A Gap Analysis of Customer Perceptions and Expectation of Service Quality amongst Mobile Telephony Companies in Ghana

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Abstract

An analysis of service quality amongst mobile telephony companies in Ghana has been conducted using the SERVQUAL quality measurement scale. The research adopted a quantitative research methodology by employing multiple comparison Bonferroni test to measure responses of customer expectation and perceived service delivery by mobile telephony companies. The study revealed that three (3) out of the four (4) network operators sampled recorded negative weighted mean difference between customers perception and expectation on the *reliability* service quality variable which relates to coverage and low call drops, and this variable is perceived to be the key performance indicator for the firms. Mobile telephony companies however recorded positive weighted mean difference on the tangibility service quality variable. The study concludes that despite the unenthusiastic performance recorded on the reliability measures, customers are maintaining relationship with network operators suggesting that quality does not mean relationship.

Keywords: service quality, mobile telephony

1. Introduction

Consumers in the twenty first century have increasingly become demanding. They do not only settle for high quality products but they also expect products and service offerings to meet high quality standards. Interestingly, many organizations across the globe are equally focusing their effort and attention on SQ because of deregulation issues and competitive reasons. Organizations are now using SQ as a critical success factor towards customer satisfaction, high revenues, increased cross-sell ratios, higher customer retention; repeat purchasing behaviour and expanded market share (Bowen & Hedges, 1993; Bolton & Drew, 1991; Boulding et al., 1993; Bennette & Higgins, 1988; Taylor & Cronin, 1994). Invariably, management and marketing practitioners in service companies especially mobile telephony companies have recently realized that to attract and retain customers in today's fierce competitive service environment, they must provide quality service, since sound service climate coupled with quality service delivery is regarded as one associated with high customer satisfaction. (Dabholkar et al, 2000).

Service quality (SQ) has been described as global judgment or attitude relating to the overall excellence or superiority of the service (Parasuraman et al 1988). Gronroos (1984) explained that SQ is the perceived judgment resulting from an evaluation process where customers compare their expectations to the service they perceive to have received. In view of this Nitecki et al. (2000) has concluded that service quality is meeting or exceeding customer expectations. The concept has generated significant researches by academia in the past two decades with several measurement models. Some studies suggests that SQ can be measured by comparing a service firm's performance and what the consumers feels a service firm should provide (Spreng and Mackoy, 1996). Others are of the view that SQ can be measured based on the perceptions of the service firm's performance (Dabholkar et al, 2000). The two measurement approaches have led to the development of Servqual and Servperf, which are widely used by researchers to measure SQ (Parasuraman et al., 1988; Cronin and Taylor, 1992).

Despite these competing measurement models majority of SQ literatures have been confined to the advance economies within the banking, hospitality, and telecommunication sectors with little from a developing country's perspective (Vinita et al 2013, Urban, 2010). Since Africa has be touted as the future site of out-sourcing operations for telecommunications, with South Africa leading the way and Ghana a close second it will be prudent to investigate

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the service quality variables that customers look to in telecommunication offering. The study will therefore bridge the gap in the literature of SQ by providing developing country's perspective.

2. Research Objective

The objective of this study is to assess customer perceptions and expectations of service quality amongst Mobile Telephony Companies in Ghana using Servqual as the main service quality measuring instrument.

3. Literature Review

3.1 Service Quality

Early researches defined quality as the conformance to specifications of features set for a product to meet the standards predetermined by management (Reeves and Bednar, 1994). Some recent literatures have refer to SQ as "the difference between customer expectations of service and perceived service" (Dutta & Dutta, 2009, Parasuraman *et al.*, 1985). Indeed SQ is a subjective evaluation of service performance by customers themselves (Dabholkar, Shepherd and Thorpe, 2000). Checking quality is usually easy with tangible products than service probably because service is intangible andmeasuring intangible products are difficult due to the minute differences in customers' perceptions and expectation (Zeithaml et al., 2009). Whatever the situation, one of the criteria for measuring quality is the difference between customers' expectations and perceptions. Wall and Payne (1973) noted that often when people are asked to indicate the "desired level" (expectations) of a service and the "existing level" (perceptions) of the service, there is a psychological constraint that people always tend to rate the former higher than the latter (E>P).

Customer perception of SQ has been described as customers' perceived sense of actual performance (Calvert, 2001). Similarly, Parasuraman, Zeithaml, and Berry (1988) indicated that perceived SQ is the difference between what the customer anticipates that the service provider ought to present and the customer's perception of what the service provider really offered. Though the customer's perceived service quality may be biased, it influences customer attraction and retention over time. Frequently, customers perception or the cognitive value placed on a service is base on their experience with the service offering. The perception evaluation process starts from the production, delivery and consumption stages of the service value chain. Edvardsson (2005) pointed out that customers favourable or unfavourable experience which generates positive or negative emotions with the service will have an impact on the perceived SQ.

Olson and Dover, (1979) described customer service expectation as the pretest view without any prior information about a product or service. In reality however, customer expectation is based on several sources of information of an upcoming encounter with a product or service. Customers obtain information pertaining to a product or service from prior exposure to the service, word of mouth, expert opinion, publicity and communications controlled by the company for e.g. advertising, personal selling, and price) as well as prior exposure to competitive services. Boulding et al. (1993) proposed two forms of customer expectations. The "will expectation" explained as what will happen in the next service encounter with the firm, and the "should expectation" which is the service customers feel they fittingly deserve.

Zeithaml, et al. (1991) distinguished the "should expectation" from the desired service often used in service quality literature. Olson and Dover, (1979) argued that the "should expectation" may change as a result of what customers have been told to expect by the service provider or what customers view as reasonable judging from what they have been told of a competitor's service or an experience with a competitor's service. In contrast to the desire expectation referred to by Zeithaml, Berry & Parasuraman, (1991) what customers want in an ideal service situation and it is unrelated to what reasonable or what the service provider tells the customer to expect in the "should expectation" process.

3.2 Measuring Service Quality

According to Parasuraman et al (1988) measuring service quality involves a comparison of customer expectations and customer perceptions of actual service performance. They have further attempted to quantify this complex issue by developing a measurable scale termed SERVQUAL. Five dimensions have been identified in the scale that includes tangibility, responsiveness, reliability, assurance and empathy.

- Reliability: the capability to perform promised service precisely.
- Responsiveness: eagerness to assist customers and to offer on time service
- Assurance: knowledge and good manners of employees and their ability to inspire trust and confidence.
- Empathy: Caring, individualized attention the firm provide for its customers

Within the past decade, SERVQUAL has been widely acknowledged and applied in various services setting such as healthcare, dental school patient clinic, business school placement centre, large retail chains, banking, and dry cleaning

and fast food restaurants (DeMoranville & Beinstock, 2003). However the generalization of dimensions of SERVQUAL across different service industry has been questioned (Sureshchandar et al., 2001). For instance, the two-sided instrument used in measuring expectation and perception separately as different score has been regarded inappropriate in terms of scale reliability and questionnaire length (Carman, 1990; Morrison, 2004). Additionally, Babacus and Boller (1992) have suggested that SQ, as measured in the SERVQUAL scale, relies more significantly on the perception score than on the expectation score. Apart from this, respondents appear to be bored, and sometimes confused by the administration of E and P version of SERVQUAL.

Some researchers have suggested the usage of a perception-only measurement service quality scale (SERVPERF) which they argued to be reliable and superior to the traditional SERVQUAL scale. They reasoned the former instrument provides a more construct-valid explication to service quality due to content validity and the evidence of discriminate validity (Cronin & Taylor, 1992; Jain & Gupta, 2004).

4. Research Methodology

4.1 Research Design

A cross sectional survey method was used to analyze service quality among mobile telephony companies mainly based on quantitative methodological research techniques. This design was found appropriate for the study because the researchers sought to find out differences in SQ among the four (4) telecommunication companies drawn for the study with data collected on the same variable from respondents at a single point in time.

4.2 Sampling Techniques

The sample was drawn from customers of (4) out of (5) mobile phone companies operating in Ghana. A sample of customers from the four mobile telephony operators was selected based on the market share of each of the networks. Two hundred (200) respondents were sampled from MTN, 150 Tigo, 80 from VODAPHONE and 60 from company KASAPA/EXPRESSO. Convenient sampling was employed to sample customers from the four mobile phone companies.

4.3 Instrument

The SERVQUAL service quality measuring instrument by Parasuraman et al (1988) was used to measure the gap between customer perception and expectation of SQ in the Ghanaian mobile phone industry. The key variable measured in the quantitative survey was service quality which comprises five (5) dimensions: *Reliability, Responsiveness, Assurance, Tangibility* and *Empathy*. The scale measured service quality based on customer expectation and perception along these five (5) dimensions of service quality. The scale was based on the 3-point likert scale via strongly agree (3), neutral (2) and strongly disagree (1). The instrument is unique in the sense that rather than capturing absolute values, relative weights of ratings for customers were captured. In addition to the questionnaire data, other secondary data including published research works were utilized.

4.4 Data Collection

Questionnaire was administered utilizing the hand delivery method where researchers gave out questionnaires personally to the respondents. Clear instructions on how to complete the questionnaire was provided to facilitate the completion of the statements in a manner that reflects accuracy. The consent of respondents was sought and participation in the study was completely voluntary.

5. Results of the Study

The researchers computed descriptive statistics such as percentage distribution of respondents, weights of responses, means and standard deviation for all the dimensions of SQ both perceived and expected service quality. The dimensions of SQ utilized in the study included reliability, responsiveness, tangibility, assurance and empathy. The researchers also analyzed significant difference in service quality which existed among the four (4) telecommunication companies sampled for the study using multivariate analysis test (MANOVA). The result for descriptive statistics, test of between-subjects results and multiple comparison test result using Bonferroni test are presented in Table 3, 4 & 5 respectively.

Table 1. Percentage distribution of respondents

Dimension	STRONGLY AGREE/AGREE			NE	UTRAL		STRONGLY DISAGREE/DISAGREE					
	MTN	TIGO	VODA	KASA	MTN	TIGO	VODA	EXP	MTN	TIGO	VODA	EXP

www.scied	du.ca/jms	ms Journal of Management and Strategy				Vol. 5, No. 3; 2014						
Exp of Reliability	73	93	68	88	9	4	19	6	18	2	13	7
Perc of Reliability	41	75	72	72	20	15	16	21	40	10	12	7
Exp of Responsive	78	88	76	86	10	9	21	7	12	2	3	7
Perc of Responsive	53	79	82	72	21	14	11	20	27	7	7	8
Exp of Assurance	57	83	66	89	19	12	26	9	24	4	8	2
Perc of Assurance	56	73	83	78	21	16	13	16	23	12	4	6
Exp of Tangibility	59	86	72	84	20	7	23	12	21	7	5	4
Perc of Tangibility	65	81	80	85	16	16	17	12	19	3	4	2
Exp of Empathy	70	89	82	69	19	7	13	14	12	4	5	17
Perc of	57	77	64	89	18	16	26	5	25	7	9	7

Source: Field work, 2012

Empathy

Table 2. Weights (Note 1) of responses

Dimension	MTN	TIGO	VODAPHONE	EXPRESSO	TOTAL
Expectation of reliability	382	175	193	115	865
Perception of reliability	302	157	198	108	765
Expectation of responsibility	400	172	207	114	893
Perception of responsive	339	164	209	108	819
Expectation of assurance	350	167	196	118	831
Perception of assurance	349	157	213	112	830
Expectation of tangibility	358	167	203	115	843
Perception of tangibility	368	167	210	116	861
Expectation of empathy	387	171	210	103	872
Perception of empathy	347	162	194	116	819

Source: Field work, 2012

Table 3. Summary of mean and standard deviation scores of perceived and expected service quality

Dimensions of Service Quality	M	SD	
Expected Reliability	2.639	.701	
Perceived Reliability	2.346	.853	
Expected Responsiveness	2.741	.584	
Perceived Responsiveness	2.522	.752	
Expected Assurance	2.559	.717	
Perceived Assurance	2.543	.739	
Expected Tangibility	2.475	.710	
Perceived Tangibility	2.562	.703	
Expected Empathy	2.475	.710	
Perceived Empathy	2.475	.710	
Total Number of Respondents (N=324)			

The arithmetic mean expected reliability, responsiveness and assurance exceeded their corresponding perception. There is no difference between arithmetic mean expectation and perception of empathy while the perceived tangibility is higher than that the expectation.

Table 4. Summary of tests of between-subjects effects results of differences in perceived and expected service quality among four telecommunication companies

	Dependent Variables	SS	df	MS	F	Sig.
Telecom.	Expected Reliability	8.248	3	2.749	5.846	.001
Org.	Perceived Reliability	46.004	3	15.335	25.925	.000
	Expected Responsiveness	2.111	3	.704	2.083	.102
	Perceived Responsiveness	18.411	3	6.137	11.943	.000
	Expected Assurance	15.138	3	5.046	10.711	.000
	Perceived Assurance	14.485	3	4.828	9.543	.000
	Expected Tangibility	9.416	3	3.139	6.548	.000
	Perceived Tangibility	12.649	3	4.216	9.171	.000
	Expected Empathy	9.416	3	3.139	6.548	.000
	Perceived Empathy	9.416	3	3.139	6.548	.000
Error	Expected Reliability	150.502	320	.470		
	Perceived Reliability	189.280	320	.592		
	Expected Responsiveness	108.111	320	.338		
	Perceived Responsiveness	164.438	320	.514		
	Expected Assurance	150.748	320	.471		
	Perceived Assurance	161.910	320	.506		
	Expected Tangibility	153.386	320	.479		
	Perceived Tangibility	147.116	320	.460		
	Expected Empathy	153.386	320	.479		
	Perceived Empathy	153.386	320	.479		
Total	Expected Reliability	158.750	323			
	Perceived Reliability	235.284	323			
	Expected Responsiveness	110.222	323			
	Perceived Responsiveness	182.849	323			
	Expected Assurance	165.886	323			
	Perceived Assurance	176.395	323			
	Expected Tangibility	162.802	323			
	Perceived Tangibility	159.765	323			
	Expected Empathy	162.802	323			
	Perceived Empathy	162.802	323			

As shown in Table 4, a statistically significant difference was observed in four out of the five expected service quality dimensions among the four telecommunication companies. Specifically, a significant difference was observed in expected reliability [F $_{(3,323)}$ =5.846, p=.001]; expected assurance [F $_{(3,323)}$ = 10.711, p=.000]; expected tangibility [F $_{(3,323)}$ =6.548, p=.000]. However, no significant difference in expected responsiveness was observed among the four companies [F $_{(3,323)}$ = 2.083, p=.102].

Analysis of the perceived service quality dimension revealed a statistically significant difference in all the five dimensions among the four companies. As shown in Table 4, a statistically significant difference was observed in perceived reliability [F $_{(3, 323)}$ =25.925, p=.000]; perceived responsiveness [F $_{(3, 323)}$ =11.943, p=.000]; perceived assurance [F $_{(3, 323)}$ =9.543, p=.000]; perceived tangibility [F $_{(3, 323)}$ =9.171, p=.000]; and perceived empathy [F $_{(3, 323)}$ =6.548, p=.000].

To determine the specific observed differences between each telecommunication company, multiple comparison tests was conducted using the Bonferroni test.

Table 5. Multiple comparison Bonferroni test

			Mean		
	(I)	(J)	Difference		
Dependent Variable	SERVICE_PROVIDERS	SERVICE_PROVIDERS	(I-J)	Std. Error	Sig.

EXPECTATION_RELIABILITY	MTN	TIGO	3767*	.10476	.002
		VODAFONE	.0195	.09787	1.000
		EXPRESSO	2649	.12086	.175
	TIGO	MTN	.3767*	.10476	.002
		VODAFONE	.3961*	.11950	.006
		EXPRESSO	.1118	.13896	1.000
	VODAFONE	MTN	0195	.09787	1.000
		TIGO	3961*	.11950	.006
		EXPRESSO	2843	.13384	.206
	EXPRESSO	MTN	.2649	.12086	.175
		TIGO	1118	.13896	1.000
		VODAFONE	.2843	.13384	.206
PERCEPTION_RELIABILITY	MTN	TIGO	7433*	.11748	.000
		VODAFONE	7723 [*]	.10975	.000
		EXPRESSO	7429 [*]	.13554	.000
	TIGO	MTN	.7433*	.11748	.000
		VODAFONE	0290	.13402	1.000
		EXPRESSO	.0004	.15584	1.000
	VODAFONE	MTN	.7723*	.10975	.000
		TIGO	.0290	.13402	1.000
		EXPRESSO	.0294	.15010	1.000
	EXPRESSO	MTN	.7429*	.13554	.000
		TIGO	0004	.15584	1.000
		VODAFONE	0294	.15010	1.000
EXPECTATION_RESPONSIVENESS	MTN	TIGO	2067	.08879	.123
		VODAFONE	1208	.08295	.877
		EXPRESSO	1205	.10243	1.000
	TIGO	MTN	.2067	.08879	.123
		VODAFONE	.0858	.10129	1.000
		EXPRESSO	.0862	.11777	1.000
	VODAFONE	MTN	.1208	.08295	.877
		TIGO	0858	.10129	1.000
		EXPRESSO	.0003	.11344	1.000
	EXPRESSO	MTN	.1205	.10243	1.000
		TIGO	0862	.11777	1.000
		VODAFONE	0003	.11344	1.000
PERCEPTION_RESPONSIVENESS	MTN	TIGO	4667*	.10950	.000
		VODAFONE	5142*	.10230	.000
	-	EXPRESSO	4163*	.12633	.007
	TIGO	MTN	.4667*	.10950	.000

		VODAFONE	0475	.12492	1.000
		EXPRESSO	.0504	.14525	1.000
	VODAFONE	MTN	.5142*	.10230	.000
		TIGO	.0475	.12492	1.000
		EXPRESSO	.0979	.13990	1.000
	EXPRESSO	MTN	.4163*	.12633	.007
		TIGO	0504	.14525	1.000
		VODAFONE	0979	.13990	1.000
EXPECTATION_ASSURANCE	MTN	TIGO	4500 [*]	.10484	.000
		VODAFONE	3379*	.09795	.004
		EXPRESSO	5203 [*]	.12096	.000
	TIGO	MTN	.4500*	.10484	.000
		VODAFONE	.1121	.11960	1.000
		EXPRESSO	0703	.13907	1.000
	VODAFONE	MTN	.3379*	.09795	.004
		TIGO	1121	.11960	1.000
		EXPRESSO	1824	.13395	1.000
	EXPRESSO	MTN	.5203*	.12096	.000
		TIGO	.0703	.13907	1.000
		VODAFONE	.1824	.13395	1.000
PERCEPTION_ASSURANCE	MTN	TIGO	2900 [*]	.10866	.048
		VODAFONE	4953*	.10151	.000
		EXPRESSO	4050 [*]	.12535	.008
	TIGO	MTN	.2900*	.10866	.048
		VODAFONE	2053	.12395	.592
		EXPRESSO	1150	.14413	1.000
	VODAFONE	MTN	.4953*	.10151	.000
		TIGO	.2053	.12395	.592
		EXPRESSO	.0902	.13882	1.000
	EXPRESSO	MTN	.4050*	.12535	.008
		TIGO	.1150	.14413	1.000
		VODAFONE	0902	.13882	1.000
EXPECTATION_TANGIBILITY	MTN	TIGO	.0033	.10576	1.000
		VODAFONE	3042*	.09880	.014
		EXPRESSO	4272 [*]	.12201	.003
	TIGO	MTN	0033	.10576	1.000
		VODAFONE	3075	.12064	.068
		EXPRESSO	4305 [*]	.14028	.014
	VODAFONE	MTN	.3042*	.09880	.014
		TIGO	.3075	.12064	.068

PERCEPTION_TANGIBILITY MTN TIGO 3.30° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03° 3.03°		EXPRESSO	MTN	.4272*	.12201	.003
PERCEPTION_TANGIBILITY			TIGO	.4305*	.14028	.014
VODAFONE			VODAFONE	.1230	.13512	1.000
EXPRESSO -475° 1194 0.00 TIGO	PERCEPTION_TANGIBILITY	MTN	TIGO	3300*	.10357	.010
TIGO			VODAFONE	3864*	.09676	.000
VODAFONE .0564 .11815 .00 EXPRESSO .1459 .13739 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .0			EXPRESSO	4759 [*]	.11949	.001
EXPRESSO		TIGO	MTN	.3300*	.10357	.010
NODAFONE			VODAFONE	0564	.11815	1.000
TIGO			EXPRESSO	1459	.13739	1.000
EXPRESSO		VODAFONE	MTN	.3864*	.09676	.000
EXPRESSO MTN 4,759° .11949 .00 TIGO .1459 .13739 .100 VODAFONE .0895 .13233 .100 VODAFONE .0895 .13233 .100 VODAFONE .3042° .09880 .01 EXPRESSO .4272° .12201 .00 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .003 .10576 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100 .100			TIGO	.0564	.11815	1.000
TIGO			EXPRESSO	0895	.13233	1.000
VODAFONE 0.895 .1323 1.00		EXPRESSO	MTN	.4759*	.11949	.001
MTN TIGO 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1			TIGO	.1459	.13739	1.000
VODAFONE			VODAFONE	.0895	.13233	1.000
TIGO	EXPECTATION_EMPATHY	MTN	TIGO	.0033	.10576	1.000
TIGO			VODAFONE	3042*	.09880	.014
VODAFONE			EXPRESSO	4272 [*]	.12201	.003
EXPRESSO		TIGO	MTN	0033	.10576	1.000
VODAFONE			VODAFONE	3075	.12064	.068
TIGO 3075 12064 0.06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01 VODAFONE .1230 .13512 1.00 PERCEPTION_EMPATHY MTN TIGO .0033 .10576 1.00 VODAFONE .3042* .09880 .01 EXPRESSO .4272* .12201 .00 TIGO MTN .0033 .10576 1.00 VODAFONE .3075 .12064 .06 EXPRESSO .4305* .14028 .01 TIGO MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO .1230 .31512 1.00 EXPRESSO .1230 .31512 1.00 TIGO .3075 .12064 .06 EXPRESSO .1230 .13512 1.00 TIGO .3075 .12064 .06 EXPRESSO .1230 .13512 1.00			EXPRESSO	4305 [*]	.14028	.014
EXPRESSO		VODAFONE	MTN	.3042*	.09880	.014
EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01 VODAFONE .1230 .13512 1.00 PERCEPTION_EMPATHY MTN TIGO .0033 .10576 1.00 VODAFONE3042* .09880 .01 EXPRESSO4272* .12201 .00 TIGO MTN0033 .10576 1.00 VODAFONE3075 .12064 .06 EXPRESSO4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO .1100 .3075 .12064 .06			TIGO	.3075	.12064	.068
TIGO .4305* .14028 .01 VODAFONE .1230 .13512 1.00 PERCEPTION_EMPATHY MTN TIGO .0033 .10576 1.00 VODAFONE .3042* .09880 .01 EXPRESSO .4272* .12201 .00 TIGO MTN .0033 .10576 1.00 VODAFONE .3075 .12064 .06 EXPRESSO .4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO .1230 .13512 1.00 EXPRESSO .1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			EXPRESSO	1230	.13512	1.000
VODAFONE .1230 .13512 1.00 PERCEPTION_EMPATHY MTN TIGO .0033 .10576 1.00 VODAFONE3042* .09880 .01 EXPRESSO4272* .12201 .00 TIGO MTN0033 .10576 1.00 VODAFONE3075 .12064 .06 EXPRESSO4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01		EXPRESSO	MTN	.4272*	.12201	.003
PERCEPTION_EMPATHY MTN TIGO .0033 .10576 1.00 VODAFONE3042* .09880 .01 EXPRESSO4272* .12201 .00 TIGO MTN0033 .10576 1.00 VODAFONE3075 .12064 .06 EXPRESSO4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			TIGO	.4305*	.14028	.014
VODAFONE3042* .09880 .01 EXPRESSO4272* .12201 .00 TIGO MTN0033 .10576 1.00 VODAFONE3075 .12064 .06 EXPRESSO4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			VODAFONE	.1230	.13512	1.000
EXPRESSO4272* .12201 .00 TIGO MTN0033 .10576 1.00 VODAFONE3075 .12064 .06 EXPRESSO4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01	PERCEPTION_EMPATHY	MTN	TIGO	.0033	.10576	1.000
TIGO MTN0033 .10576 1.00 VODAFONE3075 .12064 .06 EXPRESSO4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			VODAFONE	3042*	.09880	.014
VODAFONE 3075 .12064 .06 EXPRESSO 4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO 1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			EXPRESSO	4272 [*]	.12201	.003
EXPRESSO4305* .14028 .01 VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01		TIGO	MTN	0033	.10576	1.000
VODAFONE MTN .3042* .09880 .01 TIGO .3075 .12064 .06 EXPRESSO 1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			VODAFONE	3075	.12064	.068
TIGO .3075 .12064 .06 EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			EXPRESSO	4305 [*]	.14028	.014
EXPRESSO1230 .13512 1.00 EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01		VODAFONE	MTN	.3042*	.09880	.014
EXPRESSO MTN .4272* .12201 .00 TIGO .4305* .14028 .01			TIGO	.3075	.12064	.068
TIGO .4305* .14028 .01			EXPRESSO	1230	.13512	1.000
		EXPRESSO	MTN	.4272*	.12201	.003
VODAFONE .1230 .13512 1.00			TIGO	.4305*	.14028	.014
			VODAFONE	.1230	.13512	1.000

Based on observed means.

The error term is Mean Square(Error) = .479.

As shown in Table 5, some significant difference in expected service quality and perceived service quality was observed across the four telecommunication companies involved in the study.

Table 6. Gaps of mean weights of responses

Dimension	MTN	TIGO	VODAPHONE	EXPRESSO	TOTAL
Reliability	-0.09	-0.04	0.01	-0.03	-0.15
Responsiveness	-0.07	-0.02	0	-0.03	-0.11
Assurance	0	-0.03	0.04	-0.03	-0.02
Tangibility	0.01	0	0.02	0.01	0.03
Empathy	-0.04	-0.03	-0.04	0.05	-0.05

Source: Field work 2012

As far as this study is concerned customer satisfaction is the weighted mean difference between customers perception and expectation (Satisfaction = Perception – Expectation). Negative difference implies that the customers are dissatisfied and positive difference is an indication of customer satisfaction. This is supported by the fact that the rating of the service quality dimensions was based on the scale of 3for strongly agree, 2 for neutral and 1 for strongly disagree.

6. Discussion

Table 1 presents percentage distribution of the number of respondents who accessed the services of the four mobile telephony operators - MTN, TIGO, VODAPHONE and ESPRESSO as observed in line with the dimensions of the SQ attributes involving reliability, responsiveness, assurance, tangibility and empathy. The services offered by the network operators were rated on a three point scale involving strongly agree, neutral and strongly disagree with respect to both expectation and perception measures. The dimension of reliability among MTN customers indicates that 73 per cent strongly agree with the expectation of reliability as against 41 per cent for perception. Among TIGO respondents, 93 per cent strongly agree with the expectation of reliability compared to 75 per cent. Again, 78 per cent of MTN customers strongly agree with expectation of responsiveness as against 53 per cent for perception. The percentage difference is very close and favors expectation of responsibility for all the other network operators. The only exception is VODAPHON where perception of responsiveness is marginally higher than expectation among respondents who strongly agree with the customer SQ dimension.

The dimension of empathy represents a measure where respondents from all the network operators except ESPRESSO perceived network operators as not providing the customer care they deserved since expectation were higher than perceived customer care provided. For instance, while respondents on the MTN network recorded strongly agreed percentages of 70 and 57 for expectation and perception of empathy respectively, 89 and 77 per cent was recorded for TIGO. Relatively lower percentages were recorded among customers who strongly disagree with all the variables of SQ. Marginal percentage differences were however recorded with respect to expectation and perception among respondents who strongly disagree with the SQ measures. The exception however is MTN where 18 per cent of respondents strongly disagree with the expectation of reliability and 40 per cent strongly disagreed with the perception of reliability. Again, 12 per cent of customers strongly disagree with the expectation of responsiveness compared to 27 per cent for perception of responsiveness.

In Table 2, weighted responses are provided. For all the SQvariables, it is clear that expectation is higher than perception. This notwithstanding, the difference with respect to expectation and perception is higher among customers of MTN who incidentally happened to be the market leader as compared with all the other network operators.

Some gaps were identified with respect to expectation and perception among the variables of SQ (See Figure 1). In relative terms, respondents on the MTN network present the highest gaps between customer expectation and perception taking the SQ variables into consideration. The negative gaps as presented on Figure 1 represent scenarios whereby customer expectations are higher than perceptions. For instance, while MTN customers recorded negative gaps on all the dimensions except tangibility, respondents on the VODAPHON network recorded positive gaps on all the SQ dimensions with the exception of empathy, and Espresso respondents recorded negative gaps on the dimension of tangibility and empathy. Similar gaps were recorded using the mean weighted responses as presented on Table 3. Focusing on VODAPHON, the perception of respondents on services exceeds expectation while the reverse scenario holds for MTN and TIGO.

The analysis was based on an adaptation of SERVQUAL model by Parasuraman et al (1985, 1988) and covers measurement of the responses on the expectation and perceptions variables of service quality. Total mean weights for the respective variables indicate in totality that majority of respondents do not perceive the mobile telephony operators as doing well enough on the SQ variables. On the average, customer satisfaction levels were below 50 per cent. However, in spite of the perceived low level of customer dissatisfaction, these customers have not defected. They have continuously maintained relationships with the mobile telephony service providers.

With respect to individual service operators, the trend observed indicate that satisfied customers of VODAPHON perceive their experience with the service as exceeding expectations, thus, giving impressions of the delight of customers to the quality of service received. This notwithstanding, EXPRESSO customers were barely satisfied. However, while customers on the TIGO network appears dissatisfied with the quality of service that they receive, MTN customers represent the most dissatisfied among all customers who expressed resentments about the quality of service provided by the network operators.

The specific individual variables suggest that in relative terms, the mobile telephony operators do well on the *tangible* aspects of their service delivery. These included the appearances of their staff, spick and span premises and attractive billboards and advertising. Respondents were least comfortable with the *reliability* variable followed closely by the *responsiveness* variable. Incidentally, *reliability* variable which relates to, coverage and low call drops, are perceived to be key performance indicators for the firms. This also applies to the *responsiveness* variable which relates to the performance of the call centers and attending to the needs of customers. This may explain why majority of respondents were not satisfied. Interestingly, these customers have still maintained relationship with the firms. MTN is the market leader with the largest market share (with corresponding relationship with its customers) but was the least satisfying firm. This indicates that relationship marketing practice therefore does not necessarily imply customers are satisfied with the service quality variables.

7. Policy Implications

Reliability (low coverage, call drops) and Responsiveness (poor customer service, accessibility to call centers) variables attracted low favorable comments from respondents. These incidentally are critical to mobile telecommunication service delivery and consequently satisfaction of customers. Mobile telephony operators must therefore improve upon coverage, ensure that the network is reliable, customer service improved and call centers are made more accessible and responsive to customer needs. This may require investment in new and up-to-date technology. Regulatory bodies like National Communication Authority should not only clearly spell out guidelines but also strictly enforce the regulations.

8. Conclusions

The study suggests that customer dissatisfaction with service quality variables does not necessarily discourage firms' successful relationship with customers. While this may be one of the inputs in the relationship marketing theory, in its absence however, other variable can be used to establish and maintain relationship with customers. Some of these inputs have been mentioned as understanding customer expectation, building service partnership and empowering employees. Firms for example can make switching cost high (unwilling to switch because one's friend is on the same network).

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Note

Note 1. Customers' preferences of service provider attributes were weighted as: Strongly Agree/agree = 3, Neutral = 2 and Strongly Disagree/Disagree = 1.