhou et al (2008), studied the importance of operations priorities of 138 enterprises in mainland china in relations to the company's perceived strength relative to competitors that used six competitive dimensions to operationalize operations priorities namely quality, cost and price, delivery flexibility, after sales services and innovations. This study identified innovation, after sales services, quality and flexibility as the dominant operations priorities for Chinese enterprises in the next five years. Customers personal requirements constantly change and they seem to apply universally regardless of the type of business. Internal and external customer mainly consider high quality levels, flexibility, low cost , quick response time(speed) and reliability in the selection of a service provider.

## **2.6 Trade off in Competitive Priorities**

The idea of trade- offs is central to the concept of operations and supply strategy. The underlying logic is that no firm operation can outclass its competitor by concurrently excelling on all competitive dimensions. As a result, management has to decide which parameters of performance are most critical to the firm's success and then allocate the resources of the firm on these particular parameters e.g. If a company wants to focus on speed of delivery it will be limited in its ability to offer a wide range of products. On the other hand low cost strategy is not compatible with either speed of delivery or flexibility. High quality also is viewed as a trade off to low cost. A strategic position is not attainable unless there are compromises with either position. Trade- offs occur when activities are compatible so that more of one thing necessitates less of another. A company may place

high emphasis on several objectives (Corbett & Wassenhove, 1993; Ferdows & De Meyer, 1990). Various perspective models have been put across to explain the relationship amongst the various competitive priorities. Some of them include trade-off model, cumulative model, and integrative models. Key to note is that although the various models are different in how they view the role of competitive priorities, they all agree that competitive priorities play an important role in a competitive environment.

The trade-off model is widely used by most businesses and was first pointed by Skinner (1969). This model proposes that companies must identify their competitive priorities, and then make choices regarding which competitive priorities should take first precedence in allocation of time and resources. Companies have to make resource allocation among the various priorities, based on their relative importance. Managers must choose a manufacturing priority which will give them an edge over their competitor then allocate their scarce resources accordingly (Hayes and Wheelwright 1984; Garvin 1993).

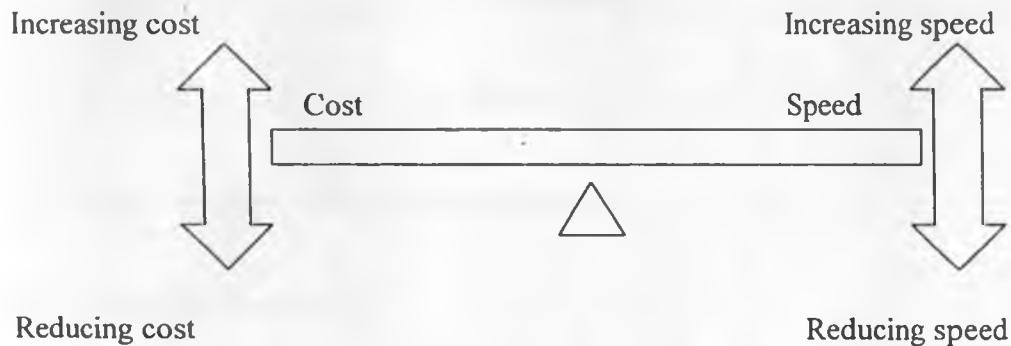
In contrast, proponents of the cumulative model claim that trade-offs don't play an important role in the current environment which continues to experience cut throat competition and ever changing manufacturing/service technologies (Corbett and Van Wassenhove 1993; Noble 1995). They view competitive priorities as complementary, rather than jointly exclusive. They view the competitive priorities as an existing potential which can be used to develop other priorities. e.g. Cost may aid development of flexibility. The integrative perspective seeks to relate the trade-off and cumulative models by highlighting their similarities. Advocates of the models claim that these models

address competitive priorities from different perspective but all agree that competitive priorities are related (e.g., Hayes, Schmenner and Swink 1998).

### **Conventional Trade off Model**

It states that unless there is some slack in the system improving any one of the four basic manufacturing capabilities namely quality, dependability, speed and cost, it must necessarily be at the expense of one or more of the other three. In the short term this seems to be the case. The picture often used is at a balance or a see saw.

**Figure 1: Conventional Trade off Model**



*Source: Journal of operations management.*

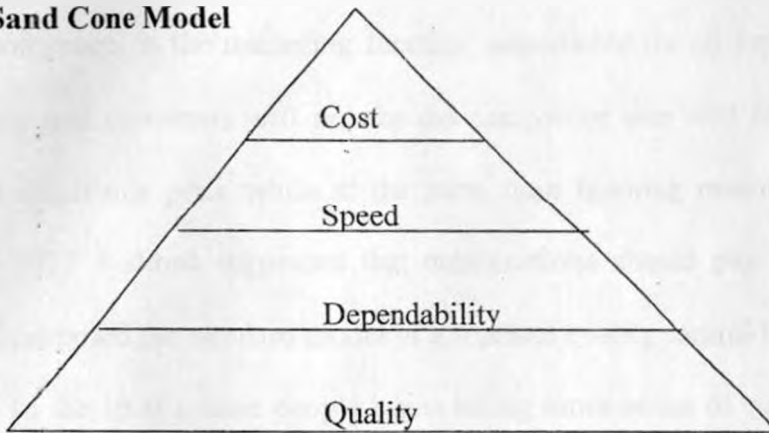
However there is an alternative to disturbing the balance and that is to raise the fulcrum or balance point thus (in example above) simultaneously reducing cost and increasing speed. In this example the fulcrum would be either quality or dependability .This ties in well with Ferdows et al (1990's) "sand cone" model.

### **b) Sand Cone Model**

It suggests that although it is possible to trade off capabilities one against another in the short term, there is actually a hierarchy amongst the four capabilities. To build cumulative and lasting manufacturing capability, management attention and resources should go first towards enhancing quality. Attention should be paid to improve the

dependability of the production system. then and again while efforts on the previous two are further enhanced. Production, flexibility (or reaction speed) should also be improved and finally while all these efforts are further enlarged, direct attention can be paid to cost efficiency.

**Figure 2: Sand Cone Model**



*Source: Journal of operations management,*

## **2.7 Competitive Priorities**

Competitive priorities are course of actions adopted by an organization chooses to compete in its environment (Hayes and Wheelwright, 1984). They include flexibility, reliability, speed of delivery, low cost / pricing and consistent quality.

### **2.7.1 Quality**

Several writers among them Taguchi (1990), have attempted to define quality but still acknowledge the challenges posed in giving an all inclusive definition. Quality as viewed by customers focuses on how well a product meets their expectation and does the job they bought it for. Customers consider a candy bar of high quality if it's tasty, its attractive, satisfies hunger e.t.c. Quality as viewed by producer focuses on how well the product is made and how closely it adheres to designed specifications. Therefore a sports

car is of high quality if it is close to the specified speed, attractive looks, has the right capacity. More emphasis is laid on the design of the product and the product is considered flawed if the design was not adhered to.

### **a) Quality Management**

Quality management is the managing function responsible for all aspects of quality. It is always likely that customers will opt for the competitor who will make better quality products at affordable price while at the same time ignoring manufacturers of poor quality. In 1922 Radford suggested that organizations should pay more attention to quality and proposed the standard model of a separate quality control function to monitor operations. In the 1950's some people began taking more notice of quality e.g. in Japan, Deming (1982), successfully influenced Japanese businesses to focus on quality which made Japan's products unmatched in terms of quality and price. Studies carried out in Kenya have placed quality as one of the key competitive factors that customers consider in selection of service provider. Odhiambo (2003), in his study "Determinants of customer satisfaction for mobile phone subscribers in Nairobi" concluded that quality dimensions namely customer service and product features occupied the first two positions in customer satisfaction.

Studies in the early 1980's found air conditioners made in the US had 70 times as many defects on the assembly line as those made in Japan and had 17 times as many breakdowns in the first year of operation. In the 1980's organizations around the world began to learn their mistakes when it came to quality and came up with strategic approaches to quality. In the 1990's quality management had broadened in to a complete business philosophy. Process improvement is often associated with high quality. Random



variations in different raw materials used in manufacturing and the inborn variability in the various processes have all been an impediment in achieving high quality products/services. As a result companies have been forced to adopt advanced technologies with an aim of reducing variations in raw materials and processes. High quality has been noted to give a competitive advantage. Quality has become a necessity rather than a desirable factor and in Hills terminology has moved from being an order winning factor to a qualifying factor. An organization can still get a competitive advantage by improving the quality of their products, adding features and improving specifications. A sustainable competitive advantage does not come from a single change but from a long term drive to improve quality continuously.

High quality has been found to reduce cost. High quality has the benefit of building confidence in an organization offering which can lead to higher sales revenue through increased sales. Some other cost which decline with increase in quality include Internal failure costs which are the costs of finding faulty units in products during the operations and the associated repair, rework and everything needed to deal with the defect and External failure cost which are the costs of not detecting faulty units and delivering them to customers when they find a fault. They decline with higher quality. However it should be noted that some cost increase with increasing quality e.g. prevention cost which are incurred in minimizing the number of defects.

#### **b) Total Quality Management (TQM)**

The principle behind TQM is that operations functions should leave no room for defaults.. This means that every unit of a product is manufactured with pin point accuracy to ensure that the final product is perfect. Adoption of TQM practice has minimized

waste by eliminating the need to scrap defects, large market share with less effort in marketing, low overall unit cost and improved profitability and removal of hassle and irritants for managers. Pioneers of TQM concept include;

**W. Edward Deming:** According to Deming he interprets quality in terms of level of reliability, its dependability, its certainty, and consistency of product and service. It is clear that quality improvement is comparable to reduction of variation.

**Philip B. Crosby:** In his definition, he laid importance on conformance to requirements not as goodness. To him quality is achieved by prevention not appraisals and quality performance standard is zero defects.

**William E. Conway:** Defines quality as a managing function responsible for all aspects of quality. This involves development, manufacture, administration and distribution at consistence low cost and services for customer satisfaction. He identifies three types of waste in a company namely; time, capital and material.

**Geninci taquchi:** He defines quality in a negative way and the loss imparted to the society from the time the product is shipped. This loss include customer dissatisfaction which may lead to a loss of reputation and goodwill for the company, direct loss to the company arising from warranty and service cost.

### **c) Dimensions of Quality**

Every company would like to maintain a loyal customer base who will frequently use its products/services. To do so it must make its offering more unique and satisfying by a mixture of several quality dimensions. Key among them is Tangibility. This includes the physical appearance of the product or the feel of the service. It must create an

unforgettable firsthand experience for the customer. The company must also show a high degree of empathy for its customers. It must give personalized attention to each customer to make them feel special and appreciated. Assurance is also another important dimension of quality. The employees of the company must be well trained to handle customer queries with speed and to the satisfaction of the customer. Staff incompetence can be detrimental to the company credibility.

### **2.7.2 Flexibility**

Flexibility is the ability to adapt effectively to a changing environment. Flexibility as a competitive weapon is vital for coping with the uncertainty element which is present in every business environment. Uncertainty can be viewed from two perspectives: marketing function and manufacturing function (Cheng et al., 2003). Flexibility is normally applied in product design. Organizations do not want to satisfy customers demand out of the goodness of their means but because this gives a mechanism for achieving their own aims. Product planning is responsible for the design and introduction of new products changes to existing products and withdrawal of old ones. It ensures that an organization continues to supply products that achieve both its internal and external aims (Donald, 2006).

Operations assess their own requirements for a product and they assess customers' requirements, they then design products that satisfy both parties. There are several reasons for this but the main aim is to continue meeting customer demands that changes overtime. In order to gain an advantage over competitors who are offering similar products, a small variation in products can be enough to create a substantial difference in demand. However an organization that aims to respond to customers demand inevitably

becomes a follower rather than a market leader. Apart from the market, the other pressure for product flexibility is to meet internal requirement for reduction in production cost. Flexibility as a competitive tool cannot be overlooked. In procurement of ICT systems, flexibility plays an important role since technology is rapidly changing and it would be cost effective for a company to invest in a system which can easily be configured to adapt to new business needs instead of having to buy a new system. A survey carried out of superior manufacturers in Japan pointed out that flexibility was the third most important factor in manufacturing (Jay and Jeffrey, 1992). This is further strengthened by Muriuki (2003), who concluded that flexibility of material was considered key in selection of roofing material in Nairobi by architects. Key features of flexibility include ability to modify existing products (modification), ability to change delivery modules, ability to cope with changes in the resource mix and product mix.

### **2.7.3 Speed/On Time Delivery**

On-time delivery is the ability to deliver according to a promised schedule (Ward, 1998). A firm's ability to deliver more quickly than its competitors is crucial. A company is not only required to deliver on products/services but maintain the same for after sale services. Therefore a short response time is of utmost importance for any company. To ensure fast response to customer demand, operations departments should have short lead times, spare capacity and dedicated response. As a result the business unit may opt for trade-off i.e. it may sacrifice cost or quality product in exchange to reliably delivering products when promised, even if the promise date is far in the future. Some customers use delivery speed as a key component for the firm to win an order. Research carried out shows that delivery speed shortens customer response time and helps gain competitive

advantage. Survey carried out in US, Japan and Europe of superior manufacturers concluded that speed was the second most important factor in competition (Jay and Jeffrey, 1992). Theuri (2003), further reiterates this by concluding that branded fast food chains in Nairobi opted for shorter lead times suppliers for them to effectively compete in the food industry.

#### **2.7.4 Reliability**

This is a measure of the firm's ability to supply the product or service before a promised delivery due date. Reliability is the ability of a system to operate without failure for a specified duration. This then calls for all the units within the system to function correctly over a given duration of time hence the system performance may be estimated based on reliability of predictions on its part. Delivery dependability/reliability is critical in organizations where principles of lean production are emphasized. It helps gain competitive advantage (Snell, 1996).

The demand for service reliability has been characterized almost exclusively in terms of 'outage costs', which refer to loss in value to the customer resulting from a sudden interruption of service provided. In the case of industrial and commercial customers, these costs may take the form of lost sales, idle labor, or product and input spoilage. While residential outage costs may also include spoilage, the less tangible costs of inconvenience are likely to play a more dominant role Jay and Jeffrey (1992), concluded that reliability was the most important factor considered by Japanese manufacturers while in Europe and US it came third after quality and speed.

### **2.7.5 Cost or Price**

Price is one of the major variables that operations are directly involved in determining through cost reductions. Within every industry there is usually a segment of the market that is price sensitive and as a result any small change in price will lead to an immediate change in demand of the product/service. They buy solely on the basis of low cost. Price fairness or unfairness can be a psychological factor that can determine a customer's reaction to price.

For many consumers, price is a major consideration, either because their funds are limited or because the differences between a higher priced item and a lower priced item do not seem justified. One task of the operations manager is to keep costs down so that organization can offer "good" prices and still make a profit. Earl Scheib, Inc., of Beverly Hills, which operates a nationwide chain of discount car-repair shops offering low priced paint jobs, is an example of an organization that has built sales volume through low prices. Scheib's low prices have resulted in annual sales increases of 15 percent and earnings increases of almost 50 percent. At the same time, Scheib protects its profit margins by careful cost accounting (Rao, 2009).

Cost accounting is also important in retail stores. Products and services sold strictly on the basis of cost are typically commodity like i.e. customers cannot distinguish the product of one firm from those of another. This segment of the market is frequently very large and many companies are lured by the potential for significant profits which they associate with the large unit volumes. In many organizations, managers view their primary task as cost reduction and productivity improvement (efficiency), and they make decisions and take actions that are consistent with the task even when their strategy

focuses on service or innovation. However it should be noted that for some managers, If their product has the most strengths, they price it on the high end. On the other hand if their product offers few benefits compared to competitors, they price it on the low end. So the effect of competition on pricing strategy requires an analysis of your and your competitors' strengths and weaknesses.

Several studies have been carried out on Price/cost as a competitive tool. Theuri (2003) concluded pricing and cost were major strategies used by branded fast food chains. This is further supported by Obado (2005), who concluded that sugar companies in Kenya employed cost leadership to maintain a competitive edge through eliminating non-essential activities and outsourcing some input variables. Similarly Jua kali artisans were keen to maintain favorable pricing of their products to compete against established manufactures (Muriuki, 2005).

## **2.8 Summary**

Competitive priorities include Quality, Flexibility, Cost/Price, Reliability and Speed of delivery. They play an important role in competition and more often than not trade-offs in competitive priorities are common. It is true that a firm cannot compete on all competitive priorities equally but it has to determine which competitive priorities will best put it at an advantage over its rivals. This will then guide pertinent allocation of resources to enable it maintain a competitive edge over its rivals. However firms should also be advised that they need to strike a balance on all competitive priorities. This is because customers are different and the needs of one customer will vary from customer to customer.

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This section outlines the research method that was used to achieve the objective of the study. The design outlines the research setting, population of the study, sample and sampling design, data collection instruments and data analysis.

### **3.2 Research Design**

This is a survey aimed at determining how mobile phone users rank competitive priorities in selection of mobile service providers. Survey method is often used to study the general condition of the people and organization as they investigate the attitudes, perception, expectations and opinions of people usually through questioning them (Cooper and Schindler, 2003).

### **3.3 The Population**

The population of interest for this study consists of all consumers of both mobile and fixed line telephone services within Nairobi city and the mobile telephony providers. The telephone providers in Kenya are Telkom Kenya, Essar, Airtel and Safaricom limited.

### **3.4 Sampling**

A sample size of 100 consumers was considered adequate. Odhiambo (2003) successfully used a sample size of 100. The target population was composed of any user of a mobile phone or fixed line telephone and the mobile telephony providers i.e. Telkom Kenya, Essar, Airtel and Safaricom limited. The researcher had to make sure that the sample was composed of all subscribers from all mobile service providers. As a result Multi stage cluster sampling was used to identify the sample. Two questionnaires were used for this



survey i.e. firm questionnaire and a customer questionnaire. Nairobi was selected by the researcher because of accessibility and limitation of resources such as time and money.

### **3.5 Data Collection**

Primary data was collected using two questionnaires (customer questionnaire and firm questionnaire) format with both open ended and close ended questions. The customer questionnaire was divided into 2 parts. Part A collected data on the profile of respondents and part B collected data on competitive priorities. A five-point likert scale was used to rate the different variables in the area of study. The questionnaire was administered with the help of a research assistant.

### **3.6 Data Analysis**

Data was coded to enable responses to be grouped into categories. Descriptive statistics e.g. frequency distribution tables, percentages and proportions was used to summarize and present the data. Frequency distribution table was used to compare the frequency of occurrences of categories of value for 2 or more variables. Mean and mode of the data was used to determine the major reasons for switching mobile service providers. Wilcoxon matched pairs was used to determine whether there are significant differences among the rankings of the various competitive priorities. This approach was used by Nyamwange (2001). Mann-Whitney U-test was carried out to test any significant difference between rankings of customer requirements and company priorities.

## CHAPTER 4: DATA ANALYSIS AND FINDINGS

### 4.1 Introduction

This chapter deals with data analysis findings and discussions on the research findings. 100 customer questionnaires were issued out and 4 firm's questionnaires were also issued out with the help of a research assistant. Data was summarized and presented in terms of mean scores, frequency, percentages and ranks.

### 4.2 Customer Switching

An analysis to determine whether customers had moved from one network to another was carried out as shown in Table 1. Only 26% of the customers had switched networks with 74% of the respondents choosing to remain loyal to their network.

**Table 1: Customer Switch to other Networks**

	Frequency	Percent
Valid Yes	26	26.0
No	74	74.0
Total	100	100.0

Source: Research Data

This implies that most customers chose to remain with their first choice network. This further may be influenced by employment status which then will affect age in network of a customer.

For the customers who had switched networks, there was need to confirm their reasons of switching between the networks.

Table 2 below shows customer reasons for switching networks.

**Table 2: Customer Reasons for Switching**

		Frequency	Percent
Valid	N/A	74	74.0
	Cost	6	6.0
	Flexible	5	5.0
	Quality	7	7.0
	Reliability	6	6.0
	Speed	2	2.0
	Total	100	100.0

Source: Research Data

7% of the respondents cited quality as the main reason why they switched. It was closely followed by cost and reliability which had a tie of 6% of the total respondents. 5% of the respondents cited flexibility as the reason for switching. Only 2% indicated speed as the reason for switching. This qualifies quality as an important factor for customers in their choice for service provider. This will contribute immensely on how customers rank quality in choice of their service provider.

#### **4.3 Ranking of Competitive Priorities by Customers**

Table 3 below shows the mean ranking of the various competitive priorities by customers from a scale of 1 to 5 where 5 is very important and 1 is least important. This was meant to find out what preferences customers prefer in selection of a mobile phone service provider and how they rank them

**Table 3: Customer Mean Ranking of Competitive Priorities**

	N	Rank Order	Mean	Std. Deviation
Flexibility	100	5	3.48	1.329
Speed	100	4	3.53	1.654
Reliability	100	3	3.57	1.289
Quality	100	2	3.69	1.412
Price	100	1	3.83	1.443
Valid N	100			

Source: Research Data

This was meant to find out what preferences customers prefer in selection of a mobile phone service provider and how they rank them. From the Table 3 above it can be seen that cost/price was given the highest score (Mean=3.83, SD=1.443) meaning that customers would prefer a service provider who is cost sensitive. It was closely followed by Quality (Mean=3.69, SD=1.412), Reliability (Mean=3.57, SD=1.289), Speed (Mean=3.53, SD=1.654) and Flexibility (Mean=3.48, SD=1.329). However this ranking should not be taken as the absolute final ranking of the priorities by customers as this is purely a mathematical rank order. The researcher conducted a non parametric test namely Wilcoxon Matched Pairs Sign rank test to determine whether there exist any difference in the rankings of the competitive priorities. The following hypothesis was tested and the results shown in Table 4.

$H_0$  = There is no difference in the ranking of the competitive priorities

$H_1$  = There exist a significance difference in the ranking of the competitive priorities

**Table 4: Customer Wilcoxon Matched Pairs Sign Ranked Test Test Statistics(c)**

	Flexibility - Reliability	Quality - Reliability	Speed - Reliability	Quality - Flexibility	Speed - Flexibility	Speed - Quality
Z	-.728(a)	-.678(b)	-.284(a)	-1.371(b)	-.486(b)	-.972(a)
Sig. (2-tailed)	.467	.038*	.776	.170	.627	.331

a Based on positive ranks. b Based on negative ranks. c Wilcoxon Signed Ranks Test

**Table 4: Wilcoxon Matched Pairs Sign Ranked Test Test Statistics(b)**

	Reliability - y - Price	Flexibility - y - Price	Quality - Price	Speed - Price
Z	-1.714(a)	-1.823(a)	-.783(a)	-1.332(a)
Sig. (2-tailed)	.047*	.068	.0533	.183

Source: Research Data

From the Table 4 above the p value associated with the Wilcoxon Matched Pairs Sign ranked test was given at the intersection of the row labeled Sig. (2-tailed) and the column labeled with the difference of the variables that correspond to the means in the hypothesis. The Rank order was statistically significant at the level  $\alpha=0.05$  for the pairs marked with \* i.e.  $p=0.047$  and  $p=0.038$  while the rest are not. This implies that the following Rank order is valid (1) Reliability (2) Cost/Price and Quality are ranked equally. This further implies that there is prioritization of Reliability followed by low cost/price and quality then the rest are pursued equally. Since some p values are less than  $\alpha=0.05$  we therefore do not accept  $H_0$  and state that there was significant difference in the ranking of the competitive priorities by customers. The test above shows that reliability is ranked highest than the other priorities followed by a tie between low cost and quality.

This indicates that there is a tradeoff between Reliability, low cost and Quality when it comes to choice of mobile telephony service provider by consumers. The findings are consistent with Maina (2001) findings about existent of tradeoffs among competitive priorities pursued within a competitive market.

#### 4.4 Ranking of Competitive Priorities by Managers

Table 5 below shows the mean ranking of the various competitive priorities by customers from a scale of 1 to 5 where 5 is very important and 1 is least important. This was meant to find out what preferences customers prefer in selection of a mobile phone service provider and how they rank them.

**Table 5: Managers Mean Rank of Competitive Priorities**

Competitive Priority	N	Mean	Std. Deviation	Rank Order
Price	3	5	0	1
Quality	3	4	1.00000	2
Flexibility	3	3.7	1.52753	3
Reliability	3	3	2.00000	4
Speed	3	2.7	2.08167	5

Source: Research data

From Table 5 it can be seen that cost/price (Mean=5, SD=0) was given the highest score meaning that managers prefer cost/price as the most important competitive priority. It was closely followed by Quality (Mean=4, SD=1), Flexibility (Mean=3.7, SD=1.52), Reliability (Mean=3, SD=2) and Speed (Mean=2.7, SD=2.08). However this ranking should not be taken as the rank order of the priorities by managers as this is purely a mathematical rank order. The researcher conducted a non parametric test namely

Wilcoxon Matched Pairs Sign ranked test to determine whether there exist any difference in the rankings of the competitive priorities. The following hypothesis was tested and the results shown in Table 6.

$H_0$  = There is no difference in the ranking of the competitive priorities

$H_1$  = There exist a significance difference in the ranking of the competitive priorities

From the Wilcoxon Matched Pairs Sign rank test, the rank order was statistically significant at the level  $\alpha=0.05$  for the pairs marked by \* i.e.  $p=0.040$ ,  $p=0.036$  while the rest are not significant. As a result the following rank order is valid (1) price, (2) Quality and Reliability have tied in the second position

**Table 6: Manager Wilcoxon Matched Pairs Sign Rank Test Test Statistics(c)**

	Speed - Quality	Speed - Flexibility	Speed - Reliability	Flexibility - Price	Reliability - Price
Z	-1.342(a)	-1.342(a)	-.447(a)	-1.342(a)	-1.342(a)
Asymp. Sig. (2- tailed)	.180	.180	.655	.180	.036*

Source: Research data

**Table 6 (continued)**

Speed - Price	Quality - Flexibility	Quality - Reliability	Quality - Price	Flexibility - Reliability
-1.342(a)	-.447(b)	-1.342(b)	1.342(a)	-.447(b)
.180	.655	.180	.040*	.655

a: Based on positive ranks. b: Based on negative ranks. c: Wilcoxon Signed Ranks Test

The test above shows that cost/price is ranked higher than the other priorities followed by quality and reliability. This shows that there is tradeoff between cost, quality and reliability and the other priorities. The ranking of cost is consistent with Obado (2005) and Theuri (2003) findings. These findings suggest that there exist tradeoffs of competitive priorities by mobile telephony service providers which indicate that they do not attach equal importance to all the competitive priorities.

#### 4.5 Comparison of Rankings by Firms and Customer

Mann-Whitney U test was employed as shown in Table 15.

**Table 7: Comparison of Ranking by Firms and Customers**

	Price	Quality	Flexibility	Reliability	Speed
Mann-Whitney U	.5	.5	.0	.0	.0
Wilcoxon W	1.5	1.5	1.0	1.0	1.0
Z	.0	.000	-1.0	-1.0	-1.0
Asymp.Sig(2-tailed)	1.0	1.0	.32	.32	.32
ExactSig.[2*(1-tailed Sig.)]	1.0(a)	1.0(a)	1.0(a)	1.0(a)	1.0(a)

**Test Statistics b** a: Not corrected for ties b: Grouping Variable: Respondent

Source: Research data.

From Table 7 all the p values (Asymp Sig 2 tailed) namely  $p=1, p=1, p=0.32, p=0.32, p=0.32$  are more than  $\alpha=0.05$  therefore we do not reject the null hypothesis and conclude that there was no significant difference in the ranking of the competitive priorities between firms and customers

This result shows that Kenya mobile telephony firms and their customers rank competitive priorities similarly. The implication is that firms must continue to employ the



same tactics to maintain their current subscriber base while at the same time employing other means to gain more customers

#### **4.6. Challenges in the Mobile Telephony Sector**

Some of the reasons given as challenges faced in the growth of this sector included cable vandalism, fraudsters who have taken advantage of promotions to extort money from unsuspecting customers, inefficient allocation of bandwidth by CCK and counterfeit phones which undermines know your customer ( kyc) policy.

## **CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1 Summary**

This was a survey aimed at finding out customer preferences in selection of a mobile service provider, how they rank the same preferences and how firms rank competitive priorities and comparing how customers and firms rank competitive priorities. It sought to find out whether the rankings of the competitive priorities were significantly different among customers and firms. Data was collected from 100 customers and 3 firms via a questionnaire within Nairobi Area. A five point Likert scale was used to rank competitive priorities. Wilcoxon sign rank test was carried out to determine whether there was any significant difference in the ranking of the competitive priorities and Test of means was employed to compare ranking of competitive priorities between firms and customers.

### **5.2 Conclusion**

The study was carried out to identify customer preferences in selection of mobile telephony provider, to determine ranking of competitive priorities by mobile telephony firms and to compare customer preferences in choice of mobile telephony service provider and ranking of competitive priorities by mobile telephony firms.

The study found out that firms believe in ranking of competitive priorities in the following order 1-Cost, (2) Quality and Reliability which were ranked equally. The other factors which firms compete on included flexibility and delivery speed. From the statistical analysis it was found that ranking of cost, quality and reliability was significantly different and therefore we do not accept null hypothesis that there exist no difference in the ranking of competitive priorities and conclude that there exist difference

in the ranking of competitive priorities. This means that there is prioritization which is consistent with Skinner (1966) trade-offs theory.

The study also found out that customers believe in the ranking of competitive priorities in the following order 1-Reliability, (2) Quality and Cost which were ranked equally. The other factors which customers considered important included flexibility and delivery speed. From the statistical analysis it was found that ranking of Reliability, Cost and Quality was significantly different and therefore we do not accept null hypothesis that there exist no difference in the ranking of competitive priorities. This means that there is prioritization which is consistent with Nyamwange (2001) findings.

On comparing whether there was any significance difference in the way customers and firms rank competitive priorities, it was found that there was no significant difference in the way both parties rank competitive priorities . This means that we fail to reject the null hypothesis and conclude that there is no significant difference in the way customers and firms rank competitive priorities.

### **5.3 Recommendations**

From the results of the study we realize that competitive priorities play an important role in customer choice of a mobile service provider. It is therefore necessary that firms give utmost importance in the allocation of resources to adequately compete on the most effective competitive priorities. The study also revealed that both firms and customers rank competitive priorities similarly. As a result there is need for firms to develop other means of competition while at the same time focusing on their current competitive priorities.

#### **5.4 Limitations of the Study**

The study was only limited to Nairobi Area due to time and financial constraints. As a result, the results may not reflect the general characteristics of the population. In addition this was a survey composed of predetermined questions which may have locked out vital information from the respondent.

#### **5.5 Suggestions for Further Research.**

The study did not capture all the competitive priorities that are vital for competition. As a result future studies should explore the role of other competitive priorities such as innovation.

In the course of the study it was noted that some customers had churned. A study should be carried out to determine what is the effect of churn to firms and whether those customers who churned end up returning back to their former network

It was also noted that Safaricom maintained a continued dominance in this sector. Studies should be carried out to determine reasons for continued dominance of Safaricom limited in the mobile telephony sector.

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## APPENDIX 1: CUSTOMER QUESTIONNAIRE

Tick where appropriate

1. What is your gender?

Male  female

2. What is your marital status?

Single  married  divorced  widowed

3. Tick age bracket in which you fall.

Below 20 years

21-30 years

31-40 years

41-50 years

51-60 years

Above 60 years

4. Please indicate your education level.

Primary level

Secondary level

College

University

5. Occupation

Employed  Employed  Unemployed

6. From the list provided below, tick your service providers.

Safaricom

Airtel

Essar

Telkom orange

Others (combination)

7. How long have been with your first service provider

<1year  1-5years >s

8. How much (Ksh) on average do you spend on airtime per month?

<=100  100-250  251-500  >500

**Part B: Competitive Priorities**

9. Have you ever switched companies? If yes please indicate from which company to which and why.....

10. Kindly rate the following priorities in order of importance. (1-Not sure, 2-Not important at all 3-somewhat important, 4-important, 5-very important)?(Price-Fairness, Reliability-Ease of use, Flexibility-adapt to environment, Quality-feel of service, Speed-within agreed time)

	1	2	3	4	5
Price/Cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reliability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speed of delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## APPENDIX 2: FIRM QUESTIONNAIRE

Tick where appropriate.

### 1. What is your Education Level

Primary Level

Secondary Level

Tertiary Level

University Level

### 2. How long have you worked in your current position?

<1year  1-5years  5years

### 3. How long has your service provider been in operation?

<1year  1-5years  >5years

### 4. How would you describe the company ownership?

Predominantly local (51% local ownership)

Predominantly Foreign (51% foreign ownership)

### 5. How would you rank your service delivery in terms of (1-Not sure 2-Not important at all 3-somewhat important, 4-important, 5-very important)

	1	2	3	4	5
Price/Cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reliability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Speed of delivery

6. From your company perspective, rank the following in order of competitive importance (1-Very important 2-important 3-somewhat important, 4-Neutral, 5-Not important)

	1	2	3	4	5
Price/Cost	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reliability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flexibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Speed of delivery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. What are the major challenges in improvement of mobile telephony services in Kenya?

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## **Appendix 3: Respondents**

### **Firms**

Safaricom Limited

Telkom Orange

Airtel Kenya

Essar Yu