

Determinant of Service Quality measurement in the case of Addis Ababa University, Ethiopia

Abstract

Service quality has played a significant role in Higher education institution. It is essential that Higher education institution recognizes student perceptions and expectations and those factors that influence their satisfaction with the service provided. The purpose of this research is to assess students' satisfaction and Service Quality in Addis Ababa University during the year of 2012. To address this objective, descriptive survey method was employed since it is believed that the method is more appropriate for gathering relevant research information on the measurement of service quality. A 42-items Service quality measurement in the Higher education scale having the six basic service quality dimensions, viz., Teaching methodology (TM), Environmental Change in the Study Factor(ECSF),disciplinary measures taken, students' complaints and response practices, students demographic profile information and overall rating of the service quality, satisfactory level of service were used. Data were collected through a structured questionnaire from prospective undergraduate and postgraduate student of Addis Ababa University. A total of 331 respondents were selected using stratified random sampling from each college found in the University. The data collected are analyzed from the entire sample. Data analyses have been performed with Statistical Packages for Social Sciences (SPSS) using a technique that includes descriptive statistics and ANOVA test. The major finding of the study indicates that the overall impression given by the students is that they are considerably dissatisfied than satisfied. However, on an individual item basis, graduate level of satisfaction varies from undergraduate level of satisfaction from item to item. The perception level of students in the four quality dimensions is either moderate or to the lower level. The perception levels are 2.91, 2.83, 2.97 and 2.54 respectively, for the four quality dimensions best faculty teaching methodology (TM), best physical infrastructure, disciplinary action taken and student's complaint and response practices). The perception levels of undergraduate and postgraduate students are not significantly different under each quality dimension. Based on the major finding of the study, the researcher recommends that quality in higher education is a holistic concept that should involve various stakeholders. Addis Ababa University should develop and maintain knowledge of the staff through scholarship and improved pedagogical skills possibly with latest technological aids. Moreover, it should create enabling working conditions for academic staff so that it will best promote effective teaching scholarship, research and extension work and enable its staff to carry out their professional tasks, and designing techniques that will encourage formal and informal contact between faculty/staff and students is essential so as partly enhance students' educational experience by the university. Conclusively, the study proves that the perception level of students in the four quality dimensions is either moderate or to the lower level. There was no area where the university exceeded the students' expectation.

Keywords: SQM-HEI(SERVICE QUALITY MEASUREMENT IN HIGHER EDUCATION),Satisfaction and service quality

1. Introduction

Quality of higher education is one of the key priorities in higher education. However, it is interesting to note that there is a variety of interpretations what quality of higher education really means. Similarly, the current government of Ethiopia is striving to improve the quality of education in higher education. To this end, the government has launched series of policies, strategies, reforms and restructuring plans concerning the higher educational institution of the country in collaboration with different stakeholders. In a view of ensuring high caliber of educational service, the government monitors the functioning of higher educational institutions.

Universities for the provision of higher education to become a product and are driven by competition to examine the quality of their service, to redefine their produce and to measure customer satisfaction in a ways that the familiar to service marketing specialists (Kotler, 1985). Universities have realized that their long-term survival depends on how good their service is and that quality sets one university apart from the rest (Aly and Akpovi, 2001; Kanji et al., 1999). Education services are often intangible and difficult to measure, since the outcome is reflected in the transformation of individuals in their knowledge, their characteristics and their behavior. Therefore, there is no commonly accepted definition of quality that applies to specifically in the higher education sector (Michael, 1998). Furthermore, when we assess quality of Higher Education Institutions (HEIS), issues such as autonomy and independence complicates

the whole process (Middle and Gordon, 1995). In this context, accreditation agencies that operate in each country have been trying to assess the quality offered by the institutions by evaluating and accrediting their degrees and the educational work offered. However, the operation of these agencies has not greatly influenced the perception of quality in the sector or clarified issues on institutional quality assessment (Parri, 2006)

Even though several models are available to measure service, it appears from the review of literature that no holistic model has been adapted so far to measure service quality from the perception of students in Addis Ababa University.

There are many gray areas in the debate over how to measure service quality. The argument regarding the gaps (SERVQUAL), perception only (SERVPERF) and EP approach to measure service quality is still unresolved as there are valid issues and suggestion on either side of this debate.(Senthilkumar and Arulraj,2011).

The general view appears to be that, SERVQUAL, SERVPERF and EP were designed as generic measures of service quality that have cross- industry applicability. Hence, it is important to view the instrument, as basic “skeletons” that often require modification to fit the specific application situation and supplemental context-specific items.

The present study adopts SQM-HEI, to measure service quality to the context of Addis Ababa University in terms of unidimensionality, reliability, validity and expected variance. Relatively this new approach seeks to explore the relationship between teaching methodology (TM), environmental change in study factor (ECSF), Disciplinary action (DA), Students’ complaints and response practices and the outcome as the quality education. The researcher adapts this model with modification to Addis Ababa university context and is used to measure the quality of education.

In fact, the use of the most appropriate measurement tool help managers /decision makers to assess service quality provided by their institutions and be able to result to better design service delivery.

1.2 Statement of the problem

The service quality of each learning experience particularly in higher education is unique as it is largely determined by the expectation of the students in general and the individual customers in particular. This expectation varies between experiences derived from intellectual engagement and outcomes of examination. Therefore, the researcher first address the concern by discussing the notion of “customer” in higher education. Rinehart (1993) offers two distinct views of students as customers; for instance, those who regard students as primary customers associate them as being involved in the input and output of the learning process. However, those who regard students’ potential employers as primary customers argue that it is important to consider the economic reality of the situation where lesson contents should be tailored to employers’ need. Students in both contexts have been regards as internal customer with the second group regarding future employers as external customers.

Jaraiedi and Ritz (1994) further argue that students have no conception of what they need to learn; as such, education is preparing them for long-term benefits of the future. It is with long-term view that potential employers are regarded as primary customers while students, secondary customers.

In another view, students have been categorized as the primary beneficiaries of education and hence should be treated as customers. This perspective stems from the understanding that educational institutions are highly competitive on the market with strategies being aggressively developed to satisfy students in order to attract a sustainable market share (Joseph and Joseph, 1998). Secondary beneficiaries, in this context would include parents, the marketplace and society.

As can be observed in the documentary sources from various departments of Addis Ababa university main campus, the constant complaints of the students as a customer, because of losses or dislocations of their result paper, delay of examination result or no proper feedback, the old appearance of the university in terms of physical facilities, equipment, personnel (both academic and support staff) and communication materials and uncommitted and demotivate employees due to long service years and unwillingness to help customers and provide prompt services. For the purpose of the study, the researcher addressed the pertinent questions that are given below:

1. What is the students’ perception towards quality determinants factors?
2. What is the students’ expectation towards quality determinants factors
3. Do Postgraduate and Undergraduate students have similar satisfaction level?

1.2 Objectives of the Study

On the basis of the conceptual and operational concerns associated with the generic measure of service quality, this research attempts to assess students' satisfaction and service quality in Addis Ababa University. The specific objectives of the study are:

- ❖ To explore satisfaction level of postgraduate and undergraduate students.
- ❖ To assess the perception of students towards quality determinants factors
- ❖ To assess the expectation of students towards quality determinants factors

1.3 Significance of the Study

This study has focused on the measurement of service quality (SQM-HEI), in Addis Ababa University. Although, there has been number of research works on service quality through SERVQUAL, the results from the current study will be crucial because previous studies have produced scales that bear a resemblance to the generic measures of service quality, which may not be very adequate to assess the perceived quality in higher education. In addition, the previous researches have been too narrow as they over-emphasis on the quality of academics and paid too little attention to the non-academic aspects of the educational undertaking. Thus, this model enables to add the canon of Knowledge on the theoretical part of the literature. Not only adding theoretical knowledge but also helps to prove empirically those factors that affect quality education. Furthermore, it serves as input for other researcher in the area.

1.4 Scope and Delimitations of the Study

It would have been better if the study includes all Addis Ababa university faculties. However, this research work has been limited to Addis Ababa University main campus. The rational delimitation is to make the research work more manageable and suitable for attaining the intended purpose. The other limitation of this study is the complex nature customer of Addis Ababa University. This limits one's ability to generalize these results to a broader population. This study assumed Students as the primary customers. However, a more inclusive conceptualization of service quality should include all internal and external stakeholders including academics, administrative staff, researchers, student's family, quality assurance agencies and societal groups. Hence, future researchers should attempt to incorporate a service quality perception that includes multiple stakeholders. Even though measuring service quality is a well-researched phenomenon in different organizations, no sufficient number of studies on service quality of educational institutions particularly in (SQM HEI) of Addis Ababa University has been made yet.

1.5 Conceptual framework

The researcher refers to a service quality framework developed by Senthinkumar and Arulraj in measurement of higher education institution with some modifications would apply in Addis Ababa University (See figure 1). The model would use rational survey empirically examine relationship among two or more variables. This study was explore the relationship between teaching methodology(TM), environmental change in the study factor (ECSF), disciplinary action (DA), students' complains and response practices and out come as the quality education.

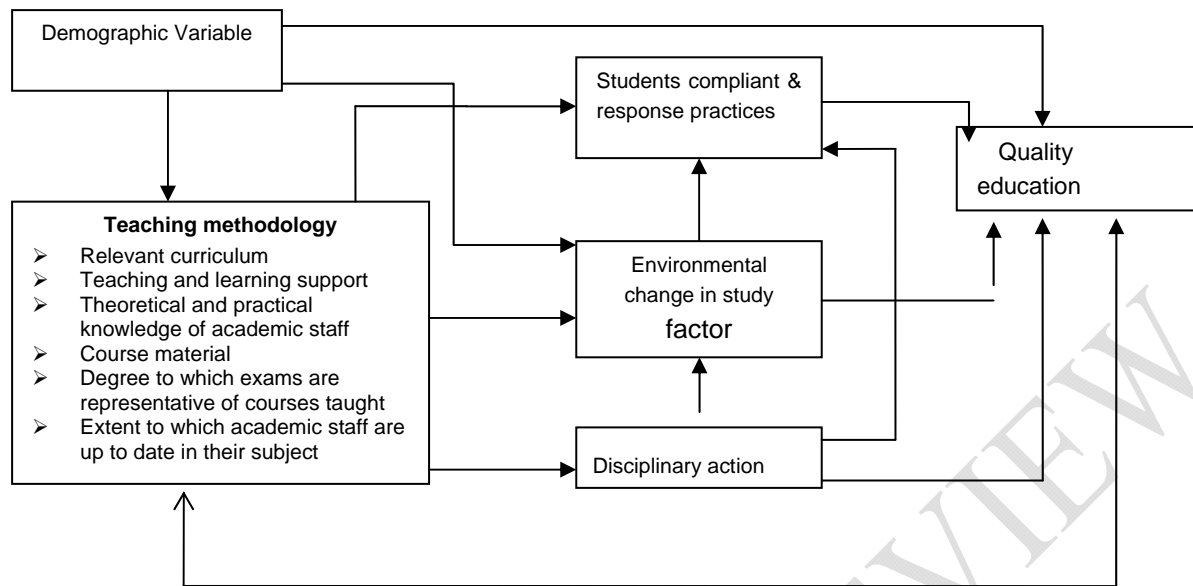


Fig 1: SQM-HEI Model

Source : (Senthilkumar &Arulraj, 2010)

1. **Teaching Methodology (TM):** Quality in higher education is a holistic concept. Teaching methodology are consider from the following permeation
 - Teaching in higher education is profession. It is a form of public service that requires expert knowledge and specialized skills acquired and maintained through rigorous and life study and research. It calls for a sense of personal and institutional responsibility for the education and welfare of students and of the community at large and for a commitment to high professional standards in scholarship and research.
 - Higher education personnel should maintain and develop knowledge of their subject through scholarship and improved pedagogical skills, possibly with latest technological aids.
 - Working conditions for education teaching personnel should be such that it will best promote effective teaching scholarship; research and extension work and enable higher education teaching personnel to carry out their professional tasks.
 - Making use of libraries, which have up –to-date collections, computer systems, satellite programs and databases required for their teaching scholarship and research
 - The publication and dissemination of the research results obtained by higher education teaching personnel has be encouraged and facilitated with a view to assisting them to acquire the reputation which they merit as with view progarmme providing for the brands exchange of higher education of skill, technology, education and culture.
 - The interplay of ideas and information among higher education teaching personnel thought the work is vital to the health development of higher education and research and should be activity promoted
 - Program providing for the broadest exchange of higher education personnel between instructions both nationally and intentionally including the organization of symposiums, seminars and collaborative projects and the exchange of educational and scholarly information should be developed and encouraged.
2. **Environmental change in the study factor (ECSF)**
 - Effective curricular transaction depends on the extent and quality of intuitional infrastructure, learning resources like library, laboratory and access to computer facilities. A long with these basic facilities, academic activities like workshops, conferences, overseas, collaborations and seminars enrich the learning ambience.

- The new forms of education require skills of a different order that include the facile use of information technology, mainly computer and internet. Hence, the higher educational institutions should ensure that the proper infrastructural facilities discussed in this study are provided to the students.

3. Disciplinary Action

- The disciplinary measure takes by the management should ensure that all the measures are carried out with an ultimate objective of guiding the students to attain the outcome of education.

4. Students' Complaints and response practices

Many students being customers of higher education complain when something goes wrong with them or the service provider. This may require an attention of the individual institutions to hear and solve problem as fast as possible.

There are different concepts that considers in connection with complaints in higher education, the kinds of complaints and ground, availability of procedure, availability of suggestion Box, responsiveness of university, Service failure recovery. (Arega, 2010)

The ground for putting might be inadequate supervision, non-availability of essential equipment or resource necessary to complete work, plagiarism of student's research, unauthorized disclosure of confidential information to the third party, sexual harassment, racist activity or behavior, unreasonable behavior any action likely to cause injury or impair and unacceptable social behavior.

2. Research Methodology

The study focused on prospective undergraduate and post graduate students of Addis Ababa University Main campus, Ethiopia. Thematically, the study is limited to service quality and Students satisfaction in the Higher education institution.

The research focuses on measuring service quality and students satisfaction in Addis Ababa University. The sampling procedures is used for this study is stratified random sampling. The stratification is based on the program, under graduate and postgraduate. For selecting the institution /college form each program category a non-probabilistic convenience and judgmental sampling technique have been used. However, within the college institutions the respondents are selected by stratified random sampling. Thus, the population is stratified into two major homogenous groups. Then the size of the sample in each stratum is taken in the proportion to the size of the stratum in order to ensure proportional allocation.

A self-administered survey questionnaire was distributed to a total sample of 331 undergraduate and post graduate prospective students of Addis Ababa University. Data were obtained through personally administered questionnaires that would be prepared based on literature review to address research questions. Data were collected by a means of a structured questionnaire that consists of two sections. The first section has seven questions that focus on general background information about the participants/students. The second section has 42 questions focusing on the feeling of students about the educational service performance with respect to six dimensions; Teaching methodology(TM), environmental change in the study factor (ECSF), disciplinary measures taken, students' complaints and response practices, students demographic profile information and overall rating of the service quality, satisfaction level of service. The data collected are analyzed from the entire sample. Data analyses have been performed with Statistical Packages for Social Sciences (SPSS) by using descriptive statistics, correlation and regression analysis.

The researcher obeys the ethical values and satisfaction not to disclose any data or information to others. Furthermore, the researcher used the data and information only for the purpose of researcher kept the norms and ethics of the university and personal information received during the collection of data. It is only the student researcher and his advisor who had access to the information collected through these questionnaires and document analysis.

3. Results and discussion

This part of the research deals with the results and discussion. It has two main sections. The first section presents the background information of the respondents while the second section presents the factors that affect quality education in higher institution in general and Addis Ababa University in particular.

3.1 Background Information of the respondents

The respondents involved in this study were students, both under graduate and postgraduate of University under the study. The researcher believes that the respondents are direct stakeholders or service user in higher education as a result they were considered relevant as main source of information for the study. Of the 331 students surveyed, 307 usable questionnaires were returned giving a response rate of 93 percent, from the 307 usable questionnaires 160(52.12%) were postgraduate students and the rest 147(47.88%) were undergraduate students.

3.1.1 Background information of student's respondents

Background information or characteristics of the sample, students were organized in Table 1 below.

Table 1: Background information of the respondents

Students	Sex		Grand Total
	Male	Female	
Post graduate	102	58	160
Under graduate	110	37	147
Grand Total	212	95	307

Source: (Survey questionnaire, 2012)

Table1 shows that the background information of the students respondent. For this study, 102 male, 58 female in total 160 postgraduate students are participated. Moreover, 110 male and 37 female in total of 147 undergraduate students are participated.

3.2 Determinants of Service Quality measurement in Higher Education

3.2.1 Perception regarding Teaching Methodology

Respondents were asked to rate their level of satisfaction in relation to the teaching methodology at Addis Ababa University. For each of the ten items used to assess the level of students' satisfaction, table 2 presents a comparison of undergraduate and graduate students' average level of satisfaction.

Regarding relevance of curriculum, item a1, the average level of satisfaction by undergraduate and postgraduate students, 2.83 and 2.95 respectively, are rated moderate level of satisfaction in the 95% Confidence interval. The two respondent groups have no significant difference in their average level of satisfaction ($p\text{-value} = 0.0332 > 0.05$). Overall, the average level of satisfaction, 2.89, with 95% Confidence interval in the range between 2.77 and 3.01 is moderately low level of satisfaction.

According to Christodoulou, Varelas, and Wenzel (2009), there are four curricular orientations that determine the nature of curricular organization, teachers' and students' roles and assessment practices. One of these is "Intellectual Traditionalisms", which emphasizes engagement in subject matter for its own sake. In this regard, the curricularist should be worked on the content match with the graduate profile indicated in the programs.

Under item a2, teaching and learning support, both groups have equivalent average level of agreement ($p\text{-value} = 0.760 > 0.05$). Both groups have low level of satisfaction below 3 point. Overall, students' average level of satisfaction, 2.77, results in 95% Confidence interval in the range between 2.68 and 2.89.

Rating item a3, willingness to encourage class group interaction, the two respondent groups have no significance difference ($p\text{-value} = 0.115 > 0.05$) with 3.01 total average satisfaction level and 95% Confidence interval of 2.88 - 3.14 indicating a moderate level of satisfaction. According to Ayalew, et al. (2009), Teachers were not providing students with the opportunity to express themselves. The attempt made to encourage students' participation through discussion and presentation was very minimal, particularly in the undergraduate programs. The level of interaction in the graduate classes was reasonably high as the number of students was manageable and their maturity level was better than that of undergraduate students. Most students cannot stay focused throughout a lecture. After about 10 minutes their attention begins to drift, first for brief moments and then for longer intervals, and by the end

of the lecture they are taking in very little and retaining less. A classroom research study showed that immediately after a lecture student recalled 70% of the information presented in the first ten minutes and only 20% of that from the last ten minutes (McKeachie 1999).

Item a4, availability of academic staff for guidance and advice, received low-level satisfaction by students with average satisfaction level of 2.59. Regarding item a5, the relevance of theoretical knowledge of academic staff, undergraduate students rating is a moderate level satisfaction while Postgraduate students average satisfaction level is slightly above moderate level satisfaction. However, the test result with $p\text{-value}=0.189>0.05$ indicates insignificance difference between average satisfaction level of the two group of students. On average, both groups average rating, 3.19 with 95% Confidence interval showing above moderate level satisfaction concerning teachers' theoretical knowledge. No matter how students are well prepared in their high school education, their instructors can either facilitates or stunt the level of knowledge, skills and behavior acquisitions and development by the students. Instructors play a significant role in filling the gaps students have or may add value to the students' have or may add no value to the students' existing knowledge and skills. Therefore, the teaching and research experience of the instructors in higher education, the level of qualification and academic rank they had, the type of training they went through, as well as their involvement in research were taken as important factors that would indicate the quality of education offered by the Universities.

Table 2: Level of Satisfaction with Teaching Methodology

Items	Respondent	N	Mean	Std. Deviation	95% Confidence Interval for Mean		ANOVA test	
					Lower Bound	Upper Bound	F-Value	p-value
A_1	Undergraduate	147	2.83	1.137	2.64	3.02	0.945	0.332
	Postgraduate	160	2.95	1.027	2.79	3.11		
	Total	307	2.89	1.081	2.77	3.01		
A_2	Undergraduate	147	2.79	1.142	2.60	2.98	0.093	0.760
	Postgraduate	160	2.75	1.099	2.58	2.92		
	Total	307	2.77	1.118	2.64	2.89		
A_3	Undergraduate	147	3.12	1.101	2.94	3.30	2.499	0.115
	Postgraduate	160	2.91	1.146	2.73	3.09		
	Total	307	3.01	1.127	2.88	3.14		
A_4	Undergraduate	147	2.59	1.146	2.40	2.77	0.000	0.985
	Postgraduate	160	2.59	1.157	2.41	2.77		
	Total	307	2.59	1.150	2.46	2.72		
A_5	Undergraduate	147	3.10	1.137	2.91	3.28	1.732	0.189
	Postgraduate	160	3.27	1.169	3.09	3.45		
	Total	307	3.19	1.155	3.06	3.32		
A_6	Undergraduate	146	2.66	1.189	2.46	2.85	4.569*	0.033
	Postgraduate	160	2.95	1.202	2.76	3.14		
	Total	306	2.81	1.202	2.68	2.95		
A_7	Undergraduate	147	2.90	1.065	2.72	3.07	3.616	0.058
	Postgraduate	160	3.13	1.082	2.96	3.30		
	Total	307	3.02	1.078	2.90	3.14		
A_8	Undergraduate	147	2.88	1.082	2.71	3.06	0.569	0.451
	Postgraduate	160	2.79	1.022	2.63	2.95		
	Total	307	2.84	1.051	2.72	2.96		
A_9	Undergraduate	147	3.03	1.088	2.86	3.21	7.135*	0.008
	Postgraduate	160	2.69	1.177	2.50	2.87		
	Total	307	2.85	1.147	2.72	2.98		
A_10	Undergraduate	147	3.19	1.016	3.02	3.36	0.771	0.381
	Postgraduate	160	3.09	1.036	2.93	3.25		
	Total	307	3.14	1.026	3.02	3.25		
As_Average	Undergraduate	147	2.91	0.70965	2.79	3.02	0.002	0.963
	Postgraduate	160	2.91	0.77479	2.79	3.03		
	Total	307	2.91	0.74310	2.83	2.99		

Source: (Survey questionnaire, 2012)

In contrary to item a5, undergraduate and Postgraduate students have significantly different average satisfaction level ($p\text{-value}=0.033<0.05$) regarding the relevance of teachers' practical knowledge, Undergraduate students rated item a6 with 2.66 average satisfactions, which is a low-level satisfaction as the corresponding 95% Confidence interval lies below moderate satisfaction level. Postgraduate students' average rating, 2.95, is a moderate level satisfaction.

Item a7, teachers updating themselves in their subject, the average rating by undergraduate and Postgraduate students are 2.90 and 3.13 respectively with the respective 95% Confidence interval are in the range of moderate level of satisfaction.

Timely/sequentially presentation of course materials, item a8, the two group of students have no significant difference ($p\text{-value}=0.451>0.05$) in their level of satisfaction. The total average 2.84 and its 95% Confidence interval indicate below moderate level of students' satisfaction regarding the item. Consistency of exams with the taught course, item a9, the two groups of students have significantly different average level of satisfaction ($p\text{-value}=0.008<0.05$). Undergraduate students' average satisfaction level, 3.03, is a moderate level satisfaction. Postgraduate students have significantly lower level of satisfaction (2.69). Most institutions use only end-of-course student surveys to evaluate teaching quality. While student opinions are important and should be including in any assessment plan, meaningful evaluation of teaching must rely primarily on assessment of learning outcomes. Current trends in assessment reviewed by Ewell (1998) include shifting from standardized tests to performance-based assessments, from teaching-based models to learning-based models of student development, and from assessment as an add-on to more naturalistic approaches embedded in actual instructional delivery. Measures that may be used to obtain an accurate picture of students' content knowledge and skills include tests, performances and exhibitions, project reports, learning logs and journals, Meta cognitive reflection, observation checklists, graphic organizers, and interviews, and conferences (Burke, 1993).

Extent to which courses are stimulating, item a10, the two groups of students have no significant difference in their average level satisfaction. In total students' average level of satisfaction, 3.14, is in the range of moderate level satisfaction. One of the factors that could hinder or facilitate the effectiveness of the teaching- learning process is the type of course delivery method employed by the instructors. Instructors can use an amalgam of teaching methods developing on the nature of the course and learners.

According to Ayalew, et al. (2009), the dominant method used by teachers tended to be lecture method where the teachers talked, explained, described and demonstrated with the students were left busy listening, talking notes and /or coping from the black/ white board.

Aggregating all the 10 items, students' satisfaction level regarding teaching methodology is computed. For both Undergraduate and Postgraduate students overall satisfaction levels are computed 2.91 with below moderate level of satisfaction in the range from 2.83 to 2.99. According to Ayalew, et al.,(2009), Students were not satisfied with assessment, marking and grading system used by instructors, practicality of the courses and availability of resources and somewhat satisfied with quality of education provided.

3.2.2 Perception of students regarding Environmental changes in study factor

Under Environmental changes in the study factor five items are presented for the students in rating their level of satisfaction for each item. Table 3 presents the analysis results comparing average level of satisfaction between undergraduate and postgraduate students. Item b11, satisfaction level with library facilities, Undergraduate and Postgraduate students have statistically indifferent average satisfaction levels

($P\text{-value}=0.063>0.05$). For undergraduate students, with 3.39 average satisfactions is in the range above moderate level satisfaction. For Postgraduate students, with 3.32 average satisfaction levels, the 95% Confidence interval shows moderate level satisfaction with library facilities. Because of the 95% Confidence interval overlap, the two groups have equivalent average satisfaction level. The total average by the whole students is 3.25 in the range from 3.11 to 3.39, which is above moderate level satisfaction.

Regarding computer facilities, item b12, the satisfaction level by undergraduate students is 2.07, which is low-level satisfaction. Postgraduate students have also a low-level satisfaction with computer facilities with average rating equals 2.48. Although the two groups have low-level satisfaction, the relative satisfaction level by Postgraduate students is significantly higher than that of Undergraduate students ($p\text{-value}=0.002<0.05$).

The two groups of students are also significantly different satisfaction level concerning laboratory facilities, item b13, again both groups have low level of satisfactions 2.35 and 2.07 for Postgraduate and Undergraduate student respectively; where relatively Postgraduate students have significantly higher level of satisfaction compared with the Undergraduate students.

Regarding conducive environment for study, item b14, the average satisfaction levels are 3.20 and 3.02 for Undergraduate and Postgraduate students respectively. They have both moderate level of satisfaction regarding item b14. The two groups average satisfaction level for item b15, i.e. working time of the university, is not significantly different with above moderate level of satisfaction levels.

Aggregating the five items under environmental change factor, both group of students average satisfaction levels are equal to 2.83. The 95% Confidence interval for overall satisfaction level regarding environmental change factors ranges from 2.74 to 2.91, which indicates that students are experiencing below moderate level of satisfaction.

According to Yohannes, (2009), learning resources is indispensable for higher education service quality. Even though most Universities had enough resources, they misuse these resources. On the other hand some universities had shortage of learning resources.

This research finding were highly appreciated by also as follows; learning and teaching resources are not adequately matched with the size of enrollment in the respective programs, Ayalew, et al. (2009).

To efficiently run the teaching- learning process and make theoretical aspect of the courses more practical, there should adequate resources and infrastructures: Laboratories with sufficient space, equipment, consumables, instruments and possibility to experiment by the students; Libraries supplied with sufficient reading and reference materials, and reading space; ICT centers with networks and working spaces, and other materials. According to Ayalew et al., (2009), others factors being constant, students and teachers who have access to instructional technology, sufficient resources and infrastructure would be a better position to get the most out of the teaching- learning process and to make learning more meaningful to the students.

Table 3: Satisfaction level with Environmental changes in study factor

Items	Respondent	N	Mean	Std. Deviation	95% Confidence Interval for Mean		ANOVA test	
					Lower Bound	Upper Bound	F-Value	p-value
B_11	Undergraduate	147	3.39	1.258	3.18	3.59	3.484	0.063
	Postgraduate	159	3.12	1.255	2.92	3.32		
	Total	306	3.25	1.261	3.11	3.39		
B_12	Undergraduate	147	2.07	1.123	1.89	2.26	10.262	0.002
	Postgraduate	160	2.48	1.099	2.31	2.65		
	Total	307	2.29	1.127	2.16	2.41		
B_13	Undergraduate	147	2.07	1.001	1.91	2.24	5.432	0.020
	Postgraduate	159	2.35	1.031	2.18	2.51		
	Total	306	2.22	1.024	2.10	2.33		
B_14	Undergraduate	147	3.20	1.170	3.01	3.39	1.742	0.188
	Postgraduate	160	3.02	1.281	2.82	3.22		
	Total	307	3.11	1.231	2.97	3.25		
B_15	Undergraduate	147	3.41	1.186	3.21	3.60	2.911	0.089
	Postgraduate	160	3.18	1.143	3.00	3.36		
	Total	307	3.29	1.168	3.16	3.42		
Bs_Average	Undergraduate	147	2.83	0.72617	2.71	2.95	0.001	0.974
	Postgraduate	160	2.83	0.76690	2.71	2.95		
	Total	307	2.83	0.74646	2.74	2.91		

Source: (Survey questionnaire, 2012)

3.2.3 Perception of Students regarding Disciplinary Action Taken

Under disciplinary action, students' responses to the eight items are computed and presented in table 4. Regarding punishment measures, items c20 (monetary measure) and c21 (non-monetary measure) the two groups of respondents have significantly different average level of satisfaction. Considering monetary measures, undergraduate students have below moderate level satisfaction with 2.73, while postgraduate

students are moderately satisfied with 3.02 average rating. As to non-monetary measures, undergraduate students have below moderate level satisfaction with 2.61, while postgraduate students are moderately satisfied with 2.98 average rating. The test results indicate that postgraduate students have relatively higher level of satisfaction compared with the satisfaction enjoyed by undergraduate students.

In each of the other six items under disciplinary measures taken, the two groups average satisfaction levels are not significantly different. Regarding item c16, performance in the test, students have moderate level satisfaction with 2.96 average rating. Regarding cell phone use, item c19, students enjoyed moderate satisfaction level of 2.98.

For items c17, regarding attendances, the average level of satisfaction is 3.25, which is high-level satisfaction. Similarly, students have above moderate level satisfaction (3.20) regarding interactions between opposite sex (items c18).

Table 4: Satisfaction level with disciplinary actions taken

Items	Respondent	N	Mean	Std. Deviation	95% Confidence Interval for Mean		ANOVA test	
					Lower Bound	Upper Bound	F-Value	p-value
C_16	Undergraduate	146	2.86	1.080	2.69	3.04	2.662	0.104
	Postgraduate	160	3.05	0.923	2.91	3.19		
	Total	306	2.96	1.004	2.85	3.07		
C_17	Undergraduate	147	3.32	1.079	3.14	3.50	1.232	0.268
	Postgraduate	160	3.18	1.104	3.01	3.35		
	Total	307	3.25	1.092	3.12	3.37		
C_18	Undergraduate	147	3.27	1.231	3.07	3.47	1.127	0.289
	Postgraduate	160	3.13	1.196	2.94	3.31		
	Total	307	3.20	1.213	3.06	3.33		
C_19	Undergraduate	147	3.01	1.225	2.81	3.21	0.164	0.685
	Postgraduate	160	2.95	1.228	2.76	3.14		
	Total	307	2.98	1.225	2.84	3.11		
C_20	Undergraduate	147	2.73	1.114	2.55	2.91	5.615	0.018
	Postgraduate	160	3.02	1.037	2.86	3.18		
	Total	307	2.88	1.082	2.76	3.00		
C_21	Undergraduate	147	2.61	1.070	2.43	2.78	10.713	0.001
	Postgraduate	160	2.98	0.942	2.83	3.13		
	Total	307	2.80	1.021	2.69	2.92		
C_22	Undergraduate	147	2.83	1.131	2.65	3.01	0.037	0.847
	Postgraduate	160	2.81	1.019	2.65	2.97		
	Total	307	2.82	1.072	2.70	2.94		
C_23	Undergraduate	147	2.80	0.899	2.65	2.94	2.924	0.088
	Postgraduate	160	2.97	0.872	2.83	3.10		
	Total	307	2.89	0.887	2.79	2.99		
Cs_Average	Undergraduate	147	2.93	0.63250	2.82	3.03	1.223	0.270
	Postgraduate	160	3.01	0.67729	2.90	3.12		
	Total	307	2.97	0.65647	2.90	3.04		

Source: (Survey questionnaire, 2012)

Regarding item c22 (imparting moral values and ethics) and item c23 (anti ragging measures) students have below moderate level satisfaction with 2.82 and 2.89 average ratings respectively. Aggregating items under disciplinary measures, the average satisfaction levels are 2.93 and 3.01 by undergraduate and postgraduate students. The respective 95% Confidence interval indicate a moderate level satisfaction by the students, with 2.97 overall satisfaction levels.

3.2.4 Students' Complaints and Response practice

Table 5 presents students' average satisfaction levels regarding items under students' complaints and response practice. Among the nine items, the two groups of students have significantly different average satisfaction level for item d30 (existence of suggestion boxes in the university). Undergraduate students

have moderate level satisfaction (3.12) that is relatively higher than the level of satisfaction experiencing by postgraduate students (2.70).

In all the other items, except item d30, the two groups of students do not significantly different in their average level of satisfaction, which are below moderate level of satisfaction. For these items the students' total average level of satisfactions within the lowest 2.09 for item d32 and highest 2.56 for item d27.

Item d24, many complaints on the university's evaluation practice, is rated 2.56. For item d25, the University receives complain about the lectures is rated 2.42. Students complain for non-responsive management, item d29, is rated 2.55. Regarding item d28, the students complain about University staff members as they do not treat them well is that the average satisfaction level by the students is 2.52. Items d26, the existence of compliant about library services, materials and in efficient service and d31, availability of complain handling procedure in the University are both rated with 2.47 average level satisfactions. Item d32, the university is quick to provide response on both academic and non-academic complains receives relatively lowest level satisfaction with average rating of 2.09.

Many students being customer of HEI complain when something goes wrong with them or the service provider. This may require an attention of the individual institutions to hear and solve the problem as fast as possible. Otherwise, the inability solve problems may shift the attention of their students towards other educational institutions waiting in the same field.

Therefore, inability to handle complaints coming to each university provides a source of complain to might be inadequate supervision non- availability if essential equipment or sources necessary to complete information to a third party, assault or serious /or threaten, racist activity or behavior abusive or un reasonable behavior any action likely to cause injury or impair and fun acceptable social behavior.

However, these factors may differ from country to country and Institutions to Institution complaints according to Heriot- Watt University (2004), arises where a student is dissatisfied with, the prevision of good, services or conditions on which they are offered or the level of performance may include a concern about the level of academic supervision provided by staff, the conduct of staff in work, workshop, lectures, seminars and tutorials. Similarly, there may supervision including the student accommodation service of university, access to the library or provision of appropriate language support.

Educational Institutions as they are working in the intensively environment are expected to treat their customers as carefully as possible. Handling complaints and factor leading to dissatisfaction easily, and treating customers may disseminate the good name of the organization prospective.

Students' overall satisfaction level regarding complaints and response practices in the university is 2.54 that is a low-level satisfaction as the 95% Confidence interval falls far below moderate level satisfaction.

Table 5: satisfaction level with students' complaints and response practice

Items	Respondent	N	Mean	Std. Deviation	95% Confidence Interval for Mean		ANOVA test	
					Lower Bound	Upper Bound	F-Value	p-value
D_24	Undergraduate	147	2.50	1.094	2.33	2.68	0.677	0.411
	Postgraduate	160	2.61	1.094	2.44	2.78		
	Total	307	2.56	1.093	2.43	2.68		
D_25	Undergraduate	147	2.36	1.134	2.18	2.55	0.766	0.382
	Postgraduate	160	2.48	1.154	2.29	2.66		
	Total	307	2.42	1.144	2.29	2.55		
D_26	Undergraduate	147	2.37	1.283	2.16	2.58	1.871	0.172
	Postgraduate	160	2.56	1.217	2.37	2.75		
	Total	307	2.47	1.250	2.33	2.61		
D_27	Undergraduate	147	2.89	1.335	2.67	3.11	0.390	0.533
	Postgraduate	160	2.80	1.222	2.61	2.99		
	Total	307	2.84	1.276	2.70	2.99		
D_28	Undergraduate	147	2.62	1.279	2.41	2.83	1.826	0.178
	Postgraduate	160	2.43	1.236	2.23	2.62		
	Total	307	2.52	1.259	2.38	2.66		
D_29	Undergraduate	147	2.55	1.262	2.35	2.76	0.000	0.994
	Postgraduate	160	2.55	1.238	2.36	2.74		

	Total	307	2.55	1.247	2.41	2.69		
D_30	Undergraduate	147	3.12	1.260	2.92	3.33	7.618	0.006
	Postgraduate	160	2.70	1.409	2.48	2.92		
	Total	307	2.90	1.354	2.75	3.05		
D_31	Undergraduate	147	2.47	1.124	2.29	2.65	0.000	0.996
	Postgraduate	160	2.47	1.192	2.28	2.65		
	Total	307	2.47	1.158	2.34	2.60		
D_32	Undergraduate	147	2.08	1.095	1.90	2.26	0.010	0.921
	Postgraduate	160	2.09	1.033	1.93	2.26		
	Total	307	2.09	1.061	1.97	2.21		
Ds_Average	Undergraduate	147	2.55	0.70097	2.44	2.67	0.137	0.712
	Postgraduate	160	2.52	0.78956	2.40	2.64		
	Total	307	2.54	0.74740	2.45	2.62		

Source: (Survey questionnaire, 2012)

4. Conclusion and Recommendation

The overall impression given by the students is that they are considerably dissatisfied than satisfied. However, on an individual items basis, graduate's level of satisfaction varies from undergraduate level of satisfaction from item to item. The perception level of students in the four quality dimensions are either moderate or to the low level. The perception levels are 2.91, 2.83, 2.97 and 2.54 respectively the four quality dimensions (Best faculty teaching methodology (TM), Best physical infrastructure, Disciplinary action taken by management and student's complaint and response practices).

Moreover, reviewing the satisfaction and priorities of students also reveals that teaching methodology, issues related to teaching learning process and student's complaints and response practices are the paramount importance to both undergraduate and postgraduate students. Of course, the other scales of measures like physical infrastructure (ECSF) and disciplinary action taken by management are not very far away from two scales. Therefore, more than 50% of the items (specific expectation) were not met by the university.

In addition, a disciplinary action dimension was rated among those that matter most to students, but it appears to be was the least satisfying items in the University, and the university lacks a readily available channel of expressing complaints.

Generally, there was no area where the university exceeded the students' expectation. The perception levels of undergraduate and postgraduate students are not significantly different under each quality dimension.

Based on the conclusion made with respect to the area of study, the researcher recommends the following; Quality in higher education is a holistic concept that should involve various stakeholders. Addis Ababa University should develop and maintain knowledge of the staff through scholarship and improved pedagogical skills possibly with latest technological aids, and the University should also create enabling working conditions for academic staff so that it will best promote effective teaching scholarship, research and extension work and enable its staff to carry out their professional tasks. Moreover, the University should make use of libraries with an up-to-date collection, computer system and data bases requires for their teaching scholarship and research.

The university should be encouraged the publication and dissemination of the researcher result obtained by staff and facilitated with a view to assisting them to acquire the reputation which they merit as well as a view program providing for the broadest exchange of the university as per staff between institutions both nationally and to promoting the advancement of skills, technology, education and culture. Designing techniques that will encourage formal and informal contact between faculty/staff and students is essential so as partly enhance students' educational experience by the university.

References

- Aly, N. and Akpori, J. (2001), "Total quality management in Californian public higher education", *Quality Assurance in Education*, Vol.9 No.3, pp.127-31.
- Ayalew,S. et. al., (2009) "Assessment of Science Education Quality Indicators in Addis Ababa, Bahir Dar and Hawassa Universities", Forum for Social Studies published, pp.226-258.
- Boulding W., Kalra, A., Staelin, R., and Zeithamal, V.A. (1993) "A dynamic process Model of Service quality: from expectations to behavioral intentions", *Journal of Marketing research*, vol. 30 No.1,pp 7-27.
- Christopher Love lock, Principle of Service Marketing, New York: McGraw –Hill, Published.
- Cronin, J.J. Jr., and Taylor, S.A. (1992). Measuring service quality: a re–examination and extension, *Journal of Marketing*, 56, 55-68.
- Dawit Melak (2010) "Measuring student's satisfaction: The case of post- Graduate education student at Addis Ababa University", Master's thesis Addis Ababa University.
- Jaraied ,M. and Ritz, D.(1994), " Total quality management applied to engineering Education", *Quality insurance in education*, vol. 2 No 1, pp 32-40.
- Joseph, M.and Joseph, B.(1998), "Identifying of needs of Potential students in tertiar Education for strategy development", *Quality Assurance in Education*, Vol.6 No.2, pp.90-6.
- Kotler, P. (1985), "Strategic Marketing for Educational Institutions", Prentice-Hall, London.
- Mckinney, V., Yoon, K., Zahedi , F.M (2002) The measurement of web customer: An expectation and disconfirmation Approach Information system research, Vol. 13. No 3, pp.296-315
- Michael, S.O (1998), "Restructuring US higher education: analyzing models for academic program review and discontinuation", *Association for the study of higher education*, Vol. 21 No. 4, pp. 377-404.
- Middle, R. and Gordon, G. (1995), "Leadership, quality and institutional effectiveness", *Higher Education Quarterly*, Vol. 49 No. 3, pp. 267-85.
- Parri, J. (2006), "Quality in higher education", *Vadyba/ Management*, Vol. 2 No. 11, pp. 107-11.
- Rinehart, G., (1993), "*Quality Education: Applying the Philosophy of Edwards Deming to Transform the Educational System*", ASQC quality Press, Milwaukee, WI.
- Senthilkumar, N., and A. Arulraj (2011) "SQM-HEI- determination of Service Quality Measurement of Higher Education in India", *Journal of Modeling in*.
- Wossenu Yimam (2008) "The system of evaluating the teaching personnel in Addis Ababa University" Addis Ababa: Addis Ababa University printing press.