APPLICATION OF SERVQUAL MODEL IN THE KENYAN MOBILE PHONE MONEY TRANSFER SERVICES SECTOR

BY

ONYIMBO, NEVILLE NERI OYAGA

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DECLARATION

This project proposal is my original work and has not been presented for a degree in any other university.

Signature: _____ Date: _____

ONYIMBO, NEVILLE NERI OYAGA

D61/60770/2011

This proposal has been submitted for review with our approval as university supervisors.

Signature: _____ Date: _____

JOB MWANYOTA,

MANAGEMENT SCIENCE DEPARTMENT,

SCHOOL OF BUSINESS.

Signature: _____ Date: _____

ONSERIO NYAMWANGE,

LECTURER,

MANAGEMENT SCIENCE DEPARTMENT,

SCHOOL OF BUSINESS.

DEDICATION

This research project is dedicated to my wife Joan Ondu Wycliffe who positively supported the endeavour, and to my children Victor, Shekinah and Shammah for their interest, patience and inspiration throughout the project.

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ABSTRACT

Service quality measurement is a recurring problem in literature. The elements of service quality and ways of measuring them are still contentious. The purpose of this study was to find out how applicable SERVQUAL model is in the context of the mobile phone money transfer service sector in Kenya. The objectives entailed determination of the gap between expected and perceived service quality apart from establishing the relationship between the five SERVQUAL dimensions to the overall service quality in the Kenyan mobile phone money transfer service sector. Data was collected through cross-sectional survey by snowballing targeting a sample of 120 respondents proportional to the KNBS wage population by sectors within Mvita Sub-County of Mombasa County. A self-administered questionnaire was used with adapted SERVQUAL items to the context of study based on the five-point Likert scale. The SPSS software was used to determine the gap between expected and perceived service quality by the paired t-test after which regression analysis established the relationship between the SERVQUAL dimensions to overall service quality in order to identify the dominant dimensions. The findings established that there is a gap between the expectations and perceptions of consumers which needs to be filled by mobile phone money service providers. From the study, it was found that overall service quality was perceived low (-.37531) meaning expectations exceeded perceptions on services. The only expectation fully satisfied was provision of error free transactions. The practical implication of this study is that the sector regulator needs to upgrade the QoS measurement model to incorporate the consumer component and also integrate quality measurement across the suite of services offered. It was realized that identification of dominant service quality dimensions in different service industries will assist in guiding operations managers to deploy specialized service design and delivery in an effort to enhance the quality of services that meet consumers' expectations.

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ABBREVIATIONS AND ACRONYMS

ATM	Automated Teller Machine
CAK	Communications Authority of Kenya
CCK	Communications Commission of Kenya
ICT	Information Communication and Technology
KPIs	Key Performance Indicators
KNBS	Kenya National Bureau of Statistics
POLQUAL	Police Quality Model
QoS	Quality of Service
SERVPERF	Service Performance model
SERVQUAL	Service Quality model
SPSS	Statistical Package for Social Sciences

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

There have been many debates on service quality conceptualization and measurement and lack of a consensus in literature about those aspects of service quality that are relevant for many professional service industries has led to emphasis on application of context to service quality measurement (Brady & Cronin, 2001). Studies conducted by Parasuraman, Zeithaml & Berry (1985, 1988, 1994) and Grönroos (1984) emphasized the importance of conceptualization and measurement of the service quality construct. The debate on service quality measurement has especially been on dimensionality of the service quality construct (Finn & Kayande, 2004).

The theoretical framework of this study recognizes two major schools of thought i.e. the American stream and a European stream of research into components that should be measured while assessing service quality (Brady & Cronin, 2001). The 'Nordic' perspective (Grönroos, 1984) defined dimensions of service quality in global terms as consisting of functional and technical quality while the 'American' perspective (Parasuraman et al, 1988) approached service quality dimensions in terms of service encounter or experience i.e. reliability, assurances, tangibles, empathy and responsiveness. The latter perspective seems dominant in most literature review with a proposition that SERVQUAL model is a good starting point in measuring service quality (Brady & Cronin, 2001).

There has been a phenomenal growth in the mobile phone money transfer service sector and also remarkable popularity that creates a need to determine the quality of service delivery in the sector. Within the first five years of usage, the country's mobile money transfer subscriptions formed 70.35 per cent of total mobile

subscriptions, indicating a rapid growth in demand of mobile money especially for the unbanked low income citizens (CCK, 2012a). According to the Communications Authority of Kenya, the mobile money transfer segment had an increase of subscriptions from 26.0 million to 26.2 million during the first quarter of the year 2014 with a mobile phone network penetration of 78.2 per cent (CCK, 2014). Mobile money transfers amounted to Sh. 913.8 billion in the financial year ending June 2013.

1.1.1 Service Quality

Quality has been defined with various perspectives according to either the researcher, the dimensions identified or context in which it is measured (Magutu, Mbeche, Nyaoga, Nyamwange, Onger & Ombati, 2010). According to Magutu et al (2010) quality can be assessed based on the service itself or on the basis of the process which takes place during service delivery. The operations management service quality perspective is process-evaluation based but a customer centred approach is in a marketing orientation.

Parasuraman et al (1988) defined service quality as what users feel a service provider should offer rather than would offer. Perceived service quality was in this case viewed as the difference between what a consumer feels a service provider should provide compared to what the service provider actually offers. Service quality has traditionally been based on the disconfirmation paradigm (Surooja, 2003) which means that perceived service quality is a result of comparing perceived performance of the service against an established or expected standard.

Service quality of the organization within which service production and reception takes place is also influenced by the customer being part of the process (Nyundo, 2013). Therefore in order to deal with the diverse customer demands, quality service

delivery systems have been developed to handle the various service processes that exist to satisfy the fact that those users are also part of service delivery (Mose, 2013).

1.1.2 Service Quality Measurement

The fact that the service provider and the user interact simultaneously during service delivery processes brings about a unique aspect about services when the service providers' employees and consumers make an impact on production and delivery processes (Phillip & Hazlett, 1996). This poses a challenge in measurement since the user has for instance to make a conclusion about a service received in the recent past by recollecting the experience during the service encounter.

Grönroos (2001) recognised that assessment of services as processes is fundamental since their delivery is an interactive process. Performance of the user and service provider personnel impact on service quality which poses a challenge in standardisation since service quality will vary from one situation to another even within the same organisation. The extent of involvement of the user in the delivery process is critical. "Process consumption" is the context in which the perceived service quality should be measured rather than "outcome consumption" which applies to physical products.

1.1.3 The SERVQUAL Measurement Scale

Although quality management is critical in operations management, the most common model of service quality measurement, the Gap Model which was later improved into the SERVQUAL scale is derived from service marketing (Sampson, 2012). The SERVQUAL instrument has been used in measuring quality of retail banks, telephone companies, securities brokers, appliance repair and maintenance firms and credit card companies (Parasuraman et al, 1988). For instance, Mwangangi (2014) observed that

SERVQUAL model helps to translate consumer expectations and perceptions to specifications that must be conformed to by an organisation in order to attain the desired level of service quality.

The 22-question item scale measured five basic dimensions (reliability, responsiveness, empathy, assurance and tangibles) where a customer rated his or her extent of agreement or disagreement on a scale of 1 - 7, such that '7' meant strongly agrees and '1' strongly disagrees (Parasuraman et al, 1988). Quality was measured as performance minus expectations for each pair of questions. If for instance performance was '6' and expectations '6' it means that quality was met.

1.1.4 Mobile Phone Money Transfer Service

Mobile phone money transfer refers to that service where money is sent to the recipient by use of the mobile phone rather than the traditional money transfer that relies on other types of telecommunication technology. Currently the service allows users to deposit money into an account that is held on their SIM cards and which can be sent to other users or other mobile phone transfer networks using SMS technology. Money is redeemed at a small charge from the users while the company shares proceeds with its agents.

The CCK is the independent regulatory authority for ICT industry in Kenya which monitors and evaluates 'Quality of Service' (QoS) among mobile phone network operators to the benefit of consumers. The original CCK quality of service assessment model adopted in the financial year 2008/9 and which is still currently being used evaluated eight parameters mainly in the voice sector as indicated in Table 1.1. The parameters include: Completed Calls, Call Set up Success Rate, Call Drop Rate, Call

Block Rate, and Speech Quality, Call Set up Time, Handover Success Rate and Signal strength (Rx) Levels (CCK, 2012b).

Table 1.1 QoS Performance Targets

NO	KPI	Immediate (from 2009)	After 3 years (from 2012)
1	**Completed calls**	90%	95%
2	**Call set up success rate (CSSR)**	90%	95%
3	**Call drop rate**	2%	2%
4	**Call block rate**	10%	5%
5	**Speech Quality**	95% of samples > 2.7	95% of samples > 3.1
6	**Call set up time**	13.5 sec	13.5 sec
7	**Hand over success rate**	85%	95%
8	**Rx Levels**	Outdoor = -102 dBm	Outdoor = -102 dBm
		Indoor = -95 dBm	Indoor = -95 dBm
		In car = -100 dBm	In car = -100 dBm

Source: CCK. (2012b). *Report on the Quality of Service (QoS) Performance Assessment for Cellular Mobile Networks, 2011/2012*. CCK.

In the year ending June 2012, Kenya's largest operator was cited as the worst mobile service provider (CCK, 2013). In fact the big players delivered low quality services compared to the small service providers who surpassed compliance levels as indicated in Table 1.2. None of the operators met the minimum target of seven out of eight mandatory key performance indicators (KPIs). Only Telkom Kenya Ltd met at least five out of the eight mandatory KPIs in 2012/2013 financial year.

Table 1.2 Mobile Operators Overall Compliance with Quality of Service Targets

Operator	Target QoS Parameters		Performance Achieved (%)		
	Number	Percentage (%)	2010/11	2011/12	2012/13
Safaricom Limited	8	80	75	50.0	50.0
Airtel Networks Kenya Limited	8	80	75	62.5	50.0
Telkom Kenya Limited (Orange)	8	80	50	87.5	62.5
EssarTelcom Kenya Limited	8	80	75	87.5	50.0

Source: CCK. (2012b). *Report on the Quality of Service (QoS) Performance Assessment for Cellular Mobile Networks, 2011/2012*. CCK.

1.2 Research Problem

Measurement of service quality is a complex process when considering content and delivery issues because while customers are best placed to evaluate the quality of service delivery, service providers are better judges on the content of the messages (Ombati, Magutu, Nyamwange & Nyaoga, 2010). There is need to determine the most appropriate measurement procedure in mobile phone money transfer services that incorporates the interactions between service providers and the consumers.

As observed from the regulator's reports on QoS of mobile phone service operators, the model adopted to measure service quality was biased towards voice traffic in its assessment rather than using the basket of services offered by the operators. Further, the report did not elicit an attempt to establish the quality of service in the mobile money transfer segment. Critical elements in telecommunications include quality of service, changing technological environment, need of timeliness and responsiveness, faster resolution of network problems, shorter lead times in delivery of telecommunication equipment and implementation of projects (Otemba, 2012).

Some of the studies done in the mobile phone service sector were mainly concerned with user perceptions of service quality provided by mobile telephony industry and their satisfaction (Musembi 2010; Omido 2011; Otemba 2012). Other studies focused on operational issues such as the effect of capacity management strategies on service quality in Safaricom Limited retail outlets (Ong'ondo, 2013) where it was noted that operations managers will fail in quality control in a service setup if quality of service is not appropriately balanced with management of the resources.

Most of the studies reviewed acknowledged the importance of service quality considerations in effective service delivery and customer satisfaction but measurement of service quality, particularly in the mobile phone money transfer services context is scarcely researched. This study intended to fill this gap and was guided by the following questions: (i) What is the level of service quality delivered by the mobile phone money transfer service sector in Kenya? (ii) Which are the domineering service quality dimensions in the mobile phone money transfer sector?

1.3 Objectives of the Study

Primary Objective

To measure service quality in the mobile phone money transfer services sector using the SERVQUAL scale.

Specific Objectives

1. To determine the gap between expected and perceived service quality in the mobile phone money transfer service sector in Kenya.

2. To establish the relationship between the five SERVQUAL dimensions of service quality and overall service quality of mobile phone money transfer service sector in Kenya.

1.4 Value of the Study

Mobile phone money service providers can now redesign service operations in order to tailor them to meet customer expectations (Aikins, Ahmed & Adzimah, 2014) based on the gap observed between expectations and perceptions. This research adds knowledge to studies on the relative importance of service quality dimensions in specific service industries.

Customers' perceptions of service quality as well as the correlation between service quality dimensions within the mobile phone money transfer services sector are evident and this should guide the mobile phone money operators in the telecommunications industry of specific areas in which to close service quality gaps.

The general knowledge gained of consumers' judgment of the mobile phone money transfer sector's service quality could guide to policy makers and regulators like the CAK on the parameters to be integrated to their quality of service model in the mobile phone money transfer industry.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the background of service quality theory and illustrates the structures of five common models related to SERVQUAL used in service quality measurement. Some empirical studies done are briefly discussed after a review of the models that contribute towards the service quality measurement theory.

2.2 Basis of Service Quality Theory

Literature has evidence of many service quality models that express the varied opinions of researchers on service quality measurement. These have so far influenced the various definitions of the service quality construct. There has been an argument as to what actually forms service quality and whether it is a single construct or an aggregate of several dimensions. This debate has almost presented itself as a controversy due to various emerging perspectives (Brady & Cronin, 2001).

Service quality research has also endeavoured to investigate the interaction outcomes between consumers and the service provider. Collier & Bienstock (2006) in their study of e-service quality measurement, contend that the consumer's perception of service outcomes will be considered together with the accompanying service recovery perceptions whenever there is a problem. Nyundo (2013) observed that service quality is usually a perception which turns out to be an overall appraisal of the service by evaluating the difference between consumers' expectations and their perceptions about the service actually delivered.

2.3 Service Quality Measurement Theory

While there has been progress on how service quality perceptions should be measured (Parasuraman et al, 1985, 1988, 1994), there is no consensus on what is to be measured. Although it is clear from literature that service quality perceptions are based on multiple dimensions, there is no general consensus as to the nature and content of the dimensions.

When the parameters used in service quality measurement theory were synthesized, conceptualization and measurement of service quality was found to be context specific (Dagger, Sweeney, & Johnson, 2007), hierarchical (Dabholkar, 1996) users-perception-based (Parasuraman, et al 1985) and multi-dimensional (Brady & Cronin, 2001). The sustained research on service quality perceptions and measurement model specifications has mainly embraced a hierarchical view (Brady & Cronin, 2001; Fassnacht, & Koese, 2006; Edwards & Bagozzi 2000).

2.3.1 Service Quality Measurement Models

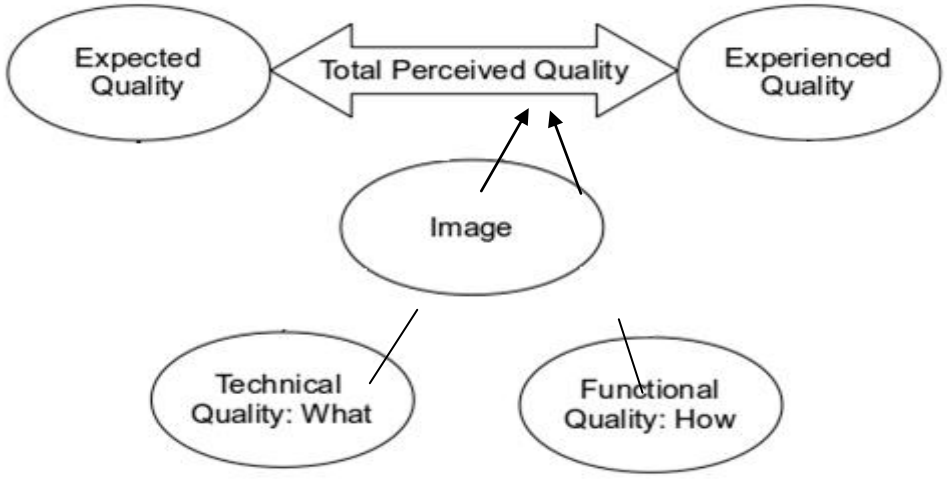
Application of any model into a situation usually depends on the researcher's judgement since every service quality model exists with distinct parameters that influence its design (Rodrigues, 2009). Although there are numerous models applied in service quality measurement, this study relied on the five most common models referred to in extant literature and which have an implication on the SERVQUAL model.

2.3.1.1 Nordic Model

One of the earliest attempts to measure service quality was proposed by Grönroos (1984) with a model that defined service quality in terms of technical quality (that is

obtained by the user) and functional quality (that is given by the service provider) as in Figure 2.1.

Figure 2.1 **Nordic Model of perceived service quality.**



Source: Grönroos, C. (1984). A Service Quality Model and its Marketing Implications. *European Journal of Marketing*, *18*(4), 36-44.

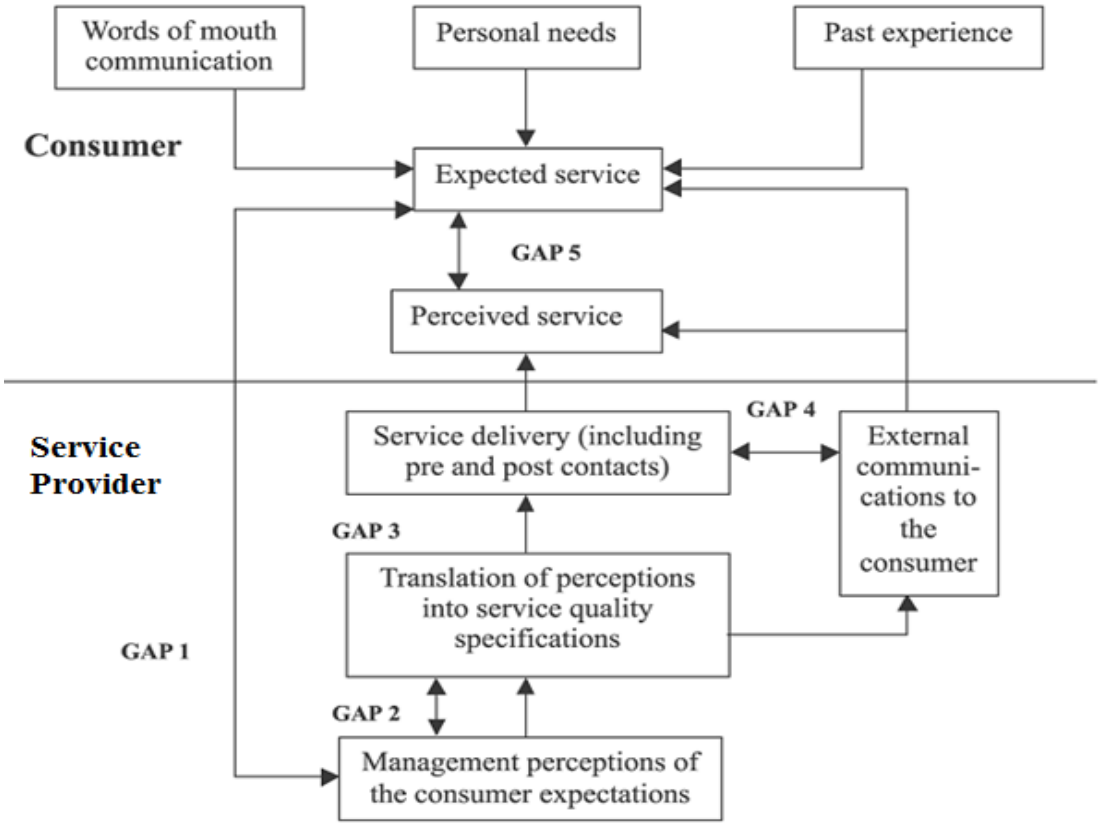
The technical dimension relates to what service the consumers actually received in their interaction with service providers such as the transfer of money from a sender to the recipient. The functional dimension relates to the manner in which the service is delivered for example the friendliness of the mobile money transfer agent. The model distinguishes between the service itself and how it is delivered. The model aimed at measuring an individual's perception of the service quality and has been used by many researchers to measure service quality in different industries. The Nordic model is based on the disconfirmation paradigm.

2.3.1.2 Gaps Analysis Model of Service Quality

While advancing the Nordic Model, Parasuraman, Berry & Zeithaml (1985) developed the Gaps Model which also has roots in the disconfirmation paradigm. It was an attempt to improve weaknesses in the Nordic Model whereby gaps between

consumers' expectations and their perceptions were outlined. In this model, other factors that influence a consumer's expectations include: word of mouth communication, personal needs, past experience and external communications.

Figure 2.2 **The Gap Model of service quality**



Source: Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and its Implications for future Research. *The Journal of Marketing*, 41-50.

It identifies five gaps that lead to unsatisfactory service quality delivery to consumers (Parasuraman et al, 1985). The first gap suggests that management may not know exactly what the consumers anticipate in the service. The second gap implies that management may perceive correctly what the consumers want but it may not specify appropriate service quality standards. Thirdly, the standards between service quality specifications and the actual service delivered may not be accurately specified. The

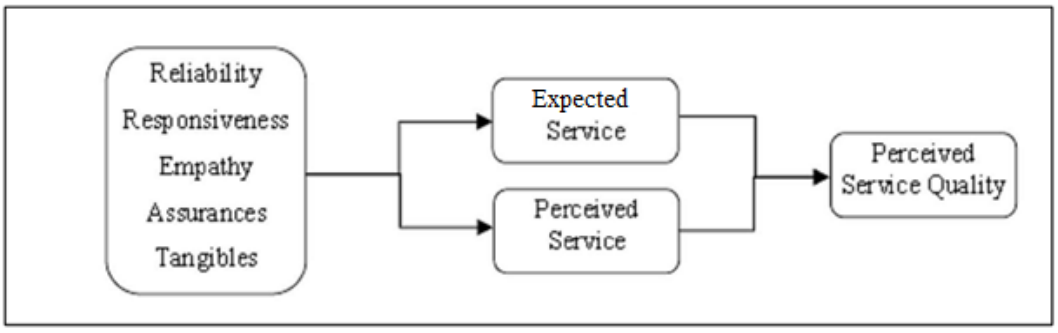
fourth gap shows that the statements made by the organisation and its representatives regarding service delivery may not be fulfilled at the time of delivery for some reason. And finally, the fifth gap provides the interpretation of the consumer on whether the expectations have been met or not. This final gap is the basis of measurement of service quality and evaluates the disparity between expected service from providers and perception of actual service provided.

2.3.1.3 The SERVQUAL Model

The SERVQUAL Model was designed to measure the gap or difference between the expected level of service and the perceptions on actual service delivered (Parasuraman et al., 1988). When the perceptions on service delivered exceeds that of expectations, quality has been attained. However when the expectations of service delivered exceed the perceptions of actual service received, then quality is poor.

SERVQUAL model is acknowledged as being a more popular model of service quality measurement having been broadly applied in varied environments (Rodrigues, 2009). The model remains the most complete attempt to conceptualise and measure service quality (Nyeck, Ladhari & Pons, 2002).

Figure 2.3 **SERVQUAL Model**



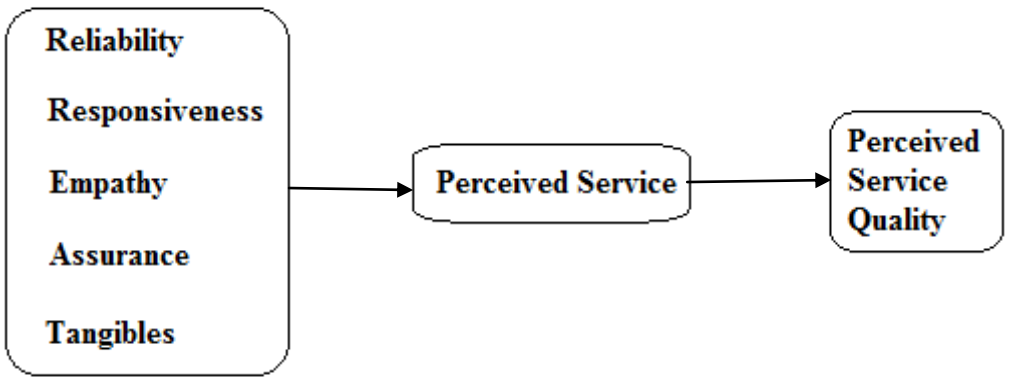
Source: Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A Multiple-item Scale for Measuring Customer Perceptions of Service Quality. *Jornal of Retailing, 64*(1), 12-37.

2.3.1.4 The SERVPERF Model

Cronin & Taylor (1992) modelled and tested a performance based alternative to SERVQUAL known as SERVPERF, which is purely performance-based. By being grounded on the perceptions component only, SERVPERF scale does not rely on the disconfirmation paradigm. Research suggests that perceptions-only measures are more psychometrically sound than the disconfirmation model (Brady & Cronin, 2001). It assumes that respondents will compare their performance perceptions with performance expectations rather than measuring expectations independently.

Cronin & Taylor (1992) argued that the conceptualization and operationalization of SERVQUAL is inadequate. They emphasise insufficiency of evidence both theoretical and empirical to support the assertion that performance-to-expectations "gaps" is still relevant. (Cronin & Taylor, 1992). The expectations component of SERVQUAL was disregarded due to its varied interpretations in previous research (Jain & Gupta, 2004) and therefore SERVPERF relied on the perceptions component only.

Figure 2.4 **The SERVPERF Model**



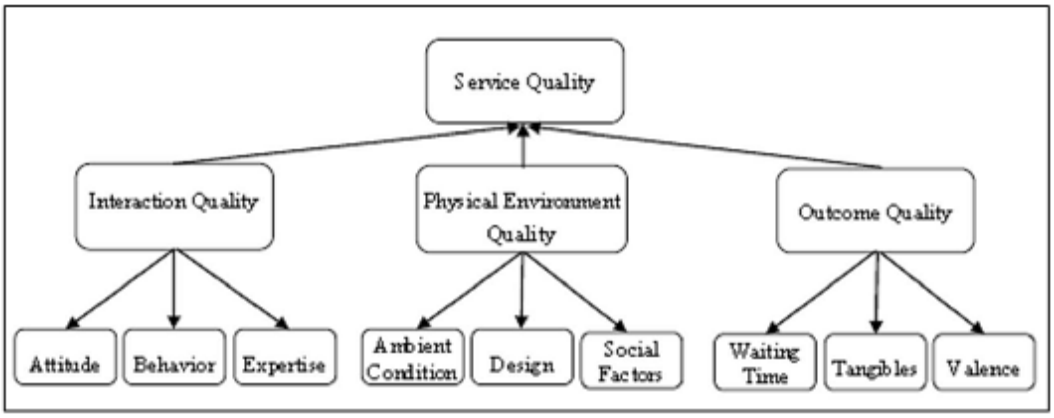
Source: Cronin, J. J., & Taylor, S. A. (1992). Measuring Service quality: A Re-examination and Extension. *Journal of Marketing, 56*, 55-56.

2.3.1.5 The Hierarchical Model

Brady & Cronin (2001) acknowledged that the multiplicity of service quality dimensions depict a missing link and thus improved the SERVQUAL approach by an integrated conceptualisation that unified the multiplicity of dimensions and the hierarchical nature of the service quality construct. This procedure borrowed from other models in order to come up with a unifying conceptualisation in an attempt to resolve the debate in service quality theory and measurement.

The model presents three primary dimensions of service quality i.e. interaction quality, physical environment quality and outcome quality. Each is further broken into three sub-dimensions i.e. attitude, behaviour and expertise for interaction quality; ambience, design and social factors for physical environment quality and waiting time, tangibles and valence for outcome quality.

Figure 2.5 **The Hierarchical Model**



Source: Brady, M. K., & Cronin, J. J. (2001). Some New Thoughts on Conceptualizing Perceived Service Quality: A Hierarchical Approach. *The Journal of Marketing, 65*(3), 34-39.

Consumers make a judgement on the sub-dimensions to arrive at a perception on the organisation's performance. Service quality perceptions are thus evaluated at different

levels to deduce an actual overall service quality perception. The definition of the sub-dimensions was guided by SERVQUAL's five dimensions (Brady & Cronin, 2001) as they were considered modifiers of the nine sub-dimensions of the Hierarchical model.

2.4 Empirical studies in Service Quality Measurement

A critical review of about 40 service quality studies in Ebsco, Emerald Insight and ABI/Inform databases in the context of patients' hospital service quality perceptions revealed that there were varied ways of establishing dimensions (Pai & Chary, 2013). This was corroborated by Barabino, Deiana & Tilocca (2012) who in the process of providing a universal quality evaluation tool for transport operators came up with unique measures such as on-board security, bus reliability, cleanliness and frequency despite starting with a modified SERVQUAL scale.

In a study to establish relationship between technology and service quality in the Kenyan banking industry, Ombati et al (2010) found that secure services is the most significant dimension followed by other dimensions such as convenient location of ATM, less waiting time, accuracy of records, user friendliness, ease of use, accurate transactions and 24-hour operations. However Omonge (2013) found that reliability dimension of service quality was the most important factor to invest on followed by responsiveness when exploring the level of service quality in the context of mobile telephony industry satisfaction among the subscribers. Generally, it was found that customer's perception of service quality did not meet their expectations since all gaps scores had negative values.

In a comparative study of SERVQUAL and SERVPERF tools, the combined results of the two scales and 'gap analysis' indicated that tangibles and reliability are the two

dimensions which have received higher level of service quality recognition by consumers while empathy and assurance present the least level of service quality perception (Rodrigues, 2009). Another SERVQUAL-based study in police traffic services adapted a new scale known as POLQUAL using the five SERVQUAL dimensions with an extra 'promptitude' dimension whereby reliability and tangibles dimensions emerged as the most negative gaps (Sarrico, Ferreira & Silva, 2013).

2.5 Summary of Literature Review

This literature review related those aspects of service quality models that expressed varied opinions of researchers on service quality measurement. The review done narrated development of the SERVQUAL model from the Nordic and Gap Analysis models which are all based on the disconfirmation paradigm. The SERVPERF model was developed in an effort to address the SERVQUAL limitations while the Hierarchical model arose as an attempt to unify all the other models into one universal approach in service quality measurement.

Since SERVQUAL is acknowledged as being more popular and with broad application in service quality measurement in different environments (Rodrigues, 2009), it was the model of choice for this study in order to specifically fill the knowledge gap regarding its application in the relatively new phenomenon of mobile phone money transfer services in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the nature of the research design applied in the study, the population, sample design technique, sample size, data collection methods used and the data analysis procedures.

3.2 Research Design

The approach used was descriptive cross-sectional study that involved a one-time interaction with respondents. The survey sample was calculated and stratified based on existing secondary data of mobile phone money transfer users obtained from the sector regulator, Communications Authority of Kenya (formerly CCK) and population parameters from the Kenya National Bureau of Statistics (KNBS, 2015).

3.3 Population

The research population consisted of mobile phone money transfer subscribers in the country who were estimated to be about 19.5 million as at the year ended 30th June 2013 (CCK, 2013). The study elements were drawn from the approximately 15,083,674 and 3,751,713 subscribers for Safaricom limited and Airtel Kenya respectively while Essar Telecom and Orange Telecom had 530,149 and 140,166 subscribers respectively.

3.4 Sampling Technique and Sample Size

For this study, the sampling frame could not be practically prepared due to the large study population since the broad sampling framework would be constrained by time,

cost and geographical spread. Therefore purposive sampling technique was used where the rule of thumb is to have a sample that is as representative as possible in order to remove bias and ensure even coverage and therefore achieve diversity (Ritchie & Lewis, 2003).

A sample of 120 mobile phone money subscribers was targeted to be drawn proportionally from the four major service providers as shown in table 3.1. The sample was drawn through a snowballing procedure in order to cover active users only from mobile phone money services in the various economic sectors within Mombasa County (KNBS, 2015).

Table 3.1 Sample Size

Network	**Number**	**Sample**
Safaricom	15,083,674	93
Airtel	3,751,713	23
Essar	530,149	3
Orange	140,166	1
TOTAL	**19,505,702**	**120**

Source: CCK. (2013). *Annual Report for the Financial Year 2012-2013.* CCK.

3.5 Data Collection and Analysis

The data collection tool was a self-administered questionnaire (Parasuraman, et al, 1994) structured in three sections: demographics, expectation and perception levels. The tool adapted from the SERVQUAL instrument (Parasuraman, et al, 1988) applied a five-point Likert scale (Babakus & Mangold, 1992) on 22 paired items. Pilot testing

was done whereby some ambiguities in the questions were removed and two questions introduced to identify the respondent's mobile phone money provider and the economic sector of the respondent. Validation of the tool was done by in-depth discussion with experts in the industry while reliability was verified by determining Cronbach's coefficient alpha (Sekaran, 2003).

After data collection, verification of completeness in the questionnaires was done followed by data coding in SPSS software. Descriptive statistics explained the demographic information including age, gender, income, education levels, economic sector and mobile phone money service provider. The gap between expected quality and actual quality perceived was determined and paired t-test used to evaluate and explain the differences in mean scores of expectations and perceptions (Finn & Lamb, 1991). Regression analysis determined the relationship between the independent variables and the dependent variable (Sachdev & Verma, 2004) whereby the dominant dimensions were identified. The multivariate regression model used for analysis is: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$ where Y represented service quality while β_0 is the constant factor. $X_1 - X_5$ represent the independent variables: reliability, assurance, tangibles, empathy and responsiveness respectively. B1–β5 are coefficients associated with the variables while ε is the random error representing all other minor effects on the model which have not been captured.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents an analysis of data collected and discusses the findings on the gap between expectations and perceptions of service quality including the correlation between five dimensions of service quality in comparison to overall service quality.

4.2 Demographic Characteristics of Respondents

Data was received from 96 respondents out of 120 questionnaires but 8 questionnaires were incomplete and therefore not valid. The response rate was 80% which mainly came from the subscribers of the two leading mobile phone money transfer service providers Mpesa and Airtel Money. Data was analyzed using SPSS software to extract objective results. The study elements were active users of mobile phone money transfer services within Mvita Sub County of Mombasa County in Kenya.

4.2.1 Age of Respondents

Table 4.1 Age Group of Respondents

		Frequency	Percent
Valid	**18 - 30 years**	23	26.1
	31 - 40 years	24	27.3
	41 - 50 years	34	38.6
	Above 50 years	7	8.0
	Total	**88**	**100.0**

Source: Primary Data, 2015

As shown in Table 4.1, majority of respondents were between 41-50 years while those above 50 years were only seven. From the findings, active users of the mobile phone money transfer service are evenly distributed among the economically active population with a higher number for the mid-age group.

4.2.2 Level of Education

Respondents were asked to indicate their level of education the information is shown in Table 4.2. From the findings more than 80% respondents had college and university level of education and therefore reinforce the reliability of the SERVQUAL scale results. It means that the scale's items were adequately comprehended to give a precise response.

Table 4.2 Level of Education of Respondents

		Frequency	Percent
Valid	**Primary**	1	1.1
	Secondary	14	15.9
	College	41	46.6
	University	31	35.2
	Total	87	98.9
Missing	**99**	1	1.1
Total		**88**	**100.0**

Source: Primary Data, 2015

4.2.3 Gender of Respondents

Respondents indicated their gender as summarized in Table 4.3. The results show a balance between the two gender with 48 male respondents (54.5%) and 40 female

respondents (45.5%) which means that the distribution of respondents is not abnormally skewed towards any gender and is therefore not biased.

Table 4.3 Gender of Respondents

		Frequency	Percent
Valid	**Male**	48	54.5
	Female	40	45.5
	Total	**88**	**100.0**

Source: Primary Data, 2015

4.2.4 Occupation (Economic Sector)

The summary of respondents' occupation or economic sector is shown in table 4.4.

Table 4.4 Occupation / Economic Sector of Respondents

		Frequency	Percent
Valid	**Agriculture**	12	13.6
	Manufacturing	12	13.6
	Construction	1	1.1
	Wholesale & Retail	6	6.8
	Storage	1	1.1
	ICT	1	1.1
	Financial & Insurance	5	5.7
	Scientific & Technical	2	2.3
	Public Administration	14	15.9
	Education	28	31.8
	Human Health	6	6.8
	Total	**88**	**100.0**

Source: Primary Data, 2015

It compares favourably to the Kenya National Bureau of Statistics wage employment by industry and size in 2013 (KNBS, 2015). Respondents were asked to indicate the occupation (sector) they were engaged in as the snowballing procedure of data collection followed the general KNBS wage population by sector. The findings imply that the number of respondents compares favourably with the data from KNBS in each economic sector and therefore the stratification of the sample was adequate attempted to eliminate bias.

4.2.5 Level of Income

Respondents were asked to indicate their income bracket. The findings in Table 4.5 show that most of the respondents earned an income above sh.20, 000. There were very few respondents who earned less than sh.10, 000 while one respondent declined to reveal the level of income earned.

Table 4.5 Level of Income

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	**Below 10000**	4	4.5	4.6	4.6
	10001 – 20000	21	23.9	24.1	28.7
	20001 – 30000	17	19.3	19.5	48.3
	30001 – 50000	18	20.5	20.7	69.0
	Above 50000	27	30.7	31.0	100.0
	Total	**87**	**98.9**	**100.0**	
Missing	**1**	1	1.1		
Total		**88**	**100.0**		

Source: Primary Data, 2015

Therefore this confirms that the study reached individuals who are active economically as the sample targeted active users of mobile phone money transfer money services.

4.2.6 Mobile Service Provider

The respondents indicated the mobile phone money transfer service provider that they are currently using, whether Safaricom (Mpesa), Airtel money, Yu cash or Orange money. The summary shown in Table 4.6 shows the dominance of Mpesa (81.8%) followed at a distance with Airtel Money (18.2%). It is evident that the snowballing process did not manage to rope in the users of Yu Cash and Orange Money thus validating their low subscription numbers in mobile money sector.

Table 4.6 Mobile Money Service Provider

		Frequency	Percent
Valid	**Safaricom**	72	81.8
	Airtel	16	18.2
	Total	**88**	**100.0**

Source: Primary Data, 2015

4.3 Reliability Analysis

Reliability analysis was done to determine the Cronbach's alpha and the results are indicated in Table 4.7. The value of Cronbach's alpha generated is .845 which means that 84.5% of the scale can be reliability explained by the five dimensions of SERVQUAL scale that measure service quality that is reliability, assurance, tangibles, empathy and responsiveness. Therefore this scale is reliable since the rule of thumb is to have a scale that has alpha score of at least .700.

Table 4.7 Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.845	.851	5

Source: SPSS Output, 2015

It was also verified that if any of the variables were deleted, the Cronbach's alpha would not be compromised as for all the items the alpha score would still be above the recommended minimum as the lowest would be for empathy with Cronbach alpha given as .794 in Table 4.8.

Table 4.8 Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Cronbach's Alpha if Item Deleted
Tangible Dimension	-1.3015	9.199	**.852**
Reliability Dimension	-1.5130	9.667	**.804**
Responsiveness Dimension	-1.5218	8.959	**.806**
Assurance Dimension	-1.5889	8.988	**.806**
Empathy Dimension	-1.6372	8.626	**.794**

Source: SPSS Output, 2015

4.4 Expectations and Perceptions Gap

According to Surooja (2003) the disconfirmation paradigm involved comparison of perceived performance against expected performance. The gap between expected quality and actual quality perceived was determined using SPSS software and the paired t-test was used to find out the differences in mean scores of expectations and perceptions (Finn & Lamb, 1991).

4.4.1 Paired Sample Statistics

Table 4.9 Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	**Mean Perceptions**	3.5847	88	.57906	.06173
	Mean Expectations	3.9600	88	.56096	.05980

Source: SPSS Output, 2015

The mean perception as shown in Table 4.9 is 3.5847 whereas the mean expectation is 3.9600 in the sample of 88 respondents. The standard deviation and the standard error of the mean is also given for the two variables as .57906 and .56096 for perceptions and expectations respectively.

4.4.2 Paired Sample Correlations

Table 4.10 Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	**Mean Perceptions & Mean Expectations**	88	.171	.110

Source: SPSS Output, 2015

The correlation between each of the pairs of variables is given in Table 4.10 to indicate the relationship between the expectation score and perception score for the 88 subscribers sampled. The correlation of 0.171 is quite low meaning that there is no consistent judgement among the subscribers as regards the expectations and perceptions for each question on the questionnaire. Therefore the two means can reliably be used to explain consumers' expectation and perceptions.

4.4.3 Paired Sample Test

In Table 4.11 the difference for Mean Perceptions and Mean Expectations is given as P – E = - 0.3753. It gives the answers to the first objective of this study. The value represents service quality gap. In addition, 95% confidence interval values are given depicting that the true population mean should be between –0.5308 and – 0.2198 with a 95% probability.

Table 4.11 Paired Samples Test

	Paired Differences							
	Mean	Std. Dev.	Std. Error Mean	95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
				Lower	Upper			
Mean Perceptions - Mean Expectations	-.3753	.7339	.07824	-.5308	-.2198	-4.797	87	.000

Source: SPSS Output, 2015

Since the value P = 0.000 is less than α (usually 0.05) it is enough evidence that the test proves the difference of mean perceptions less mean expectations is valid therefore service quality is poor as has been observed.

In conclusion, the paired t test revealed a statistically reliable difference between the mean expectations (m = 3.900, s = 0.56096) and the mean perception (m = 3.5847, s = 0.57906) that the subscribers have t (88) = 4,797, P = 0.000007, α = 0.05).

4.5 Regression Analysis

In order to determine which of the independent variables has a greater effect on the dependent variable and identify the dominant dimensions of service quality in mobile phone money transfer service, multiple regression analysis was done. The independent variables were the five SERVQUAL dimensions while service quality represented the dependent variable. Multiple linear regression was applied to establish the levels of correlation and afterwards the SPSS software was rerun to determine the distribution of residuals, outliers and multi collinearity to gauge the fitting and robustness of the model.

4.5.1 Regression Model Summary

In order to find out how well the regression model fits, the model summary generated some relevant results shown in Table 4.12.

Table 4.12 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000[a]	.999	.999	.01937

a. Predictors: (Constant), Empathy Dimension , Responsiveness Dimension , Tangible Dimension , Assurance Dimension , Reliability Dimension

Source: SPSS Output, 2015

'R' is the multiple correlation coefficient showing the degree of relationship between the independent variables and the dependent variable. From the findings, 99.9% of service quality is explained by the five SERVQUAL dimensions.

'R^2' is the coefficient of determination indicating the proportion of variance in the dependent variable that can be explained by the independent variables. The 'adjusted R^2' is usually more accurate but in this model it still confirms that the independent

variables account for 99.9% of the dependent variable therefore all the five variables are significant.

4.5.2 Anova Test

When determining whether the overall regression model is a good fit for the data by predicting service quality from the five SERVQUAL dimensions the F-test results in Table 4.13 established that all the five variables are statistically significant with the result : F (5, 95) = 24910.931, p < .000. Since p value is < 0.05 it shows that the model has predictive power.

Table 4.13 Anova[b]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	46.764	5	9.353	24918.931	.000[a]
	Residual	.030	81	.000		
	Total	46.795	86			

a. Predictors: (Constant), Empathy Dimension , Responsiveness Dimension , Tangible Dimension , Assurance Dimension , Reliability Dimension

b. Dependent Variab*l*e: Service Quality Gap

Source: SPSS Output, 2015

4.5.3 Estimated Regression Model

The study aimed at establishing the relationship between service quality and the adapted SERVQUAL dimensions tangibles, reliability, responsiveness, assurance and empathy. Multiple linear regression analysis produced the output in Table 4.14 that indicates estimated model coefficients that show the impact of each dimension on service quality.

All the variables are significant since their P values are .000 which is less than .05 and therefore their t - coefficients are effective predictors in the model. It also means that

there no redundant variables to be removed in order to increase predictive ability in the model.

The unstandardized coefficients are all positive which means that for any one unit increase in the independent variable, the model predicts an increase in the dependent variable by the units relating to each of the respective coefficients. For instance, one standard deviation increase in tangibles makes the model predict that service quality will increase by .259 standard deviations hence relating sensitivity of service quality to changes in the tangible dimension.

Table 4.14 Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	.000	.003		-.134	.893
Tangible Dimension	.181	.002	.259	74.560	.000
Reliability Dimension	.228	.004	.239	54.421	.000
Responsiveness Dimension	.178	.003	.228	54.502	.000
Assurance Dimension	.186	.003	.236	56.841	.000
Empathy Dimension	.226	.003	.298	69.324	.000

a. Dependent Variable: Service Quality Gap

Source: SPSS Output, 2015

Fitting the unstandardized coefficients into the model gives the following regression equation: - Service Quality = .181*Tan + .228*Rel + .178 Res + .186*Ass + .226*Emp

Where Tan, Rel, Res, Ass and Emp are dimensions of service quality tangibles, reliability, responsiveness, assurance and empathy. The predictor variable that

contributes most to the response variable is determined by the beta value of standardised regression coefficients. Therefore, empathy dimension which had a beta value of .298 contributes most among the response variables followed by tangibles dimension which had a beta value of .259.

4.6 Assessing Appropriateness of the Analysis

The statistics tested include collinearity diagnostics and case-wise diagnostics. Multi-collinearity occurs when two or more independent variables or any combination of independent variables are highly correlated with each other as this may lead to inaccurate results. Sometimes predicting variables may not be independent of each other hence the necessity of the multi-collinearity test.

Outliers are observations which have larger than average predictor values and can be an influence the regression model such that the results may have a misleading interpretation or present incorrect inferences. The model tested for residual plots to establish if the residuals for outliers were outside 3 standard deviations based on the normality assumption whereby 99% of the residuals should lie within +3 or 3 standard deviations. Any point outside this limit is an outlier.

4.6.1 Histogram and Normal Probability Plot

Plots of the regression process included a histogram and normal probability plot versus plot of standardized predicted values (Y: ZPRED) by studentized (X: SDRESID). The normality assumption is largely evident as shown in Figure 4.1, except for the four outliers and therefore the model's prediction is valid. Since the variability of the residual values around the regression line relative to the overall

variability is small as shown in the Normal P-P plot of regression standardized residual (Figure 4.2) the predictions from the regression equation are good.

Figure 4.1 Histogram (Dependent Variable: Service Quality Gap)

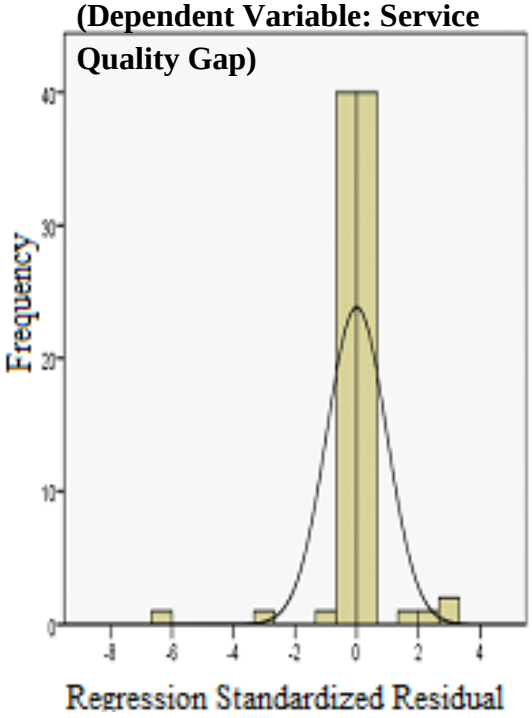
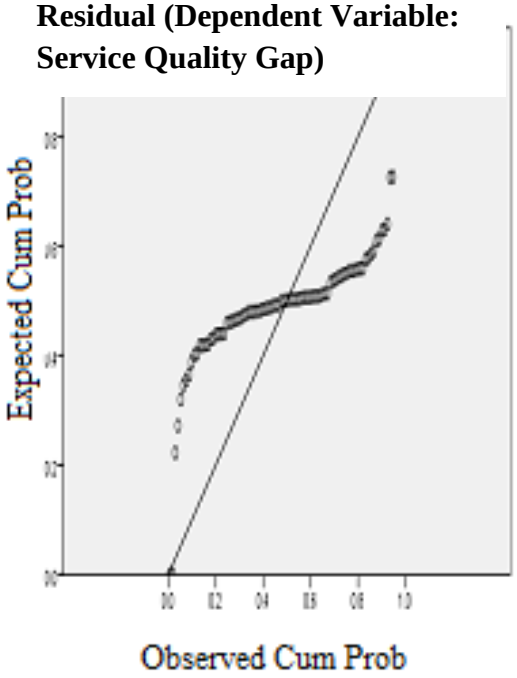


Figure 4.2 Normal P-P Plot of Regression Standardized Residual (Dependent Variable: Service Quality Gap)



Source: SPSS Output, 2015

4.6.2 Distribution of Residual Values

Deviation of a particular point from the regression line's predicted value is called residual value. When the variability of the residual values around the regression line relative to the overall variability is small, the predictions from the regression equation are good. From the residual statistics given in Table 4.15, the minimum is -6.079 and maximum 3.279.

If the data from the four cases number 28, 30, 42 and 63 shown in Table 4.15 was omitted from analysis, the predictive power of the model would be enhanced. However, the four outlier cases are only 4.6% of the sample and were therefore not

invalidating the predictive power of the model as 95.4% of the sample was within the desired limits.

Table 4.15 Case-Wise Diagnostics[a]

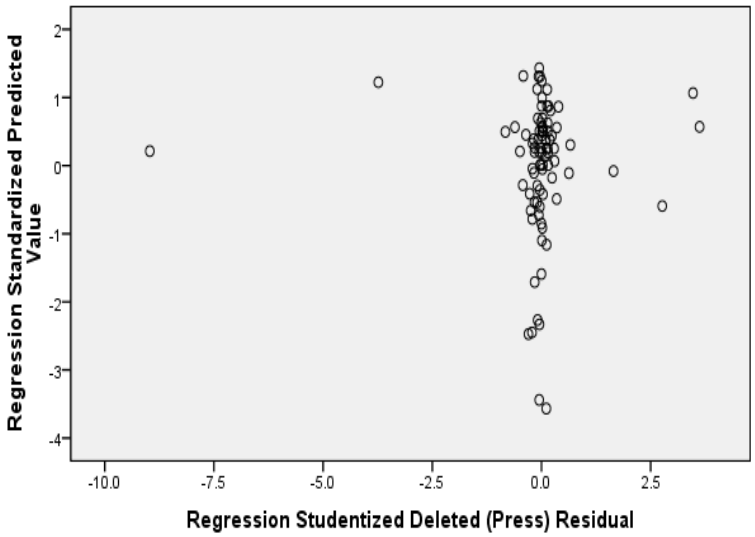
Case Number	Std. Residual	Service Quality Gap	Predicted Value	Residual
28	3.138	.47	.4132	.06080
30	3.279	.11	.0469	.06353
42	-6.079	-.33	-.2156	-.11778
63	-3.333	.47	.5299	-.06456

a. Dependent variable: Service Quality Gap

Source: SPSS Output, 2015

The scatter plot in Fig 4.1 shows the four cases in relation to the line of best fit.

Figure 4.3 Scatter Plot



Source: SPSS Output, 2015

4.6.3 Test of Multi-Collinearity

The test of multi-collinearity is done to find out if predictor values are highly inter-correlated with one another. High bivariate correlations above .700 are undesirable for

the data set as this would lead to unstable results causing either one predictor variable to be excluded or two highly correlated variables would be combined.

Table 4.16 Correlations

		Service Quality Gap	Tan	Rel	Res	Ass	Emp
Pearson correlation	Service quality gap	1.000	.700	.815	.791	.802	.847
	Tangible (Tan)	.700	1.000	.376	.465	.368	.526
	Reliability (Rel)	.815	.376	1.000	.695	.615	.584
	Responsiveness (Res)	.791	.465	.695	1.000	.539	.497
	Assurance (Ass)	.802	.368	.615	.539	1.000	.671
	Empathy (Emp)	.847	.526	.584	.497	.671	1.000

Source: SPSS Output, 2015

In fig 4.16 bivariate correlation output is given and it is evident that the correlation across each dimension do not exceed .700 therefore multi-collinearity which could have made some dimensions redundant. All the dimensions are significant and have explanatory power over service quality.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary on the analysed data collected from respondents and conclusion about the variables explored in the study. Recommendations are given based on the conclusions drawn from each of the variables. Suggestions are given on some issues that require further research that were beyond the scope of this study.

5.2 Summary

This study has established that SERVQUAL scale adequately determined the gap between expected and perceived service quality in the mobile phone money transfer service sector in Kenya. However, the customers did not meet their service quality expectations in the sector under study as the gaps between perceptions and expectations for all SERVQUAL scale questions had negative scores except for one question. When asked whether the money transfer service provider would insist on error free transactions, the respondents' score was .000 which means they were satisfied in this aspect of service delivery. Otherwise the overall gap score between average perceptions compared to average expectations was - .37531 meaning that perceived service quality was below consumers' expectations.

The five dimensions of the scale were found to have a correlation with service quality construct since they all contribute positively to impact the construct with varying weights and subsequently explain 99% variability in service quality as depicted by the R and R^2 value of .999 in the Anova analysis. The most significant dimension in service quality determination was empathy followed by reliability. The dimension

with the least correlation is tangibility. As for responsiveness and assurance, the latter has more influence on service quality than the former.

5.3 Conclusion

The fact that consumers perceived service quality that did not meet expectations in mobile phone telephony context (Omonge, 2013) is also observed in mobile phone money transfer sector. However the dominant dimensions in both studies are different as reliability and responsiveness were the most important in the first case but empathy comes first followed by reliability in this research. In a study done to compare SERVQUAL and SERVPERF scales (Rodrigues, 2009) tangibles and reliabily were the prominent dimensions.

In conclusion, the suggestion that application of context to service quality measurement (Brady & Cronin, 2001) is supported by this research, especially when deploying SERVQUAL as the measurement tool. The study established that the adapted SERVQUAL scale is capable of adequately measuring the service quality gap in the mobile phone money transfer sector just like it has been used among many other industries (Rodrigues, 2009).

5.4 Recommendations

The QoS model adopted by the telecommunications services regulator in Kenya needs upgrading to include consumers' input during evaluation. Regulators' policies and stakeholders' contributions should integrate service quality measurement across the various products especially the emergent technological enhancements in service delivery. The SEVQUAL model provides an opportunity for adaptation in service quality measurement given that ICT is a dynamic phenomenon that requires

occasional contribution of information by the end users for improvement of service delivery.

5.5 Suggestions for Further Research

Further studies need to be done on measurement of service quality of individual mobile phone money transfer entities rather than as a sector in order to demarcate precisely those salient quality operational issues that affect individual firms resulting to negative perception of service quality levels by consumers. Contextual studies done repeatedly by entities will determine the most dominant service quality dimensions or other aspects of conceptualization in the service quality construct that address consumers' needs adequately. In addition, it may be necessary to find out the impact of technological innovation on service quality in view of customers' paradoxical complaints of perceived poor service delivery for Mpesa services yet there was marked unwillingness to switch to other providers. The question is whether innovation could be an intervening or moderating variable while predicting service quality measurement in addition to the traditional SERVQUAL dimensions.

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APPENDICES

Appendix 1: Letter of Introduction

UNIVERSITY OF NAIROBI
MOMBASA CAMPUS

Telephone: 020-2059161
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsities
Our Ref: D61/60770/2011

Tel: 020 2059161
Mombasa, Kenya

DATE: 8TH SEPTEMBER, 2015

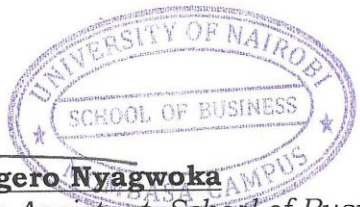
TO WHOM IT MAY CONCERN

The bearer of this letter, **Onyimbo Neville Neri Oyaga** of Registration Number **D61/60770/2011** is a Master of Business Administration (MBA) student of the University of Nairobi, Mombasa Campus.

He is required to submit as part of his coursework assessment a research project report. We would like the student to do his project on ***Application of Servqual Model in the Kenyan Mobile Phone Money Transfer Service Sector.*** We would, therefore, appreciate if you assist him by allowing him to collect data within your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organization on request.

Thank you.



Zephaniah Ogero Nyagwoka
Administrative Assistant, School of Business-Mombasa Campus

Appendix 2: Questionnaire

RESEARCH QUESTIONNAIRE

The main objective of this survey is to determine the service quality of mobile phone money transfer services in Kenya from the consumer's side. Kindly give your honest opinion.
This is a self-administering questionnaire and the information collected is private and confidential only to be used for academic purposes.

SECTION A (Personal Information)

For each statement below, use a tick (√) to show the part that correctly describes you:-

1. Age: 18-30 years ☐; 31-40 years ☐; 41-50 years ☐; above 50 years ☐.
2. Gender: Male ☐; Female ☐
3. Education level: Primary ☐; Secondary ☐; College ☐; University ☐.
4. Level of income: Below sh.10000 ☐; sh.10001-20000☐; sh.20001-30000☐ sh.30001-50000 ☐; above sh.50000 ☐
5. Occupation (Economic Sector) : .....
6. Mobile money service provider : .....

SECTION B (Expectations)

For each statement below, use a tick (√) to show the number that best represents ***what you expect*** from any mobile phone money transfer service.

Strongly Agree=**5** Agree=**4** Not sure=**3** Do Not Agree=**2** Strongly Disagree=**1**

EXPECTATIONS

	TANGIBLES	**1**	**2**	**3**	**4**	**5**
1.	Excellent money transfer services ***will have modern looking equipment***					
2.	Money transfer agents facilities ***will be visually appealing***					
3.	Employees of money transfer service outlets ***will be neat and attractive***					
4.	Money transfer services equipment ***will be visually appealing***					
	RELIABILITY	**1**	**2**	**3**	**4**	**5**
5.	When money transfer services promise to do something by a certain time, ***they will do it***					
6.	When a customer has a problem, ***there will be sincere interest to solve it***					
7.	Money transfer services ***will be done right on the first attempt***					
8.	Money transfer service ***will be provided at the time promised***					
9.	Money transfer provider ***will insist on error free transactions***					

	RESPONSIVENESS	**1**	**2**	**3**	**4**	**5**
10.	Money transfer employees ***will tell customers exactly when services will be provided***					
11.	Money transfer service employees ***will give prompt service to customers***					
12.	Money transfer service employees ***will always be willing to help customers***					
13.	Money transfer employees ***will never be too busy to respond to customer's requests***					
	ASSURANCE	**1**	**2**	**3**	**4**	**5**
14.	The behaviour of Money transfer employees ***will inspire confidence in customers***					
15.	Money transfer service employees ***will make customers feel their transactions are safe***					
16.	Money transfer service employees ***will be consistently courteous with customers***					
17.	Money transfer service employess ***will have answers to customers' questions***					
	EMPATHY	**1**	**2**	**3**	**4**	**5**
18.	Money transfer service provider ***will give customers individual attention***					
19.	Money transfer service ***will have operation hours that are convinient to all customers***					
20.	Money transfer service ***will have employees who give customers personalised attention***					
21.	Money transfer service ***will have customer's best interests at heart***					
22.	The Money transfer employees ***will understand the specific need of the customers***					

SECTION C (Perceptions)

For each statement below, use a tick (√) to show whether you feel the Money transfer service you use ***possesses the following qualities*** : -

Strongly Agree=**5** Agree=**4** Not sure=**3** Do Not Agree=**2** Strongly Disagree=**1**

PERCEPTIONS

	TANGIBLES	**1**	**2**	**3**	**4**	**5**
1.	Money transfer service ***has modern looking equipment***					
2.	***Physical facilities*** of Money transfer agents ***are visually appealing***					
3.	***Employees*** of Money transfer service outlets ***are neat and attractive***					
4.	***Equipment*** used for Money transfer services ***are visually appealing***					
	RELIABILITY	**1**	**2**	**3**	**4**	**5**
5.	When Money transfer service promise to do something by a certain time, ***they do it***					
6.	When a customer has a problem, Money transfer staff ***sincerely solve it***					
7.	Money transfer services ***is done right on the first attempt***					
8.	Money transfer services ***are provided at the promised time***					
9.	Money transfer provider ***insists on error free transactions***					
	RESPONSIVENESS	**1**	**2**	**3**	**4**	**5**
10.	Money transfer employees ***tell customers exactly when services will be provided***					
11.	Money transfer employees ***give prompt service to customers***					
12.	Money transfer employees ***always willingly help customers***					
13.	Money transfer employees ***are never be too busy to respond to customer's requests***					
	ASSURANCE	**1**	**2**	**3**	**4**	**5**
14.	The behaviour of Money transfer employees ***inspires confidence in customers***					
15.	Money transfer employees ***make customers feel their transactions are safe***					
16.	Money transfer employees ***are consistently courteous with customers***					
17.	Money transfer employees ***always have answers to customers' questions***					
	EMPATHY	**1**	**2**	**3**	**4**	**5**
18.	Money transfer provider ***gives customers individual attention***					
19.	Money transfer provider ***has operation hours that are covinient to all customers***					
20.	Money transfer servive ***has employees who give customers personalised attention***					
21.	Money transfer service ***has customer's best interests at heart***					
22.	The employees of Money transfer service ***understand the specific need of the customers***					

Appendix 3: KNBS Wage Employment by Industry and Sex

Wage Employment by Industry and Sex, 2013 and 2014

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INDUSTRY	Male		Female		Total	
	2013	2014*	2013	2014*	2013	2014*
Agriculture, forestry and fishing	217.8	220.6	124.7	112.7	342.5	333.3
Mining and quarrying	7.7	10.8	1.7	2.0	9.4	12.8
Manufacturing	228.5	234.4	50.9	53.0	279.4	287.4
Electricity, gas, steam and air conditioning supply	10.4	11.1	4.2	4.2	14.6	15.3
Water supply; sewerage, waste management and remediation activities	6.3	7.0	3.1	3.4	9.4	10.4
Construction	106.7	117.1	23.1	26.6	129.8	143.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	159.1	164.7	53.1	55.5	212.2	220.2
Transportation and storage	55.7	58.3	20.4	21.4	76.1	79.7
Accommodation and food service activities	49.9	49.0	23.6	24.1	73.5	73.1
Information and communication	58.1	61.9	34.3	37.2	92.4	99.1
Financial and insurance activities	39.2	40.4	26.1	27.1	65.3	67.5
Real estate activities	2.8	2.9	1.0	1.0	3.8	3.9
Professional, scientific and technical activities	45.3	46.4	19.9	20.2	65.2	66.6
Administrative and support service activities	4.2	4.3	0.6	0.6	4.8	4.9
Public administration and compulsory social security	141.6	147.6	80.8	85.9	222.4	233.5
Education	202.1	215.4	221.2	234.6	423.3	450.0
Human health and social work activities	45.3	47.7	67.0	70.7	112.3	118.4
Arts, entertainment and recreation	4.5	4.6	2.1	2.1	6.6	6.7
Other service activities	18.9	18.6	10.3	11.9	29.2	30.5
Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	40.6	40.3	69.2	71.8	109.8	112.1
Activities of extraterritorial organizations and bodies	0.8	0.8	0.3	0.3	1.1	1.1
TOTAL	1,445.5	1,503.9	837.6	866.3	2,283.1	2,370.2
Of which: Regular	1,129.0	1,162.6	677.7	684.3	1,806.7	1,846.9
Casual	316.5	341.3	159.9	182.0	476.4	523.3

* Provisional