

Addis Ababa
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Addis Ababa University School of commerce
Department of Marketing Management
Graduate Program

**Evaluating Distance Education Service Quality and Students’
Satisfaction: The Case of Addis Ababa University, School of
Commerce**

By: Samrawit Mulu

May, 2018

Addis Ababa

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By: Samrawit Mulu

**A Thesis Submitted to the School of Commerce of Addis Ababa University
in Partial Fulfillment of the Requirements for the Degree of Master of Art
in Marketing Management**

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Approved

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DECLARATION

I, SamrawitMulu, declare that this research titled evaluating distance education service quality and students' satisfaction the case of Addis Ababa University, School of Commerce is the outcome of my own effort and study and that all sources of materials used for the study have been duly acknowledged. I have produced it independently except for the guidance and suggestion of the Research Advisor.

This study has not been submitted for any degree in this University or any other University. It is offered for the partial fulfillment of the degree of MA in Marketing Management.

By: SamrawitMulu (GSD/0500/07)

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LETTER OF CERTIFICATION

This is to certify that Samrawit Mulu carried out her project on the topic entitled “Evaluating Distance Education Services quality and Students Satisfaction: The Case of Addis Ababa University, School of Commerce”. This work is original in nature and is suitable for submission for the award of Master Art in Marketing Management.

Tewodros Mesfin (*Ph.D*)

(The Research Advisor)

Signature _____

Date _____

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ABBREVIATIONS AND ACRONYMS

AAU	-	Addis Ababa University
ANOVA	-	Analysis of Variance
HE	-	Higher Education
HEDPERF	-	Higher Education Performance Model
HETQMEX	-	Higher Education Teaching Quality Model of excellent
HiEDQUAL-		Higher Education Service Quality
ISO	-	International Standard Organization
MOT	-	Moment of Truth
PHed	-	Performance Based Higher education service Quality Model
QAA	-	Quality Assurance Agency for Higher Education
SERVPERF	-	Service performance measurement
SERVQUAL-		Service Quality measurement
SET	-	Student Evaluation of Teaching
SPSS	-	Statistical Package for social science
UAE	-	United Arab Emirate

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ABSTRACT

Main objective of this study was evaluating distance education service quality and student satisfaction the case of Addis Ababa University, school of commerce. Further, this study examines the relationship among service quality dimension and student satisfaction and the dominant service quality dimension that influence student satisfaction in distance program. To attain this objective, questionnaire was designed categorized under five dimensions of the HEdPERF model. The sample consists of 191 respondent selected based on cluster and convenience sampling procedure. This study used also both primary and secondary data. The collected data was analyzed with the help of SPSS version 20. Correlation and multiple regressions were used to investigate the relationship between dependent and independent variables. The correlation results indicate that there is a positive correlation between the dimensions of service quality and student satisfaction.

Accordingly from the regression result it is observed that all service quality dimensions (academic aspect, non-academic aspect, reputation, access and program issue) have positive and significant impact on student satisfaction. Furthermore, 93.5 % of the variations in student satisfaction are explained by service quality dimensions in Addis Ababa University School of Commerce. Based on this, in order to improve service quality of the institution, the researcher suggested that, the institution should focus more on non-academic and program issue aspects because in the researcher mentioned variables had the lowest mean score. In addition reputation is the dominant service quality dimension therefore; university management should works on the indicator of this dimension.

Keywords: *Academic Aspect, Non-academic Aspect, Reputation, Access, Program issue, Student satisfaction and HEDPERF model.*

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Study

Services are economic activities offered by one party to another. In exchange for money, time, and effort, service customers expect value from access to goods, labor, professional skills, facilities, networks, and systems; but they do not normally take ownership of the physical elements involved (Lovelock & Wirtz, 2011). A service occurs when an interaction is established between customers and service providers and/or the physical component of the service and/or the systems through which the service is delivered (Lovelock & Wirtz, 2011).

Service has different characteristics. Mudie & Pirrie (2006) in their book explained that service has four key characteristics. These are intangibility, perishability, variability (or heterogeneity) and inseparability.

Education is a pure service sector, which is characterized by intangibility, inseparability, heterogeneity and perishability. In addition to that, ownership or the lack of it characterizes this type of service. Education as a service, then, can be said to be fulfilling the need for learning, acquiring knowledge-providing an intangible benefit (increment in knowledge, professional expertise, skills) produced with the help of a set of tangible (infrastructure) and intangible components (faculty expertise and learning), where the buyer of the service does not get any ownership (Bado and Nyangau, 2012). He may have tangible physical evidence to show for the service exchange transaction but the actual benefit accrued is purely intangible in nature.

In the context of education, the customer only buys access to education, or derives the learning benefit from the services provided (Bado and Nyangau, 2012). There is no transfer of the ownership of tangibles and intangibles, which have gone into creation of the service product. Payment of fees (price for the service) is just the consideration for access to knowledge and for the use of facilities for a given tenure.

Most educational institutions are product oriented rather than market or student oriented. They perceive themselves as producers of certain educational programs, rather than as satisfiers of certain learning needs. This lack of marketing orientation, keeps those managing educational

institutions from realizing and exploiting the role that promotion could play in attaining their organizational objectives.

Service sector in general and higher educational institutions in particular are indispensable to modern societies. Similarly, the current government of Ethiopia is striving to improve the quality of education in higher education. To this end, the government has launched serious policies, strategies, reform and restructuring plans concerning the higher educational institution of the country in collaboration with different stakeholders. In a view of ensuring high capability of educational services, the government monitors the functioning of higher education institutions (Simachew, 2012).

1.1.1 Background of School of Commerce

In Ethiopia there are many private and public higher education institutions. Addis Ababa University school of Commerce is one of the public universities which provide regular, extension and distance education services by under graduate and post graduate programs. The institution was established in 1943. Its objective was to train Ethiopians for occupations in the commercial sector of the nation following the five years of Italian occupation.

In the 1970s the school's transformation was driven by its quest to attain a "Junior College" standing. The school was brought under the Commission for Higher Education in 1979, at that time becoming one of the few tertiary-level educational institutions in Ethiopia. In 1982 the new fields of specializations were introduced and students were trained in the field of Accounting, Secretarial Science, Banking and Finance, and Purchasing and Supply Management was added to the curriculum, followed by the inclusion of Personnel Management and Marketing Management in 1988-89.

At present the School is part of the Addis Ababa University offering a three and four-year degree program in the regular and continuing education divisions and it has finalized its two-year regular and three-year continuing education Post graduate programs.

Post Graduate Programs (Distance Education) recently provided by the university are Human Resource Management, project Management, Marketing Management and logistic and supply chain management.

1.1.2 Distance Education

Distance Education has become an integral part of the education process over the past many decades and is growing as a popular medium in promoting education. It is one of the solutions of educational problems and deficiencies for low income group; Distance education is instructional delivery that does not require the student to be physically present at the place of instruction (Jumani, Zaidi, Chishti, Abbas, 2009).

Conrad (2006) argued that distance learning occurs when students and instructor do not meet personally in the same physical space. Similarly, Roffe (2002) described that distance learning refers to the way people communicate and learn by electronic means, which has emerged as a key source of competitive advantage in the information society.

There are many factors affect distance learners satisfaction such as organizational, managerial and student support services at any level. However, they vary according to the objective realities of the country(Conrad,2006).

The higher education institutions provide quality service which meet or exceed that expectations of their students, their services will be evaluated as high quality service and if not, the services will be judged as poor (Zammuto,Keaveneu,& O'Connor,1996).

Student satisfaction is a major challenge for higher education institutions and as Arambewela and Hall (2009) suggest, it is also the major source of competitive advantage and the student satisfaction leads to student attraction, retention and the spread of positive word of mouth communication by satisfied students.

1.2 Statement of the problem

Service quality is one of the factors that affect customer satisfaction. Students face some issues that either makes them feel dissatisfied or drop out of the program. This is indication that some students are not happy with services provided (Yen, 2013).

Higher education sector is an important economic activity and also very competitive.In today's rapidly changing environment, Higher Education Institutions face different challenges. Another fact is that standards of service industry change rapidly and what was considered an outstanding service yesterday may count as average today. This is valid for all service industries, including

sector of Higher Education. There are many factors that affect student satisfaction in HE Institutions, such as low technological progress, globalization, changing environment and many others(Narimia, 2016).

Currently, higher education also faces significant changes in the competitive market. Competitive advantage creates opportunities for students' demands and expectations towards Higher Education Institutions to increase. Obtaining Higher Education degree is gradually becoming an important concern for student nowadays. While selecting a university, students pay attention not only to academic matters but also to such aspects as equal treatment of students within university, infrastructure of the institution, facilities of university and etc. Awareness of standards for the tertiary institutions and requirements for their service quality level grows accordingly. Young people nowadays double check professional image of institution, its rankings, positioning, qualification lists, joint degrees offered and other relative aspects before making their final choice of where to study (Narimia, 2016).

To survive and stay competitive in highly competitive tertiary market, the educational institution must have clear picture of its internal strength and weakness along with external opportunities and threats. HE Institutions have to ensure that they meet expectations of all students. infrastructure and facilities, registration procedure, presence of helpful administrative staff, educated academic staff, positive attitude towards students, well provided communication between administration and students, professional image of the institution, in-time feedback from institution, equal treatment of all students, health services as well as appropriate service delivery procedures, provision of students activities, employment opportunities after graduation are factors that the institution should provide today to gain competitive advantage in educational market. Due to increasing role of higher education in the world it is essential for university to work on development of HE infrastructure and provision of high SERVQUAL level (Yen, 2013).

There is some research that has been done in Europe and Asia on service quality and customer satisfaction. A study by Sulieman (2013) on housing bank in Jordan bank found that the dimensions of service quality have an effect on customer satisfaction. Similarly another study by Wilkins & Balakrishnan (2013) found out that student in branch campuses of foreign universities with branch campuses in United Arab Emirates (UAE) were satisfied with their institutions

because of the quality of the lecturers at their campuses, availability of resources and the effective use of technology.

Additionally in his research, Abdullah (2005) conducted study in Malaysia, recommended, that future studies should be applied in other countries with different types of institutions. However, there is no enough research that has been carried out measuring service quality, specifically in Addis Ababa University School of commerce distance education service. That is the point of this research conduction.

1.3 Research Questions

1. What is the level of service quality offered by Addis Ababa University school of Commerce in distance education program when measured by service quality dimensions?
2. What is the type of relationship that exists between service quality and student satisfaction?
3. What is the dominant service quality dimension that has a strong relation with student satisfaction in distance program?

1.4 Objective of the study

1.4.1 General Objective

The research objective is to evaluate distance education service quality and student satisfaction the case of Addis Ababa University School of commerce.

1.4.2 Specific Objectives

- To examine the relationship between service quality dimension and distance education student satisfaction
- To examine the dominant service quality dimensions that influence student satisfaction in Distance education
- To provide some suggestions for the continuous improvement of school of commerce distance education services

1.5 Significance of the study

Literatures so far show that Distance education can be an effective and cost effective means of providing education on a large scale. In order to meet this organizational objective efficient and effective system to provide quality service for its clients must be installed. This study is believed to contribute to the overall improvement of the organizational structure of the distance offering institutions. Therefore, the researcher hopes that the study will have the under mentioned significant purposes.

1. The university officials and coordinators will have better knowledge of the major problems that hinder the service quality of distance education in the post graduate program.
2. The findings of the study would enable distance education management gain valuable information on the actual practice of distance education services so as to take corrective actions.
3. The results of the study could provide valuable information for further investigation to researchers in the field

1.6 Delimitation of the study

Currently, in Ethiopia distance Education is offered in some governmental, private and International institutions in first degree and post graduate level. But this study is delimited in Addis Ababa University School of Commerce. In respect to study focused on post graduate program. Furthermore, in order to get a clear picture for study the population was second and third year students were involve with the assumption that they have better experience than first year students. With respect to the variables of the study, the independent variables were service quality dimensions and dependent variable was students' satisfaction in distance education.

1.7 Definition of terms

Service is an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between customer and service employees and/or physical resources or goods and or systems of the service provider, which are provided as solutions to customer problems (Gornoroos, 1990).

Service quality: the difference between customer expectations of service and perceived service(Shahin, 1999).

Student satisfaction is what students really think about their university experience, quality of education, facilities, teachers, student support services, accommodation, city and other important aspects related to life at the university(Anantha, 2012).

Service quality dimensions: Academic aspects (the responsibilities of academics), non-academic aspects (factor consists of items that are essential to enable students fulfill their study obligations, and it relates to duties carried out by non-academic staff), reputation (factor that suggest the importance of higher learning institutions in projecting a professional image), Access (approachability, ease of contact, availability and convenience), and Programs issues - the importance of offering wide ranging and reputable academic programs /specializations with flexible structure and syllabus (Abdullah, 2006).

1.8 Organization of the Study

The study is organized in to five chapters. The first chapter starts by giving a brief introduction on service, background information about school of commerce and distance education and followed by statement of the problem. It also includes the objectives, research question, significance of the study, as well as the scope and delimitation of the study. The second chapter focused on exploring various literatures on the problem under study to provide definitions to the various concepts as well as explain the theoretical perspectives and conceptual framework. The third chapter presents the research design and methodology of the study. It covers research approach and design, sampling method and size, data type and source, data collection procedures method of data collection and analysis of the study and the forth chapter covers the result of the study. The last chapter provide summary of findings, conclusion, recommendation for research and then presents limitations of study and future research directions. Reference and appendix, which include questionnaire and other related materials, are also part of the document.

CHAPTER TWO

2. REVIEW OF RELATED LITERATURE

2.1 Theoretical Review

The aim of this section is to present literatures relevant to this research and to provide a theoretical and empirical review. The chapter begins with a review of definitions and some measurements of service quality, and then follows by service quality in higher education, measuring service quality in higher education and HEDPERF model which leads to the conceptual framework of the study. Identification of variables and formulation of hypothesis end the chapter.

2.1.1 Service

According to Kotler and Armstrong (2012), “service can be defined as economic activities that produce time, place, form, or psychological utilities”. Many service firms have become successful by identifying a previously unrecognized or unsatisfied customer wants. (Messay, 2012) stated “services are identifiable, intangible activities that are the main object of a transaction designed to provide want satisfaction to customers”.

Today, service industries are the sources of economic leadership. During the past thirty years, more than 44 million new jobs have been created in the service sector to absorb the influx of women into the work force and to provide an alternative to the lack of job opportunities in manufacturing (Fizsimmons, 2011).

Services are economic activities that create value and provide benefits for customers at specific times and places, as a result of bringing about a desired change in or on behalf of the recipient of the service.

Different scholars have defined service in many ways. Out of these, the following represent a sample of service definitions:-

- (i) A service is an activity or series of activities of more or less intangible nature that normally, but not necessarily, take place in interactions between customer and service employees and/or physical resources or goods and or systems of the service provider, which are provided as solutions to customer problems. (Gornoroos, 1990).
- (ii) A service is a time perishable, intangible experience performed for a customer acting in the role of co-producer (Fizsimmons, 2011).

2.1.2 Service Quality

Many authors have studied about service quality. They have defined service quality as their own understanding and studies. Shahin (1999) defined service quality as the difference between customer expectations of service and perceived service. Service quality is degree of discrepancy between customers' normative expectation for service and their perceptions of service performance (Parasuraman, Zeithaml & Berry, 1985). Ueltschy (2006) by quoting the seminal work of (Gronroos, 1990) explained that service quality as "the outcome of an evaluation process where the consumer compares his expectations with the service he perceived or he has received."

There is no generally accepted definition of service quality. However most authors describe service quality in terms of the gap between customer perception and customer expectation. Customer perception is what the customer thinks of the service that has been performed and customer expectation is what the customer was expecting to receive.

Parasuraman *et al.* (1985) developed the gap model that explains gaps that may arise in between what the customer expects to receive and what the organization provides. It is composed of five gaps linked together. Gap one occurs as result of management's misunderstanding of the customer's needs from the market research carried out. Gap two is as a result of the designer's misinterpretation of the information passed on from market research while gap three is the conformance gap and arises when staffs fail to perform the service as stipulated by the standards that have been put by the organization.

Gap four is the communication gap, which arises due to the wrong information being passed on to the customer. This means that the customer is not informed of what goes on in the background and therefore may interpret delays as failure when this is not the case. Gap five is the difference between what the customer expects and what the customer thinks of the service that has been received.

2.1.3 Measuring Service Quality by its Dimensions

The main concern with the dimensions of service quality is usually the range of areas which should be included. (Cronin and Taylor, 1994) state that customers should be the determinants of service quality dimensions rather than the management the academic staff of the respective institution of higher education. Parasuraman *et al.* (1985) proposed five dimensions of service

- A) **Reliability:** - The ability to perform the promised services both dependably and accurately. Reliable service performance is a customer expectation and means that the service is accomplished on time, in the same manner, and without errors every time. For example, receiving mail at approximately the same time each day is important to most people. Reliability also extends into the back office, where accuracy in billing and record keeping is expected.
- B) **Responsiveness:** - The willingness to help customers and to provide prompt service. Keeping customers waiting, particularly for no apparent reason, creates unnecessary negative perceptions of quality. If a service failure occurs, the ability to recover quickly and with professionalism can create very positive perceptions of quality.
- C) **Assurance:** - The knowledge and courtesy of employees as well as their ability to convey trust and confidence. The assurance dimension includes the following features: competence to perform the service, politeness and respect for the customer, effective communication with the customer, and the general attitude that the server has the customer's best interests at heart.
- D) **Empathy:** - The provision of caring, individualized attention to customers. Empathy includes the following features: approachability, sensitivity, and effort to understand the customer's needs.
- E) **Tangibles:** - The appearance of physical facilities, equipment, personnel, and communication materials. The condition of the physical surroundings (e.g., cleanliness) is tangible evidence of the care and attention to detail that are exhibited by the service provider.
- F) Customers use these five dimensions to form their judgments of service quality, which are based on a comparison between expected and perceived service. The gap between expected and perceived service is a measure of service quality; satisfaction is either negative or positive.

In the higher education sector also Carney (1994) proposed nineteen variables that can be used to evaluate the image of a college. These variables include variety of courses, academic reputation, class size, student qualification (academic), student qualities (personal), faculty – student interaction, quality instruction (faculty), career preparation, athletic programs, student activities (social life) , community service, location, physical appearance (campus), on – campus residence,

facilities and equipment, friendly, caring atmosphere, religious atmosphere, safe campus and cost (financial aid, Arivalan et al posit that though the nineteen variables were developed to evaluate college image, they are also highly relevant to the measurement of service quality.

Similarity, Athiyaman (1997) identified eight variables that can be used to evaluate university education services and they include library services, availability of staff for student consultation, teaching students well, computing facilities, recreational facilities, class sizes, level and difficulty of subject content and student workload.

Owlia and Aspinwall (1996) conducted a thorough literature review on service quality and grouped the service quality attributes into six dimensions as follows:-

- Tangibles: the institution having sufficient equipment / facilities , modern equipment / facilities , ease of access to the facilities , visually appealing environment and support services such as accommodation / hostels.
- Competence: the institution having sufficient academic staff who have theoretical knowledge, qualifications, practical knowledge and up to date teaching expertise and communication skills.
- Attitude: The institutions staffs understands students' needs, are willing to help, are available for guidance and advisory, give personal attention to students and are courteous and friendly.
- Content: the relevance of curriculum to the future jobs of students, curriculum containing primary knowledge, skills as well as flexibility of knowledge.
- Delivery: effective presentation, sequencing, timeliness, consistency, fairness of examinations, feedback from students.
- Reliability: trustworthiness, offering recognized courses, keeping promises, handling complaints and timely resolution of problems.

After further analysis of the six variables, Owlia and Aspinwall (1996) later recommended that academic resources, competence, attitude and content be used as a framework for service quality measurement in higher education.

2.1.4 Criticisms of SERVQUAL

Notwithstanding its growing popularity and widespread application, SERVQUAL has been subjected to a number of theoretical and operational criticisms which are detailed below:

Theoretical Criticisms

- i. Paradigmatic objections: SERVQUAL is based on a disconfirmation paradigm rather than an attitudinal paradigm; and SERVQUAL fails to draw on established economic, statistical and psychological theory.
- ii. Gaps model: there is little evidence that customers assess service quality in terms of P – E gaps.
- iii. Process orientation: SERVQUAL focuses on the process of service delivery, not the outcomes of the service encounter.
- iv. Dimensionality: SERVQUAL's five dimensions are not universal; the number of dimensions comprising service quality is contextualized; items do not always load on to the factors which one would a priori expect; and there is a high degree of inter correlation between the five dimensions (Reliability, assurance, tangible, empathy and responsiveness).

Operational Criticisms

- i. Expectations: the term expectation is polysemic meaning it has different definitions; customers use standards other than expectations to evaluate service quality; and SERVQUAL fails to measure absolute service quality expectations.
- ii. Item composition: four or five items cannot capture the variability within each service quality dimension.
- iii. Moments of truth (MOT): customers' assessments of service quality may vary from MOT to MOT.
- iv. Polarity: the reversed polarity of items in the scale causes respondent error.
- v. Scale points: the seven-point Likert scale is flawed.
- vi. Two administrations: two administrations of the instrument (expectations and perceptions) cause boredom and confusion.
- v. Variance extracted: the over SERVQUAL score accounts for a disappointing proportion of item variances.

2.1.5 Using SERVPERF to Measure Service Quality

The SERVPERF model was carved out of SERVQUAL by Cronin and Taylor in 1992. SERVPERF directly measures the customer's perception of service performance and assumes that respondents automatically compare their perceptions of the service quality levels with their expectations of those services. Cronin and Taylor argued that only perception was sufficient for measuring service quality and therefore expectations should not be included as suggested by SERVQUAL (Baumann et al, 2007). Instead of measuring the quality of service via the difference between the perception and expectation of customers as in SERVQUAL, SERVPERF operationalizes on the perceived performance and did not assess the gap scores as expectation does not exist in the model. Thus, it is performance-only measure of service quality.

“The SERVPERF scale is found to be superior not only as the efficient scale but also more efficient in reducing the number of items to be measured by 50% (Hartline and Ferrell, 1996; Babakus and Boller, 1992; Bolton and Drew, 1991)” cited by MesayShita 2012. Similarly, Owlia and Aspinwall (1996) note that when people are asked to indicate the “desired level” (expectations) of a service and the “existing level”(perceptions) of the service, there is a psychological constraint that people always tend to rate the former higher than the latter ($E > P$).

2.1.6 Service Quality in Higher Education

Quality in higher education is an issue that has been addressed by various institutions. In the United Kingdom quality assurance is managed by Quality Assurance Agency for Higher Education (QAA) which is a non-profit organization (“More about us and our work,” n.d.). Similarly in the United States quality assurance is managed by non-profit organizations that are run by the universities themselves (“Council for Higher Education Accreditation: Accreditation Serving the Public Interest,” 2012).

In Kenya quality assurance is managed by a government funded organization known as the Commission for University education (“Vision and Mission,” n.d.) Apart from these there have been attempts by the universities themselves to introduce or demonstrate quality assurance through the use of total quality management techniques and ISO certifications (Evans, 2011). Some of the universities have stated that they have benefitted from the application of these systems.

In Kenya out of the 31 private universities only two are ISO certified (“Certified firms on ISO 9001:2008 Quality Management systems, qms,” n.d.: Gudo, Oanda, & Olel, 2011). The other method that is common in British and American universities is what is known as student evaluation of teaching or SET (Johnson, 2000). At the end of the semester students are issued with forms to fill that have questions on how the lectures were conducted by a particular lecturer. SET assessments can be used as the basis for promotions and other rewards. A number of universities have also used SERVQUAL model or some of its modifications to measure service quality (Barnes, 2007).

2.1.7 Measuring service quality in Higher education

The term service quality has a significant richness and delivery of meaning. As such, progress in designing and developing a generic framework for measuring service quality has been hampered by the inherent problems commonly associated with the unique characteristics of services namely intangibility, perish ability, inseparability and heterogeneity (Zeithamlet *al* ; 1985). Similarly Carman (1990) Concur that service quality is an elusive concept and there is considerable debate in the services literature about how best to measure it.

The SERVQUAL Instrument of Parasuramanet *al*. (1985) has attracted the greatest attention claiming to measure the relevant dimensions of the perceived quality across service industries based on five dimensions namely; reliability, responsiveness, empathy, assurance and tangibles. Despite its popularity, Cronin and Taylor (1992) criticized the SERVQUAL instrument by arguing that there is little evidence either theoretically or empirically to support the notion of ‘expectations minus performance’ gap as a basis for measuring service quality. They proposed a ‘performance only’ measure of service quality known as SERVPERF. In their empirical work, Cronin and Taylor (1992) argued that the SERVPERF instrument performs better than any other measure of service quality.

In higher education, service quality measurement has intensified with increased emphasis on education accountability. Ho and Wearn (1996) incorporated the SERVQUAL into HETQMEX, A Higher Education TQM excellence model that measured service quality based on areas such as leadership, commitment, training education and teamwork. More recently, the Higher Education performance scale (HEdPERF) was developed by Abdullah (2006) and the instrument aimed at considering not only the academic components of service quality but also the total service environment.

2.1.8 Higher Education Performance Model

Higher Education Performance (HEdPERF) is a tool developed by Abdullah (2006) to measure service quality in higher education Institutions. Parasuraman *et al.* (1988) have recommended that their model be adapted or modified to suit specific situations.

In coming up with HEdPERF Abdullah (2006) argued that the original SERVQUAL model and the revised version of SERVPERF were too generic to apply to higher education institutions. HEdPERF is theoretically the same as SERVPERF because it measures performance only and not the expectations performance gap like the case is with the SERVQUAL model.

The original version had academic aspects, non-academic aspects, reputation, access, program issues and understanding as its dimensions. The revised version omits understanding as one of its dimensions and therefore has five dimensions. HEdPERF has been found to perform better when compared to SERVQUAL and SERVPERF in academic institutions. The five dimensions are broken down or operationalized into 20 items. HEdPERF was used for this study because it is more specific to higher education institutions

2.2 Empirical Review

2.2.1 Empirical studies

Higher Education plays global role in the development of each student as a personality. There were numerous researches being conducted on investigating SERVQUAL in Higher Education.

In his research, Ana (2009) compared instruments for measuring service quality in Higher Education and concluded that SERVPERF and HEdPERF present the best measurement scales for examining SERVQUAL in tertiary education area (Ana, 2009).

Zaharia (2014) conducted a study in one of the biggest cities in Malaysia to examine the quality of services provided to public. The purpose of research was to measure SERVQUAL in terms of LA by developing FM-SERVQUAL built on SERVQUAL model of Parasuraman. (Zaharia, 2014). Research results showed that five variables of technology and six variables of property were less the requirements. Rest of variables displayed minimum quality level.

Yen (2013) carried out a research in Vietnam to measure SERVQUAL in HE sector so to comprehend clearly the perception of SERVQUAL in higher education from Vietnamese students'. In this study, SERVQUAL perspective and SERVPERF scales were both employed to

measure the service quality. The research findings showed that Vietnamese students are mostly interested in the dimensions of responsiveness, tangible elements, and assurance.

Another study was conducted in Serbia; aim of it was assessing service quality during the Bologna process at one of universities. SERVPERF was used as instrument for examining SERVQUAL. Findings of study revealed that management students considered Reliability and Assurance along with Empathy and Responsiveness as most important dimensions. The student perceptions of dimension Responsiveness was the different across gender (Kontic, 2014). Factors that had strong impact on students' perception of quality were seniority as well as gender. Study also showed that students were not satisfied with their treatment.

Another research was conducted investigating the five dimensions of SERVQUAL instrumentation in terms of higher education in Thailand (Yousapronpaiboon, 2014). Around 350 students from private university of Thailand took part in the research. Findings showed that HE in Thailand does not meet expectations of students. The gap analysis between service perceptions and expectations showed that all scores for perceptions were lower than their expectations scores. As a recommendation for meeting expectation of students in a better way, facilities and equipment improvement of university should be improved.

In another research, HEDPERF was compared with SERVPERF and HEDPERF-SERPERF combined measurement instrument. It was found that HEDPERF showed a fair fitness proving right representation of population approximation (Randheer, 2015).

Dennis (2013) assessed SERVPERF and HEDPERF instruments for the appropriateness of them to measure service quality in the context of Hong Kong postgraduate education. The values of the HEDPERF scales are found to be higher than those of the SERVPERF scales, indicating a superiority of specific instruments over generic instrument; however the reliability of SERPERF can be accepted for employment in the response context.

Hassan (2008) studied service quality and student satisfaction in Malaysia using a case study of private higher education institutions. The findings indicated that the SERVQUAL dimensions of tangibility, responsiveness, assurance, reliability and empathy had a significant positive relationship with student satisfaction.

Malik (2010) investigated the impact of service quality on student's satisfaction in higher education institutes of Punjab province in Pakistan. They used the SERVQUAL instrument and

their findings showed that students were satisfied with the tangibles, assurance, reliability and empathy but not with parking facilities, computer labs, cafeteria service and the complaint handling system. Asaduzzaman, Moyazzem, & Mahabubur, (2013) also examined service quality and student satisfaction in private universities in Bangladesh using a sample of 550 business students. They study used the SERVQUAL dimensions and the findings indicated a significant correlation among all the dimensions with student satisfaction.

Similarly Sultan and Wong (2010) develop and empirically tested the Performance based higher education service quality model (PHed) on 360 students from Japanese Universities. Findings of the study indicated that the eight dimensions of Dependability, effectiveness, capability, efficiency, competencies, assurance, unusual situation management and semester and syllabus had a significant influent on student satisfaction.

A new measurement scale known as HiEDQUAL was developed by Annamderula and Bellamkonda (2012) for measuring service quality in the Indian Higher education sector. A sample of 358 students was used and the research findings showed a significant positive influence of teaching and course content, administrative services, academic facilities, campus infrastructure and support services on the overall students perception of service quality Van Schalkwyk and Steenkamp (2014) explored service quality and its measurement for private higher education institutions in South Africa. A sample of 984 students was used and the SERVQUAL instrument used to collect service quality data. The findings of the study indicated that the five dimensions of the SERVQUAL instrument had a significant influence on the satisfaction and perception of service quality by students at the private higher education institutions.

Poturak (2014) analyzed private universities service quality and students' satisfaction in Bosnia and Herzegovina using a sample of 300 respondents. Findings of this study indicated that service quality at the private universities had a significant effect on the level of students' satisfaction.

Go vender (2014) examined perceived service quality and customer satisfaction using student's perception of Kenyan private universities using a sample of 522 students. The study used the HEdPERF framework to collect the research data. Their findings indicated that the service quality dimensions had a positive and a significant relationship with service quality dimensions had a positive and significant relationship with service quality which in turn influenced customer satisfaction. Kundi et al (2014) investigated the impact of service and quality on customer satisfaction in higher education institution using a case study of Gomal University in Pakistan and

a sample of 200 students. The study used the SERVQUAL instrument and findings showed significant and positive impacts of service quality dimensions on customer satisfaction which is consistent with the findings of previous studies.

However there have been several inconsistencies in the findings of various studies. Douglas et al (2006) measured student satisfaction at a university in England and found that the quality of academic resources were not important in determining students satisfaction. This is not consistent with the findings of a study by Encabo (2011) who studied student perception on instructional quality and satisfaction in Philippines and found that academic resources was the most significant factor influencing student's satisfaction.

Similarly, Tuan (2012) analyzed the effects of service quality and price fairness on student satisfaction in universities in Vietnam. Findings of the study shown that administrative service quality was significantly and positively related to students satisfaction. On the contrary Ahmed and Masud (2014) examined the service quality and student satisfaction of a higher educational institute in Malaysia and found that administrative services were not academic researches, lecturer quality and quality of academic programs had a direct and significant relationship with the satisfaction level of the students.

2.3 Student Satisfaction

Student satisfaction can be defined as a function of relative level of experiences and perceived performance about educational services during the study period (Hassen, 2008). According to Kontic(2014) student satisfaction is generally accepted as a short-term attitude resulting from an evaluation of a student's educational experience. Students are the key customers of higher education institutions (Helgesen&Nesset, 2007) state that student satisfaction is built continuously with experiences on campus during their study period. Student satisfaction is crucial since satisfied students could end up going back to their previous institutions for further studies or to enroll for new courses (Helgesen&Nesset, 2007). In view of this, higher education institutions should make every effort towards meeting and exceeding the expectations of their students in order to ensure the sustainability of their operations (Anderson, 1994).

Students in higher education institutions rate their tutors' performance and methodology of teaching as the prime indicators in their educational development and successful completion of their studies. Malik (2010) argued that the tutors abilities excellence, coordination and flexibility

greatly influence the student's academic performance. Ibrahim (2012) also stated that tutors who are punctual and friendly to students are more popular. In view of this, Hassen (2008) have pointed out that services are delivered to people by people and that moment of truth can make or break an institutions image.

The implication is that to achieve student satisfaction higher education institutions must focus on every aspect of the students experience at the institutions must focus on every aspect of the students' experience at the institution Hassen (2008). According to Anantha(2012), student satisfaction is not limited to the lectures in class or guidance by tutors during the consultation hours but it includes the students' experiences while interacting with the non – academic staff, the physical infrastructure and other non – academic aspects of college life.

2.4 Conceptual Model

In Figure 2.1 conceptual model of the research is displayed. According to the conceptual model, there are 5 determinants of SERVQUAL in Higher Education sector (Abdullah, 2006).

1. “Academic aspects: Aspects related to academicians, the responsibilities of academics. It highlights key points like having positive attitude, having educated and experienced academic staff” (Abdullah, 2006).
2. “Non-academic aspects: Aspects related to administrative staff to show respect, provide equal treatment, along with confidentiality of information” (Abdullah, 2006).
3. “Reputation: items in terms of their importance to Higher Education Institutions, professional image of the institution” (Abdullah, 2006) .
4. “Access: ease of contact, approachability, availability and convenience of academic and non-academic staffs” (Abdullah, 2006).
5. “Program issues: Issues related to offering wide range of programs or specialization, counseling service and different quality programs” (Abdullah, 2006).

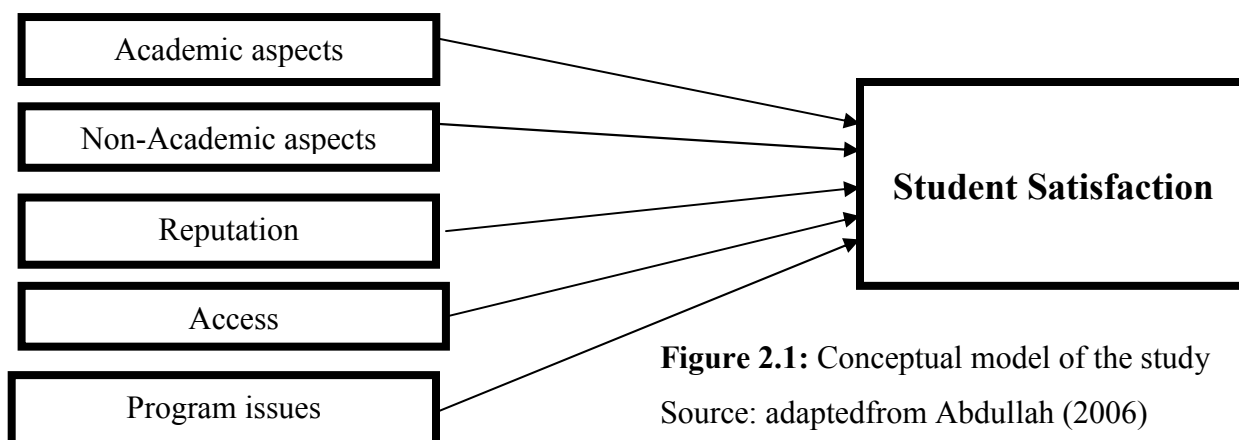


Figure 2.1: Conceptual model of the study
Source: adaptedfrom Abdullah (2006)

2.5 Hypothesis

As demonstrated in the conceptual model of HEdPERF, the author defined five dimensions of the service quality concept. There are various researchers that examined the performance in the Higher Education. Abdullah (2006) reported that researchers mainly focus on academic aspects like quality of academics while insufficient attention is being paid to the non-academic aspects of the education (Abdullah, 2006).

2.5.1 Academic aspects Dimension of Service Quality and Students Satisfaction

The conceptual model proposes that academic aspects lead to overall student's satisfaction. In the research conducted in Malaysian universities, physical aspects of the HE Institutions showed less importance to students. Meanwhile, the most important factors for them were identified as academic aspects (Ibrahim, 2012). Accordingly, the hypothesis is proposed:

Hypothesis 1: Academic Aspects of Service quality are positively related to students' satisfaction in Addis Ababa university school of commerce distance program.

2.5.2 Non-Academic aspects and Students Satisfaction

In his research, Ana (2009) indicated that five variables of HEdPERF had high correlation with satisfaction of students and their future visits to university. Moreover, this went along with intentions to recommend university to their friends (Ana, 2009). In his dissertation, Kayastha (2011) examined satisfaction with service quality of graduate students in Higher Education of Thailand and found out that non- academic aspects are positively related to students satisfaction (Kayastha, 2011). Therefore, the study comes out with hypothesis:

Hypothesis 2: Non-academic Aspects of Service quality are positively related to students' satisfaction in Addis Ababa university school of commerce distance program.

2.5.3 Reputation Dimension of Service quality and Students Satisfaction

Abdullah (2006) defined reputation variable as decisive factor for students that is responsible for creating professional image of the institution (Abdullah, 2006). According to research conducted in Saudi Arabia University, tangibility aspect of Reputation creates an instant image of the institution in the eyes of parents and students (Randheer, 2015). Dennis (2013) in his research, conducted the factor analysis of the HEdPERF items and reported that Reputation, Academic

Aspects and Non-academic Aspects are saliently exhibit intended dimensions of the HEdPERF model (Dennis, 2013). Therefore, the following hypothesis is proposed:

Hypothesis 3: Reputation dimension of Service quality are positively related to students' satisfaction in Addis Ababa university school of commerce distance program.

2.5.4 Access Dimension of Service Quality and Students Satisfaction

Another research measuring the service quality in Pharmacy education was conducted in India Sheeja(2014). According to research evaluating Higher Education Performance scale in Indian Pharmacy education, it was found out that there are four factors which serve as factors for service quality, namely Nonacademic Aspect; Academic Aspect, Access aspect and ReputationSheeja(2014). According to Abdullah (2006) student's perceived access is the most determining factor and it is more important than other dimensions in determining SERVQUAL (Abdullah, 2006). Therefore, the next hypothesis presented as follows:

Hypothesis 4: Access aspect of Service quality is positively related to students' satisfaction in Addis Ababa university school of commerce distance program.

2.5.5 Program issues Dimension of Service Quality and Students Satisfaction

According to Randheer (2015) Program Issues are service issues related to courses, programs, structures and health services (Randheer, 2015). As per Abdullah (2006), quality improvement programmes should be applied to the various aspects related to the educational experience and advisory services offered by the institutions (Abdullah, 2006). Program Issues dimension is very important from students' perspective; therefore, the next hypothesis is proposed:

Hypothesis 5: Program Issues of Service quality are positively related to students' satisfaction in Addis Ababa University School of commerce distance program.

CHAPTER THREE

3 RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter looked at the methodology employed to achieve the objective of the study. It focused on the research approach, research design, the sample and sampling techniques, sources and instruments that have been utilized in collecting data, the procedure of data collection, data management, data analysis and ethical consideration.

3.2 Description of the study area

This study aimed at evaluating distance education service quality and student satisfaction the case of A.A.U school of commerce. This institution provides different courses in Degree and post graduate programs through distance education.

3.3 Research Approach

There are two general research approaches, deductive and inductive (Altinay&Paraskevas, 2008). Evaluators have different opinions about deductive and inductive methods of collecting data. It is very important to define and justify which method is more appropriate to use in dissertation. “Ensuring the effectiveness of information search is an extremely challenging task which incessantly raises new research questions” (Liangzhi, 2015).

While using inductive approach, researcher collects data that is relative to their research. While and after detailed review, researcher tries to come out with theory that could explain data patterns. Researcher moves from data to theory (Strauss, 1990). Deductive method of research is based on developing the hypotheses and then testing it via collected data. In this study the researcher used deductive approach to develop hypotheses based on what is theoretically known about the research constructs.

3.4 Research Design

A research design is simply the frame work of the study. From different types of research designs descriptive and explanatory type of research design was employed as a main research design for this study to the realization of intended objectives. The reason behind using descriptive research design is because the researcher is interested in describing the existing situation under study. Creswell, (2009) stated that the descriptive method of research is a technique of gathering

information about the present existing condition. This research design is a fact finding study with adequate and accurate interpretation of findings. This study also used explanatory research design to explaining, understanding, predicting and controlling the relationship between variables. By taking cross-section of the population relevant data was collected at one point in time.

3.5 Population and Sampling technique

3.5.1 Population

According to Zikmund, (2003) the definition of population is identifiable total set of elements of interest being investigated by a researcher. The target population is defined as the entire group a researcher is interested in. The populations of this study were post graduate distance education students of Addis Ababa university school of commerce. The target populations for the study were those who are second and third year students in the university were taken as a target group. This student selected for this research because the assumption that they have better experience than first year students.

3.5.2 Sample Size

Sample size is actually the total number of units which are to be selected for the analysis in the research study. According to the information obtained from the university registrar office there is 70 second and 65 third year students in project management department, 46 second and 14 third year students in Human Resource management department, 34 second and 36 third students in Logistic and Supply chain Management, 45 second and 35 third year students in Marketing Management and finally 21 third year students in Logistic and Supply chain management (Ministry of trade) as of January 01, 2018. Currently the total numbers of students in second year are 195 and 171 in third year. So, total number of population in this study was 366.

In order to determine sample size; the researcher used formula for calculating the required sample size. The formula was developed by Taro Yamane (1967). It is calculated as follows

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

$$n = \frac{366}{1 + 366 (0.05)^2} = 191$$

Where, n is the sample size

N is the population size (366),

e is the level of precision or sampling error = (0.05)

Thus, sample size of 191 students is selected from the population size of 366.

3.5.2 Sampling Techniques

Creswell, (2009) define that it is the way of drawing inference about a population without studying the entire population under study. It is also advantageous in time consuming and cost saving. Thus, the researcher select distance education student by using cluster sampling technique as the first stage of the process and divided population into two clusters (based on year of studies). From the variety of non- probabilistic sampling techniques, the researcher used convenient sampling technique. Because, it is not possible to collect data from all participants at the same time at the given specific area.

Finally, after determining the sample group researcher decided to collect the data while the distance learners are working on examination or attending face –to-face tutorial program.

3.6 Data sources and types

The researcher uses both primary and secondary source of data. Primary data was collected through standardized questionnaire and secondary data was collected through journal and research report. In order to achieve the objective of the study, the research used quantitative method of data analysis. Quantitative research focuses on determining the relationship between variations of independent and dependent variables. The reason for choosing quantitative research approach was to meet the purpose of examining how an independent variable affects a dependent variable.

3.7 Method of data collection

Questionnaire

The researcher preferred questionnaire as the main data gathering instrument because it tends to be more reliable; because it is secret, it encourages greater honesty it is more economical in terms of time and money (Louis , Lawrence and Keith, 2005). In order to gather the appropriate information about current practice of distance education services, questionnaire was set for students, in light of the literature reviewed. The variable was measured using Likert scale with five response categories. (Strongly disagree, disagree, neutral, agree and strongly agree). “The

Likert scale method was preferred to make questions interesting to respondents and thereby enhance their cooperation (Robson, 2002).

The questionnaires have three parts: The first part of the questionnaire was about the personal information of respondents. The second section designed to measure the student perception towards the service delivery method of the institution and the last part was about student satisfaction. All of the questions in the questionnaire were written in English has been attached at the end of the paper.

3.8 Procedure of Data Collection

The study was based on both primary and secondary data sources. It was begun by secondary data analysis through the detailed review of related literature and survey questionnaire was used as the main data gathering instrument for this study. (appendix II) questionnaire were prepared and distributed to the samples that was selected from the total population of study. After the data is collected; it is necessary to utilize statistical techniques to analyze the data. The survey data was processed using SPSS to be analyzed and presented.

3.9 Reliability and Validity

Calculating Cronbach's alpha (α) has become a common practice when a multiple item measurement of a concept or construct are employed and were used, Since it's easier to use in comparison to other estimate.

Validity often called construct validity refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure Bhattacharjee (2012). Validity is concerned with how well the concept is defined by the measure. According to Bhattacharjee (2012) there are two assessments of validity theoretical or translational validity and empirical or criterion-related validity which includes Content validity, Predictive Validity, Convergent validity and Concurrent validity. Content validity is an assessment of how well a set of scale items matches with the relevant content domain of the construct that it is trying to measure. Convergent validity refers to the closeness with which a measure relates to (or converges on) the construct that it is purported to measure, Predictive validity is the degree to which a measure successfully predicts a future outcome that it is theoretically expected to predict. Concurrent validity examines how well one measure relates to other concrete criterion that is presumed to occur simultaneously.

The most common method of assessing the content-validity is the applied method for the pre-test of questionnaire, guided by the list of definitions of each construct (Saunders, 2012).

To ensure the validity of the study: Data was collected from the reliable sources or from respondent who are student in the institution. Furthermore this study was test and examine by the advisor and other colleagues to determine its clarity. The reliability of the research instrument (structured questionnaire) was measured by the Cronbach's alpha.

3.10 Data Analysis

Research followed HEDPERF model, based on SERVQUAL model as the basis for the structured questionnaire. The data was obtained from the survey had captured and analyzed using the Statistical Package for Social Sciences (SPSS), Version 20. At first, descriptive statistics was used to present a profile of the respondents and to identify the mean and standard deviation of service quality dimensions as well as student satisfaction. Then, Statistical tools like Correlation and Multiple Regression analysis was applied for analyzing the questionnaires in order to determine the relationship between service quality and student satisfaction.

A. Descriptive analysis

The descriptive statistical results were presented by tables, frequency distributions and Percentages to give a condensed picture of the data. This was achieved through summary of statistics, which includes the means and standard deviations values which are computed for each variable in this study.

B. Pearson Correlation analysis

In this study, Pearson's correlation coefficient was used to determine the relationships between service quality dimension (Academic aspect, Non academic aspect, Reputation, Access, Program issue) and student satisfaction.

C. Multiple Regression Analysis

Multiple regression analysis was used to investigate the effect of service quality dimensions (Academic aspect, Non academic aspect, Reputation, Access, Program issue) and student satisfaction.

Regression functions

The equation of multiple regressions on this study was generally built around two sets of variable, namely dependent and independent variables. The basic objective of using regression equation is

to make the researcher more effective at describing, understanding, predicting, and controlling the stated variables.

Regress student satisfaction on the service quality dimensions

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

Where Y is the dependent variable- student satisfaction

Academic aspects =X1, Non-academic aspects =X2, Reputation =X3, Access =X4 and Program issues=X5 are the explanatory variables (or the regresses).

α is the intercept term- it gives the mean or average effect on Y of all the variables excluded from the equation, although its mechanical interpretation is the average value of Y when the stated independent variables are set equal to zero. β_1 , β_2 , β_3 , β_4 and β_5 refer to the coefficient of their respective independent variable which measures the change in the mean value of Y, per unit change in their respective independent variables.

3.11 Ethical Consideration

Since the researcher was used the data from students which was collected through questionnaire, permission was obtained from the students. To maintain the confidentiality of the information provided by the respondents, the respondents were instructed not to write their names on the questionnaire and assured of that the responses would be used only for academic purpose and kept confidential. Brief description of the central objectives or purpose of the study and the potential benefit of the research outcome to respondents and university was clearly given in the introductory part of the questionnaire so as to motivate them and participate in the study and provide relevant information about the institution under study. Finally, respondents were included in the study based on their free will. Texts belonging to other authors that have been used in any part of this study have been fully referenced with reference page.

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPRETATION

This chapter describes the analysis and interpretation of the collected data. Out of the 191 questionnaires distributed to students unfortunately researcher received 179 questionnaires that were complete. This was because some people got the questionnaires and went away with them and others did not completely answer the questions and so considered them invalid. The collected data was also analyzed. In addition to this, background information of respondents is also presented. Finally, the statistical methods of analysis were discussed, which included a descriptive analysis, a correlation analysis, and a multiple regression analysis with the help of SPSS version 20.

4.1 Reliability Test

The study used Cronbach's alpha, to measure the reliability or to assess the internal consistency of the research instrument. Since multiple items were used to measure the service quality of distance education based on (academic aspect, non-academic aspect, reputation aspect, access aspects and program issues), the items in the scales were subjected to reliability testing using Cronbach's coefficient alpha to determine the internal consistencies Saunders (2003). Scales that produced Cronbach alpha coefficients greater than 0.7 were considered to be measuring the same underlying attribute Nunnally (1978) and were thus reliable.

In addition as cited from (Dejene, 2012) coefficient alpha ranges in value from 0 meaning no consistency to 1 meaning complete consistency (all items yield corresponding values). Generally speaking, scales with a coefficient between 0.80 and 0.95 are considered to have very good reliability. Scales with a coefficient between 0.70 and 0.80 are considered to have good reliability, and value with a coefficient between 0.60 and 0.70 indicates fair reliability. When the coefficient is below 0.6, the scale has poor reliability (Zikmund, 2010).

As shown in table 4.1 below the Cronbach's alpha coefficients for all determinant of student satisfaction items of respondents is 0.880. This is greater than the minimum value suggested by Nunnally (1978). Therefore, the scales used in this study demonstrate reliability as well as it indicates the acceptability of the scale for further analysis.

Table 4.1: Reliability Statistics

Dimension of service quality	Number of attribute	Cronbach's alpha
Academic Aspect	4	0.782
Non- academic Aspect	5	0.803
Reputation Aspect	4	0.719
Access Aspect	5	0.806
Program Issues	2	0.787
Student Satisfaction	5	0.830
All Service Quality Dimensions	20	0.880

Source: survey result, 2018

4.2 General Information of the Respondent

The first part of the questionnaire consists of the demographic information of the participants. This part of the questionnaire requested a limited amount of general information which includes gender, age, year of study, department, employee status and source of funding.

Table 4.2 Characteristic of the respondent

Characteristics	Frequency	Percentage
Gender	64	35.8
Female	115	64.2
Male	179	100.0
Total		
Age		
18-29	61	34.1
30-40	99	55.3
41-50	17	9.5
Above 50	2	1.1
Total	179	100.0
Year of Study		
Second Year	85	47.5
Third Year	94	52.5
Total	179	100.0
Department		
Human Resource Management	30	16.8
Logistics and Supply chain Mgt.	39	21.8
Marketing Management	24	13.4
Project Management	86	48.0
Total	179	100.0
Employment Status		
Par time	3	1.7
Fully Employed	176	98.3
Total	179	100.0
Source of Funding		
Scholarship	1	0.6
Self-Financed	177	98.9
Family Support	1	0.6
Total	179	100.0

Source: survey result, 2018

From the 179 respondents 115(64.2%) were male and 64(35.8) percent of the respondents were female according to the data number of male in the institution is higher than female. 55.3 % (99) of the respondents were between 30 to 40 years old whereas 34.1%(61) were from 18 to 29 years old. 9.5 %(17) were from 41 to 50 years the remaining 1.1%(2) was above 50. 52.5%(94) of the respondents were Third year student and 47.5%(85) were second year students. 16.8% (30) of respondents were human resource management, 21.8% (39) of respondents were logistics and supply chain management student, 13.4 % (24) of respondents were marketing management students, 48% (86) of respondents were project management students. 1.7% (3) of respondents was part time employed and 98.3% (176) of respondents were fully employed. Regarding with source of funding, 6% (1) of respondent was scholarship, 98.9% (177) of respondents were self-financed and 6% (1) of respondent was family support.

4.3 Descriptive Statistics

4.3.1 Analysis of Quality Dimensions items

To measure the distance education students' perception of the service quality provided by school of commerce, HEDPERF model is used in this study. HEDPERF directly measures the student's perception of service performance and assumes that respondents automatically compare their perception of the service quality levels with their expectations of those services. The model contains 31 questions and a five point likert scale is used to measure the performance. For all the service quality dimensions (Academic aspects, Non-academic aspects, Reputation, Access aspect and Program issues), the mean score have been computed. The table below represents the results.

Academic Aspects

Academic aspects refers to the responsibilities of academics, and it highlights key attributes such as having positive attitude, good communication skill, allowing sufficient consultation, and being able to provide regular feedback to students.

Accordingly the mean value of academic aspect is 4.32 and as it can be seen from the table from the 4 questions asked under academic aspect the highest mean score is obtained on being able to provide regular feedback to students which shows that majority of the respondent's agree that the academic staff have knowledge to answer their questions relating to the course content. The

lowest mean score is obtained in the statement which asks academic staff deal with me in a caring and polite manner.

Table 4.3.1 Mean score for Academic Aspects

	N	Mean
AA1_Academic staff knowledge to answer the question	179	4.51
AA2_Academic staff deal with me in a caring and polite manner	179	3.76
AA3_Academic staff responding to request for assistance	179	4.50
AA4_Academic staff show positive attitude and communicate well in the class room	179	4.49
Academic Aspect	179	4.32

Non-academic Aspects

Non-academic aspects are essential to enable students fulfill their study obligations, and it relates to duties and responsibilities carried out by non-academic staff. Accordingly the mean value of non-academic aspect is 4.104. The highest mean score is obtained on questions NA.2 thus respondents agree that the administration offices keep their records accurately. The lowest mean score is obtained on question NA.3 which asks the opening hours of administrative offices are convenient for me.

Table 4.3.2 Mean score for Non-academic aspects

	N	Mean
NA1_Student questions and complaints are dealt with quickly and effectively	179	3.72
NA2_Administration offices keep accurate and retrievable records of students	179	4.50
NA3_The opening hours of administrative offices are convenient for me	179	3.36
NA4_When I had special request(for ex. add and drop, readmission, grade reporting, grade change and TMA record) administrative office are ready to assist	179	4.49
NA5_The institution provides services within the expected deadlines	179	4.45
Non-academic Aspect	179	4.104

Reputation

Reputation refers to the professional image of institutions. The reputation of a particular university in the eyes of the public and employers is important because it has an effect on the employability of its graduates. Employers will shun institutions that have bad reputations because they associate poor quality with them.

As it can be noted from the below table the mean score of reputation is 4.37 which is the highest from all the service quality dimensions. The highest mean score is obtained on question R4. Here majority of the respondents agree that the institution has a professional image and graduated students are easily employable whereas the lowest mean score is obtained on question R1 which asks the academic facilities and equipment provided by the institution are adequate and necessary.

Table 4.3.3 Mean Score for Reputation Aspects

	N	Mean
R1_The academic facilities and equipment provided by the institution are adequate and necessary	179	4.15
R2_The institution location is ideal, and the layout and appearance of campuses are excellent	179	4.36
R3_The institution runs executes programs of excellent quality	179	4.46
R4_The institution has a professional image and graduated students are easily employable	179	4.49
Reputation	179	4.37

Access Aspects

Access aspect is related to availability, approachability, ease of contact and convenience. Accessibility of the institution in terms of distances, communication channels like telephones and email is important. Students prefer institutions that are close to where they live or which have nearby accommodation and staff who answer their queries promptly.

The mean score of Access aspect is 4.12. The majority of the respondents agree that the staff respect their confidentiality when they disclose information to them and hence the highest mean

score is obtained therein. The lowest mean score is obtained on the question A1 which asks students are treated equally and with respect by the staffs.

Table 4.3.4 Mean Score for Access Aspects

	N	Mean
A1_Students are treated equally and with respect by the staff	179	3.97
A2_The students are free to express their opinions	179	4.01
A3_The staff respect my confidentiality when I disclose information to them	179	4.35
A4_The staff ensure that they are easily contacted by telephone	179	3.99
A5_The institution has a standardized and simple service delivery procedures	179	4.26
Access Aspect	179	4.12

Program Issues

Program issues related to offering wide range of programs or specialization of different quality programs. This factor emphasizes the importance of offering a variety of reputable academic programs in a flexible manner. Students' selection of an institution of higher education is also related to another institution characteristic – the type of programs offered by the institution.

Accordingly a program issue has a mean score of 4.03. The highest contributor for this score is question PI2 where the majority of the respondents agree that the institution provides programs with flexible structures and study plans. The lowest meanscore is obtained on question PI1. The table below depicts the results.

Table 4.3.5 Mean Score for Program Issues

	N	Mean
PI1_The institution provides a wide range of programs with several specialties	179	3.81
PI2_The institution provides programs with flexible structures and study plans	179	4.24
Program Issue	179	4.03

In summary the mean and standard deviation of each service quality dimensions is represented in the table below. The service quality dimension with the highest mean score is reputation aspect 4.37, academic aspect 4.32, followed by access aspects 4.12; nonacademic aspects 4.104, and Program Issue 4.03. With this we can infer that the service provided by Addis Ababa University School of commerce is somewhat satisfactory. This also answers for the first research question.

Table 4.3 6 Mean score and Standard Deviation for Service Quality Dimensions

	Academic aspect	Non-academic aspect	Reputation aspect	Access aspect	Program issues
N Valid	179	179	179	179	179
Missing	0	0	0	0	0
Mean	4.32	4.104	4.37	4.12	4.03
Std. Deviation	.6608	.7670	.6361	.7605	.7122

4.4 Student Satisfaction

As explained in the literature review, Student satisfaction results when actual performance meets or exceeds the student's expectations. Students become satisfied if the performance of the good or service is equivalent to, or even surpasses, the original expectation. Accordingly identifying satisfaction level of student is one interest of this study. The satisfaction level in this study is also categorized and it ranges from strongly disagree, disagree, neutral, agree, and strongly agree.

The table below presents the overall level of student satisfaction.

Table 4.4 Mean and Standard Deviation Score for Student Satisfaction

No	Student Satisfaction	Mean	Mode	SD
1	SS1_I am satisfied with academic aspects of the institution	4.49	4	.512
2	SS2_I am satisfied with non-academic aspects of the institution	3.93	2	.523
3	SS3_I am satisfied with reputation of institution	4.51	4	.544
4	SS4_I am satisfied with the access aspects of institution	4.36	4	.881
5	SS5_I am satisfied with the program issues of institution	3.73	2	.947

Source: surveyresult 2018

Thus, as presented in table 4.4, the mean value is between 3.73 and 4.51 except item number two and five all attribute of frequency showing majority of respondent are somewhat agree with the mode value of 4. Having a higher standard deviation, using the mode value will be more realistic in deterring the most frequently occurring response. Accordingly, the large respondents mean from the sample rated are reputation, academic aspect and access aspects. Additionally, respondent's satisfaction level based on nonacademic aspects and Program issues of institution indicating the higher frequency of answer towards disagree with the mode value of 2.

4.5 Correlation Analysis

To find out the relationship between service quality dimensions and student satisfaction, Pearson's correlation coefficient (r) which measures the strength and direction of a linear relationship between two variables is used. According to Shukran (2003), the relationship is expressed by value within the range -1.00 to + 1.00 as Pearson product-moment indicates. Pearson correlation is +1 in the case of a perfect increasing (positive) linear relationship (correlation), -1 and 1 in all other case indicating the degree of linear dependency between variable.

To interpret the strengths of relationships between variables, the guidelines suggested by Taylor R, (1990), were followed. His classification of the correlation efficient (r) is as follows: ≤ 0.35 is considered to represent low or weak correlation; 0.36 – 0.67 is modest or moderate correlation; 0.68-0.89 is strong or high correlation and a correlation with r coefficient ≥ 0.90 is very high correlation. Again if the correlation result lies between -1 and 0, the two variables are negatively related. However, the result is interpreted and discussed using this criterion in each dimensions.

Table 4.5 Correlations

		ACADEMIC ASPECTS	NONACADEMIC ASPECTS	REPUTATION	ACCESS ASPECT	PROGRAM ISSUE	STUDENT SATISFACTION
ACADEMIC ASPECTS	Pearson Correlation	1	.609**	.834**	.792**	.457**	.817**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	179	179	179	179	179	179
NONACADEMIC ASPECTS	Pearson Correlation	.609**	1	.765**	.534**	.431**	.798**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	179	179	179	179	179	179
REPUTATION	Pearson Correlation	.834**	.765**	1	.785**	.529**	.842**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	179	179	179	179	179	179
ACCESSASPECT	Pearson Correlation	.792**	.534**	.785**	1	.660**	.803**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	179	179	179	179	179	179
PROGRAMISSUE	Pearson Correlation	.457**	.431**	.529**	.660**	1	.780**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	179	179	179	179	179	179
STUDENT SATISFACTION	Pearson Correlation	.817**	.798**	.842**	.803**	.780**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	179	179	179	179	179	179

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Survey results, 2018

From the result we can see that all service quality dimensions have strong correlation with student satisfaction. Reputation ($r=0.842$) followed by Academic aspect ($r=0.817$), the access aspect ($r=0.803$), non-academic aspects ($r=0.798$) and Program issues had ($r=0.780$). When we look at the inter correlation between the service quality dimensions we can see that there is a positive and significant relationship which implies that a change made in one of the service quality dimension will positively motivate the other service quality dimension. Very high inter correlation is between academic aspect and reputation aspect ($r=0.834$) followed by academic aspect and access ($r=0.792$), access aspect and reputation aspects ($r=0.785$), non-academic aspect and reputation aspect ($r=0.765$). Access aspect and Program issue ($r=0.660$), Academic and non-academic aspect ($r=0.609$), non-academic aspect and access aspect ($r=0.534$), reputation and access aspect ($r=0.529$), academic aspect and program issue ($r=0.457$), non-academic aspect and program issue ($r=0.431$) also has modest or moderate correlation.

Accordingly we can conclude that there is a positive relationship between the service quality dimensions and student satisfaction. Hence any improvement in one of the dimensions will positively contribute in enhancing the student satisfaction.

4.6 Multiple Regressions

4.6.1 Test for Linear regression model assumptions

A. Normality Assumption

Normality refers to the shape of a normal distribution of the matrix variable (Robert, 2006). For variables with normal distribution the values of skewness and kurtosis are zero, and any value other than zero indicated deviation from normality (Hair, 2010). According to Hair (2010), the most commonly acceptable criteria value for (kurtosis/skewness) distribution is ± 2.58 . For this study, based on the below graphs, the variables fall within the range.

Table 4.6.1.aSkewness/Kurtosis presentation

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Academic Aspect	179	-2.127	.182	1.633	.361
Non-academic Aspect	179	-1.127	.182	1.406	.361
Reputation	179	-2.255	.182	1.935	.361
Access Aspect	179	-1.917	.182	1.251	.361
Program Issue	179	-1.403	.182	2.391	.361
Valid N (likewise)	179				

Source: survey result, 2018

B. Multicollinearity Assumption

Multicollinearity refers to the situation in which the independent variables are highly correlated. When independent variables are Multicollinearity, there is “overlap” or sharing of predictive power (Dillon, 1993). The Multicollinearity in this study was checked using the Tolerance and VIF value. Tolerance should be more than 0.2 (Menard, 1995). As it is showed in the table 4.6.1ball independent variables have a Tolerance value greater than 0.2 and VIF value less than 10. The VIF, Variance inflation factor, is computed as “1/Tolerance”, and it is suggested that predictor variables whose VIF values are greater than 10 may merit further investigation (Robert, 2006).

Table 4.6.1.b Result for Multicollinearity test

Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
Academic Aspect	.508	1.365
Nonacademic Aspect	.810	2.384
1 Reputation	.481	6.771
Access Aspect	.275	3.639
Program Issue	.543	1.841

a. Dependent Variable: Student Satisfaction

Source: survey result, 2018

4.6.2 Regression Analysis Result

Multiple regressions are the most common and widely used to analyze the relationship between a single continues dependent variable and multiple continues on categorical independent variable George (2003). In this study multiple regression analysis was employed to examine the effect of service quality dimensions on student satisfaction. The following table presents the results of multiple regressions analysis.

Here the squared multiple correlation coefficients (R square) which tells the level of variance in the dependent variable (student satisfaction) that is explained by the model.

Table 4.6.2 a. Model Summary of service quality dimension

Model	R	R Square	AdjustedR Square	Std. Error of the Estimate
1	.967 ^a	.935	.933	.709

a. Predictors: (Constant), Academic aspect, Non-academic aspect, Program issues, Reputation aspect, Access aspect

Source: Survey results, 2018

As it can be depicted from the above table there is a positive and statistically significant relationship between the independent variables (academic aspect, non-academic aspect, Reputation, access and program issues) and the dependent variable (student satisfaction). Thus 93.5 % (R square =.935) variation on student satisfaction is explained by the independent variables or the service quality offered by the institution.

Table 4.6.2b. ANOVA for service quality dimensions and student satisfaction

ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1242.002	5	248.400	494.241	.000 ^b
	Residual	86.948	173	.503		
	Total	1328.950	178			

a. Dependent Variable: Student Satisfaction

b. Predictors: (Constant), Academic aspect, Nonacademic Aspect, Reputation, Access aspect, Program Issue

Source: Survey results, 2018

ANOVA tells overall goodness of fit of the model. F-statistic of the model is 494.241 with significant at the 0.000 level which is quite good and entails that model is a good fit at 1% level of significance.

Table 4.6.2c Coefficients of Regression equation

Model	Coefficients ^a			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
(Constant)	.913	.461		1.979	.049
1 ACADEMICASPECTS	.259	.038	.258	6.807	.000
NONACADEMICASPECTS	.128	.026	.176	4.835	.000
REPUTATION	.612	.042	.384	14.69	.000
ACCESSASPECT	.268	.049	.212	5.416	.000
PROGRAMISSUE	.157	.051	.136	3.100	.002

a. Dependent Variable: Student Satisfaction

Source: Survey results, 2018

The established regression function is:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5$$

$$SS = .913 + 0.259X_1 + 0.128X_2 + 0.612X_3 + 0.268X_4 + 0.157X_5$$

Based on the table 4.6.c, show the standardize beta coefficient, which tell us the unique contribution of each factor to the model. Hypothesis testing is based on standardized coefficients beta with 95% and 99% confidence level to test whether the hypotheses are rejected or not.

Hypothesis 1

Ho1: there is no relationship between academic aspects of service quality dimension and student satisfaction in Addis Ababa University School of commerce distance program

Ha1: academic aspects of service quality dimension are positively related to student satisfaction in Addis Ababa University School of commerce distance program

The results of multiple regressions, as presented in table 4.6.c above, revealed that academic aspects of service quality have a positive and significant effect on student satisfaction with a standardize coefficient beta value, (.258), at 99% confidence level. Therefore, the researcher may reject the null hypothesis. Since academic aspect has a positive and significant effect on student satisfaction.

Hypothesis 2

Ho2: there is no relationship between nonacademic aspects of service quality and student satisfaction in Addis Ababa University School of commerce distance program

Ha2: Nonacademic aspects of service quality are positively related to student satisfaction in Addis Ababa University School of commerce distance program

The results of multiple regressions, as presented in table 4.6.c above, revealed that nonacademic aspects have a positive and significant effect on student satisfaction with a standardize coefficient beta value, (.176), at 99% confidence level. Therefore, the researcher may reject the null hypothesis. Since nonacademic aspects has a positive and significant effect on student satisfaction.

Hypothesis 3

Ho3: there is no relationship between reputation aspects of service quality dimension and student satisfaction in Addis Ababa University School of commerce distance program

Ha3: reputation aspects of service quality dimensions are positively related to student satisfaction in Addis Ababa University School of commerce distance program

The results of multiple regressions, as presented in table 4.6.c above, revealed that reputation aspect have a positive and significant effect on student satisfaction with a standardize coefficient beta value, (.384), at 99% confidence level. Therefore, the researcher may reject the null hypothesis. Since reputation aspects has a positive and significant effect on student satisfaction.

Hypothesis 4

Ho4: there is no relationship between access aspects of service quality dimension and student satisfaction in Addis Ababa University School of commerce distance program

Ha4: Access aspects of service quality dimensions are positively related to student satisfaction in Addis Ababa University School of commerce distance program

The results of multiple regressions, as presented in table 4.6.c above, revealed that access aspect have a positive and significant effect on student satisfaction with a standardize coefficient beta value, (.212), at 99% confidence level. Therefore, the researcher may reject the null hypothesis. Since access aspects has a positive and significant effect on student satisfaction.

Hypothesis 5

Ho5: there is no relationship between Program issue of service quality dimensions and student satisfaction in Addis Ababa University School of commerce distance program

Ha5: Program issue of service quality dimensions are positively related to student satisfaction in Addis Ababa University School of commerce distance program

The results of multiple regressions, as presented in table 4.6.c above, revealed that program issue have a positive and significant effect on student satisfaction with a standardize coefficient beta value, (.136), at 95% confidence level. Therefore, the researcher may reject the null hypothesis. Since program issue has a positive and significant effect on student satisfaction.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATION

Introduction

In this section the summary of findings, conclusions drawn from the findings, the recommendations forwarded for improvement in services delivery process of the university, limitations and implications for further research were presented.

5.1 SUMMARY

The basic interest of this study was to evaluate distance education service quality and student satisfaction the case of Addis Ababa University School of commerce. The 26 service item of the HEDPERF model is used to investigate the relationship between the service quality dimensions and student satisfaction. The data obtained from the respondents was analyzed using various statistical tools. The research was conducted using questionnaire consisting of 191 sample respondent.

The results of background information of respondents indicated that from the total respondents (64.2%) are male and (35.8%) are female. The largest group of respondents age which contains 55.3% was between 30 and 40 while smallest groups are aged above 50 comprises 1.1% of the respondents. This indicates that most of the students in the institution were young people. With regarding to year of study; the largest respondents were third year students 94(52.5%) and the remaining 85(47.5%) were second year students. In terms of department majority of the respondent were project management students 86(48%) and the smallest group of respondent were human resource management students 30(16.8). employment status of respondent were fully employed 176(98.3) and 3(1.7) of respondents were part time employed. Based on the survey result we can understand the reason to learn in distance education could be the working time of the respondents. With regarding to source of funding 177(98.9%) of respondents were self-financed and the remaining 1(0.6%) and the other 1(0.6) of respondents were scholarship and family support.

From the mean result it is observed that students were most satisfied with reputation dimension of service quality followed by academic and access aspects of service quality dimension.

The finding from the correlation result reveals that there is a positive and significant relationship between the service quality dimensions and student satisfaction. Reputation, academic aspect and access are relatively found to have the highest correlation with student satisfaction than all other and the findings from the inter correlation indicates that the highest relationship is found among academic and nonacademic, reputation and academic aspect.

The results of the mean score and standard deviation of student satisfaction also indicated that, students were more satisfied with the reputation, academic and access dimensions of service quality. However, the result indicates that, students were not satisfied with the non-academic aspects and program issue of the institution.

The multiple regression results showed that, service quality dimensions (academic aspect, non-academic aspect, reputation, access aspect and program issue) have positive and significant effect on distance education student satisfaction

All service quality dimensions have significant effect on school of commerce distance education students and also Standardized Coefficients .384, .258 and .212 indicating that reputation, academic and access aspects has the highest effect on school of commerce distance education post graduate second and third year student.

From the R square value it is depicted that 93.5% of variation in student satisfaction is explained by the service quality dimensions.

5.2 Conclusion

The objective of this study is to evaluate distance education service quality and student satisfaction. On the base of the analysis given in the previous chapter the following conclusion is drawn.

As per mean score value respondents are most satisfied with reputation, and followed by academic aspect. Students are relatively less satisfied with nonacademic aspect and program issue. The mean score of service quality that is an average of overall service quality dimensions indicate that most of students are agree that the institution have delivered best quality service to satisfy their needs.

From the Pearson's correlation result it is indicated that there is a positive and significant relationship between the service quality dimensions and student satisfaction. Accordingly reputation is found to have the highest correlation with student satisfaction.

Reputation is ideal location with excellent campus layout and appearance, offers highly reputable program, provides adequate academic facilities and equipment, and graduates are easily employable. It relates to professional image of institution. Moreover reputation has the highest beta value on the regression model and is the dominant service quality dimensions with the highest impact on student satisfaction. The descriptive analysis also confirmed that reputation has a mean value of 4.37 which implies that second and third year distance student of school of commerce are satisfied with the reputation dimension of service quality and the institution continue to maintain it in the future.

The results suggest that all hypothesized relationships receive support from the empirical data. After the analysis of the survey, it can be concluded that variables of HEDPERF measurement tool have significant correlation with satisfaction feelings with SERVQUAL of distance education student in Addis Ababa University School of Commerce.

5.3 Recommendation

For improving quality service, Based on the findings and conclusions of the study, the researcher forwards the following recommendations to School of commerce.

- In this study Reputation aspect is the dominant service quality dimension which has a highest positive correlation with student satisfaction. Therefore, university management should works on the indicator of this dimension such as maintain Professional appearance/image of institution, provide high internal quality programmes, improves ideal campus location/layout and fulfill all academic facilities.
- The university should focus more on non-academic and program issue of service quality variables. In the research, mentioned variables had the lowest score. Accordingly, need for improvement in terms of these dimensions is required. Such as factors as “opening hour of administrative office should be change in order to fulfill the need of distance students”, “Student questions and complaints are dealt with quickly and effectively” “provides services within the expected deadlines”, wide range of programs with various specializations” and “flexible syllabus and structure should be improved. These are points where the university should focus to raise the level of students’ satisfaction. The institution should also realize that the improvement of this dimension would enhance student satisfaction

- According to most theoretical and empirical works the most important determinant of the student satisfaction is service quality. Hence, the provision of high quality services in all service quality dimensions must be the main objective of the institution.
- The mean score of student satisfaction showed that nonacademic aspect and program issue had low mean score and most of students are disagree with the mode value of 2. Therefore the institution should exert its maximum effort to change this result for students.
- As the service quality dimensions represent 93.5% of the variation in student satisfaction the institution should work on all the service quality dimensions to improve and maintain its student satisfaction.

5.4 Limitations of Study and Future Research Directions

This research adopted questionnaire consisting from 31 questions, out of these 6 questions are demographic variables

First, this research is conducted in Addis Ababa University School of commerce; future researches can be conducted in other higher education institutions.

Second, study was specific and was conducted in second and third year students; future studies can examine on first year students and other faculties of Addis Ababa University.

Third, study is focused on post-graduate distance education students. Future research may choose another sample population, for example, undergraduate students. Future research can mix both samples or to compare them and examine if findings will be different from results of this research.

Fourth, in future research, other variables of SERVQUAL that might impact on student satisfaction can be added. This research is focused on investigation service quality satisfaction from graduate students' point of view.

This questionnaire were prepared in English, therefore future researchers can also conduct their survey in other languages that might provide higher level of understanding from respondents and better measurement equivalency.

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APPENDICES

Appendix I: List of Distance Graduate Students

COLLAGE/FACULTY Department	Year II			Year III			Total		
	F	M	T	F	M	T	F	M	T
Masters of Art degree in Project management	29	41	70	15	50	65	44	91	135
Masters of Art degree in Human resource management	27	19	46	3	11	14	30	30	60
Masters of Art degree in Logistics and supply chain management	8	26	34	5	31	36	13	57	70
Masters of Art degree in Marketing management	18	27	45	11	24	35	29	51	80
Masters of Art degree in Logistics and supply chain management(Ministry of Trade)	0	0	0	3	7	10	3	7	10
Masters of Art degree in Logistics and supply chain management(Ministry of Trade)	0	0	0	2	9	11	2	9	11
GRAND TOTAL	82	113	195	39	132	171	121	245	366

Appendix II

A questionnaire on Student satisfaction survey

Dear Respondents,

I am a final-year post graduate student of AddisAbaba University School of commerce. I am currently conducting my data collection formy research project entitled ‘’ **Evaluating Distance Education Services Quality and Students Satisfaction: The Case of Addis Ababa University, School of Commerce**’’.

I kindly request you to spend some minutes of your time in filling the questionnaire. Anyinformation which you provide will be kept confidential. Your genuine response is highlyappreciated for the outcome of the project.

Part-I: General information

Direction: Please put a check mark [√] on the appropriate box

- | | | | |
|----------------------|---|---|--|
| 1. Gender | Female ☐ | Male ☐ | |
| 2. Age | 18-29 ☐ | 30-40 ☐ | 41-50 ☐ above 50 ☐ |
| 3. Year of the study | | 2nd Year ☐ | 3rd Year ☐ |
| 4. Department | Human Resource Management | ☐ | |
| | Logistic &Supply chain Management | ☐ | |
| | Marketing Management | ☐ | |
| | Project Management | ☐ | |
| 5. Employment status | Part-time employed ☐ | Unemployed ☐ | |
| | Fully employed ☐ | Others (please specify) _____ | |
| 6. Source of funding | Scholarship ☐ | Family Support ☐ | |
| | Self-financed ☐ | Others (please specify)____ | |

Part II: Survey on Service Quality Items

Direction: This part of the questionnaire intends to find your perception towards the service quality of School of commerce. Please tick the number that you feel most appropriate, using the scale from 1 to 5 (Where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree).

S.No	Service Quality Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
AA1.	Academic staff have the knowledge to answer my questions relating to the course content					
AA2.	Academic staff deal with me in a caring and polite manner					
AA3.	Academic staff are never too busy to respond to my requests for assistance					
AA4.	Academic staff show positive attitude towards students and communicate well in the classroom					
NA5.	Student questions and complaints are dealt with quickly and effectively					
NA6.	Administration offices keep accurate and retrievable records of students					
NA7.	The opening hours of administrative offices are convenient for me					
NA8.	When I had special request(for ex. add and drop, readmission, grade reporting, grade change and TMA record) administrative office are ready to assist					
NA9.	The institution provides services within the expected deadlines					
R10.	The academic facilities and equipment provided by the institution are adequate and necessary					
R11	the institution location is ideal, and the layout and appearance of campuses are excellent					
R12	The institution runs executes programs of excellent quality					
R13	The institution has a professional image and graduated students are easily employable					

S.No	Service Quality Dimensions	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
		1	2	3	4	5
A14	students are treated equally and with respect by the staff					
A15	The students are free to express their opinions					
A16	The staff respect my confidentiality when I disclose information to them					
A17	The staff ensure that they are easily contacted by telephone					
A18	The institution has a standardized and simple service delivery procedures					
PI19	The institution provides a wide range of programs with several specialties					
PI20	The institution provides programs with flexible structures and study plans					

Part III: Level of Student Satisfaction

Please tick [√]the appropriate box for your answers and rank each statement as follows:

1= strongly disagree; 2= disagree; 3=neutral; 4=agree; 5= strongly agree

S.No	Determinants	Student satisfaction				
		1	2	3	4	5
SS1	I am satisfied with academic aspects of the institution					
SS2	I am satisfied with non-academic aspects of the institution					
SS3	I am satisfied with reputation of institution					
SS4	I am satisfied with the access aspects of institution					
SS5	I am satisfied with the program issues of institution					

Thank You for Taking Your Time To Fill This Questionnaire!!!.

Appendix III: SPSS DATA OUTPUTS

Mean score for Academic Aspects

	N	Mean
AA1_Academic staff knowledge to answer the question	179	4.51
AA2_Academic staff deal with me in a caring and polite manner	179	3.76
AA3_Academic staff Responding to request for assistance	179	4.50
AA4_Academic staff show positive attitude and communicate well in the class room	179	4.49
Academic Aspect	179	4.32

Mean score for Non-academic aspects

	N	Mean
NA1_Student questions and complaints are dealt with quickly and effectively	179	3.72
NA2_Administration offices keep accurate and retrievable records of students	179	4.50
NA3_The opening hours of administrative offices are convenient for me	179	3.36
NA4_When I had special request(for ex. add and drop, readmission, grade reporting, grade change and TMA record) administrative office are ready to assist	179	4.49
NA5_The institution provides services within the expected deadlines	179	4.45
Non-academic Aspect	179	4.10

Mean Score for Reputation Aspects

	N	Mean
R1_The academic facilities and equipment provided by the institution are adequate and necessary	179	4.15
R2_The institution location is ideal, and the layout and appearance of campuses are excellent	179	4.36
R3_The institution runs executes programs of excellent quality	179	4.46
R4_The institution has a professional image and graduated students are easily employable	179	4.49
Reputation	179	4.37

Mean Score for Access Aspects

	N	Mean
A1_Students are treated equally and with respect by the staff	179	3.97
A2_The students are free to express their opinions	179	4.01
A3_The staff respect my confidentiality when I disclose information to them	179	4.35
A4_The staff ensure that they are easily contacted by telephone	179	3.99
A5_The institution has a standardized and simple service delivery procedures	179	4.26
Access Aspect	179	4.12

Mean Score for Program Issues

	N	Mean
PI1_The institution provides a wide range of programs with several specialties	179	3.81
PI2_The institution provides programs with flexible structures and study plans	179	4.24
Program Issue	179	4.03

Mean score and Standard Deviation for Service Quality Dimensions

	Academic aspect	Non-academic aspect	Reputation aspect	Access aspect	Program issues
N Valid	179	179	179	179	179
N Missing	0	0	0	0	0
Mean	4.32	4.104	4.37	4.12	4.03
Std. Deviation	.6608	.7670	.6361	.7605	.7122

Mean and Standard Deviation Score for Student Satisfaction

No	Student Satisfaction	Mean	Mode	SD
1	SS1_I am satisfied with academic aspects of the institution	4.49	4	.512
2	SS2_I am satisfied with non-academic aspects of the institution	3.93	2	.523
3	SS3_I am satisfied with reputation of institution	4.51	4	.544
4	SS4_I am satisfied with the access aspects of institution	4.36	4	.881
5	SS5_I am satisfied with the program issues of institution	3.73	2	.947

		ACADEMIC ASPECTS	NONACADEMIC ASPECTS	REPUTATION	ACCESS ASPECT	PROGRAM ISSUE	STUDENT SATISFACTION
ACADEMIC ASPECTS	Pearson	1	.609**	.834**	.792**	.457**	.817**
	Correlation						
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	179	179	179	179	179	179
NONACADEMIC ASPECTS	Pearson	.609**	1	.765**	.534**	.431**	.798**
	Correlation						
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	179	179	179	179	179	179
REPUTATION	Pearson	.834**	.765**	1	.785**	.529**	.842**
	Correlation						
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	179	179	179	179	179	179
ACCESSASPECT	Pearson	.792**	.534**	.785**	1	.660**	.803**
	Correlation						
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	179	179	179	179	179	179
PROGRAMISSUE	Pearson	.457**	.431**	.529**	.660**	1	.780**
	Correlation						
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	179	179	179	179	179	179
STUDENT SATISFACTION	Pearson	.817**	.798**	.842**	.803**	.780**	1
	Correlation						
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	179	179	179	179	179	179

** . Correlation is significant at the 0.01 level (2-tailed).

CRONBACH'S ALPHA

Academic aspect

Reliability Statistics

Cronbach's Alpha	N of Items
.782	4

Reputation

Reliability Statistics

Cronbach's Alpha	N of Items
.719	4

Non-academic aspect

Reliability Statistics

Cronbach's Alpha	N of Items
.803	5

Access aspect

Reliability statistics

Cronbach's Alpha	N of Items
.806	5

Student Satisfaction

Reliability Statistics

Cronbach's Alpha	N of Items
.830	5

program Issues

Reliability Statistics

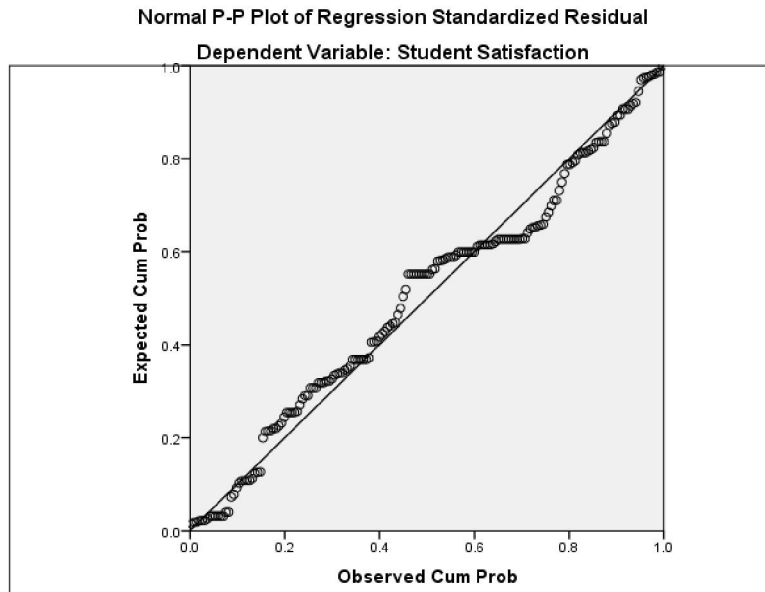
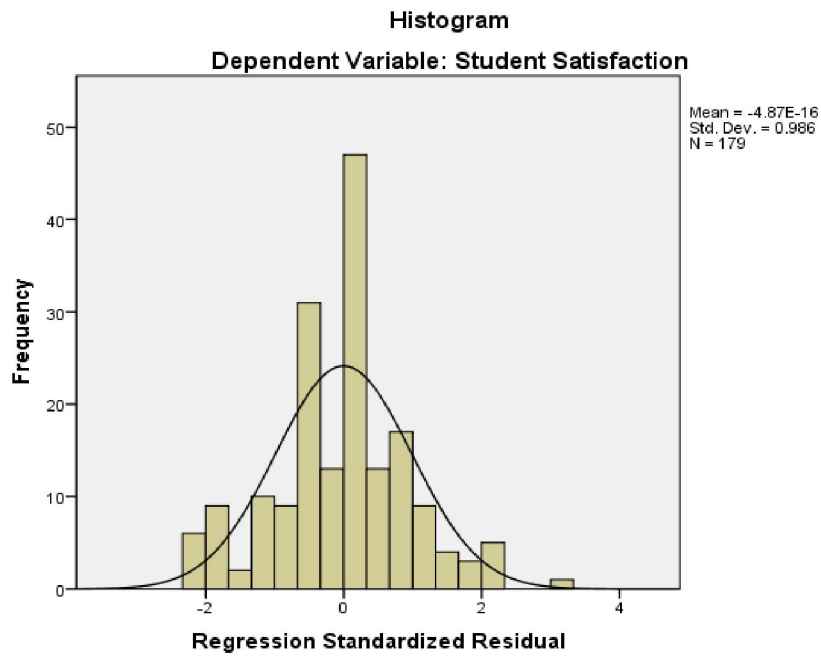
Cronbach's Alpha	N of Items
.787	2

All service Quality items

Reliability Statistics

Cronbach's Alpha	N of Items
.880	5

Normality assumption



Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.967 ^a	.935	.933	.709

- a. Predictors: (Constant), Academic aspect, Non-academic aspect, Program issues, Reputation aspect, Access aspect

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	1242.002	5	248.400	494.241	.000 ^b
Residual	86.948	173	.503		
Total	1328.950	178			

- a. dependent Variable: Student Satisfaction
- b. Predictors: (Constant), Academic aspect, Nonacademic Aspect, Reputation, Access aspect, Program Issue

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.913	.461		1.979	.049
ACADEMICASPECTS	.259	.038	.258	6.807	.000
NONACADEMICASPECTS	.128	.026	.176	4.835	.000
REPUTATION	.612	.042	.384	14.69	.000
ACCESSASPECT	.268	.049	.212	5.416	.000
PROGRAMISSUE	.157	.051	.136	3.100	.002

- a. Dependent Variable: Student Satisfaction