

**Customer Satisfaction Survey of St. Mary's University Distance Students:
SERVQUAL Model Analysis**

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Abstract

Higher education is facing pressure to improve value in its activities. As private universities are striving to maintain the quality of education, the evaluation of customers' perceptions is essential to provide motivation for and to give feedback on the effectiveness of educational plans and implementation for them. The purpose of this study is to find out the students' perceptions as well as the level of satisfaction with the open and distance education at St. Mary University in Addis Ababa, Ethiopia. This research began with the basic SERVQUAL survey instrument based on what students deem to be of high importance. A survey conducted over 373 students from different CODL centers located in different parts of the country and collected data by using a questionnaire that includes 22 items about the various aspects of higher education. Gap scores were calculated for different dimensions of service quality and found empathy registered the largest gap score of -1.017 and followed by a gap score of -0.995 for tangibles and the lowest gap (-0.64) scored for the assurance dimension. The findings of the study are expected to guide the management of St. Mary University to ensure the quality of distance education service.

Introduction

A service can be defined as: "any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything (Kotler, 1999). The main purpose of a service rendering organization is to make the intangible offer tangible through an attempt to meet the customer's expectations.

The main reason to focus on quality is to meet customer needs while remaining economically competitive at the same time. This means satisfying customer needs is very important for enterprises to survive. The outcome of using quality practices is: Understanding and improving operational processes; identifying problems quickly and systematically; establishing valid and reliable service performance measures; and measuring customer satisfaction and other performance outcomes.

There has been substantial growth in the number of higher educational institutions in Ethiopia in the last 2 decades. Currently, there are 83 private universities, 42 public universities, and more than 35 institutes of higher learning in Ethiopia. This high growth increases the competition and hence the need to deliver a service that would be preferred by students.

This study analyses the relationship between service quality and its dimensions that lead to customer satisfaction. The research is trying to investigate the service quality performance level

of the CODL, St. Mary University students. That is, it attempts to address the service quality from the review of the related literature; the perception of customers towards receiving quality service, etc. Thus, it incorporates the views of St. Mary University's distance students who have direct contact with the service.

Background of the Organization

Saint Mary's University is one of the Private Higher Education Institutions (PHEIs) which emerged as a result of the privatization of higher education institutions in Ethiopia. It is an outgrowth of St. Mary's Language Center, which was established in 1991 in Addis Ababa. The University was established in 1998 as St. Mary's General Education Development PLC with its head office in Hawassa and a branch in Addis Ababa. It launched its training in the same year with 33 students in Hawassa and 37 students in Addis Ababa, studying in three departments (Accounting, Marketing, and Law).

In the last quarter of 1998, the University admitted more than 300 students to Addis Ababa (Lideta Campus) and shifted its head office from Hawassa to Lideta Campus. In 1999, the departments of Secretarial Science and Office Management were added. In September 2000, the Departments of Computer Science (diploma) and Law (degree) were started. In preparation for the September 2002 registration, new staff members were employed and a new building besides the Wabe Shebelle Hotels was rented.

In 2003, in addition to Law, degree programs in Marketing, Management, and Accounting were introduced. After a year, a degree program in Computer Science was begun. In the same year, the Natural Science stream, which offers diploma-level training, was opened under Teacher Education. In July 2006, a Master's Program in various fields of studies was embarked upon in collaboration with Indra Gandhi National Open University (IGNOU). At this moment the University is hosting hundreds of workers and thousands of students on its different campuses in Addis Ababa. It has recently been granted the status of a university by the HERQA.

Since its inception, St. Mary's University has made a tremendous effort toward meeting the growing demand for trained manpower in the country. Today, it offers an extensive range of undergraduate programs, in conventional and distance modes of delivery in different faculties.

The college of open and distance education (CODL) is one of the colleges of the University mandated to provide an undergraduate distance education programme. Currently, CODL operates in about 90 distance centers across the country and enrolled about 9,000 students.

Statement of the Problem

The study of customer satisfaction drew considerable attention from researchers in the early 1980s due to the structural change from a production to a service-dominated economy in the 1970s in developed countries (Grönroos, 2007; Tajeddini, 2011). Several researchers have emphasized the importance of service marketing and satisfied customers, which demonstrates how customer

satisfaction arises, how it is influenced, how it relates to service quality and how both concepts can be measured, evaluated and improved.

Although this research field seemed antiquated in 2015, the relevance of customer satisfaction has increased in the higher education sector in recent years due to the rising number of higher education students across the globe (UKÄ Swedish Higher Education, 2014). Hence, the higher education sector is gradually being acknowledged as a service industry with the aim of meeting students' needs, desires and expectations (Elliott & Shin, 2002). It has become particularly important for Universities to keep tabs on the satisfaction of students in order to attract more students and reap the resulting benefits.

Consequently, educational institutions have become more market-oriented in order to fulfill the information needs of the target group regarding educational services, degrees, courses, leisure activities, rankings and many more (Hemsely-Brown & Oplatka, 2006; Molesworth et al., 2009) in order to attract students, build and maintain a certain image, and differentiate themselves from other educational institutions (Hemsely-Brown & Oplatka, 2006; Mai, 2005). Hence, prospective students face an increasing variety of degrees, which is leading to excessively demanding students (Ivy, 2008; Molesworth et al., 2009) and thus reinforces the 'competition' between educational institutions (Mai, 2005). Thus, the satisfaction among students regarding the educational service offerings has become more important for educational institutions in recent years (Molesworth et al., 2009).

Identifying and meeting customer needs is the sole objective of every organization. Satisfying and retaining customers require an eloquent approach and sustained commitment. Customer satisfaction occurs when organizations meticulously accomplish their duty to meet their customers' needs and wants. Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm's products and services exceeds specified satisfaction goals (Faris et al., 2010). Customer satisfaction is crucial to sustainability, growth and profit for organizations supplying goods or services. Thus, a better understanding of customers' perceptions helps companies to strategize the actions necessary to convene the customers' needs and wants.

Customer satisfaction measures the overall performance of an organization in meeting the customers' expectations. Thus, it is an imminent threat for businesses to fail to meet the customer perception of the service they are offering. Customer satisfaction is the sole and prominent asset for businesses to survive and maintain worthwhile growth.

Recently, growth in distance education programs can be seen because of the time and space restrictions of the face-to-face learning system. It is also economically advantageous and preferable to working students. St. Mary University has an open and distance education covering almost the entire country. But research on the customer satisfaction and service quality of the college of open and distance education, St. Mary University is scant. Hence, this study aims to fill

this gap and examines the students' satisfaction with the open and distance undergraduate program of St. Mary University.

General Objective

The main objective of this study is to measure the service quality at CODL, St. Mary University using the SERVQUAL model with special emphasis on customers' perception-expectation gap in terms of the five service quality dimensions, i.e. tangibles, reliability, empathy, responsiveness and assurance. Moreover, the study aims to assess the service quality and customer satisfaction of students of CODL, St. Mary's University.

Specific Objectives

- To measure customers' perception and expectation gaps using reliability, tangibles, assurance, empathy and responsiveness dimensions in the case of CODL, St. Mary University.
- To assess the dominant service quality dimensions that influence quality service and customer satisfaction in the University.
- To assess the level of service quality and customer satisfaction of the students of CODL, St. Mary University.

Significance of the Study

Assessing the service quality and customer satisfaction will help the CODL, St. Mary's University to know the feeling of its customer so that it can survive and thrive by getting a competitive advantage via satisfying its customers. In addition to that the study has the following importance:

- This study will help the management and staffs of CODL, St. Mary's University in identifying areas in which they need to improve in order to advance the quality of service.
- It assists them to know where to put more resources in order to improve the services.
- It also helps to point out areas of weakness and improve on them so as to offer quality Service.

Scope and Limitation of the Study

The scope of this study is to measure the service quality level specific to CODL, St. Mary's University and measure the level of significance that each service quality dimension has on the customers' satisfaction by using the SERVQUAL model. The study focuses on assessing the service quality and customer satisfaction of the open and distance education programme of St. Mary's University from customer perspective by using the SERVQUAL model of service quality dimensions Tangibles, Reliability, Responsiveness, Assurance and Empathy.

One of the major limitations of this study is its failure to take the entire CODL students and CODL centers as a target population. The political unrest and the then war in the country made this impossible. So the researcher is forced to use only part of the students and centers as a target population.

Review of Related Literature

Theoretical Literature Review

Service Quality

There are many definitions of quality derived from different scholars. One of them is, that qualities are those features of products which meet customer needs and thereby provide customer satisfaction (Juran, 1988). The purpose of such higher quality is to provide greater customer satisfaction. However, providing more or better quality features usually requires an investment and hence usually involves increases in costs. Good quality means a predictable degree of uniformity and dependability with a quality standard suited to the customer. Besides that, the customer's definition of quality is the only definition that matters (Juran, 1988). Crosby (1984) defined quality of goods as "conformance to requirements". Garvin (1983) identified internal failures (those observed before the product left a factory) and external failures (those incurred in the field after a product had been delivered and installed) and measured quality by counting the malfunctions.

The review of articles on quality revealed that early research has been more focused on defining and measuring the quality of tangible goods and products (Garvin, 1983; Juran, 1988) while the more challenging service sector was disregarded. Service quality has been defined in different ways by researchers. For Example, Gronroos (1984) suggests that service quality is made of two components– technical quality and functional quality. Technical quality refers to what the service provider delivers during the service provision while functional quality is how the service employee provided the service. Parasuraman, Zeithaml and Berry (1985) stated that it may be inappropriate to use a product-based definition of quality when studying the service sector and therefore developed the expression of "service quality". For this particular study, the difference between customer expectation of service and customers' perceptions is applied to measure service quality.

Quality is the keyword for the survival of organizations in the global economy. Organizations are undergoing a shift from a production-led philosophy to a customer-focused approach. The competitiveness of a firm in the post-liberalized era is determined by the way it delivers customer service. Service quality is a concept that has aroused substantial interest and debate in the research literature because of the difficulties in both defining it and measuring it with no overall consensus emerging on either (Wisniewski, 2001). Firms with high service quality pose a challenge to other firms.

Customers' Satisfaction

According to Cook (2008), unless perceived expectations are met with actual performance, customers will become indifferent or be in a neutral mode. In general, increased customer satisfaction will lead to a higher customer retention rate, increased customer repurchase practice, and will eventually lead the firm to higher profitability. In principle, there are two ways that customers evaluate their Satisfaction: transaction-specific satisfaction and cumulative satisfaction. These are explained by Jones and Suh (2000), and supported by a study by Yi and La (2004).

Transaction-specific satisfaction is a customer's evaluation of personal experience and reaction to a particular or a specific service encounter (Boshoff & Gray, 2004). Cumulative satisfaction refers to the customer's overall evaluation of the consumer experience to the present time (Cook, 2008).

Customer satisfaction depends on the perceived performance of the product relative to the buyers' expectations. If product performance falls short of expectations, the customer will be dissatisfied. If performance matches expectations, the customer will be satisfied. And if performance exceeds expectations, the customer will be highly satisfied or delighted (Kotler & Armstrong, 2006). Customer satisfaction can be defined as the customer getting more benefits from the product or service than it has cost (Liu & Yen, 2010).

Put differently, customer satisfaction leads to customer loyalty and this also leads to profitability (Hallowell, 1996). If customers are satisfied with a particularly high-quality service offering after its use, then they can be expected to engage in repeat purchases and even try line extensions and thus market share can be improved. Levesque and McDougall (1996), have empirically confirmed and reinforced the notion that consistent poor customer experience leads to a decrease in the levels of customer satisfaction and the chances of further willingness to recommend the service (i.e., word of mouth advertising or referrals) is lessened.

Customer Satisfaction has been a central concept in marketing literature and is an important goal of all business activities. Today, companies face their toughest competition, because they move from a product and sales philosophy to a marketing philosophy, which gives a company a better chance of outperforming the competition (Kotler, 2000). Overall customer satisfaction translates to more profits for companies and a market share increase.

Relationship between Service Quality and Customer Satisfaction

Service quality is accepted as one of the basic factors of customer satisfaction (Parasuraman et al., 1994). However, there is much debate whether customer satisfaction is a precursor of service quality judgments (Bitner et al., 1990) or the other way round (Anderson and Sullivan, 1993). Definitive analysis has shown that service quality cannot be divorced from the concept of customer satisfaction. Recent studies have shown that satisfaction is influenced by not only perceptions of service quality but also by perceptions of product quality, and pricing factors as well as situational and personal factors.

The relationship between expectation, perceived service quality and customer satisfaction have been investigated in a number of researches (Zeithaml et al., 1988). They found that there is a very strong relationship between quality of service and customer satisfaction (Parasuraman et al., 1985). An increase in service quality can satisfy and develop attitudinal loyalty which ultimately retains valued customers (Nadiri et al., 2009). A higher level of perceived service quality results in increased customer satisfaction. When perceived service quality is less than expected service quality customers will be dissatisfied according to Cronin and Taylor (1992), satisfaction is

superordinate to quality and quality is one of the service dimensions factored into customer satisfaction judgment.

Service Quality and Customer satisfaction Measures: The SERVQUAL Model

SERVQUAL is a multi-dimensional research instrument designed to capture consumer expectations and perceptions of a service along five dimensions that are believed to represent service quality. SERVQUAL is built on the expectancy-disconfirmation paradigm, which, in simple terms, means that service quality is understood as the extent to which consumers' pre-consumption expectations of quality are confirmed or disconfirmed by their actual perceptions of the service experience. When the SERVQUAL questionnaire was first published in 1985 by a team of academic researchers, A. Parasuraman, Valarie Zeithaml and Leonard L. Berry to measure quality in the service sector, it represented a breakthrough in the measurement methods used for service quality research. The diagnostic value of the instrument is supported by the model of service quality which forms the conceptual framework for the development of the scale (i.e. instrument or questionnaire). The instrument has been widely applied in a variety of contexts and cultural settings and found to be relatively robust. It has become the dominant measurement scale in the area of service quality. In spite of the long-standing interest in SERVQUAL and its myriad of context-specific applications, it has attracted some criticism from researchers. The five Dimensions of a SERVQUAL model are: -

Tangibles: refers to the appearance of physical facilities, equipment, personnel, and written materials. Tangibles provide Physical representations or images of the service that customers, particularly new customers, will use to evaluate quality. Service industries that emphasize tangibles in their strategies include hospitality services in which the customer visits the established to receive the service.

Reliability: is the ability to perform the promised service dependably and accurately. In its broadest sense, reliability means that the company delivers on its promises about delivery, service provision, problem solution, and pricing. Customers want to do business with companies that keep their promises, particularly their promises about their service promises and core service attributes. All firms need to be aware of customers' expectations of reliability. Firms that do not provide the core service those customers think they buying fail their customers for the most away.

Responsiveness: refers to the willingness to help customers and provide prompt service. This dimension emphasizes attentiveness and promptness in dealing with customer requests, questions, complaints, and problems. Responsiveness is communicated to customers by the length of time they have to wait for assistance, answers to the question, or attention to problems. Responsiveness also captures the notion of flexibility and the ability to customize the service to customer needs. To outdo on the dimension of responsiveness, accompany must view the process of service delivery and the handling of requests from the customer's point of view rather than from the company's point of view. Standards of speed and promptness that reflect the company's view of

internal process requirements may be very different from the customer's requirement for speed and promptness.

Assurance: refers to employees' knowledge and courtesy and their ability to inspire trust and confidence. This dimension is likely to be particularly important for services that customers perceive as high risk or for services of which they feel uncertain about the ability to evaluate outcomes. Trust and confidence may be embodied in the person who links the customer to the company.

Empathy: refers to caring, individualized attention given to customers. The essence of empathy is conveying, through personalized or customized service that customers are unique and special and that their needs are understood customers want to feel understood by and important to firms that provide service to them. Personnel at small service firms often know customers by name and build a relationship that reflects their personal knowledge of customer requirements and preferences.

Table 1: Dimension of service quality

Dimension	Description
Tangibles	Physical facilities, equipment provided by the staff for customers
Responsiveness	Staff's willingness to help users or provided prompt services
Reliability	To provide reliable and accurate service
Assurance	Staff's knowledge and courtesy make users assured and confident
Empathy	Staff's empathy to provide concerns or individual attention

Source: Adapted from (Parasuraman, Zeithaml, and Berry, 1988)

Empirical Literature Review

The study of Zarghami & Hausafus (2002), measured the satisfaction of students enrolled in different interactive televised (ITV) courses offered both as origination sites on-campus and at a distance remote site. ITV courses were taken in content areas such as human development, political science, agriculture education, family and consumer sciences, administration, economics, business and mathematics. According to results, both origination and remote students were satisfied-remote students were more satisfied with their experiences, agreed that facilities and technologies promoted effective communication and learning, the content of the courses was well organized and instructional materials were relevant and helpful.

Popovich & Neel (2005), surveyed business school deans at institutions accredited by the AACSB (Association to Advance Collegiate Schools of Business) on distance education programs offered at their respective schools and examined sixteen characteristics of the distance education programs such as the number of business schools with distance education offerings, schools not offering

distance education programs, future plans, degree level of programs, number of years offered, number of graduates, length of programs, public or private institutions, grant funding, faculty qualifications and student-faculty ratio, method of delivery, use of a librarian, geographic areas served, tuition rates, availability of financial aid, and the successful aspects. This study provided evidence that there were positive aspects to AACSB International business school distance education programs. The results of the study may be helpful in making decisions about new distance education programs and in developing existing programs.

Gagne & Shepherd (2001), analyzed the performance of two class sections in an introductory graduate-level accounting course; one section was a traditional campus-based class and the other section was a distance education class. According to the results, the performance of the students in the distance course was similar to the performance of students in the on-campus course. The students' evaluations of the course were similar, but students in the online course were less satisfied with instructor availability than the on-campus students. Perdue and Valentine (1998), examined the beliefs of certified public accountants (CPAs) in the state of Georgia about using distance education in continuing professional education. CPAs believed that distance education was an effective learning method. They also believed that the technological capabilities necessary to participate in distance education were available.

Conceptual Framework

The conceptual framework presented below served as the foundation of this study. It is adapted from the Parasuraman et.al. (1985) gap model theory.

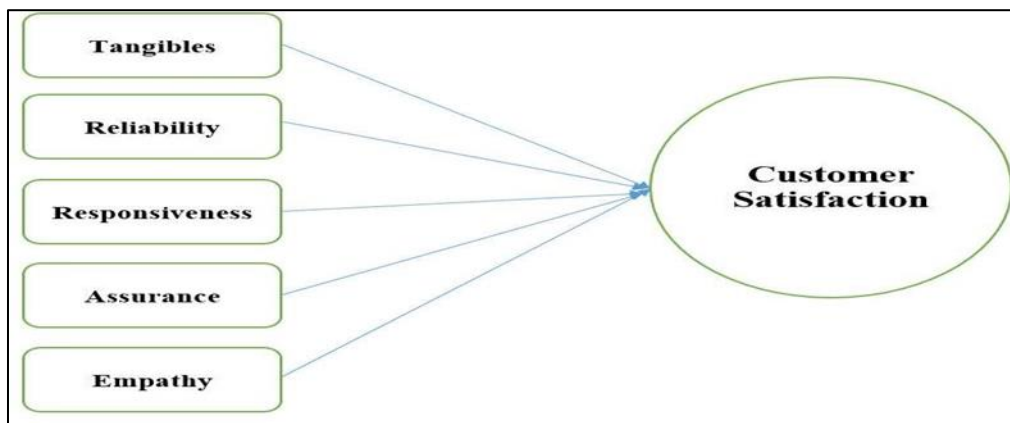


Figure 1: Conceptual Framework of the SERVQUAL model

Source: Adapted from: (Parasuraman, Zeithaml, and Berry, 1988)

Research Methodology

Research Design

Since the objective of the study is to assess the quality of service and customer satisfaction of College of Open and Distance Learning, St. Mary's University, the research used a descriptive type of research design which helps to describe the characteristics of service quality dimensions.

The most widely used model to measure perceived service quality is developed by Parasuraman et al., (1985) known as SERVQUAL. The SERVQUAL model proposes that customers evaluate the quality of service on five distinct dimensions: reliability, responsiveness, assurance, empathy, and tangibles. The SERVQUAL instrument consists of 22 statements for assessing consumer perceptions and expectations regarding the quality of service.

Sampling Technique and Sample Size Determination

Population

According to a report from the CODL administration, there are around 6630 students who are qualified to take the November 2021 term examination in 52 exam centers. Since it is costly and time taking to collect data from all CODL centers, only 28 centers were considered as the target population for the study.

Sample

In order to get samples from the target population, the researcher used two stages sampling process. First, it employed a proportional sampling technique which enables the proportional distribution of samples across the CODL centers. Then a simple random sampling technique is used to assure the attainability of representative samples.

To have a real sample size with the consideration of missing problems the researcher used the formula developed by Yamane (1967). The simplified formula developed is written as:

$$n = \frac{N}{(1 + N(e^2))}$$

Where: - n is the sample size,

N is the population (total household size) and

e is the level of precision or sample error.

Thus the sample required to estimate a population with an approximate 95% confidence level is calculated as: -

$$n = \frac{N}{1 + N(e^2)} = \frac{6630}{1 + 6630(0.05)^2} = 377$$

A total of 415 samples (377 calculated sample size plus 10% contingency) are assigned over the 28 CODL centers proportionally. The remaining 45 questionnaires are administered in the main office of CODL, Addis Ababa.

Source of Data

To conduct this study both primary and secondary data were used. Primary data was collected by questionnaires from CODL centers of St. Mary's University. Secondary data was also used to

understand the kinds of literature produced in the area. In addition, reports produced by CODL St. Mary's University were also used to conduct this research.

Sampling Tools

In order to collect data from the sample, a questionnaire was prepared and delivered to each respondent. The questionnaire was prepared in the English language and translated to Amharic for the sake of smooth communication. The questionnaire has four different parts, the first part contains questions related to respondents' background; the second part is related to customer expectations of service quality and the third one is related to customer perceptions about service quality. The second and third parts of the questionnaires are divided into five different parts that consist of closed questions based on the SERVQUAL questionnaire which consists of 22 different statements (Parasuraman et al., 1988). Those statements are also divided into five different dimensions (tangibles, reliability, assurance, responsiveness and empathy). A Likert rating scale that is (a commonly used rating scale) which consists of 5 steps from 1 (strongly disagree) to 5 (strongly agree) is used. And the fourth part holds open-ended questions which give customers a chance to say what is in their minds.

Method of Data Analysis

After the collection of data from customers through a questionnaire, it was categorized accordingly, analyzed, and interpreted by using different analytical methods. SPSS version 20 was used for data entry and presented in table form. The average gap score was calculated by deducting the results of expectation dimensions from the perception dimension. The average dimension SERVQUAL scores for all five dimensions were divided by five so as to get a weight score of service quality. Finally, the necessary analysis and interpretation were made based on the result.

Result and Discussion

Background Information of Respondents

As can be seen in Table 2 below, from the total number of respondents, male respondents account for 225 or (60.3%) and 148 or (39.7%) are female.

Table 2: Gender of Respondents

Sex	Frequency	Percent (%)
Female	148	39.70%
Male	225	60.30%
Total	373	100.00%

Source: Own Survey (2022)

Table 3: Age of Respondents

Age	Frequency	Percent (%)
18-30	225	60.30%
31-45	130	34.85%
46-60	18	4.85%
≥61	0	0%
Total	373	100.00%

Source: Own Survey (2022)

As can be observed from Table 3 above, 225 respondents (60.3%) were between 18-30 years of age. This result might indicate a shift in the demography of open and distance education, i.e. more and more young students are enrolling in the program.

Table 4: Distribution of Respondents' years of enrolment at St. Mary University

Enrollment in year	Frequency	Percent (%)
Less than 1	49	13.14%
1-2	89	23.86%
2-3	144	38.61%
3-4	76	20.37%
>4	15	4.02%
Total	373	100.00%

Source: Own Survey (2022)

With regards to customers' relationship period with St. Mary's University, the responses collected and presented in Table 4 show that 309(82.8%) of the respondents have stayed in the University for 1 - 4 years, of which the majority of the students 144(38.61%) spent 2 to 3 years in their respective field of studies in the University. This is done intentionally by the researcher in order to give more weight to the opinion of students who have more than one year of experience with the program.

Analysis of Data

The SERVQUAL model proposed by Parasuraman et al., (1988), was used as the main guide for a structured questionnaire where data was collected accurately on the customers' expectations and perceptions of service quality. The researcher used the SERVQUAL 5 dimensions (Tangibles, Reliability, Responsiveness, Assurance, and Empathy) which are subdivided into 22 attributes, which were directed to measuring service quality in CODL, St. Mary University. Both expectations and perceptions are measured using a 5-point scale to rate their level of agreement or disagreement (1-strongly disagree and 5- strongly agree), on which the higher numbers indicate a

higher level of expectation or perceptions. Service quality scores are the difference between the perception and expectation scores (P-E). And the analyses are discussed below.

Tangibility

Table 5: Tangibility Dimension

Dimension	Description	Average Expectation Score(E)	Average Perception Score(P)	Average Gap Score G = P - E	
Tangibility	1	The recommended module text and the tutorials must always be up to date.	4.69	3.81	-0.88
	2	The university's overall environment should make you feel comfortable.	4.43	3.71	-0.72
	3	The sense of professionalism conveyed by the ambience in the tutorials and the level of ancillary services should be high.	4.73	3.52	-1.21
	4	The centers are always open and ready to provide service during working days and hours.	4.6	3.43	-1.17
	Total average Gap Score		4.613	3.618	-0.995

Source: Own Survey (2022)

As depicted in Table 5 above, the score gap for all the five measures of the tangibility attribute is negative indicating that the student's perception is less than their expectations. This evidences that students expect CODL, St. Mary's University to do more on the tangibility dimension at least to the level of their expectations. The result indicates that the employees of the University should address this gap in order to improve the students' stay with the programme.

Reliability

Reliability is the ability to perform the promised service dependably and accurately (Parasuraman et al., 1988). That means the University's service must be accomplished on time, every time, in the same manner and without errors.

Table 6: Reliability Dimension

Dimension		Description	Average Expectation Score(E)	Average Perception Score(P)	Average Gap Score G = P - E
Reliability	1	If the University promises to perform the service within a certain time it must always be kept.	4.66	3.69	-0.97
	2	The University must solve complaints or problems with great concern.	4.72	3.67	-1.05
	3	The University must deliver the service correctly.	4.72	4.1	-0.62
	4	The University must deliver the service at the time agreed on.	4.5	3.77	-0.73
	5	The University must insist on error-free records.	4.68	3.93	-0.75
	Total average Gap Score			4.656	3.832

Source: Own Survey (2022)

As depicted in Table 6 above, the score gap for all the five measures of the reliability attribute is negative indicating that the student’s perception is less than their expectation. This proves that students expect CODL, St. Mary’s University to be more reliable at least to the level of their expectations. The result indicates that the employees of the University should address this gap in order to improve the student’s stay with the program.

Responsiveness

Table 7: Responsiveness Dimension

Dimension	Description	Average Expectation Score(E)	Average Perception Score(P)	Average gap core G = P -E	
Responsiveness	1	The University should have respect for your feelings, concerns and opinion.	4.63	3.65	-0.98
	2	It is realistic to expect immediate service delivery from the bank.	4.66	3.92	-0.74
	3	Employees of the University must always be willing to help students.	4.53	3.67	-0.86
	4	Employees of the University should show concern when you have problem.	4.69	3.9	-0.79
	Total average Gap Score		4.627	3.785	-0.842

Source: Own Survey (2022)

As depicted in Table 7 above, the score gap for all the five measures of the responsiveness attribute is negative indicating that the student’s perception is less than their expectations. This reveals that students expect CODL, St. Mary’s University to be more responsive at least to the level of their expectations. The result indicates that the employees of the University should address this gap in order to improve the student’s stay with the programme. Therefore, the University must build knowledge and courtesy of employees and their ability to communicate and provide a prompt response.

Assurance

Table 8: Assurance Dimension

Dimension		Description	Average Expectation Score(E)	Average Perception Score(P)	Average Gap Score G = P - E
Assurance	1	The behavior of employees in the University is reassuring.	4.57	4.05	-0.52
	2	The students feel confident when they contact Employees of the University.	4.61	3.96	-0.65
	3	Employees of the University are always approachable and courteous.	4.41	3.81	-0.6
	4	Employees of the University must have sufficient knowledge to answer Students' questions.	4.58	3.79	-0.79
	The total average score gap			4.542	3.902

Source: Own Survey (2022)

As depicted in Table 8 above, the score gap for all the five measures of the assurance attribute is negative indicating that the student's perception is less than their expectation. This explains that students expect CODL, St. Mary's University to be more assuring at least to the level of their expectations. The result indicates that the employees of the University should address this gap in order to improve the student's stay with the programme. Therefore, the University must build knowledge and courtesy of employees and their ability to inspire trust and confidence.

Empathy

Empathy represents the care and individual attention the firm provides to its customers (Parasuraman et al., 1988).

Table 9: Empathy Dimension

Dimension		Description	Average Expectation Score (E)	Average Perception Score (P)	Average Gap Score G = P - E
Empathy	1	Employees of the University show concern when they encounter a problem during their engagement with the University.	4.68	3.71	-0.97
	2	St. Mary University and its employees give you individual attention.	4.46	3.28	-1.18
	3	The employees of St. Mary University understand your specific needs	4.64	3.48	-1.16
	4	Employees of the University understand the diverse background of the students.	4.53	3.37	-1.16
	5	St. Mary University has your best interests at heart.	4.50	3.61	-0.89
	The total average score gap			4.562	3.490

Source: Own Survey (2022)

Analysis of Open-ended Questions

The level of importance in the SERVQUAL dimension

From the SERVQUAL five dimensions, customers were asked to label each of these dimensions based on their importance to them. And by counting the respondents' answers the most important dimension is identified. Of the total respondents, a significant number of respondents give priority to the reliability dimension followed by empathy, assurance, responsiveness and tangibility. Some respondents believe that these dimensions are inseparable and equally important to them. Hence more respondents believe the reliability dimension is crucial to them, the University should focus to narrow the gap of customer expectations to that perception.

Challenges faced by customers during service delivery time

More than 40% of the respondents faced a problem related to improper handling of their examination and assignment. According to these respondents, in the programme, it is very common to face problems with exam answer sheets and/or misplacement and sometimes complete disappearance. This problem created a great deal of inconvenience for the customers and affected their results and schedule. The other major challenge mentioned by the respondents was the problems associated with examination integrity. The respondents mentioned that they lost confidence in the integrity of the term examinations as the answer and sometimes the examination itself are accessed through different communication platforms, like Telegram, prior to the examination date and time.

To solve the challenge and improve the CODL’s service quality

To solve these challenges, respondents suggested that the University should upgrade its document handling mechanisms so as to get solution to the major problem of improper handling of students’ results. They also recommended a technological solution to address the above-mentioned problem. On top of that, the respondents suggested the University should evaluate its examination handling, dissemination and invigilation protocols so as the integrity of the examination and the reputation of the University will be kept intact.

Discussions

Table 10: Service quality dimensions

Service Quality Dimensions	Expectation Score	Perception Score	Total Average Score Gap
Tangibility	4.613	3.618	-0.995
Reliability	4.656	3.832	-0.824
Responsiveness	4.627	3.785	-0.842
Assurance	4.542	3.902	-0.64
Empathy	4.562	3.490	-1.072
Overall average SERVQUAL gap score	4.600	3.725	-0.875
Variance	0.002	0.028	0.028
Standard Deviation	0.047	0.168	0.167

Source: Own Survey (2022)

As indicated in the table above, the mean scores of all the five dimensions of service quality are negative, which indicates that customers/students are less satisfied with the University’s services as their expectation is more than their perception of the overall service quality. In other words, the quality of the services rendered at CODL, St. Mary’s University is less than what customers consuming such services are expecting.

According to Table 10, the average score gap for the five dimensions of service quality showed a negative disconfirmation score of -0.875. The highest Mean gap is for empathy (-1.072) followed by tangibility (-0.995), and responsiveness (-0.842). On the other hand, the smallest gap score is for assurance (-0.64). This shows that in comparison to other dimensions, the University is expected to improve a lot in the empathy dimension to bring more changes in its service quality.

The researcher examined the difference between customers’ expectations and their perceptions about CODL, St. Mary’s University and found out that the respondents’ overall average expectation on a scale of 1 to 5 is 4.60. This implies that customers expect a lot from the University to get quality service. The variance and standard deviation values of both the expectation and perception dimensions for the five-customer service quality measurement attributes are very low.

Since standard deviation is the spread of a group of numbers from the mean and variance measures the average degree to which each point differs from the mean, the low value indicates that the respondents/students view each attribute as almost equally important in measuring customer service quality.

However, looking at each dimension it is realized that customers expect the University to be more reliable from the reliability dimension with a score of 4.613. This shows that this dimension is highly expected by customers and customers are, therefore, very sensitive to each attribute in this dimension. The highest average mean score of reliability is followed by a mean value of the responsiveness dimension with an average score of 4.627, and the tangibility dimension with an average score of 4.613.

With regard to customer perception of service in CODL, St. Mary's University, the overall average score on a scale of 1 to 5 is 3.725. And it is realized that customer expectations are more than perceptions. Of the five dimensions, customer perception is relatively low in the empathy dimension with an average score of 3.49 and the highest perception mean value is for the assurance dimension, 3.902. This result indicates that students of CODL, St. Mary's University perceive that the assurance they get from the University is relatively higher than the other customer service quality measuring attributes of the SERVQUAL model.

Conclusion

In assessing the service quality and customer satisfaction of CODL, St. Mary's University, the following conclusions are drawn based on the findings of the study.

From the gap score analysis carried out, customers/students have high expectations, with a mean value of 4.6, regarding the service quality of higher education from CODL, St. Mary's University. Moreover, from the five dimensions SERVQUAL model, reliability exhibits the highest expectation score of 4.656. However, looking at the variance (0.002) and standard deviation (0.047) values of the expectation score, it is possible to conclude that all the five attributes of the SERVQUAL model are almost equally relevant in the eyes of the students of St. Mary's University, CODL.

Similarly, when we look at the values of the perception score, assurance exhibits the highest score of 3.902 followed by reliability with a perception score of 3.832. This indicates that among the five attributes of the SERVQUAL model, the students perceived that CODL, St. Mary's University performs better in assuring the students and is reliable in the service that it provides.

On all five attributes, the total average score gap is negative indicating the lack of satisfaction among the students with the service provided by CODL. The highest negative score gap is found to be on the empathy dimension, -1.072, followed by tangibility, -0.995. This indicates that the College of Open and Distance Learning should address these main sources of student dissatisfaction.

Recommendations

Based on the findings and conclusion of the study the following recommendations are forwarded:

The College should give special attention to the empathy dimension since it exhibits the highest negative score gap. This can be achieved through successive training to the employees of the University on the value of empathy to achieve better customer satisfaction and on how to be empathic and show empathy.

The College also needs to work hard to maintain and improve its reliability as students prioritize reliability as the major attribute that affects service quality and hence satisfaction. The University should try to perform the promised service regularly and accurately by setting and following standards and procedures.

The problem of examination integrity should also be addressed by CODL's top-level management as it is marring the University's long-standing reputation and eroding the students' trust.

Finally, this research has observed the need for a special and closer evaluation of the program as it falls short in satisfying its customers on all measures of customer service quality. The management of the University and particularly the College should work hard in addressing the service quality issues found through this study to maintain its current status in the Ethiopian Private Higher Education Institutions.

References

- Berry, L. L., Parasuraman, A., & Zeithaml, V. A. (1994). Improving service quality in America: Lessons learned. *Academy of Management Perspectives*, 8(2), 32–45. <https://doi.org/10.5465/ame.1994.9503101072>
- Bitner, M. J. (1990). Evaluating service Encounter the effects of physical surroundings and employee responses. *Journal of Marketing*, 54, 62–82.
- Boshoff, C., & Gray, B. (2004). The relationship between service quality, customer satisfaction and buying intentions in the private hospital Industry. *South African Journal of Business Management*, 35(4), 27–38. <https://doi.org/10.4102/sajbm.v35i4.666>
- Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193–218. [https://doi.org/10.1016/S0022-4359\(00\)00028-2](https://doi.org/10.1016/S0022-4359(00)00028-2)
- Cronin, J., & Taylor, S. A. (1992). Measuring service quality: A Reexamination and extension. *Journal of Marketing*, 56(July), 55–68
- Crosby, P. B. (1984). *Quality without tears*. McGraw-Hill, Inc.
- Gagne and shepherd. (2001). Distance Learning in an Accounting Principles Course—Student Satisfaction and Perceptions of Efficacy. *Journal of Education for Business*, 79(6), 360–366.
- Garvin, D. A. (1983). Quality on the line, Harvard Business Review. *Journal of Marketing*, 61(5), 59, 58 70

- Grönroos, C. (2007). *Service management and marketing – Customer management in service competition*. Honolulu, San Francisco, Weinheim, Queensland, Jin Xing Distripark. John Wiley & Sons.
- Grönroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing*, 18(4), 36–44. <https://doi.org/10.1108/EUM00000000004784>
- Hallowell, R. (1996). *The relationship of customer satisfaction, customer loyalty, and profitability: An empirical study*, Hallowell, R.
- Hemsely-Brown, J., & Oplatka, I. (2006). *Universities in a competitive global marketplace – A systematic review of the literature on higher education marketing*.
- Ivy, J. (2008). A new higher education marketing mix: The 7Ps for MBA marketing. *International Journal of Educational Management*, 22(4), 288–299.
- Juran, J. M. (1988). *Quality control handbook*. McGraw-Hill.
- Kotler, P., & Armstrong, G. (2006). *Principles of marketing* (11th ed). Prentice-Hall.
- Kotler, P. (2000). The dn. New Jersey, Prentice-Hall. *Marketing Management*, 10.
- Levesque, T. J., & McDougall, G. H. G. (1993). Managing customer satisfaction: The nature of service problems and customer exit, voice and loyalty. *Asia Pacific Journal of Quality Management*, 2(2), 40–58.
- Liu, C.-H., & Yen, L.-C. (2010). The effects of service quality, tourism impact, and tourist satisfaction on tourist choice of leisure farming type. Department of Business Administration, National Chin-Yi University of Technology 35, Lane 215, Sec. 1. *Chung-Shan R D. Taiping City, Taichung County, 411*. R.O.C.
- Molesworth, M., Nixon, E., & Scullion, R. (2009). Having, being and higher education: The marketization of the university and the transformation of the student into consumer. *Teaching in Higher Education*, 14(3), 277–287. <https://doi.org/10.1080/13562510902898841>
- Mai, L.-W. (2005). A comparative study between UK and US: The student satisfaction in higher education and its influential factors. *Journal of Marketing Management*, 21(7–8), 859–878. <https://doi.org/10.1362/026725705774538471>
- Nadiri et al. (2009). Service quality, customer satisfaction and loyalty: The perceptions of Ethiopian hotel guests. *Journal of Hospitality and Tourism Management*, 6(2).
- Popovich, C. J., & Neel, R. E. (2005). Characteristics of distance education programs at accredited business schools. *American Journal of Distance Education*, 19(4), 229–240. https://doi.org/10.1207/s15389286ajde1904_4
- Parasuraman. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41–50
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985) A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4), 41–50. <https://doi.org/10.1177/002224298504900403>

- Suh, J. (2000). Transaction-specific satisfaction and overall satisfaction: An empirical analysis. *Journal of Services Marketing*, 14(2), 147–159. <https://doi.org/10.1108/08876040010371555>
- Swedish Higher, U., & Education Authority. (2014). <http://english.ukambetet.se/download/18.7ff11ece146297d1aa65b4/higher-education-in-Sweden-2014-status-report.pdf>
- Tajeddini, K. (2011). Customer Orientation, Learning Orientation, and new Swerve Development: An Empirical Investigation of the Swiss Hotel Industry. *International Council on Hotel, Restaurant and institutional Education*, November, 35(4), 437–468.
- Wisniewski, M. (2001). Using SERVQUAL to assess customer satisfaction with public sector services. *Managing Service Quality*, 11(6), 380–388. <https://doi.org/10.1108/EUM0000000006279>
- Yi, Y., & La, S. (2004). What Influences the Relationship between Customer Satisfaction and Repurchase Intention? Investigating the Effects of adjusted Expectations and customer Loyalty. *Psychology and Marketing*, 21(5), 351–373. <http://doi.org/10.1002/mar.20009>
- Zarghami, F., & Hausafus, C. O. (2002). Graduate student satisfaction with interactive televised courses based on the site of participation. *Quarterly Review of Distance Education*, 3 n3, 295–306.
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1988). Communication and control processes in the delivery of services. *Journal of Marketing*, 52