Gap Analysis of the Service Quality of a University ICT Centre in Nigeria

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ABSTRACT

Service quality has been identified and documented as one of the key driving forces for organizational survival, sustainability and is crucial for the firm's accomplishment. (Rust and Oliver 2004). This paper examines service quality of a University Information and Communications Technology (ICT).

(Keywords: quality of service, QOS, information, communications, technology, university, center)

INTRODUCTION

Service quality has been identified and documented as one of the key driving forces for organizational survival, sustainability and is crucial for the firm's accomplishment. (Rust and Oliver, 2004). According to Zeithaml and Bitner (2008), Service quality has been defined as an overall judgment similar to attitudes towards the service and generally accepted as an antecedent of overall customer satisfaction researchers and practitioners. "Service quality is a focused evaluation that reflects the customer's perceptions of specific dimensions of quality: reliability, responsiveness, assurance, empathy and tangible". It is a conceptual construct which centers on perceived quality defined as a customer's judgment about an entity's overall excellence or superiority.

Parasuraman, Zeithaml, and Berry (1988), further define service quality as the difference between customers' expectations of services and their perceived service. If the expectation is greater than the service performance, perceived quality is less than satisfactory and general dissatisfaction occurs. In other words, service quality is the result of the comparison that customers make between their expectations about a service and their perceptions of the ways the services have been performed and also service quality is the ability of the organization to meet or exceed customer expectation.

Currently, services dominate the economies of the world's developed countries. Service represents over eighty percent of the Gross Domestic Product (GDP) and labor force in the United States alone (Spohrer and Maglio, 2008; Bitner and Brown, 2008). In spite of this, there is relatively little formal focus within companies, governments and universities on service research, service excellence and service innovation. Services are provided through interaction with customers. They cannot be assessed in advance, but only when they are provided. The quality of a service depends to some extent on the way in which the service provider and the customer interact. How the customer perceives the service and what the provider thinks they provide, both depend largely on their personal experiences and expectations (Hinson, 2006).

The quality of a service is a major factor in satisfying the customers of a particular organization. It refers to the extent to which the service fulfills the requirements and expectations of the customer. To be able to provide quality, the supplier should continuously assess how the service is experienced and what the customer expects in the future. What one customer considers normal could be considered a special requirement by another customer. The results of the service assessment can be used to determine if the service should be modified, if the customer should be provided with more information, or if the cost of the service should be changed (Van Bon, Pieper and Van der Veen, 2004). This situation equally applies to services delivered by Information and Communications Technology (ICT).

An effective assessment of the Quality of Service provided by an ICT center should take into consideration how clients perceive the ICT services. When the service provider understands

how the clients evaluate its services, it can then identify how to manage these evaluations and how to influence them in a desired direction. It does not matter what an organization believes about its level of service, what the customer thinks about both the process and the outcome of service is the important issue in the delivery of quality service to clients.

Service quality is given high premium in the University ICT Center as it holds the key to survival, competitiveness, customer satisfaction and customer loyalty. Contrastingly, a lot of University ICT Center lacks the culture, systems and processes to deliver high quality services. It is against this backdrop that this study is being undertaken. It seeks to assess service quality delivery within the University ICT Center and how this can impact on client's satisfaction.

Problem Statement

Considering that ICT has been fully adopted in Africa, it is essential that African universities develop educational programs to address the need for a workforce that is fluent in ICT. Most African universities are rather poorly positioned in terms of ICT (Obuobi, Adrion and Watts, 2006). University ICT Center exists to provide services to majorly the student and staffs of the institution. It is a well-known fact that service quality delivery by University ICT Center is beset with a lot of challenges. The University ICT Center has been seen as lethargic and non-responsive to the needs of mostly the students of the institution.

The center provides services to a large population, as a result, there seemed to be less emphasis on quality of service delivery with long queues of students waiting to use facilities. Another problem often encountered by students was slow Internet connectivity speed. (Incidentally, majorly all universities invested together in VSAT technology. The costs of deploying this technology, securing a license and its operation are high. And so, the bandwidth allocated for Internet access to majorly student is low as against 10 megabits/sec proposed by Laudon (2010) as the required bandwidth for ICT centers). Students therefore get frustrated and dissatisfied about the staff of the center not giving them individualized attention when they need help on the facilities at the center and the commitment of the center in helping and providing services promptly (Lovelock and Wirtz, 2007). There is

therefore the need to assess the quality of services at the center so that problems that students face can be addressed and also, to help improve the overall service quality of the ICT Center and impact student satisfaction.

Objectives of the Study

The purpose of this study is to assess the service quality of university ICT service center and to make recommendations for improving on service quality (Adzobu, 2011). The specific objectives are:

1. To assess the service quality at the center by measuring the gap between performances of the institution ICT service center and expectations of students who use the center.

2. To determine which dimension of service quality are important to the students.

3. To determine factors influencing the quality of services at the center.

4. To make recommendations on how to improve on the level of service quality.

The study will provide information on the gap between students' expectations and performance of ICT services and their views on the ICT center's services. This will enable the university authorities and the management of the center to develop the right strategies to close the perceived service quality gap and hence improve on the quality of service delivery. The study will also enable the university authorities to improve on the quality of service delivery.

Research Questions

This project assessed the service quality of university ICT service center. The study will be guided by the following research questions:

1. What is the gap between performance of the institution ICT service center and expectations of students who use the center?

2. Which dimensions of service quality were important to students?

3. What are the factors influencing the quality of services at the center?

4. How would the level of service quality at the center be improved?

Relevance of the Study

The study when successfully carried out is expected to add to the store of knowledge on the subject matter, particularly its relevance to the university ICT service center.

It is expected to expand the frontiers of knowledge with respect to how service quality influences or impacts on student satisfaction, elements of service quality, and other determinants of student satisfaction. It is also expected to find out how best practices in achieving students satisfaction can be recommended for adoption by university ICT service center to suit it peculiar circumstances.

It is therefore in this regard expected to make concrete recommendations to university ICT service center's to enable it satisfy its wide range of clients, to make it a preferred forum for seeking rights violation remedies and justices and above all to make it the center of excellence as espoused by its medium-term strategic plan. It is expected that the findings will be compelling enough to lead management to commit the necessary resources to improve the quality of service at the university ICT service center.

Scope of Study

The study investigated the resources available for providing quality service by the university ICT service center to the student of the university. The study also ascertained the availability and quality of human resources available to deliver quality services by the center, Factors that enhance the availability of resources for providing quality services were also explored in this study. The study will cover a particular university in Nigeria.

LITERATURE REVIEW

The Concept of Quality

According to Sower and Fair (2005); Wicks and Roethlein (2009), quality has many different definitions and there is no universally acceptable definition of quality. They claim it is because of the elusive nature of the concept from different perspectives and orientations and the measures applied in a particular context by the person defining it. In this study, quality must be well defined in the context of an organization or institution and must focus on various dimensions of services provided. This therefore means the definition of quality varies between manufacturing and services industries and between academicians and practitioners. These variations are caused by the intangible nature of its components since it makes it very difficult to evaluate quality which cannot be assessed physical implying other ways must be outlined in order to measure this quality.

Quality has been considered as being an attribute of an entity (as in property and character), a peculiar and essential character of a product or a person (as in nature and capacity), a degree of excellence (as in grade) and as a social status (as in rank and aristocracy) and in order to control and improve its dimensions it must first be defined and measured (Ghylin, Green, Drury, Chen, Schultz, Uggirala, Abraham and Lawson, 2008).

Some definitions of quality pointed out by Hardie and Walsh (1994) include:

"Quality is product performance which results in customer satisfaction freedom from product deficiencies, which avoids customer dissatisfaction" – Johns (1999).

"Quality is the degree or grade of excellence etc. possessed by a thing" – (Oxford English Dictionary).

"Quality is defined as the summation of the affective evaluations by each customer of each attitude object that creates customer satisfaction"- Wicks and Roethlein (2009).

"Quality is the totality of features and characteristics in a product or service that bear upon its ability to satisfy needs" Haider (2001).

"Quality is the totality of features and characteristics of a product that bear on its ability to satisfy stated or implied needs"– International Standards Organization (ISO).

It must however be noted that quality is more than this. It is delivery performance, time-to-market, responsiveness to changes in the environment and the market place and most of all at the lowest cost possible (Lovelock and Wirtz, 2004).

The above definitions of quality shed light in understanding quality concept and point out that quality has many views. As concerns these study, quality will be considered in the context of an institution because the study deals with accessing the service quality of University ICT center.

Overview of Service Quality

Studies have confirmed that the measurement of quality is usually made during the process of service delivery. Customer satisfaction with a service can be defined by comparing perceptions of service received with expectations of service desired. Exceptional quality is achieved when expectations are exceeded. Quality of service is deemed unacceptable when expectations are not met. Incidentally, expectation is intangible.

A strategic study carried out by Arshad and Ameen (2010), shows that service quality provided to clients are the client wishes or needs, or what the service supplier should provide. On the other hand, the perception of service quality performance refers to services executed at the very moment the consumer interacts directly with the services. Therefore, the perception of service quality is a consequence of an evaluative perception of the customer, when interacting with the service at a specific moment in time.

Service quality is considered an important tool for a firm's who struggle to differentiate itself from its competitors (Ladhari, 2008). The relevance of service quality will be emphasized especially the fact that it offers a competitive advantage to institution that strive to improve it and hence bring customer satisfaction.

Service quality has received a great deal of attention from both academicians and practitioners (Negi, 2009) and service marketing literature quote that service quality is the overall assessment of a service by the customer (Eshghi, Roy, and Ganguli, 2008).

Ghylin, Green, Drury, Chen, Schultz, Uggirala, Abraham, and Lawson (2008) points out that, by defining service quality, companies will be able to deliver services with higher quality level presumably resulting in increased customer satisfaction. Understanding service quality must involve acknowledging the characteristics of service which are intangibility, heterogeneity and inseparability (Ladhari, 2008). In that way, service quality would be easily measured.

In this study, service quality can be defined as the difference between customers expectation for service performance prior to the service encounter and their perception of the service received. Customer's expectation serves as a foundation for evaluating service quality because, quality is high when performance exceeds expectation and quality is low when performance does not meet their expectation (Asubonteng, McCleary, and Swan, 1996).

Expectation is viewed in service quality literature as desires or wants of consumer (i.e., what they feel a service provider should offer rather than would offer).

Perceived service is the outcome of the consumer's view of the service dimensions, which are both technical and functional in nature. The customer's total perception of a service is based on his/her perception of the outcome and the process; the outcome is either value added or quality and the process is the role undertaken by the customer (Ladhari, 2008).

Parasuraman, Zeithaml, and Berry (1988) define perceived quality as a form of attitude, related but not equal to satisfaction, and results from a consumption of expectations with perceptions of performance. Therefore, having a better understanding of consumers attitudes will help know how they perceive service quality been provided by the institution ICT center.

Customer Satisfaction

Customer satisfaction is conceptualized as been transaction-specific meaning it is based on the customer's experience on a particular service encounter (Cronin and Taylor, 1992), and also some think customer satisfaction is cumulative based on the overall evaluation of service experience (Jones and Suh, 2000). These highlight the fact that customer satisfaction is based on experience with service provider and also the outcome of service.

Giese and Cote (2000) clearly state that there is not generic definition of customer satisfaction and after carrying a study on various definitions on satisfaction they came up with the following definition, "customer satisfaction is identified by a response that pertains to a particular focus and occurs at a certain.

Sebastianelli and Tamimi (2002) who believe customers' level of satisfaction is determined by their cumulative experiences at all of their points of contact with a supplier organization. Organizations that consistently satisfy their customers enjoy higher retention levels and greater profitability due to increased customers' loyalty, Wicks and Roethlein (2009). This is why it is vital to keep consumers satisfied and this can be done in different ways and one way is by trying to know their expectations and perceptions of services offered by service providers. In this way, service quality could be assessed and thereby evaluating customer satisfaction.

Relationship between Service Quality and Customer Satisfaction

According to Sebastianelli and Tamimi (2002), customer satisfaction should be seen as a multi-dimensional construct just as service quality meaning it can occur at multi-levels in an organization and that it should be operationalized along the same factors on which service quality is operationalized.

Saravana and Rao (2007) suggested that when perceived service quality is high, and then it will lead to increase in customer satisfaction. He supports the fact that service quality leads to customer satisfaction and this is in line with Lee, Lee and Yoo (2000) who acknowledge that customer satisfaction is based upon the level of service quality provided by the service provider.

According to Negi (2009), the idea of linking service quality and customer satisfaction has existed for a long time. He carried a study to investigate the relevance of customer-perceived service quality in determining customer overall satisfaction in the context of mobile services (telecommunication) and he found out that reliability and network quality (an additional factor) are the key factors in evaluating overall service quality but also highlighted that tangibles, empathy and assurance should not be neglected when evaluating perceived service quality and customer satisfaction.

Fen and Lian (2005) found that both service quality and customer satisfaction have a positive effect on customer's re-patronage intentions showing that both service quality and customer satisfaction have a crucial role to play in the success and survival of any business in the competitive market. This study proved a close link between service quality and customer satisfaction.

Swan (2001) carried out a study to find out the link between service quality and customer satisfaction, from their study, they came up with the conclusion that, there exist a great dependency between both constructs and that an increase in one is likely to lead to an increase in another. Also, they pointed out that service quality is more abstract than customer satisfaction because, customer satisfaction reflects the customer's feelings about many encounters and experiences with service firm while service quality may be affected by perceptions of value (benefit relative to cost) or by the experiences of others that may not be as good.

This study is based on accessing the service quality of University ICT Center and it is very important to identify and evaluate those factors which contribute significantly to determination of customer(student) perceived service quality and overall satisfaction.

Service Quality Measurement

Sachdev and Verma (2004) had stated that service quality by its very nature is an elusive, indistinct and abstract concept. Consumers do not easily articulate their requirement and also there are difficulties in delimiting and measuring the concept. As a result only a handful of

researchers have operationalized the concept. In the literatures too, perspectives of service quality measurement have been identified as internal and external perspectives.

The internal perspective is defined as zero defect - doing it right the first time, or conformance to requirements (Garvin, 1988) while The external perspective sees service quality in terms of customer perception, customer expectation, customer satisfaction, customer attitude and customer delight. The external perspective has become important because of increasing customer awareness, changing consumer tastes and growing consumer expectations (Sachdev and Verma, 2004).

Parasuraman, Zeithaml, and Berry (1988) have proposed that customer's perception of service quality is based on the comparison of their expectations (what they feel service providers should offer) with their perceptions of the performance of the service provider. They further point out that expectation is viewed differently in both satisfaction literature and service quality literature. In satisfaction literature, expectations are considered as 'predictions' by customers about what is likely to happen during a particular transaction while in service quality literature, they are viewed as desires or wants of consumers, that is, what they feels a service provider 'should' offer rather than 'would' offer.

Expectations will be define as desires or wants of customers because this allows us to know exactly what service providers should offer and this is based on past experience and information received (Douglas and Connor, 2003). It is important to understand and measure customer's expectations in order to identify any gaps in delivering services with quality that could ensure satisfaction (Negi, 2009).

Perceptions of customers are based solely on what they receive from the service encountered (Douglas and Connor, 2003).

The study is mainly based on this discrepancy of expected service and the performance of ICT service center from the customer's perspective. This is in order to obtain a better knowledge of how customers perceive service quality in the University ICT Center.

The SERVQUAL

The original conceptualization of service quality was a framework developed by Parasuraman, Zeithaml and Berry (1991). The SERVQUAL instrument was originally measured on ten (10) aspects or dimensions of service quality: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, and tangibles as a means of measuring the gap between customer expectation and experience. The original construct was found to be overly complex, subjective and statistically unreliable, and as a result it was simplified and modified to the five dimensional model which is measured on five (5) aspects, namely - reliability, assurance, tangibility, empathy and responsiveness (McCabe, Rosenbaum, and Jennifer Yurchisin, 2007).

The SERVQUAL scale is the most widely known and used because of its universal applicability to a wide range of services (Nyeck, Morales, Ladhari, and Pons, 2002) and based on the University ICT Center service quality the five determinants were illustrated as follows:

Reliability: Reliability is the ability of the center to perform the promised services both dependably and accurately. Reliable service performance means that the service is accomplished on time, in the same manner and without errors every time.

Assurance: Assurance refers to the knowledge and courtesy of the center (employees) as well as their ability to convey trust, confidence and assurances. This dimension includes competence to perform the service, politeness and respect for the students and effective communication with the students.

Tangibles: Tangibles refer to the appearance of the ICT Center physical facilities, equipment's, personnel and their communication materials. The condition of the physical surroundings (e.g., cleanliness) is a tangible evidence of the care and attention that are exhibited by the center as a service provider.

Empathy: Empathy is the provision of caring, individualized attention to students. It includes approachability, sensitivity and efforts to understand the students' needs (Fitzsimmons and Fitzsimmons 2004).

Responsiveness: Responsiveness is the willingness of the ICT Center to help students and to provide prompt service. Keeping students waiting creates unnecessary negative perceptions of quality.

SERVQUAL use in ICT: The SERVQUAL model has been used quite extensively by researchers. Lai, Hutchinson, Li, and Bai (2007) applied the SERVQUAL instrument in China's mobile communication service. Khan (2010) used a structured SERVQUAL questionnaire to measure mobile phone customers' perceptions about service quality in Pakistan. (Roses, Hoppen, and Henrique, 2009) applied SERVQUAL to a large Brazilian retail bank and evaluated the perception gaps of service quality between IT service providers and their clients.

Bidgely, Shahlayi, Hosseini and Ghasemi (2010) also researched into identifying service quality dimensions in an IT department of a sports organization using SERVQUAL. Badri, Abdulla, and Al-Madani (2005) applied SERVQUAL to measure the quality of service of Information Technology (IT) center in higher education institutions in the United Arab Emirates. Smith, Smith, and Clarke (2007) also conducted a survey research to measure perceived service quality in universities using the SERVQUAL instrument.

Service Quality Gap

According Arshad and Ameen (2010), quality of service is a function of the differences (gaps) between expectation and perceived performance along quality dimensions. Service quality is determined by the formula Q ≈ PS-ES, where Q is perceived quality and PS and ES are the resultant ratings for performance and expectations respectively. Unlike quality of goods, which can be easily measured objectively, service quality is an intangible construct that may be difficult to measure. Service quality gap have an impact on the way customers perceive service quality in the University ICT Center and thus help in closing the gap which arises from the difference between customer's (student) expectation and perception of service quality dimensions. The model (which will be adapted for the ICT Center-student environment) consists of five gaps:

Gap 1: The difference between what the students expect and what the ICT Center perceives about the students' expectations.

Gap 2: The difference between the center perceptions of student expectations and the translation of those perceptions into service quality specifications and design.

Gap 3: The difference between standards of service quality and the actual service delivered to students.

Gap 4: The difference between the services delivered to students and the promises of the center communicated to the students about its service quality.

Gap 5: The difference between students' expectations and perceived service.
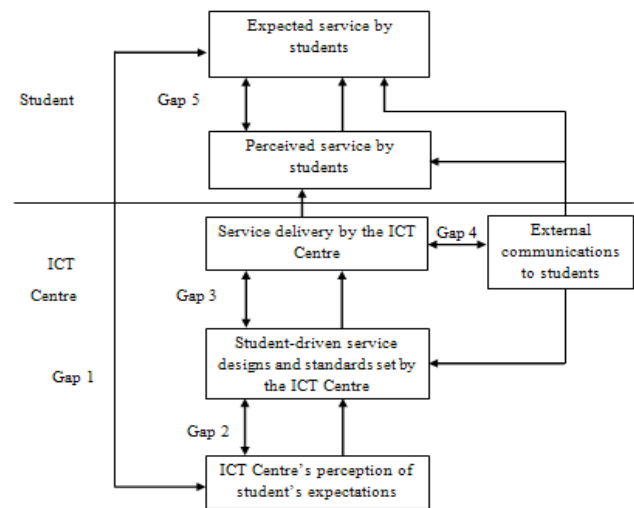
Figure 1: Service Quality Gaps.

According to Fitzsimmons and Fitzsimmons (2004), the key gap is Gap 5. Gaps 1-4 will influence the extent of significance of Gap 5. The magnitude of each gap will have effect on service quality. The students' satisfaction with the service at the center can therefore be determined by comparing performance of service received with expectations of service desired (which is Gap 5).

When customers' (here, students') expectations, ES, of service are less than performance, PS, (i.e., ES<PS), then service is perceived to be of exceptional quality. This therefore implies that PS-ES yields a positive value for service quality, Q. Quality of service is deemed unacceptable when the customers ES is greater than PS (i.e. customers' expectations are not met). This leads to a low service quality yielding a negative value.

In addition, when customer's expectations of service are confirmed by perceived service, quality is satisfactory, that is, ES≈PS, i.e., PS-ES ≈ 0.

Service Quality in University ICT Center

The use of a variety of measures of service quality in the University ICT Center as critical indicators of both organizational performance and general customer satisfaction is widely accepted and has given rise to considerable empirical research. Organizations operating in the University ICT Center have also come to the realization that customer service and quality are critical strategic issues.

However, it is also widely recognized that ICT Center in most Nigeria university face particular difficulties in measuring service quality. This is a matter of concern to the student since they pay for the service, and therefore, they expect that good services are provided to them in return.

According to Gowan, Seymour, Ibarreche, and Lackey (2001) service provision is more complex in the University ICT Center because it is not simply a matter of meeting expressed needs, but of finding out unexpressed needs, setting priorities, allocating resources and publicly justifying and accounting for what has been done. In addition, Caron and Giauque (2006) pointed out that ICT Center employees are currently confronted with new professional challenges arising from the introduction of new principles and tools.

Considering that ICT has been fully adopted in African, it is essential that Africa universities develop educational programs to address the need for a workforce that is fluent in ICT. Most African universities are rather poorly positioned in terms of ICT (Obuobi, Adrion, and Watts, 2006). For example in 1995, Ghana had full Internet connectivity. Despite this, growth in ICT services and usage in Ghana's universities is still lagging (Afari-Kumah and Tanye, 2009). This study therefore will address the usage of ICT services at the University ICT Center.

Summary of Literature Review

This study was on accessing the service quality of university ICT service center. The review of literature was basically on documentary sources like unpublished theses, dissertations, and journal articles. However, much of the literature concentrated on journal articles, since it is the primary source of information. This study was reviewed under the concept of quality, service quality, customer satisfaction, relationship between service quality and customer satisfaction, service quality measurement, service quality gap and basically the quality of service at the University ICT Center. This study is expected to fill that important knowledge vacuum in identifying the resources needed by University ICT Center to provide quality and satisfactory services to their customer (student).

METHODOLOGY

Research Design

A research design provides a framework for the collection and analysis of data. A choice of research design reflects decisions about the priority being given to the following; expressing causal connections between variables, generalizing to larger groups of individuals than those actually forming part of the investigation, understanding behavior and meaning of that behavior in its specific social context and having a temporal (i.e. over time) appreciation of social phenomena and their interconnections (García and Caro, 2010).

The main traditional approaches to conducting research are the quantitative, qualitative and mixed methods. For this particular study, the descriptive survey research method will be adopted, as it will allow the results to be generalized from the sample perspective to the entire population. It also facilitates the correlation of both quantitative and qualitative data (Bryman, 2008).

According to Gay (1992), descriptive research involves collecting data in order to test hypotheses or answer research questions concerning the current status of the study.

According to Nworgu (2006), a descriptive survey research method is the study that aims at collecting data of a population and describing the data collected in a systematic manner. Therefore, this research design was chosen since this study involves the collection of data from a population and describing the data collected in a systematic

manner. The descriptive survey research design was appropriate for this study, since it is useful for studying a variety of problems involving data for answering research questions and permits the description of the conditions as regard the service quality of University ICT Center.

Area of Study

The area of the study will be a particular university in Nigeria (i.e., Kwara State University). The purpose of the study is to carry out a research on the service quality of the institution ICT centers from the student perspectives.

Population, Sample Size and Sampling Technique

According to Neuman (2006), a population is the conceptual idea of a large group of people, events or things from which a researcher draws a sample and to which results from a sample are generalized. There were three distinct groups of users in Kwara State University community who used the ICT Center. They were the administrative staff, the teaching and research faculty and the students. This research will focus more on the student group of the institution with a resident undergraduate population of 9,489 (Kwara State University, 2016).

Sampling is the process by which a proportion of a population is carefully selected for a study in order to help extend knowledge gained from the study of the part to the whole population from which the part was selected. The characteristics of the sample must therefore, closely reflect those of the population. In this study, the sample size that will be used is 100 undergraduate students out of 9,489 undergraduate students in the university. The 100 student from the sample size will be student from six of the faculties in the institution which are faculty of information and communication technology, faculty of education, faculty engineering and technology, faculty of pure and applied science, faculty of management and social science and finally faculty of art.

To get the sample for the respective faculties, the simple random sampling technique, (specifically the lottery method) will be used. The lists of undergraduate student for each faculties will be numbered serially (i.e., 1, 2, 3, etc.), written on slips of paper well folded and clipped, all put in a

box and shaken to mix up properly. After that one slip is taken out at a time from the box and the number recorded. Each slip that is picked and recorded is thrown back into the box. The process will be continued until the sample size for the particular faculty is gotten. It should be noted that in the process, if an already drawn number was selected for a second or third time, it will be thrown back into the box. The names which corresponded to the drawn numbers were written down and constituted those persons to whom the questionnaires will be administered.

Research Instrument

Data for the study will be obtained from primary and secondary sources. The main primary data source will be from structured questionnaire. The questionnaire will be adapted from SERVQUAL dimensions of measuring service quality. It will contain three sections A, B and C.

Section A contained personal information about the respondents, **Section B** is divided into two part which consist of 20 statements (four on each of the five service quality dimensions) enquiring the expected and performance level of services on a five point scale ranging from 1, "*strongly disagree*" to 5, "*strongly agree*" and **Section C** required additional comments from respondents. Secondary data of the research will be from journals, textbooks and the Internet.

The rating scale will be as follows:

SA (Strongly Agree) = 5
A (Agree) = 4
N (Neutral) = 3
D (Disagree) = 2
SD (Strongly Disagree) = 1

Validation of the Instrument

There are two types of validity – external and internal validity. External validity refers to whether the results of the study could be generalized to other people, situations or times. Thus evaluation of external validity concerns the whole research design. Not only will the research measuring instrument be considered, the research method and approach will also be assessed to establish external validity. External validity will be affected by whether the study is a qualitative research or a quantitative one or whether it is a survey or a

case study method. As data collection of qualitative studies is accused of being subjective, it is more difficult to establish external validity. The discussions on the internal validity of the questionnaire for this study are limited to "the ability of a research instrument to measure what it is purported to measure" (Cooper and Schindler 2006). It is widely accepted that there are three forms of internal validity – content validity, criterion-related validity, and construct validity and these are inter-related.

Content Validity: Content validity refers to the extent that the measuring instrument has adequate coverage of the concept. In this study, the question is whether the questionnaire has enough items to collect data on service quality of university ICT service center. Is it comprehensive enough to measure service quality of university ICT service center in terms of Assurance, Responsiveness, Empathy, Reliability and Tangible? If the answer is positive, then the questionnaire has good content validity.

Criterion-Related Validity: Criterion validity of a questionnaire or measure is "the ability of some measures to correlate with other measures of the same construct" (Zikmund 2003). In this study, if the measure of service quality by the SERVQUAL dimensions correlates with another quality measure of university ICT service center, then criterion validity would be established.

Construct Validity: Construct validity is defined as "the ability of a measure to confirm a network of related hypothesis generated from a theory based on the concepts" (Zikmund 2003). Therefore, to evaluate construct validity, both the theory of service quality and the measuring questionnaire should be reviewed. In other words, the theory that service quality of university ICT service center comprises the constructs of Assurance, Responsiveness, Empathy, Reliability and Tangible requires assessment and evaluation.

In an attempt to ensure the validity all the forms of internal validity, the instrument that is used to carry out the research was subjected to face validation by my supervisor in the Department of information and communication science. A critical look at the questionnaire is been conducted to check whether it is in line with the research questions, statement of problem as well as the literature reviewed. The format of the questionnaire, the appropriateness of the questionnaire title, the questions contained therein, as well as correcting any grammatical errors in it was also checked to give the questionnaire its maximum validity.

Method of Data Collection

As noted earlier questionnaires will be the guide that will be used to gather the relevant primary data. With regards to the questionnaire, copies will be made available to the selected faculties and they will be administered by the researcher to the student of the faculties who have been properly oriented by the researcher for that purpose. Towards the completion and filling of appropriate answers the administered or completed questionnaires will be collected, collated and edited by the researcher to ensure consistency, homogeneity, accuracy and completeness.

Data Analysis and Presentation

On the completion of collating the data gotten from respondent, the data will be quantitatively and qualitatively analyzed.

Quantitative data analysis will be done by the use of Microsoft word 2007 – integrated package on a personal computer. The Statistical Package for Social Scientist (SPSS) software IBM version 19 will be used to analyze the relationship between the service quality and its dimensions and clients satisfaction. Specifically, descriptive statistics, gap analysis and correlation tests will be conducted.

According to Hair, Anderson, Tatham and Black (1998), it is a constructive statistical technique that is used to analyze the association between a set of independent variables and a single dependent variable. Frequency distribution and percentages will also be used to analyze the profile of the respondents and to determine the proportion of respondents choosing various responses. Presentation devices majorly tables will also be used to analyze and present the results to help easy understanding of the analysis and findings.

Qualitative analysis will be done by writing down the themes based on the research objectives and research questions and the issues discussed accordingly.

Overview of the Institution

Kwara State University is a state institution which came into existence some years ago. The institution is boosted with 9,489 undergraduate students currently with various staffs both teaching and non-teaching staff from each faculty. It is boosted with the below faculties: faculty of art, faculty of education, faculty of pure and applied sciences, faculty of agriculture and veterinary science, faculty of engineering and technology, faculty humanities, management and social sciences and the faculty of information and communication technology.

DATA ANALYSIS AND RESULT

Demographic Profile of Respondents (Student)

As indicated, the main respondent group of the survey was undergraduate student of Kwara State University who had experienced the services provided by the university ICT service center. In all a total of one hundred (100) students was arrived at as the sample size. However, only 94 students could be contacted and successfully taken through the questionnaire. This translates to a response rate of 99%. The tables and figures below present the demographic profile of these clients.

Table 1: Distribution of Respondent by Gender.

SEX	FREQUENCY	PERCENTAGE
Male	54	57%
Female	40	42%
Total	94	99%

Table 1 shows that out of 94 students who participated in the survey, 54 (57%) were males and 40 (42%) were females. The sample thus contained a higher percentage of males than females. This is reflected in the Kwara State University students' gender distribution statistics of 67.1% male to 32.9% female (Kwara State University, 2016). This implied that both sexes were well represented in the study.

Table 2: Age of Respondents.

AGE	MALE	FEMALE	TOTAL
16-20	4 (3.7%)	6 (11.5%)	10 (6.5%)
21-25	48 (88.9%)	33 (86.8%)	81 (88.0%)
26-30	2 (7.4%)	1 (2.63%)	3 (5.4%)
Total	54 (100%)	40 (100%)	94 (100%)

Table 2 shows the ages of the respondents. The majority of respondents (both sexes), 81 (88%), were in the age range of 21-25. This shows that the respondent population was made up of mainly young adults who could perceive the state of a service and accurately assess it.

Table 3: Faculty or School of Respondent.

FACULTIES	FREQUENCY	PERCENTAGE
Information and communication technology	34	36.6%
Education	26	28.0%
Engineering and technology	4	4.20%
Pure and applied science	11	11.8%
Management and social science	6	6.50%
Art	13	14.0%
Total	**94**	**100.0%**

Table 3 shows respondents faculty. The highest number of students were from the Faculty of information and communication technology, 34 (36.6%), followed by the Faculty of Education 26 (28%). Engineering and technology students were the least in number 4 (4.2%). The results indicated that undergraduates from almost all faculties of the university participated in the survey.

Table 4: Levels of Respondents.

STUDENT LEVEL	MALE	FEMALE	TOTAL
100	24 (44.4%)	17 (44.7%)	41 (44.5%)
200	6 (11.1%)	4 (10.5%)	10 (10.9%)
300	23 (42.6%)	13 (34.2%)	36 (39.1%)
400	1 (1.9%)	6 (10.5%)	7 (7.4%)
Total	54 (100%)	40(100%)	94 (100%)

Table 4 shows the level of students from first year (Level 100) to final year (Level 400). Most of the respondents were from Level 100 (44.5%) and Level 300 (39.1%). The remaining two levels, 200 and 400, provided 10.9 and 7.4%, respectively of the respondents. The highest number of students was from level 100 and the least from level 400.

Performance and Expectation on Service Quality in the ICT Service Center

Respondents were asked to use the service quality attributes of the five SERVQUAL dimensions (tangibles, reliability, responsiveness, assurance and empathy) to express their opinions on their expectations and performance on the quality of service delivered by the ICT Center. A Likert scale was used with responses *strongly disagree* (*SD*), *disagree* (*D*), *neutral* (*N*), *agree* (*A*) and *strongly agree* (*SA*). The table and figures below provides a detailed result of their responses.

Assurance Dimension: The respondents were asked to indicate the performance and expectations with regards to:

- The evidence of the employee staff's knowledge of their services to be rendered
- Their courtesy towards student customers
- Their ability to convey trust and confidence into the students

The results in Table 5 show the frequency distributions of the performance and expectations of the respondents with regards to the attribute "assurance". The frequency distribution of performance scores of respondents for service quality attributes (SQAs) of assurance showed that the highest scores were all under *A*, '*agree*'. 'The employees at the ICT Center being polite to students' scored the highest, 43 (51.8%), among the four attributes. The respondents had confidence in the personal ability of the employees to deliver quality service.

All the highest expectation frequency scores for the service quality attributes (SQAs) of assurance were under *SA*, 'strongly agree'. The highest score was obtained by 'Employees at the ICT Center should have the knowledge to do their jobs well and to answer students questions; scoring 55 (64.7%). Respondents' assessment of the canter's quality of service with regards to assurance was positive but their expectations were higher.

Table 5: Assurance Dimension (Performance).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
Students are able to trust or have confidence in the employees of the ICT Center.	8 (9.5%)	9 (10.7%)	20 (23.8%)	34 (40.5%)	13 (15.5%)	84 (100%)
Students feel safe in their encounters with employees at the ICT Center.	6 (7.2%)	6 (7.2%)	18 (21.7%)	39 (47.0%)	14 (16.9%)	83 (100%)
Employees at the ICT Center are polite to students.	7 (8.4%)	10 (12.0%)	10 (12.0%)	43 (51.8%)	13 (15.7%)	83 (100%)
Employees at the ICT Center have the knowledge to do their jobs well and to answer students' questions.	3 (3.7%)	8 (9.8%)	13 (15.9%)	41 (50.0%)	17 (20.7%)	82 (100%)

Table 6: Assurance Dimension (Expectation).

SERVICE QUALITY ATTRIBUTES(SQAs)	SD	D	N	A	SA	TOTAL
Students should be able to trust in the employees of the ICT Center.	5 (5.5%)	4 (4.45%)	7 (7.7%)	27 (29.7%)	48 (52.7%)	91 (100%)
Students should feel safe in their encounters with employees at the ICT Center.	4 (4.6%)	2 (2.3%)	2 (2.3%)	30 (34.5%)	49 (56.3%)	87 (100%)
Employees at the ICT Center should be polite to students.	4 (4.7%)	2 (2.4%)	3 (3.5%)	25 (29.4%)	51 (60.0%)	85 (100%)
Employees at the ICT Center should have the knowledge to do their jobs well and to answer students' questions.	4 (4.7%)	1 (1.2%)	5 (5.9%)	20 (23.5%)	55 (64.7%)	85 (100%)

Table 7: Empathy Dimension (Performance).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
The employees at the ICT Center give students individual attention.	8 (9.5%)	12 (14.3%)	22 (26.2%)	30 (35.7%)	12 (14.3%)	84 (100%)
The ICT Center has operating hours which are convenient to all students.	6 (7.2%)	14 (16.9%)	11 (13.3%)	35 (42.2%)	17 (20.5%)	83 (100%)
The employees of the ICT Center give students personal services.	9 (10.6%)	13 (15.3%)	17 (20.0%)	32 (37.6%)	14 (16.5%)	85 (100%)
ICT Center staff understands the specific needs of students.	7 (8.4%)	14 (16.9%)	15 (18.1%)	36 (43.4%)	11 (13.3%)	83 (100%)

Table 8: Empathy Dimension (Expectation).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
The employees at the ICT Center should give students individual attention.	3 (3.4%)	2 (2.3%)	16 (18.4%)	36 (41.4%)	30 (34.5%)	87 (100%)
The ICT Center should have operating hours which are convenient to all students.	4 (4.8%)	2 (2.4%)	12 (14.5%)	20 (24.1%)	45 (54.2%)	83 (100%)
The employees of the ICT Center should give students personal services.	6 (7.1%)	9 (10.6%)	20 (23.5%)	28 (32.9%)	22 (25.9%)	85 (100%)
ICT Center staff should understand the specific needs of students.	3 (3.4%)	4 (4.6%)	15 (17.2%)	26 (29.9%)	39 (44.8%)	87 (100%)

Table 9: Reliability dimension (Performance).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
When ICT Center staff promise to do something by a certain time, they do so.	15 (17.4%)	12 (14.0%)	20 (23.3%)	28 (32.6%)	11 (12.8%)	86 (100%)
ICT Center staff show sincere interest in solving students' problems.	9 (10.3%)	8 (9.2%)	17 (19.5%)	33 (37.9%)	20 (23.0%)	87 (100%)
The ICT Center performs services right the first time (dependable).	6 (7.2%)	17 (20.5%)	18 (21.7%)	28 (33.7%)	14 (16.9%)	83 (100%)
The ICT Center staff provides their services at the promised time.	1 (1.4%)	7 (9.9%)	14 (19.7%)	16 (22.5%)	33 (46.5%)	71 (100%)

Table 10: Reliability Dimension (Expectation).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
Whenever the ICT Center promises to do something by a certain time, they should do so.	5 (5.6%)	1 (1.1%)	4 (4.4%)	25 (27.8%)	55 (61.1%)	90 (100%)
Whenever the ICT Center promises to do something by a certain time, they should do so.	11 (12.1%)	1 (1.1%)	5 (5.5%)	8 (8.8%)	66 (72.5%)	91 (100%)
The ICT Center should perform services right the first time.	5 (5.9%)	16 (18.8%)	14 (16.5%)	27 (31.8%)	23 (27.1%)	85 (100%)
They should provide their services at the time they promised to do so.	4 (4.7%)	5 (5.9%)	3 (3.5%)	25 (29.4%)	48 (56.5%)	85 (100%)

Empathy dimension: The students were also asked to indicate the performance and expectations about the ability of the ICT Center to provide individualized attention to them. Their responses are shown in the table above. These are frequency distributions of the performance and expectations of the respondents with regards to the service quality dimension "empathy". The frequency distribution of performance scores of the respondents for the service quality attributes (SQAs) empathy showed that the highest scores were all under *A*, '*agree*'. The 'ICT Center staff understand the specific needs of students' scored the highest 36 (43.4%), among the four attributes.

The highest expectation frequency distribution scores of the service quality attributes (SQAs) were under both *A*, '*agree*' and *SA*, '*strongly agree*'. The service quality attributes (SQAs) 'The

employees at the ICT Center should give students individual attention' and 'The employees at the ICT Center should give students personal services' had scores 36 (41.4%) and 28 (32.9%), respectively. These were under *A*, '*agree*'. The others were under *SA*, '*strongly agree*'. These were service quality attributes (SQAs) 'the ICT Center should have operating hours which are convenient to all students, 45 (54.2%) and 'ICT Center staff should understand the specific needs of students', 39 (44.8%). Although the respondents had a positive perception with respect to the service quality dimension "empathy", their expectations were higher than their perceptions.

Reliability Dimension: The students were asked to indicate the performance and expectations with regards to the ability of the ICT Center to perform service dependably, accurately and consistently. The results in tables above show the frequency distributions of the performance and expectations of the respondents with regards to the service quality dimension (SQD) "reliability". Under the reliability dimension, high frequency scores for performance of three of the service quality attributes (SQAs) came under '*agree*' and one, (The ICT Center providing services at the promised time) scored the highest, 33 (46.5%) under *SA*, '*strongly agree*'.

The highest expectation frequency scores for three of the service quality attributes (SQAs)

under reliability were found under *SA*, '*strongly agree*'. These were that the employees should be able to show sincere interest in solving students' problems, 66 (72.5%), the ability of the employees at the center to fulfill their promises, 55 (61.1%) and on time 48 (56.5%). The service quality attribute (SQA), the ability of the ICT Center staff to perform services right the first time, scored 27 (31.8%) and was under '*agree*'. It was inferred, therefore, that although the respondents agreed that services at the ICT Center were reliable their expectations of services were greater than their experiences.

Responsiveness dimension: The students were asked to indicate the performance and expectations with regards to the commitment of the ICT Center in helping them and providing services promptly. The results in the table above show the frequency distributions of the performance and expectations of the respondents with regards to the service quality dimension (SQD) "responsiveness". All the highest performance frequency scores for the service quality attributes (SQAs) of responsiveness were found under *A*, '*agree*'. The highest was 'The employees of the ICT Center are always willing to help students', scoring 36 (41.4%). It was inferred that respondents were unanimous that the ICT Center was responsive to their needs.

Table 11: Responsiveness Dimension (Performance).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
Employees of the ICT Center tell students exactly when services will be performed.	10 (11.8%)	12 (14.1%)	17 (20.0%)	30 (35%)	16 (18.8%)	85 (100%)
Employees of the ICT Center give prompt service to students.	10 (11.8%)	16 (18.8%)	12 (14.1%)	35 (14.1%)	12 (14.1%)	85 (100%)
Employees of the ICT Center are always willing to help students.	5 (5.7%)	12 (13.8%)	14 (16.1%)	36 (41.4%)	20 (23.0%)	87 (100%)
ICT Center staff was never too busy to respond to students' requests.	7 (8.2%)	13 (15.3%)	20 (23.5%)	35 (41.2%)	10 (11.8%)	85 (100%)

Table 12: Responsiveness Dimension (Expectation).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
Employees of the ICT Center should tell students exactly when services will be performed.	6 (6.7%)	1 (1.1%)	4 (4.4%)	33 (36.7%)	46 (51.1%)	90 (100%)
Employees of the ICT Center should give prompt service to students.	4 (4.4%)	1 (1.1%)	4 (4.4%)	32 (35.2%)	50 (54.9%)	91 (100%)
Employees of the ICT Center should always be willing to help students.	3 (3.5%)	3 (3.5%)	7 (20.0%)	17 (20.0%)	55 (64.7%)	85 (100%)
ICT Center staff should never be too busy to respond to students' requests.	3 (3.4%)	5 (5.7%)	11 (12.6%)	24 (27%)	44 (50.6%)	87 (100%)

Table 13: Tangible dimension (Performance).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
Hardware (equipment) and software are up-to-date.	5 (5.8%)	14 (16.3%)	25 (29.1%)	25 (29.1%)	17 (19.8%)	86 (100%)
The ICT Center's physical facilities are visually appealing.	3 (3.6%)	8 (9.5%)	17 (20.2%)	44 (52.4%)	12 (14.3%)	84 (100%)
The employees of the ICT Center are well dressed and appear neat.	2 (2.4%)	5 (6.1%)	15 (18.3%)	40 (48.8%)	20 (24.4%)	82 (100%)
The appearance of the physical facilities at the ICT Center keeps up with the kind of services provided.	2 (2.4%)	13 (15.3%)	21 (24.7%)	32 (37.6%)	17 (20.0%)	85 (100%)

Table 14: Tangible Dimension (Expectation).

SERVICE QUALITY ATTRIBUTES (SQAs)	SD	D	N	A	SA	TOTAL
The ICT Center should have up-to-date hardware (equipment) and software.	3 (3.2%)	3 (3.2%)	5 (5.4%)	15 (16.1%)	68 (72.0%)	94 (100%)
The physical facilities at the ICT Center should be visually appealing.	1 (1.1%)	4 (4.4%)	7 (7.8%)	40 (44.4%)	38 (42.2%)	90 (100%)
The employees at the ICT Center should be well dressed and appear neat.	6 (6.6%)	2 (2.2%)	8 (8.8%)	29 (31.9%)	46 (50.5%)	91 (100%)
The ICT Center should have a physical appearance that keeps up with the kind of services provided.	4 (4.5%)	2 (2.2%)	10 11.2%)	37 (41.6%)	36 (40.4%)	89 (100%)

All the highest expectation frequency scores for service quality attributes (SQAs) of responsiveness were under *SA*, '*strongly agree'*. Here also, the highest score was obtained by 'The employees should always be willing to help students', scoring 55 (64.7%). The expectations of respondents under the service quality dimension "responsiveness" were very high compared to the performance of the ICT service center. Their expectations were not met.

Tangibles Dimension: The students responded to questions on the performance and expectations on the physical attributes of the ICT Center. The questions were on the visual appeal of the center, up-to-date hardware and software, the appearance of the physical facilities as well as personnel and communications materials. The results in the table above show the frequency distributions of the performance and expectations of the respondents with regards to the service quality dimension (SQD) "tangibles". Under performance scores, the highest frequency scores were found under A, 'agree'. Physical facilities of the center that are visually appealing obtained the highest score of 44 (52.4%), followed by employees that are well dressed and neat in appearance, 40 (48%), physical appearance that kept up with the kind of services provided 32 (37.6%) and up-to-date hardware and software 25 (29.1%).

Under the expectation scores, the highest frequency scores were found to come under either A, 'agree' or SA, 'strongly agree'. The highest score was for up-to-date hardware and software 68 (72.0%), followed by employees that are well dressed and neat in appearance 46 (50.5%), Physical facilities of the center are visually appealing, 40 (44.4%) and this was affirmed by 38 (42.2%) other respondents. Materials associated with the service such as pamphlets were visually appealing, 37 (41.6%) and this was also affirmed by 36 (40.4%) other respondents. Under tangibles, respondents' expectations of all service quality attributes were higher than their performance. This implies that the students' expectations were not met.

Gap Analysis of Service Quality Dimensions

As stated all along, in this study, the quality of service (QOS) at the Kwara State University service center was measured by finding the difference between the means of performance and expectation of the respondents. The difference is the gap, , Respondent comments concerning service quality of Kwara State University using the service quality dimensions (SQDs) are been measured by finding the gap differences between performance and expectation of the respondent.

Table 15: Assurance Dimension.

SERVICE QUALITY ATTRIBUTES (SQAs)	PERFORMANCE (P) (MEAN)	EXPECTATION (E) (MEAN)	QUALITY GAP (P-E)
Students are able to trust or have confidence in the employees of the ICT Center.	3.42	4.20	-0.78
Students feel safe in their encounters with employees at the ICT Center.	3.59	4.36	-0.77
Employees at the ICT Center are polite.	3.54	4.38	-0.84
Employees at the Center have the knowledge to answer students questions	4.74	4.42	0.32

Table 16: Empathy Dimension.

SERVICE QUALITY ATTRIBUTES (SQAs)	PERFORMANCE (P) (MEAN)	EXPECTATION (E) (MEAN)	QUALITY GAP (P-E)
The employees at the ICT Center give students individual attention.	3.31	4.01	-0.70
The ICT Center has operating hours which are convenient to all students.	3.52	4.20	-0.68
The employees of the ICT Center give students personal services.	3.34	3.60	-0.26
ICT Center staff understands the specific needs of students.	3.46	4.08	-0.62

Table 17: Reliability Dimension.

SERVICE QUALITY ATTRIBUTES (SQAs)	PERFORMANCE (P) (MEAN)	EXPECTATION (E) (MEAN)	QUALITY GAP (P-E)
ICT Center staff promise to do something by a certain time, they do so.	3.09	4.38	-1.29
ICT Center staff show sincere interest in solving students' problems.	3.76	4.29	-0.53
The ICT Center performs services right the first time (dependable).	3.33	4.14	-0.81
The ICT Center staff provides their services at the promised time.	3.34	4.27	-0.93

Table 18: Responsiveness Dimension.

SERVICE QUALITY ATTRIBUTES (SQAs)	PERFORMANCE (P) (MEAN)	EXPECTATATION (E) (MEAN)	QUALITY GAP (P-E)
Employees of the ICT Center should tell students' exactly when services will be performed.	3.35	4.87	-1.52
Employees of the ICT Center give prompt service to students.	3.27	4.38	-1.11
Employees of the ICT center are always willing to help students	3.62	4.39	-0.77
ICT Center staff were never too busy to respond to students' requests	3.33	4.16	-0.83

Table 19: Tangible Dimension.

SERVICE QUALITY ATTRIBUTES (SQAs)	PERFORMANCE (P) (MEAN)	EXPECTATION (E) (MEAN)	QUALITY GAP (P-E)
The ICT Center should have up-to-date hardware and software.	3.41	4.51	-1.10
The ICT Center's physical facilities are visually appealing.	3.64	4.22	-0.58
The employees of the ICT Center are well dressed and appear neat.	3.87	4.18	-0.31
The appearance of the physical facilities at center keeps up with the services provided.	3.58	4.11	-0.53

➤ **Gap analysis for assurance dimension:** The result in assurance dimension above shows the service quality attributes performance and the expectation means of the students with their corresponding quality gap values. The results indicated that three service quality attributes (SQAs) had gap values in the range 0 to -1. However, (Employees at the ICT Center have the knowledge to do their jobs well and to answer students' questions) had a positive gap value (0.32) which implied that the performance expected by respondents exceeded their expectations.

➤ **Gap analysis for empathy dimension:** The result in empathy dimension above shows the service quality attributes performance and the expectation means of the students with their corresponding quality gap values. It was observed that all the quality gap values were negative and were in the range 0 to -1. The service quality attributes (SQAs) 'The employees at the ICT Center give students individual attention' had the highest negative value (-0.70) and the least was 'The employees of the ICT Center give students personal services', (-0.26). Negative gap values obtained meant that the students' expectations with regards to the service quality dimension (SQD) empathy were higher than center performance.

➤ **Gap analysis of reliability dimension:** The result in the reliability dimension above shows the service quality attributes (SQAs) of the performance and the expectation means of the students with their corresponding quality gap values. It was observed that all the gap scores for service quality attributes (SQAs) of reliability were negative values. The attribute 'ICT staff promise to do something by a certain time, they do so' had a negative gap in

the range of -1 to -2 and the other three attributes were in the range of 0 to -1. Negative gap values meant that the expectations of the students were not met.

➤ **Gap analysis for responsiveness dimension:** The result in the responsiveness dimension above shows the service quality attributes (SQAs) of the performance and the expectation means of the students with their corresponding quality gap values. The quality gaps for the service quality attributes (SQAs) were all negative. Two service quality attributes (SQAs) were in the range of -1 to -2. These were: 'Employees of the ICT Center should tell students exactly when services would be performed' (-1.52) which had the highest negative quality gap and 'Employees of the ICT Center give prompt service to students' (-1.11). The other two service quality attributes (SQAs) had gap values in the range 0 to -1. The results showed that the respondents' expectations were higher than their performance of service at the center.

➤ **Gap analysis for tangibles dimension:** The result in the tangibles dimension above shows the service quality attributes (SQAs) of the performance and the expectation means of the students with their corresponding quality gap values. It was observed that all the four service quality attributes (SQAs) of tangibles dimension had negative gaps. Three of them were in the range 0 to -1. The service quality attribute (SQA) 'The ICT Center should have up-to-date hardware and software' had a negative gap in the range -1 to -2. A negative gap implies that the expectations of the respondents were higher than their performance of service at the Center.

Relative Importance of Service Quality Dimension (SQD)

Performance and expectation mean values of all the service quality dimensions (SQDs) were also calculated one after the other. This was to help select the most important service quality dimension (SQD) influencing the quality of service at Kwara State University ICT service center. In the determination of the relative importance of the quality of service attributes of the center, the average means of service quality dimensions (SQDs) were calculated from respondents service quality attributes (SQAs) for both performance and expectation.

The dimension with the highest score for expectations was the most important dimension to the respondents. So far as respondents' expectations were concerned, responsiveness with mean (4.45) was the most essential dimension, followed by assurance, reliability, tangibles and empathy. On the other hand, when it came to performance ranking, assurance ranked first with a mean of 3.82, followed by tangibles, empathy, responsiveness and reliability. It was also observed that all the service quality (SQ) gap values were negative.

The service quality dimension (SQD) responsiveness had the highest negative value (-1.06); the gap values for the other dimensions were in the range 0 to -1. The overall performance mean was 3.53 while the overall expectation mean was 4.26. The overall service quality gap was -0.73. The table below best illustrates the performance and expectation mean value of the five service quality dimensions.

FINDINGS

Respondents' comments about quality of service (QoS) at the Kwasu ICT Center. With regards to the remarks on what respondents liked about the quality of service at the center, several comments were made. Remarks about staff were: they were punctual, well dressed, affable and willing to help users. About infrastructure, respondents remarked that the center's environment was conducive for Internet browsing and learning and the center itself was found to be spacious. The serene ambience of the center was most frequently mentioned by respondents 18 (24.7%). This was followed by the willingness of the employees to help users 17 (23.3%). The rest of the comments had frequencies less than 10% each. The willingness of employees to help students, the second most stated remark, is a service quality dimension of responsiveness. Responsiveness was also found to be the most important dimension to students in this study.

The following remarks were made by majority of the respondents on what they disliked about the quality of service of the ICT center; the Center staff did not give them prompt service; there was insufficient browsing time as Internet service at the ICT center was usually either disconnected or slow in speed (i.e., unreliable); lack of prompt maintenance of computers and insufficient seating accommodation at the center. The most frequently stated dislike was the unreliability of the Internet service 34 (52.2%). The frequencies of the rest of the remarks were less than 10% each.

The overall quality of service (QOS) at Kwasu ICT Center: Overall, the respondents rated the quality of service of the ICT center as moderate. Out of the 94 responses obtained 58 (60.2%) described the quality of service as moderate. However, 28 (30.1%) of respondents described it as high. Thus, most of the respondents rated the overall service quality of the ICT Center as moderate. The table below illustrates the overall rating of service quality of Kwara State University.

Table 20: Performance and Expectation Mean Value of Service Quality Dimensions.

DIMENSIONS	PERFORMANCE MEAN (P)	EXPECTATION MEAN (E)	QUALITY GAP (P-E)
Tangibles	3.63	4.26	-0.63
Reliability	3.38	4.27	-0.89
Responsiveness	3.39	4.45	-1.06
Assurance	3.82	4.34	-0.52
Empathy	3.41	3.97	-0.56
Overall mean	3.53	4.26	-0.73

Table 21: Overall Rating of Service Quality in Kwasu.

RATING OF SERVICE QUALITY	FREQUENCY
Very low	2 (2.4%)
Low	3 (3.6%)
Moderate	58 (60.2%)
High	28 (30.1%)
Very high	3 (3.6%)
Total	94 (100%)

Discussion of the Findings

The main purpose of the study was to access the quality of service at Kwara State University ICT Service Center so in these sense a brief discussion of findings is been analysed in these section.

Quality of Service at Kwasu ICT Service Center

The Quality of Service at Kwasu ICT Service Center was assessed by measuring the gap (difference) between Performance (PS) and Expectations (ES) of students who use the center (Gap = PS-ES). Data obtained showed that performance mean (3.53) was below to students' expectations mean (4.26). The gap between the performance and the expectations was therefore -0.73. A gap between zero (0) to negative one (-1) indicates that students have a good perception about the overall service quality. A negative deviation from zero means dissatisfaction and ranks respondents concerns about where quality of service falls short of their expectations. However, small negative values between 0 and -1 are interpreted as good (Arshad and Ameen, 2010). The level of service is acceptable but not yet at the desired level of service which should be zero. Generally, improvements in service should result in fewer and smaller negative quality of service gaps or positive quality of service gap scores.

Results from the overall quality of service rating of the ICT Center by respondents indicated moderate. This implies that the overall quality of service was average or good. The two results, the gap analysis and respondents' rating of the quality, were the same. Arshad and Ameen (2010) in their research found the overall service quality and satisfaction of the university's libraries to be average.

Dimensions of Quality of Service Important to Students

Van Iwaarden, Van der Wiele, Ball, and Millen (2003) used SERVQUAL to study quality factors perceived to be important in relation to websites. They defined expectations of users as importance and their perceptions as experiences. The expectation means of service quality attributes were used to determine the important service quality dimensions of websites. The determination of the important service quality dimension of the center, the method used by Van Iwaarden, Van der Wiele, Ball, and Millen (2003) was adopted.

The average means of service quality dimension were calculated from respondents service quality attributes. The dimensions with the highest scores, responsiveness (4.45) and assurance (3.34) were found to be important service quality dimension influencing quality of service. These two dimensions ranked fourth and first respectively, among the five service quality dimension under performance. The gap for responsiveness, the most important factor, was -1.06. This meant the expectations of respondents were not being met and it was a major short-fall of the quality of service of the ICT Center of the University. By improving upon the above dimension, the overall quality of service gap of the center will improve. Responsiveness measures the commitment of helping customers and providing them with prompt service. Employees (staff) are expected to be available and accessible to assist customers (students) promptly and in case of any delays employees should tell customers when service would be performed.

The gap for the second most important service quality dimension, assurance, was -0.52. This was in the range 0 to -1 which was good (Arshad and Ameen, 2010). A negative deviation from zero means dissatisfaction and ranks respondents concerns about where the quality of service falls short of their expectations. In this case the level of service was acceptable but not at the desired level of service which should have a gap score of zero. Generally, improvements in service should result in fewer and smaller negative quality of service gaps or positive quality of service gap scores.

Yap, Timbrell, Gable, and Chan (2007) explored the 'commonality in service quality measurement across Industries'. They also found assurance and responsiveness as important service quality dimension common to six service industries. Smith, Smith and Clarke (2007) found reliability to be the most important factor for all customers in an Information Technology service department in a Higher Education Institute (HEI) instead of responsiveness.

The results from this study were also affirmed by Landrum and Prybutok (2004). They concluded that users rated responsiveness as one of the essential dimensions above other service quality dimensions.

Factors Influencing Quality of Service at Kwasu ICT Service Center-Positively

The service quality attributes with a gap in the range 0 to -1 implies that the respondents had a good perception of those particular service quality attributes. These attributes were considered to be the strengths or factors that influenced the quality of service at the Kwasu ICT Center positively.

Fifteen service quality attributes had gaps between zero and negative one (-1) and one had a small positive gap of 0.32. This meant that these service quality attributes positively influenced the service quality at the ICT Center. With regards to the service quality dimension "tangibles" the physical facilities were seen to be visually appealing, employees of the ICT Center dressed well and appeared neat and the appearance of the center kept up with the kind of services rendered to students. This result corroborates with Badri, Abdulla and Al-Madani (2005) research findings in ICT Centers of the universities in the UAE. Their service quality attributes had gap values between zero (0) to minus one (-1). They concluded that these service quality attributes positively influenced the quality of service at the ICT Centers in both universities.

Factors that influenced the perception of the respondents with regards to the service quality dimension "responsiveness" were that the employees of the center were willing to help students and were never too busy to respond to students' requests. The employees of the ICT Center were always willing to help students. Badri, Abdulla, and Al-Madani (2005) also confirmed that the employees of the ICT Centers in three UAE

Universities in their study were always willing to help their clients. And it was a factor that influenced the service quality at the three universities positively. In addition, the study also showed that with regards to service quality dimension "reliability", the ICT Center staff showed sincere interest in solving students' problems, performed services right the first time and also provided their services at the promised time. Students had confidence and felt safe in their encounters with the staff. The employees were seen to be polite and also had the knowledge to perform their jobs well. The study also revealed that the staff rendered personal services to students and they understood the specific needs of the students. The operating hours were also found to be convenient to the students. Badri, Abdulla, and Al-Madani (2005) also indicated in their study that users of ICT Centers in all the three universities found their operational hours to be convenient to clients. This factor also influenced the service quality of the ICT Center positively and so was part of their strengths.

Four Service Quality Attributes, one each under "tangibles" and "reliability" and two under "responsiveness", had gaps greater than -1. Service quality attributes with a gap score between -1 to -2 meant that the students expectations were quite high as compared to their performance and that resulted in a gap greater than one (>1) (Arshad and Ameen, 2010). These attributes were considered to be weaknesses or factors adversely affecting the quality of services at the Kwasu ICT Center. In this research, all the 20 statements regarding the five service quality dimensions recorded discrepancies between the performance and expectations of students.

'Employees at the Center have the knowledge to do their jobs well and to answer students' questions' was the only service quality attribute that had a positive gap score. This meant that the employees at the center were competent. This corroborates with findings by Bidgely, Shahlayi, Hosseini, and Ghasemi (2010) in their research in which the highest service quality gap was obtained on the same service quality attribute-the employees at their ICT department had the knowledge to do their jobs well and to answer customers' questions.

Factors Influencing Quality of Service at the Kwasu ICT Service Center-Negatively

All the other service quality attributes were negative. Among the service quality attribute 'Employees of the ICT center should tell students exactly when services will be performed' had the highest negative gap score. This implied that respondent's expectations were higher than the performance of center therefore their assessment of service quality with respect to this service quality attributes was much lower. It is concluded therefore that the scheduling of the center programs and activities was not effective. This shortcoming has direct relationship with service quality attributes 'When ICT Center staff promise to do something by a certain time, they do so' and 'Employees of the ICT Center give prompt service to students'; both had negative scores greater than 1.

When scheduling of programs and activities is not effective, the programs cannot take place at the time promised and the service therefore cannot be delivered promptly. The fourth service quality attribute with a gap score greater than 1, was 'the ICT Center should have up-to-date hardware (equipment) and software'. It is also concluded here that the ICT Center will need to improve on its hardware and software. So therefore factors that influenced the quality of service of the center negatively, were the lack of up-to-date equipment and software (tangibles), the employees were not able to fulfill their promises (reliability), not able to tell students exactly when services were to be performed and not able to give prompt service to the students (responsiveness).

CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of the entire study, the following recommendations are been made:

Continuous Assessment of Service Quality: The ICT Center's management needs to continue to assess the levels of performance and expectation of its clients through repeated administration of the SERVQUAL instrument. This will help measure the quality of service gaps and also to be able to identify which service quality dimension (SQD) are their strengths and weaknesses. Remedial action may then be taken on their weaknesses in order to improve service quality. The SERVQUAL instrument should be used to assess the quality of service from the staff perspective also. This will help them to note their performance on quality service delivery and those of clients. Any realization will help them improve their service standards or setup service standards if they do not have one.

Improvement in ICT Infrastructure at Kwasu ICT Service Center: Computing platforms that are used to provide computing services to connect staff and students together should be improved. Lack of up-to-date hardware was found to be one of the weaknesses affecting the delivery of quality service to students. The ICT Center should therefore procure the necessary computer and telecommunication equipment to improve its computing and network services platforms.

Training of ICT Center Staff: For the staff to perform effectively and efficiently, they must be continuously trained to enhance their skills so that they can meet the changing needs of the students at the center. The management of the center should put in place training and development plans to address the staff skill competencies.

Provision of Services Promptly: Patrons of the center normally expect prompt access to services. They therefore get disappointed when the center is not able to provide basic service expectations. The center's staff should be able to give reasons why service is not being provided at a particular time and the efforts being made by the center to restore services. Service failures are inevitable, the center should therefore put in place recovery processes that would quickly correct failures and compensate clients.

Suggestion for Further Work: This study was limited to just a particular university that is Kwara State University, Ilorin, Nigeria. The respondents involved were basically undergraduate student of the selected faculties of the institution. Considering the scope of this study, other interested researchers could select from those concepts not covered in this study and carry out similar studies on them.

Studies can be carried out on the service quality of University ICT Service Center from other institutions since this study was carried out only at Kwara State University, and also to be used in solving the problems been faced by student in making use of the facilities of the Center.

Limitation of the Study

In the course of carrying out this study, the following setback is observed: during the course of the research, the particular institution chosen to carry out the research were in their examination period so therefore it was very difficult to collect data from some of the students and these lead to the retrieval of 94 questionnaires out of 100 questionnaire printed and also collection of data were delayed a bit.

CONCLUSION

This study assessed the quality of service at the ICT Center of Kwara State University, Nigeria, from the students' perspective. The objectives were to determine which dimensions of service quality are important to students, to determine factors influencing the quality of service and to make recommendations for improving the quality of service at the center.

The SERVQUAL instrument (derived from the Gaps model) was identified for measuring service quality at the center. Although the SERVQUAL instrument had been criticized and some limitations identified, it is still the most appropriate and widely used instrument for assessing service quality in different types of service industries. The survey research design was adopted for the study. Data was collected using questionnaires.

One hundred students were sampled out of a student population of 9,489 for the study. The results from the research showed that the students at Kwasu rated the overall service quality of the ICT Center as average. This assessment was derived from the Gaps model where the overall mean gap score was -0.73. The students were satisfied with the ICT Center staff being competent in the delivery of quality service and in answering students' questions. They were also satisfied with the ICT Center staff being neat and well dressed and giving them personal attention.

Weaknesses that adversely influenced the quality of service were found in the inability of staff to give prompt service to students, to fulfill promises to students and to tell students when services will be performed. Lack of up-to-date hardware and software was also a weakness. The major issue disliked by students with respect to the quality of service at the center was the unreliability of their Internet service. The bandwidth allocated was small-one megabit per second (1 Mbps). The quality of service dimension of responsiveness was found to be the most important to students among the five.

In this research, all the 20 statements regarding the service quality dimensions (SQDs) recorded discrepancies between the performance and expectations of students. Kwasu ICT Center's overall service quality was average or moderate. Assessment of service quality is a continuous process and it should be repeated at regular intervals for feedback. Measurement of service quality is a first step of Total Quality Management (TQM) programs (Arshad and Ameen, 2010). Consequently, improvement of services at the Kwasu ICT Center in the light of this assessment is a step in the process of Total Quality Management (TQM) of the Center. It is hoped that if the findings of this study are adopted, the ICT needs and expectations of clients of the ICT Center, especially the students of Kwasu would be met. Finally, the recommendations from this research will help the University to revise its current ICT policy and so therefore improve the overall ICT service quality of the University as a whole.

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