

PROVISION OF QUALITY SERVICE IN ETHIOPIAN PUBLIC UNIVERSITIES AND STUDENTS' SATISFACTION: INSIGHTS FROM ARBA MINCH UNIVERSITY

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ABSTRACT

The present study examines the link between service quality and students' satisfaction at Arba Minch University (hereinafter AMU). To this end, the study used quantitative correlational design with adapted questionnaire as the main data gathering tool. The collected data were analyzed using descriptive statistics and inferential statistics. The findings reveal that there is a statistically significant, moderate and positive correlation between educational service quality and students' satisfaction ($r=.623$) and five dimensions of service quality explained 41% percent of the variations in students' satisfaction. The quantitative data further uncovered that among five facets of service quality, viz., core educational quality, support facilities and transformative quality make strongest effect on students' satisfaction. Whist administrative quality and physical environment make moderate effect on students' satisfaction. Finally, based these findings, recommendations were forwarded to improve students' learning.

Keywords: Higher Education; Quality Education; Service Quality; Satisfaction; Performance

1. INTRODUCTION

Higher education institution (HEI) is a decisive factor to determine socio-economic growth and development of a given nation (Hasbullah & Yusoff, 2017; Đonlagić & Fazlić, 2015; Annamdevula & Bellamkonda, 2012; Teshome, 2004). Thus, most countries mainly invest in higher education to build a stronger society, end extreme poverty and boost shared prosperity (World Bank, 2017). Although Ethiopia possesses a 1,700-year tradition of elite education that linked to the Orthodox Church, secular higher education was initiated in 1950 (Saint, 2004). Yet, in the last fifteen years, there have been a significant expansion in the number of universities in different parts of the country (Kedir, 2009; Mulu, 2012). Currently, there are 49 government (including Ethiopian Civil Service University, Kotebe Metropolitan University and Oromia State University) and 128 accredited non-government HEIs (MoE, 2018).

The rapid expansion of higher education in the country has brought improved access to a significant number of students to pursue their education via extension, summer and private programs and diversified fields of the study (Kedir, 2009; Teshome, 2007). This expansion, however, characterized by great opportunities and significant challenges (Alemayehu & Solomon, 2017). One of the major challenges in Ethiopian higher education is the quality of its education. In connection to this, Teshome (2003) indicates that "the question of quality in education in developing countries has been neglected for the last few decades, particularly in Ethiopia" (p.5). Saint (2004) additionally points out that Ethiopian HEIs face a number of problems that related to the quality, relevance of programs and shortage and inefficient utilization of resources. Nonetheless, one of important determinants of national competitiveness is the quality of higher education. In addition, as indicated by Malik, Danish & Usman (2010) quality of education is an important factor to attract and retain the students who want to get higher education. This quality comes from the combination of excellent learning process and stakeholders' satisfaction on the service delivered (Hanaysha, Abdullah & Warokka, 2011).

Students' satisfaction in higher education can be seen and defined in different ways based on the nature of research and focus because the formation of student satisfaction is multi-dimensional process that influenced by many factors (Hanssen & Solvoll, n.d). In this study, students' satisfaction was examined from educational service quality. Weerasinghe & Fernando (2017) defined students' satisfaction as a short-term attitude resulting from an evaluation of students' educational experience, services and facilities.

In higher education sector, the research that has been conducted with regard to service quality is new as compared to commercial or business sector (Sultan & Wong, 2012) because of the complexity of defining quality service. Even though defining and measuring the quality service in HEIs is complex and debatable issue (Kontic, 2014; Khodayari & Khodayari, 2011; Đonlagić & Fazlić, 2015), it is well recognized that "universities are increasingly finding themselves in an environment that is conducive to understanding the role and importance of service quality" (Shank et al., 1995, p. 72 as cited Brochado, 2009). Therefore, HEIs need to concentrate their attention on what the students feel is important in delivering the service (Diedericks, 2012).

In the literature, many past studies have been conducted on the issues related to quality service (e.g., Al-dulaimi, 2017; Cerri, 2012; Adinegara & Putra, 2016; Donglagic & Fazlic, 2015) and ways of measuring service quality (e.g., Abdullah, 2006; Annamdevula & Bellamkonda, 2012; Teeroovengadam, Kamalanbhan & Seedbaluk, 2015) in higher education context. On the other hand, large amount of studies have been conducted to investigate the link between higher education service quality and customer satisfaction by considering students as a primary customer or stakeholders of educational organization. For example, the study conducted by Baniya (2016) in Nepal; Hanaysha, Abdullah & Warokka (2011) in Malaysia; Kara, Tanui & Kalai (2016) in Kenya and Kundi, Khan, Quereshi, Khan & Akhatar (2014) in Pakistan found significant and positive correlation between facets of service quality and students' satisfaction. However, most of these studies are conducted in abroad even though there are substantial amount of local studies have been conducted on quality education in Ethiopian higher education. This paper is; therefore, aimed to examine the relationship between provision of quality service and students' satisfaction at Arba Minch University (AMU).

2. PROBLEM STATEMENT

Nowadays, higher education is considered as a service industry and highly influenced by globalization, internationalization, massification and privatization. This has increased competition among HEIs to adopt market-oriented strategies to differentiate their products (i.e. academic and administrative services) from their competitors and attract competent students from both domestic and foreign countries by delivering superior and student oriented services (Truong, 2016; Chandra, Ng, Chandra & Priyono, 2018; Weerasinghe & Fernando, 2017; Temizer & Turkyilmaz 2012). Hence, to remain successful and competitive in a global world, provision of quality service is key to the satisfaction of customers and success of an institution because the future HEI is highly depend on their ability to attract and retain students, increase recognition and prestige (Diedericks, 2012; Chui, Ahmad, Bassim & Zaimid, 2016; Min & Khoo, 2013; Fatima & Odete, 2012).

In the educational institutions, there are many stakeholders that ranging from internal to external to the organization like students, parents, employers, employees, government, public sector, wider community and so forth. Among these, students are considered as one of the most important primary stakeholders or customers of educational institution and direct recipients of the service provided and involve in the educational process (Khan, et al., 2011; Brochado, 2009). Furthermore, students are also bridge the relationship between academic institutions and other stakeholders like parents, employers, society and satisfaction of all these stakeholders is dependent on the satisfaction of students (Khan, et al., 2011). And hence, students' needs, demands and interests play an important role in evaluation of provision of educational quality service in higher education (Annamdevula & Bellamkonda, 2012).

Even though service quality has attracted considerable attention within the tertiary education sector, little work has been concentrated on identifying its determinants from the standpoint of students being the primary customers (Abdullah, 2006a). Since the perceived quality service by students changes rapidly due to new technologies, techniques, skills and knowledge needed in the field of studies, HEIs should need to know students' needs and expectations to pinpoint their strengths and identify areas for improvement (Chui, et al., 2015; Onditi & Wechuli, 2017; MoAE, 2003). Furthermore, defining and measuring service quality is vital to establish clear customer-oriented standards and creating benchmarks for comparing service quality in both public and private universities (Cerri, 2012).

As stated in Teshome (2004) and Saint (2004) Ethiopian higher education is not well developed and faces many challenges that associated with the quality and relevance of programs, equity, resource constraints and inefficient resource utilization. In recognizing these challenges, various quality improvement initiatives and reform programs (for example, establishment of Higher Education Relevance and Quality Agency (HERQA), Higher Education Strategic Centre (HESC), Educational Quality Improvement Program (EQUIP), implementation of BPR (Business Process Re-engineering, introducing new courses and curricula, making new funding arrangements, acquiring student contributions by means of cost sharing, building the necessary infrastructure, recruiting new staff, developing and procuring teaching materials) have been implemented (Ayalew, Dawit, Tesfaye & Yalew, 2009; Saint, 2004; Teshome, 2003).

According to recent studies (for example, the empirical study conducted by ministry of education in collaboration with educational professionals), however, confirmed that the activities carried out to improve Ethiopian quality education have brought little positive impact on the quality of HEIs core educational processes or teaching and learning (MoE, 2018). The study further indicated that most Ethiopian universities are confronted with insufficient supplies of text and reference books, laboratory and workshops equipment; and access to ICT facilities (p.49). Additionally, Solomon (2012) pointed out that the rapid expansion of HEIs with

severely limited resources has affected the overall quality of educational activities. Likewise, the study conducted by Alemayehu & Solomon (2017) found that the expansion of higher education was challenged with educational service quality like absence of adequate classrooms, laboratories, dormitories, dining rooms and other facilities.

Institutions that release well-suited students into the job market assumed better quality than those that do not. Hence, success in students' learning is associated with provision of better-quality service (Alotaibi, 2010). The work of Ahmed et al. (2010) also found that students' satisfaction and motivation on provision of better-quality service positively is coupled with students' learning outcomes. Moreover, highly satisfied students on quality service are expected to spread a positive word of mouth about the institutions, retain or persist in the university and graduate, reenroll for more courses, loyal to the chosen institutions and attract new applicants with lower marketing costs (Hanaysha et al., 2012; Ong, 2013; Al-sheeb, Hamouda & Abdella, 2018). But students who are dissatisfied on service delivery may cut back on the number of courses, withdraw or drop out from institution, re-enroll at another university and pass negative comments to their friends or relatives that affect the university's enrolment and retention of students (Ong, 2013).

In the literature, a substantial amount of studies have been conducted on service quality and customer satisfaction in service organizations like banks, hotels (eg., Dawit & Adem, 2018; Aftab, Sarwar, Sultan & Qadeer, 2016) and educational organizations (eg., Kara, Tanui & Kalai, 2016; Soni, 2015). However, most Ethiopian studies focused on stakeholders' perception on service quality (eg., Solomon, 2012; Solomon, Niekerk & Jansen, 2014), determinants of higher education students' satisfaction by focusing on delivery of service quality (e.g., Dawit & Nesredin, 2017; Dawit, Getachew & Ashenafi, 2017) and the other related studies investigated the issue of quality and quality assurance in Ethiopian higher institutions (eg., Mulu, 2017; Abebe, 2015; Tesfaye & Kassahun, 2009; Tesfaye, n.d; Tefera, 2014). Thus, little attention has been given to provision of service quality and students' satisfaction in Ethiopian HEIs. The main purpose of this study is to fill this research gaps in examining the relationship between provision of quality service and students' satisfaction at AMU. The intention of this study is to seek answer for the following four basic research questions.

1. What is the relationship between provision of quality service and students' satisfaction?
2. Which dimensions of quality service is highly correlated with students' satisfaction?
3. To what extent do provision facets of quality service affect students' satisfaction?

3. PURPOSE OF THE STUDY

The main purpose of this study is to examine the nexus between provision of quality service and students' satisfaction at AMU and the specific objectives are to address the basic research questions that included in the study.

4. RESEARCH DESIGN AND METHODOLOGY

4.1 Research Design

In the study, quantitative correlational design was used to determine whether and to what degree relation exists between provision of service quality and students' satisfaction and to make predictions based on existing relations (Gay & Mills, 2012). In addition, prior studies, for example, exploring a related research problem in higher education in Pakistan (Khan, Ahmed & Nawaz, 2011), Zambia (Mwiya, et al., 2017) and Portugal (Brochado, 2009) have used similar approach were successful.

4.2 Total Population and Sampling Techniques

Both purposive and random sampling technique was employed. Purposive sampling technique was employed to collect qualitative data from students, instructors, department heads and college deans who believed have rich information with regard to the study. However, to gather quantitative data from students, random sampling technique was employed.

In the AMU, there are a total population of 18,071 (11,400 male and 6,671 female) undergraduate regular students in the five colleges, two institutes and three schools. Among these regular undergraduate students, third year regular students were targeted because they had been at the university for more than 2 years and assumed that they had more experience with the quality of various services provided by the university. Additionally, most third year students are awaiting for graduation forces them to consider whether to start looking for employment or pursue further studies and at which university except medicine, technology and law students.

Therefore, from the total of 4,227 (2,611 male and 1,616 female) third year regular students, the minimum required representative sample size students were selected randomly at confidence level of 95% and margin of error of 5% based on Yamane's (1967) formula: $n = \frac{N}{[1+N(e)^2]}$. Where, n=sample size, N= total population, e=level of precision. Thus, $n = \frac{4227}{[1+4227(0.05)^2]} = 365$. Of these, 227 were male students and the remaining 138 were female ones.

In addition, to take again a representative sample from each college, department and sex proportionate stratified sampling technique was employed that used to classify the population depending upon their known characteristics and randomly take the sample from each stratum (Haque, n.d).

4.3 Data Gathering Instruments

The data for the study was collected via standardized questionnaire. Two sets of standardized questionnaires were adapted to survey service quality and students' satisfaction. The service quality of the university was assessed using adapted higher education service quality (HESQUAL) questionnaire that developed in the higher education context by Teeroovengadum, Kamalanabhan, & Seebaluck (2016). However, minimum word adaptations were made to adjust sentence structure. It consists five major and nine sub dimensions of service quality and included a total of 48 items. On the other hand, students' satisfaction was examined by using three dimensions questionnaire (overall students' satisfaction, the behavioral intentions of loyalty and the likelihood of spreading positive word of mouth about the institution) that adapted from Mwiya, et al. (2017) study.

The questionnaire has three sections. The first part of the questionnaire assesses respondents' demographics. The second and third part of the questionnaire survey provision of quality service and students' satisfaction. Both service quality and students' satisfaction items' response options were gauged in a five-point Likert scale that ranging from 1=strongly disagree to 5=strongly agree.

Before formal dissemination of the questionnaire, the instrument's reliability and validity was checked. To check the face validity of the questionnaire, I invited three colleagues from AMU, School of Pedagogical and Behavioral Sciences (SPBS), who did their M.A Degree in Educational Measurement and Evaluation and other related fields. They reviewed the face validity of the questionnaire separately and jointly and reported the questionnaire as valid.

Moreover, to check whether the questionnaire is reliable, I conducted pilot study on forty (40) non-sampled third regular students at AMU, Sawla Campus. Then, major dimensions of the HESQUAL such as administrative quality, physical environment quality, core educational quality, support facilities and transformative quality and the total reliability indices were computed at Cronbach's alpha. In addition, the total of six students' overall satisfaction items were also computed at Cronbach's alpha. The reliability results of HESQUAL and students' satisfaction were judged according to George & Mallery (2003) rules of digit: > 0.90 = Excellent, 0.80 - 0.89 = Good, 0.70 - 0.79 = Acceptable, 0.60 - 0.69 = Questionable, 0.50 - 0.59 = Poor, < 0.50 = Unacceptable. The following table 4.3.1& 4.3.2 summarizes the reliability results of the main facets of the HESQUAL and students' overall satisfaction.

Table 4.3.1 Reliability Results of Higher Education Service Quality (N=40)

Major Dimensions	N0. of Items	Deleted Items	Cronbach's \Alpha Result	Leveled as George & Mallery
Administrative Quality	7	None	.823	Excellent
Physical Environment Quality	10	None	.839	Excellent
Core Educational Quality	17	None	.922	Excellent
Support Facilities	6	None	.808	Excellent
Transformative Quality	8	None	.836	Excellent
Total Number of Items	48	None	-	-
Total Alpha Result	-	None	.954	Excellent
Overall Satisfaction	6	None	.731	Acceptable

Note: Cronbach's alpha result of five major service quality variables

The above table 4.3.1 shows Cronbach's alpha result of five service quality questionnaire constructs. As we can see from the table, all HESQUAL constructs including total alpha result yielded excellent Cronbach's alpha result. Thus, the result indicates the instrument as reliable. On the other hand, the computed reliability results of students' overall satisfaction is .731 and which indicates the instrument as acceptable.

4.4 Data Gathering Procedures

Permission to conduct the data was sought from the academic vice president of AMU. Afterwards, data gathering process was conducted turn by turn with study participants. With the help of university instructors and class representatives, the questionnaire was administered to 365 randomly selected third year regular students in their classrooms in five colleges, two institutes and three schools. Before administering the questionnaire, clear orientation was given on the purpose of the study, how to fill the questionnaire and other related issues. Then, all administered questionnaire was properly filled and collected by me and additional facilitators of the study.

4.5 Data Analysis Method

In the study, both quantitative and qualitative data analysis was employed. With the help of SPSS v.20, descriptive and inferential statistics was employed to analyze the quantitative data. Descriptive statistics such as frequency and percentage was used to describe respondents' demographic characteristics and Pearson's correlation coefficient was used to examine the relation between provision of quality service and students' satisfaction. The strength and direction of correlation coefficient or r value was judged according to Gay's & Mills's (2012) range: between +0.35 and -0.35 = weak or none, between +0.35 and +0.65 or between -0.35 and -0.65 = moderate, between +0.65 and +1.00 or between -1.00 and -0.65 = strong. Finally, multiple linear regression was employed to predict their relationship.

5. ANALYSIS AND DISCUSSION OF RESULTS

5.1 Respondents' Demographic Characteristics

In the first part of questionnaire, the respondents were asked about their general background information. This information includes sex, age, program division, year of entry, college/institute/school, department, university choice, whether they are transferred from another institution or whether they are planning to transfer to another institution and current semester cumulative grade point average (CGPA). The following table 5.1.1 indicates the response obtained from the study subjects.

Regarding study participants' program division and year of entry, all of them 365 (100%) were third year regular undergraduate students and enrolled in the university since 2009E.C. Among five colleges, two institutes and three schools, many participants were from 78 (21.1%) AMIT, 63(17%) CBE, 60(16.2%) CNCS, 48(13%) CSSH and followed by 42(11.4%) AWIT and few of them were from 5(1.4%) SL, 7(1.9) SM, 8(2.2) SPBS, 24(6.5%) CMHS and 30 (8.1%) CAS. From this information we can notice that, there were technology, medicine and law faculty students who complete their undergraduate education in more than three consecutive years.

With regard to university choice, from the total of 365 randomly sampled students, AMU was third or lower choice for 167(45.1%), first choice 124(33.5%) and second choice 74(20%). This information indicates that AMU university was third or lower choice for many study participants. On the other hand, majority of participants 331(89.5%) were not transferred from another institution, whereas very few of them 34(9.2%) were transferred from another institution.

Concerning participants' plan to transfer to another institution, many participants 224(65.9%) were not want to transfer to another institution and the remaining 121 (32.7%) were planning to transfer to another institution. This information reveals that some study participants have planned to transfer to another institution though many subjects have no intention to transfer to another institution. Finally, regarding study subjects' current semester CGPA, majority 126(34.1%) were in between 2.5-2.99, 114(30.8) were in between 3.00-3.49 and followed by 76(20.6%) were in between 2.00-2.49 and few of them 49 (13.2%) were in between 3.5 and above. From this information, we can understand that students' academic performance is good even though top achiever students are minimal in number.

Table 5.1.1 Respondents' Demographic Characteristics (N=365)

Demographic	Category	(F)	(%)	Valid (%)	Cumulative (%)
Sex	Male	227	61.4	62.2	62.2
	Female	138	37.3	37.8	100
	Total	365	98.6	100	
Age	25 & below	325	87.8	89	89
	26-30	40	10.8	11	100
	Total	365	98.6	100	
Program Division	Regular	365	98.6	100	100
	Total	365	98.6	100	
Year of Entry	2009E.C	357	96.5	97.8	97.8
	2008E.C or lower	8	2.2	2.2	100
	Total	365	98.6	100	
College/Institute/ School	AWIT	42	11.4	11.5	11.5
	AMIT	78	21.1	21.4	32.9
	CAS	30	8.1	8.2	41.1
	CMHS	24	6.5	6.6	47.7
	CNCS	60	16.2	16.4	64.1
	CSSH	48	13	13.2	77.3
	CBE	63	17	17.3	94.5
	SL	5	1.4	1.4	95.9
	SM	7	1.9	1.9	97.8
	SPBS	8	2.2	2.2	100
Total	365	98.6	100		
When I entered this institution, it was my:	First Choice	124	33.5	34	34
	Second Choice	74	20	20.3	54.2
	Third Choice	167	45.1	45.8	100
	Total	365	98.6	100	
Did you transfer to this institution from another institution?	Yes	34	9.2	9.3	9.3
	No	331	89.5	90.7	100
	Total	365	98.6	100	
Did you plan to transfer to another institution?	Yes	121	32.7	33.2	33.2
	No	244	65.9	66.8	100
	Total	365	98.6	100	
Current Semester CGPA	2.00-2.49	76	20.6	20.8	20.11
	2.5-2.99	126	34.1	34.5	55.3
	3.00-3.49	114	30.8	31.2	86.6
	3.5 and above	49	13.2	13.4	100
	Total	365	98.6	100	

Note: AWIT=Arba Minch Water Institute Technology; AMIT=Arba Minch Institute of Technology; CAS=College of Agricultural Sciences; CMHS=College of Medicine and Health Sciences; CNCS=College of Natural and Computational Sciences; CSSH=College of Social Sciences and Humanities; CBE=College of Business and Economics; SL=School of Law; SM=School of Medicine; SPBS=School of Pedagogical and Behavioral Sciences

The result of the above table 5.1.1 presents the demographic characteristics of respondents. There were 227 (64.1%) male respondents and the rest 138 (37.3%) were female participants. Concerning subjects' age composition, majority of them were in between 25 and below years old 325 (87.8%) and few of them were in between 26-30 years old 40 (10.8%). This finding reveals that many study participants were adults and matured enough to fill the questionnaire.

5.2 Correlation Between Overall Service Quality and Students' Satisfaction

This part is intended to answer the first research question that describes the major purpose of this study and read as "what is the relationship between provision of quality service and students' satisfaction?". The following table 5.2.1 summarizes correlation coefficient (r) value of overall service quality and students' satisfaction.

Table 5.2.1: Correlation Between Overall Service Quality and Students' Satisfaction (N=365)

		Overall Service Quality	Overall Students' Satisfaction
Service Quality	Pearson Correlation	1	.623**
	Sig. (2-tailed)		.000
	N		365
Students' Satisfaction	Pearson Correlation	.623**	1
	Sig. (2-tailed)	.000	
	N	365	365

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

The above table 5.2.1 shows the correlation between an overall service quality and students' satisfaction. As it can be seen from the table, there is a statistically significant, moderate and positive correlation between service quality and students' satisfaction ($r=.623$). This finding is consistent with many other researcher's findings (e.g., Baniya, 2016; Hanaysha, Abdullah & Warokka, 2011; Kara, Tanui & Kalai, 2016 and Kundi, Khan, Quereshi, Khan & Akhtar, 2014) examined the correlation between service quality and students' satisfaction and found a significant and positive correlation between service quality and students' satisfaction.

5.3. Correlation Between Variables of Service Quality and Overall Students' Satisfaction

The intention of this part is to answer the second research question. The following table 5.3.1 shows the correlation between variables of service quality and overall students' satisfaction.

Table 5.3.1 Correlation Between Facets of HESQUAL & Overall Students' Satisfaction (N=365)

Facets of HESQUAL		Admin. Quality	Students' Satisfaction
Administrative Quality	Pearson Correlation	1	.478**
	Sig.(2-tailed)		.000
	N	365	365
Students' Satisfaction	Pearson Correlation	.478**	1
	Sig.(2-tailed)	.000	
	N	365	365
		Physical Env't.	Students' Satisfaction
Physical Environment	Pearson Correlation	1	.478**
	Sig.(2-tailed)		.000
	N	365	365
Students' Satisfaction	Pearson Correlation	.478**	1
	Sig.(2-tailed)	.000	
	N	365	365
		Educ. Quality	Students' Satisfaction
Core Educational Quality	Pearson Correlation	1	.687**
	Sig.(2-tailed)		.000
	N	365	365
Students' Satisfaction	Pearson Correlation	.687**	1
	Sig.(2-tailed)	.000	
	N	365	365
		Support Facilities	Students' Satisfaction
Support Facilities	Pearson Correlation	1	.671**
	Sig.(2-tailed)		.000
	N	365	365
Students' Satisfaction	Pearson Correlation	.671**	1
	Sig.(2-tailed)	.000	
	N	365	365
		Transf. Quality	Students' Satisfaction
Transformative Quality	Pearson Correlation	1	.672**
	Sig.(2-tailed)		.000

Students' Satisfaction	N	365	365
	Pearson Correlation	.672**	1
	Sig.(2-tailed)	.000	
	N	365	365

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

The above table 5.3.1 depicts the correlation between dimensions of service quality and students' satisfaction. As we can see from the table, all service quality variables have a positive correlation with students' satisfaction. Nevertheless, core educational quality ($r=.687$, $p=.000$), support facilities ($r=.671$, $p=.000$) and transformative quality ($r=.672$, $p=.000$) have strong and positive correlation with students' satisfaction than other variables. On the other hand, administrative quality ($r=.478$, $p=.000$) and physical environment ($r=.478$, $p=.000$) were moderately associated with students' satisfaction. This result suggests that the university should focus in all aspects of service quality with special attention on academic dimensions to satisfy students in their learning.

5.4 Effects of Service Quality on Students' Satisfaction

The main purpose of the section is to answer the third research objective that read as "to what extent do facets of service quality affect students' satisfaction?".

Table 5.4.3.1 Model Summary of Service Quality and Students' Satisfaction

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.642	.412	.404	4.69086

a. Predictors: (Constant), Administrative Quality (AQ), Physical Environment (PE), Educational Quality (EQ), Support Facilities (SF) and Transformative Quality (TQ)
b. Dependent Variable: Students' Satisfaction (SS)

The above table 5.4.3.1 shows model summary of service quality and students' satisfaction. This tells how much of the variance in the dependent variable (students' satisfaction) is explained by the model (which includes the variables of service quality). In this case, the coefficient of determination (R^2) was .412. This means that the five dimensions of service quality explained 41% percent of the variations in students' satisfaction. In other words, 59 % of the variation in students' satisfaction cannot be explained by these five independent variables of service quality. So, there must be other factors that are not incorporated in the model to explain students' satisfaction.

Table 5.4.3.2 ANNOVA of Service Quality and Students' Satisfaction

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5541.609	5	1108.322	50.369	.000 ^b
Residual	7899.503	359	22.004		
Total	13441.112	364			

a. Dependent Variable: Students' Satisfaction
b. Predictors: (Constant), Administrative Quality (AQ), Physical Environment (PE), Educational Quality (EQ), Support Facilities (SF) and Transformative Quality (TQ)

The above table 5.4.3.2 shows the ANOVA of service quality and students' satisfaction. It is used to assess the statistical significance of the result. The analysis revealed that the F-value=50.369 and the $p = .000$. The model is; therefore, significant because $p < .05$. It was concluded that the dimensions of service quality in the model had a significant combined effect on students' satisfaction.

Table 5.4.3.3 Coefficients of Service Quality and Students' Satisfaction

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std.Error	β		
(Constant)	3.770	1.090		3.560	.000
Administrative Quality	.123	.059	.487	2.078	.000
Physical Environment	.032	.043	.487	.737	.000
1 Core Educational Quality	.043	.030	.687	1.452	.000
Support Facilities	.282	.059	.671	4.745	.000
Transformative Quality	.187	.044	.672	4.274	.000

a. Dependent Variable: Students' Satisfaction

In the above table 5.4.3.3 shows coefficients of service quality and students' satisfaction. As we can notice from the table, the largest beta coefficient for (AQ, =.478), (PE, =.478), (EQ, =.687), (SF, =.671) and (TQ, =.672). Hence, among the facets of service quality, core educational quality, support facilities and transformative quality make strongest effect on students' satisfaction. Whist administrative quality and physical environment make moderate effect on students' satisfaction. In sum, the dimensions of service quality (independent variables) in this case make unique contribution to the explaining dependent variable (students' satisfaction).

6. CONCLUSIONS AND IMPLICATIONS

6.1 Conclusions

Based on results and discussions of data, the following conclusions remarks are drawn:

As the finding of the overall service quality and students' satisfaction showed that there is a positive link between service quality and students' satisfaction. Among five dimensions of service quality, three variables such as core educational quality, support facilities and transformative quality are strongly and positively correlated with students' satisfaction and have strong effect on students' satisfaction. However, administrative and physical environment are moderately associated with students' satisfaction and have moderate effect on students' satisfaction. In addition, the facets of service quality make unique contribution to explaining dependent variable (students' satisfaction) as the findings from multiple linear regression analysis indicate.

6.2 Implications For AMU

There is a statistically positive link between service quality and students' satisfaction according to the findings of quantitative data indicates. In addition, provision of quality service in academic as well as administrative aspect affects students' satisfaction including their learning. Hence, the university leaders should give critical attention in provision of both academic and administrative service quality with special emphasis on academic service quality to improve students' satisfaction and learning as primary customers of educational organization.

6.3 Implications for Further Research

This study was confined to the AMU and the findings may not be generalizable to other Ethiopian public universities. Thus, further studies can focus on the link between service quality and students' satisfaction by taking a representative sample from Ethiopian Public Universities. In addition, it may also be worthwhile to look into the relationship among educational service quality, students' satisfaction and learning outcomes to better understand the role of service quality to improve students' learning in the university.

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