ACADEMIA International Journal for Social Sciences
Volume 5, Issue 3(s7), 2026 ISSN-L (Online): 3006-6638

Undergraduate Students' Satisfaction and Perception of Knowledge Gained in Public Universities in Balochistan

Nazeer Ahmed
Nazeerwasto78@gmail.com
Ph.D. Scholar, Faculty of Education, University of the Sindh, Hyderabad, Sindh, Pakistan

Shahkeela Shah
Assistant Professor Faculty of Education, University of the Sindh, Hyderabad, Sindh, Pakistan

Corresponding Author: Nazeer Ahmed Nazeerwasto78@gmail.com

Received: 10-02-2026 **Revised:** 25-02-2026 **Accepted:** 11-03-2026 **Published:** 26-03-2026

ABSTRACT

The study investigated the undergraduate's student's perception and satisfaction level regarding their knowledge gained in the public universities of Balochistan. The overall objective of the study was to assessed the effects of the student satisfaction on perceived acquisition of knowledge as well as determine how academic facilities, teaching practice can affect student satisfaction and knowledge acquisition. The population of the study is consisted to 2500 undergraduate students 1300 (Male) and 1200 (Female) from different department in the public sectors universities of Makran Division Balochistan. The sample size of the subjects were evaluated through Yamane (1967) formula, calculating the sample size and an error of 0.05% and a confidence level 95% (p= 0.05). Stratified sampling techniques was applied to select samples of 345 undergraduate's students from the target population in order to ensure the proportional representation a cross Districts and gender, thereby achieving a balanced and academically reliable sample. A quantitative method and descriptive survey design was used to collect data from the validated and structured questionnaire consisting of 24 items. The reliability of the instrument was measured by using Cronbach's Alpha, which yielded a coefficient of 0.877, indicating a high level of internal consistency. Descriptive statistics, correlation analysis, and multiple regression analysis were utilized to examine the relationships among the study variables. The regression results revealed that academic facilities ($\beta = .387$, $t = 7.691$, $p < .001$) and teaching practices ($\beta = .151$, $t = 3.013$, $p = .003$) had significant positive effects on student satisfaction. Furthermore, student satisfaction ($\beta = .452$, $t = 9.311$, $p < .001$) was found to have a significant positive effect on students' perceived knowledge gained. Based on these findings, the study revealed teaching methods and academic facilities that have no significant effect on student satisfaction, was rejected. The results shows that library, lecture room, teaching methods and classroom management significantly contribute to enhancing student satisfaction. The study concludes that improved these variables that enhanced student satisfaction, which subsequently promotes students' perceived knowledge requisitions. These findings provide valuable insights for academic side and university administrators in the province of Balochistan to strengthen educational conditions and institutional support systems within higher education institutions.

Keywords: *Student satisfaction, Knowledge gain, Academic Facilities, Teaching Practices*

INTRODUCTION

Background of the Study

Knowledge gain can be said as one of the main indicators of the success of the higher education, especially in the public universities where resources are allocated to stimulate the process of academic, social, and professional development of students. Knowledge gain in the undergraduate educational context can be defined as a cumulative learning process that encompasses cognitive, practical, and analytical levels of learning, which take place in the form of practiced patterns of teaching, classroom experiences, education facilities, and educations in the institution. It does not revolve around the amount of information received by students but the level of knowledge, practice and incorporating learning to situations in the real world.

The concept of knowledge gain is closely connected to the teaching quality, the access to resources, the classroom management, and the learning environment in the context of the public universities. The academic experience of students is more satisfied when they determine that the learning process are supportive and enhancing the knowledge gained. Such attitude towards learning may be a decisive measure in the overall excellence of education and the achievement of future successes in the life of students. It has been found that knowledge acquisition and satisfaction are linked to each other because positive student experiences in learning conditions boost motivation, engagement, and academic achievement (Tinto, 2017; Kuh, 2020).

In addition, student satisfaction has a close connection with perception of knowledge gain. As long as learners believe that their efforts in terms of time and money in education pay off with recognizable increment in knowledge and skill, chances are that they will mention a positive satisfaction in the institution. On the other hand, when teaching fails, there is a low level of resources, poor classroom control and the student will develop a feeling that there is limited knowledge acquisition and develop dissatisfaction and lack of interest.

Within the framework of the public university setting wherein overcrowded classes, insufficient facilities, and limited student-faculty interaction may traditionally be issues of concern, the perception of the knowledge gain in the students of the institution may offer significant information regarding the areas that require change. Such perceptions are important to the policy makers and teachers since they directly affect the student retention, student motivation and eventual academic achievement.

Students' Satisfaction with Knowledge Gained in Public Universities

The level of satisfaction that students experience with the acquired knowledge will show the extent to which students can achieve their academic expectations, learning objectives, and developmental outcomes out of their college life. It includes not just the quantity of knowledge one will have to possess but also the quality, relevance, and applicability of the knowledge to the academics and the real life. In governmental universities, where resources, teaching habits as well as policies within the university are different, knowledge gain satisfaction tend to be a critical measure of educational efficiency. When students believe that their courses prepare them with pertinent skills, critical thinking, and practical skills that meet the labor market requirements, they indicate they have greater levels of satisfaction because perceived value of the acquired knowledge is one of the key determinants of satisfaction. On the other hand, when the curriculum is old, too focused on theory, and not related to practice, students might not be content with their academic development.

Statement of the Problem

In higher education, particularly within public universities, knowledge gain is a central indicator of academic success and institutional quality. However, despite the growing enrollment in public universities, many students report dissatisfaction with the extent and quality of knowledge acquired during their studies. Several issues contribute to this challenge. First, teaching practices in many public universities are often dominated by traditional lecture-based methods, which limit opportunities for active learning, critical thinking, and practical application of concepts. Second, inadequate academic facilities including overcrowded lecture halls, poorly resourced libraries, outdated laboratory equipment, and limited access to digital resources hinder students' ability to engage deeply with course material. These factors are particularly significant in the context of public universities, where financial and infrastructural constraints often affect the delivery of quality education.

When students perceive limited knowledge gain, their satisfaction with the university experience declines, which may also reduce motivation, retention, and trust in public higher education institutions. Furthermore, insufficient knowledge gain undermines the role of universities in producing skilled graduates capable of meeting the demands of a knowledge-based economy. Addressing these issues is therefore critical, not only for improving student satisfaction but also for strengthening the academic reputation of public universities and ensuring their contribution to national development.

Although existing literature has extensively examined issues of student satisfaction, teaching effectiveness, and the role of academic facilities in higher education, much of this research has been conducted in developed countries or within private institutions, where resources and teaching approaches differ significantly from those in public universities. In the context of public universities in developing countries limited studies have comprehensively explored how teaching practices and academic facilities jointly influence students' perception and satisfaction of knowledge gain

Most prior studies have tended to focus on either teaching methods or academic infrastructure as isolated variables, without integrating them into a holistic model that considers their combined effect on students' perception and satisfaction. Similarly, while satisfaction surveys are common, fewer studies analyze students' perception of actual knowledge gained as a distinct construct, despite its importance in evaluating educational quality. This leaves a gap in understanding how students' subjective experiences of learning align with their satisfaction and the effectiveness of institutional provisions.

Therefore, the research gap lies in the lack of context-specific, integrated studies that examine the interrelationships among teaching practices, academic facilities, students' satisfaction, and perception of knowledge gain in public universities. Addressing this gap is crucial for identifying areas of improvement in public higher education and for designing interventions that ensure both quality teaching and supportive learning environments that enhance meaningful knowledge acquisitions.

Research Objective

1. To investigate the effect of students' satisfaction on perceived knowledge gain in public sector universities.

Hypothesis of the Study

HO: 1 there is no significant effect of students' satisfaction on perceived knowledge gain in public sector universities.

Significance of the Study

This study is significant because it examines the effect of students' satisfaction on perceived knowledge gain among undergraduate students in public sector universities. Understanding this relationship is important for evaluating the quality and effectiveness of higher education institutions.

Academically, the study adds to the existing literature by providing empirical evidence on how students' satisfaction influences their perception of knowledge gain. It helps bridge the gap between student-centered satisfaction studies and learning outcome research, particularly in the context of public universities.

Institutionally, the findings of this study can assist university administrators and academic managers in identifying factors that enhance or hinder students' learning experiences. By understanding the role of student satisfaction, universities can improve teaching practices, academic support services, and learning facilities to enhance students' knowledge gain.

From a policy perspective, the results may support higher education policymakers and regulatory bodies in developing quality assurance measures and performance indicators based on students' satisfaction and learning outcomes. This can contribute to informed decision-making aimed at improving the overall quality of public sector higher education.

Practically, the study provides useful insights for faculty members by highlighting the importance of effective teaching strategies, student engagement, and supportive learning environments in enhancing students' perceived knowledge gain.

Delimitation of the Study

This study is delimited to undergraduate students enrolled in the respective faculties of Social Sciences and Natural Sciences at three public universities (The University of Turbat, the University of Gwadar, and the University of Panjgor) in Balochistan.

Operational Definition of Terms

Student's satisfaction:

Refers to the extent to which undergraduate students perceive that their academic expectations and needs are being met within the university environment.

Perception of knowledge gained

Refers to the students' subjective evaluation of the learning outcomes they have achieved during their undergraduate studies.

Public universities

Refer to higher education institutions that offered undergraduates programs funded, and managed by the government.

Undergraduate students

Refer to the students who enrolled in BS degree programs at University of Turbat, University of Gwadar and University of Panjgor.

LITERATURE REVIEW

Teaching Practices and Students Satisfacations

Instructional practices are critical in determining the utmost level of satisfaction students have regarding their educational experience. There is constantly growing research on how interactive and engaging teaching activities, including the ones that are based on collaborative learning, guided inquiry, and problem-based tasks, can improve student engagement and student satisfaction. Research underlines that a supportive classroom environment is obtained by having frequently instructor-student interaction and possibilities to discuss with the instructor, which impact the positive attitude to the quality of learning. Assessment and feedback practices play a significant role, as well: using constructive and prompt feedback and assessment in accordance with the learning goals contributes greatly to enhancing the feeling of accomplishment and satisfaction among students. Over the last few years, researchers have emphasized the effects of online and blended learning places, observing that the degree of satisfaction relates to consideration of instructional design, technological issues, and access to socialising opportunities instead of just simply recycling conventional lectures to the Internet. Moderators like the institutional support, level of classroom teaching and student results are contextual factors that allow the relationship between teaching strategies and student performance to be experienced. Meanwhile, researchers warn that numerous studies are largely based on self-reported satisfaction surveys, which, in their turn, may be affected by such aspects as grading alacrity, perceived workload, or the qualities of an instructor. In order to understand the matter more extensively, specialists suggest incorporating various indicators into one, i.e. combining qualitative feedback, learning analytics, and performance data to assess the effectiveness of teaching. In general, the literature indicates that teaching practices should be active, rich in feedback, and contextually varied and the support offered to educators by institutions should facilitate their professional growth and workable loads.

Classroom Environment and Students Satisfacations

The learning experience of the students can be influenced greatly by the classroom environment. Teachers who build favorable and inclusive classroom environments are liked by students. According to a study by Karim and Hussain (2019), students have stated that teachers who made a classroom environment positive and inclusive were more successful in facilitating their learning. In one of the studies, Bahrami et al. (2021) noted that reportedly relaxed and supportive classroom environment created by teachers proved useful in facilitating learning in a student. Students of Multicultural Awareness University have different cultural backgrounds and teachers with such understanding can be more effective to facilitate learning. In one of the studies

Conducted by Tetteh et al. (2019), students who participated in the research claimed that education was effective because teachers knew about cultural differences and tailored their instructions to meet the needs of students with different backgrounds. The reviewed literature identifies the role of effective communication, interactive teaching approaches, relationship between the teacher and the students, and the flexibility to the various learning styles, assessment and feedback, innovative teaching, classroom setting, and multicultural awareness in enhancing positive learning experiences among students (Toyama and Yamazaki, 2020). These aspects could be utilized to advance planning of successful pedagogical plans and quality improvement of teaching methods in university level.

Factors Influencing Student Satisfaction

Teaching quality has always come out as one of the most powerful predictors of satisfaction. The use of effective instructions such as active learning, clear explanations, and interests all these have a direct effect on how the students view the courses.

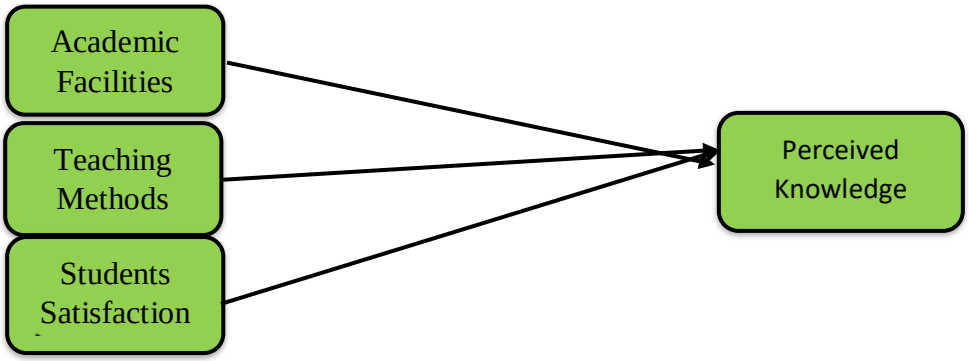
Practices of feedback and assessment also do count: a timely, constructive, and transparent feedback will better help students feel that they are making any progress and that they are fairly assessed (Williams, 2024).

Classroom management, pre-planned and friendly setting minimizes interference and encourages participation, and this yields satisfaction. The significance of relationships between teachers and students is also emphasized in the studies: a teacher should be friendly, respectful, and empathetic, and under these conditions, a student will feel appreciated, and it will result in enjoying the learning process more (Al Qantara Journal, 2024).

Also, the physical learning conditions, such as comfort, technology, and resources, are involved in the determination of the level of satisfaction, particularly when blended or online learning is involved and the usage of digital tools and technical support becomes essential.

THEORETICAL FRAMEWORK

Theoretical framework relates to the way of trying the research to the prior knowledge. It is backed by a theory that was applicable to the issue of the research and selection of method to conduct research. The theoretical assumption of the research study had to answer queries of why and how, which is articulated. A theoretical framework indicates the key variables, like, (Teaching practices, Academic facilities, Students satisfactions and Knowledge Gain), these variables are Measure the student's perspective of knowledge gained.



Proposed model: Abdullah Alves & Mário Raposo (2007

RESEARCH METHODOLOGY

Research methodology is used to outline the research design, data origin, the data collection techniques, the sampling process and data analysis methodologies. Reliability of the data instrument, validity of data tools as well as ethical consideration are also detailed in this section. This study employed the survey technique, which is survey technique to ascertain the attitudes and opinion of the subject, most reliable and suitable statistical technique, where respondents are solely suited to supply the information (Yogesh K Singh 2006).

Research Design

This research study was conducted through the use of the descriptive survey research design and quantitative approach. The descriptive type of research is conducted according to the set goals and leads to the unambiguous conclusions. Under this research design, the current situation and procedures are surveyed, analyzed, and described. The descriptive researches are supposed to assess the knowledge acquisition of the respondents relative to their perception and satisfactions (L.R Gay, 2012).

Population of the Study

The population is used to represent a large population where the researcher obtains representatives to further study (Gay, 2012). The population of present study was comprised of all universities in Makran Division Male and Female Undergraduate's students of respective departments.

Table 1. Population of the study

District	Public Universities	Population of the study	
		Undergraduates students	
		Male	Female
Turbat	University ofTurbat	450	550
Panjgor	University of Panjgor	400	300
Gwadar	University of Gwadar	450	350
Total	3	1300	1200

Table 2. The sample size of the respondents

District	Public Universities	Sample of the study		
		Undergraduates' students		
		Male	Female	Sampling
Turbat	University Turbat	60	80	Stratified
Panjgor	University of Panjgor	60	47	Stratified
Gwadar	University of Gwadar	45	53	Stratified
Total	3	165	180	345

Sample and Sampling Techniques

The sample is a small fraction to be used in the study based on the huge population. Sample is the part of entire population which is the subject of investigation of a researcher and which is preferably sound and characterized by eminence in the entire population (Gay, 2012). In this study, stratified sampling method has been used to select representative of the study. In calculating the sample size of the respondents (students of undergraduate) Taro Yamane sample size formula was used.

n= N/1+N (e) 2

n= sample

1=1 is constant

e= error limit or margin of error it is anticipated that it should be 5% or 0.05

Determined Sample Size

The (N=2500) students of Makran division Universities (Balochistan) were considered to be the representatives of the population of the district of Makran Division using Taro Yamani formula (n=345).

The sample size of the Undergraduates students.

n=N/1+N (e) 2

n=2500/+2500(0.05)2

n=2500/1+2500 (00.25)

n=2500/2.0075

n= 345 undergraduate's students

Research Tools:

The questionnaires, Likert scale 5.0, were modified and utilized to obtain the research results of the Undergraduates students regarding their perception and satisfaction with respect to teaching practices and academic facilities. The questionnaires on satisfaction of the students were borrowed in the literature (Adamu, 2017, Weerasinghe and Fernando, 2017). The study included the questions were measured the students satisfactions of knowledge gained.

Piloting Testing:

A piloting testing was done to test the validity and reliability of the research instruments which was is checked by using the Likert scale questionnaires 5.0. Piloting testing in studies is a small pilot study that is administered to allow testing of an intended research before actual performance. Pilot test of the research instruments in this study was done using the quantitative statistical techniques. A pilot test was used to test the study on 10 per cent of the sample (L.R Gay, 2012) which was comprised of 34 undergraduate's students in University of Turbat Balochistan.

Table 3. Piloting Testing of the Items

Cronbach Alpha	No of items
.877	24

Validity of Data Collection Tools

Validity is concerned with the accuracy that a researcher intend to measure. It preceding is the extent to which an instrument, a test or method measures what it is intendent to measure. It also claimed to be that extrapolate to which some inferences could be drawn based on the scores of the tests or another measure (Goodman et al., 2019). The instrument of the research was tested in terms of content validity. Content validity is a measure that defines the level of relevancy and sufficiency of the contents of data collection tool to collect the needed data.

Reliability of the Research Instruments

Reliability may be considered as capability of a test, a tool or a procedure to produce similar outcomes when administered by diverse scholars or be utilized in a variety of issues and environment. The concept of reliability ty is taken to mean the level of consistency in the measures of the same thing (Yogesh k Sing, 2006). The word consistency denotes analogous or identical findings of repeat measure. To determine the reliability of the research instrument, the coefficient of reliability Cronbach Alpha was determined to ascertain the perception and satisfaction of the student to both Teaching Practices (TP) and Academic facilities (AF) of the Universities of Makran Balochistan. . The Cronbach Alpha value of the student's satisfaction was found .728 which is quit reliable.

Table 4. Reliability Statistics of the Instruments

Variables	No of Items	Cronbach Alpha
SS	6	.728
KG	6	.778

Data Collection Procedure

Data collection is the process of preparing data to seek information, records data, make decision or even transfer information to other people The data collection was preceded with one month of data collection prior to the actual data collection, where a clearance was obtained with the university, a letter sent to the Registrar of University of Turbat, University of Panjgor and the University of Gwadar requesting them to allow them to conduct a research. Only Undergraduates student was administered the questionnaires in order to obtain data on student's satisfaction and knowledge gained.

Ethical Considerations:

Ethical consideration in research refers to a collection of principles that will shape your research design and research practices in respondents consent (Shukla2017). In this research study, prior permission was made in the concerned department during the data collection process.

RESULTS AND DISSCUSSION

This chapter will include the following: the demographic data of the respondents and the descriptive statistics of the study, where data collected among the students of the Undergraduate will be analyzed. Data analyzed using descriptive and inferential statistics method with the help 0f SPSS. The questionnaire on the student perception and satisfactions

The questionnaires were conducted to explore the perception and satisfactions of the student on the teaching practices and academic facilities of the undergraduate as well as established that the degree to which students had been satisfied with the teaching practices and facilities that were available in these new universities. In this study, 345 undergraduate students in respective department were used, gauging the normality of the data the descriptive statistics was performed based on the knowledge of gender, semester and department and percentage of the level of agreement based on Likert scale 5.0.

Table 5 Overall Frequency and Percentage of Gender of the Respondents

Respondents Gender	N	Percent
Male	148	42.98
Female	183	53.0
Prefer not to say	11	3.18
Total	345	100.0

Graphical Representation of Respondents

The table present gender distribution of respondents who participated the study on student's perception and satisfaction about knowledge gained. Among the total number of (345) respondents, 148 (42.98) represented Male, and 183 (53.0) represented Female, therefore, the female undergraduates had a slightly larger percent ratio of the respondents.

The main value of 1.65 and standard deviation of 0.683 showing that the responses were moderately concentrated towards female groups were fairly medium focused on the feminine group (assuming the code 1 = male, 2 = female). The standard deviation was relatively low, which indicates that the gender responses were not widely spread across categories.

Table 6 Overall Frequency and Percentage of Semesters the Respondents

Semester	Frequency	Percent
First	27	7.82
Second	18	5.2
Third	82	23.8
Fourth	43	12.5
Fifth	90	26.1
Sixth	27	7.8
Seventh	41	11.9
Eighth	17	4.9
Total	**345**	**100.00**

Graphical representation of Respondent's semesters.

Table present the distribution of the respondents based on their semester. The findings suggest that most of the respondents were pursuing the fifth semester (26.1%), fourth semester (12.5%), and the third semester (23.8%). The percentage of the respondents in the seventh semester was relatively less (11.9%), the first and the sixth semester (7.8 each), while the second (5.2) and the eighth semester (4.9) had the least representation.

The distribution suggest that most respondent were mid-level undergraduates, particularly from the middle semesters, which indicate that they had gained sufficient academic exposure and experience to provide meaningful insight into their perception and satisfaction about knowledge gained

Table 7. Overall Frequency and Percentage of Departments of the Respondents

Department of Respondents	N	Percent
Economics	27	7.83
Education	135	39.13
Sociology	63	18.26
Political Science	62	17.97
Computer Science	38	11.01

English		20	5.79
	Total	**345**	**100.0**

Graphical representation of Departments.

The table shows the distribution of the respondents in respective. Departments. The majority of the respondents were from the Department Education (39.13%), then the Department of Sociology (18.26%) and the Political Science (17.97%). Computer Science respondents made up (11), while smaller proportion were recoded from the Economics (7.83) and English (5.79) departments.

This distribution illustrate that the Education department had the highest greatest representation reflecting a stronger participations from students specializing in education related disciplines. The diversity across departments enhance the reliability of findings, as it capture perception and satisfaction levels from the students with varied academic background

Normality Statistics

The normality is described as the form of data or single metric variable and the fit to normal distribution (Drucker and Maciariello, 2009). In case it is violated, it may affect the approximation or result (Brundertt et al., 2003), especially in inferential statistics. Normality was diagnosed through visual check or graphical analyses such as, Histogram, Q-Q plots and box plot that compare the observed data with normal distribution. The researcher then conducted inferential analyses after the performing the procedure the researcher then carried out inferential analyses. The test normality was undertaken from both questionnaire single variable "Students satisfaction which were found normally distributed. The table, Histogram and boxplots given below showing normal distribution of the data.

Table 8.Test of Normality

Test of Normality						
Variable	**Kolmogorov-Smirnov**			**ShapiroWilk**		
	Statistic	df	Sig			
SS	0.92	345	0.47	0.98	345	0.66
KG	0.92	345	0.35	0.98	345	0.71

Table indicates the results of the normality test performed on the study construct, which is comprised of students satisfaction, knowledge gained, where the Kolmogorov-Smirnov (K-S) and the Shapiro-Wilk (S-W) test is used to determine the test of normality. According to the Kolmogorov–Smirnov results, the significance (Sig.) values for all variables are below the commonly accepted threshold of 0.05 SS = 0.47, KG = 0.35). Consequently, the null hypothesis of normality is rejected

Students Satisfaction

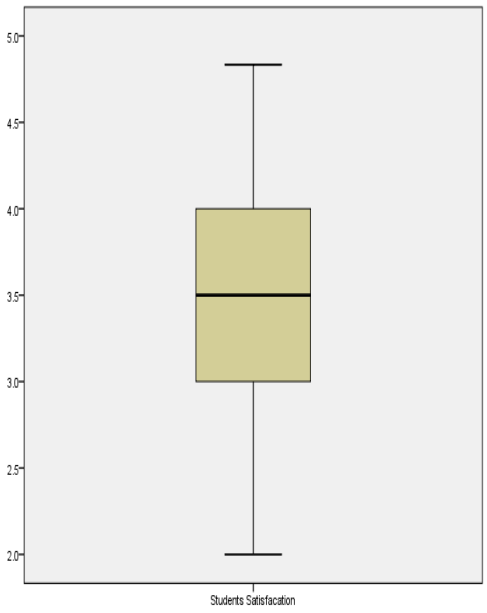
Histogram, Q- Q Plot and Box Plot Showing Normal Distribution of the Data of Variable Students Satisfacation

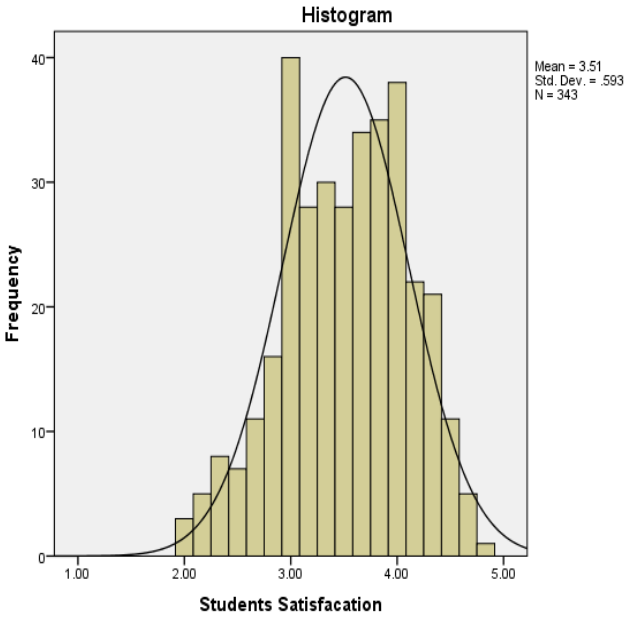
Table 9. Test of Normality of Students Satisfaction

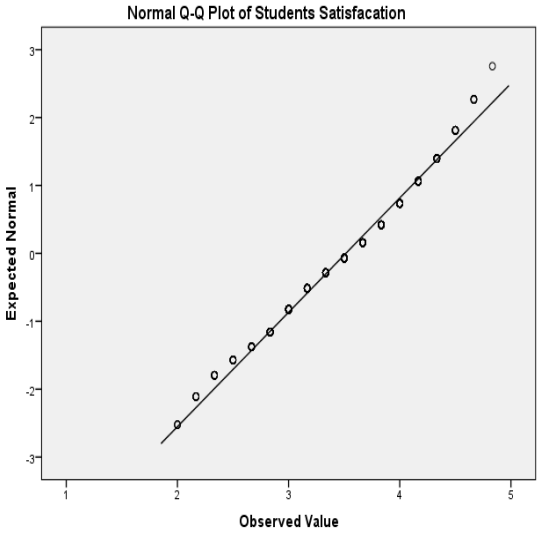
Tests of Normality

	Kolmogorov- Smirnova			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
Students Satisfaction	0.92	345	0.47	0.98	345	0.66

a. Lilliefors Significance Correction







The normality of the variable Students Satisfaction was assessed through statistical test results presented in tabular form as well as supporting graphical illustrations. Initially, the Kolmogorov-Smirnov test produced a significance value of .047, which falls slightly below the established 0.05 threshold, indicating a minor deviation from normality. However, the Shapiro-Wilk test, which is often considered more reliable for larger sample sizes, reported a significance level of .066, exceeding the 0.05 criterion and suggesting that the distribution does not significantly depart from normality. The histogram reflects a distribution that is approximately bell-shaped, while the Q–Q plot reveals that most data points closely follow the diagonal reference line, with minimal deviations at the extremities. According to the results of the congenial findings of the statistical tests and the graphical results, the variable of Student Satisfaction may be said to be normally distributed, thus confirming the use of the parametric statistical procedures in the further analysis.

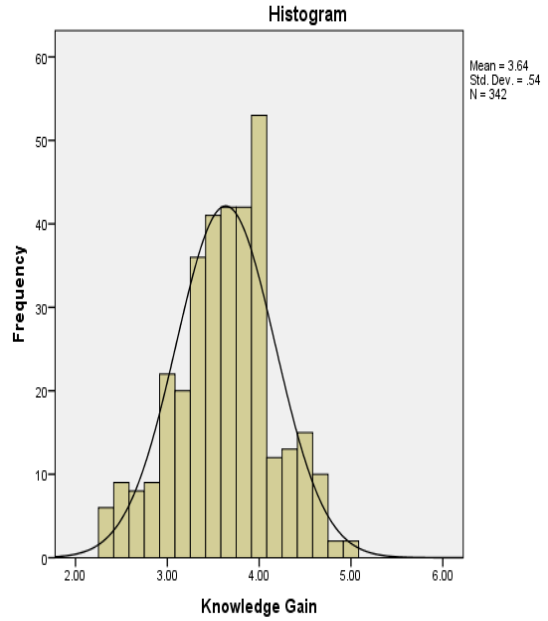
Above table, Histogram, Q-Q plot and Box plot showing the results and statistical value (Kolmogorov-Smirnov sig, .047) P< 0.05 shows that the data of

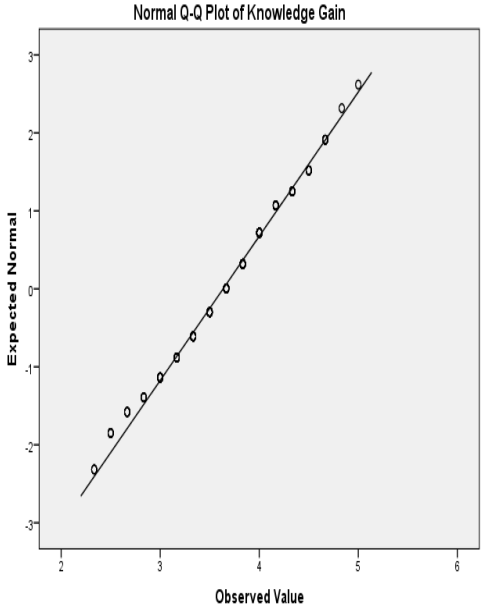
Knowledge Gain

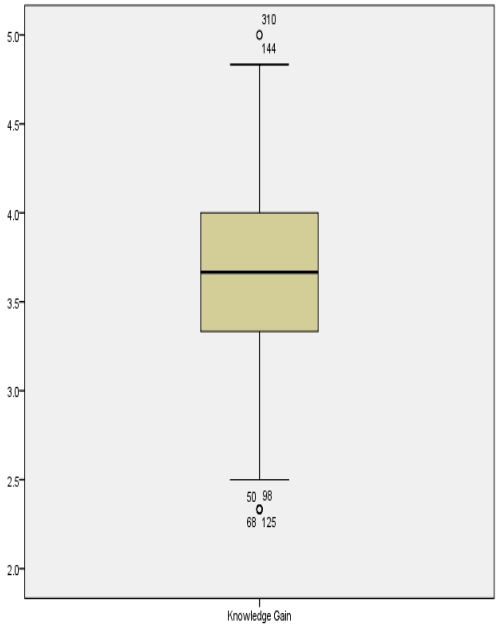
Histogram, Q- Q Plot and Box Plot Showing Normal Distribution of the Data of Variable Knoeledge Gain

Table 10. Normality Statistics of Knowledge Gained

Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Knowledge Gain	0.92	345	0.35	0.87	345	0.71
a. Lilliefors Significance Correction						







The normality of the variable Knowledge Gain was assessed first through statistical tests presented in the table, followed by visual inspection using multiple graphical tools. Initially, the Kolmogorov-Smirnov test indicated a significance value of .035, which is below the accepted alpha level of 0.05, suggesting a slight deviation from normality. Additionally, the Shapiro-Wilk test, which is generally considered more reliable for larger sample sizes, yielded a significance value of .071 that exceeds the 0.05 threshold, indicating no significant departure from a normal distribution. The histogram displayed a roughly bell-shaped curve, while the Q–Q plot illustrated that most data points closely followed the diagonal reference line, with minor deviations at the tails. The box plot also supported normality by revealing no extreme outliers and demonstrating a relatively symmetric distribution of values.

Measurement of Students Responses on Variable (Students Satisfacation)

The student's satisfaction were measured in relation to the variables of Teaching Practices and Academic Facilities. Six (6) item were finalized after measuring the validity and reliability of the questionnaire. The mentioned items were assessed to determine the students satisfaction levels with the given statements, are follow 1. I am satisfied with how the teaching methods contribute to my knowledge of the course content 2. I am satisfied with the clarity of instruction in my course 3. I am satisfied with the classroom management, which enhance my learning experience and knowledge acquisition 4.I am satisfied with the availability and quality of library resources

Table 11 Descriptive Statistics of Students Satisfaction

Statement	Mean	SD
I am satisfied with how the teaching methods contribute to my knowledge of the course content	3.68	1.004
I am satisfied with the clarity of instruction in my course	3.59	1.008
I am satisfied with the classroom management	3.67	.943
I am satisfied with the availability and quality of library resources	3.45	.872
I am satisfied that lecture rooms are adequately equipped	3.44	.911
I am satisfied with lecture room conditions	3.68	.939
Overall	**3.59**	**.946**

The results show that students report high satisfaction with teaching methods (*M = 3.68*), classroom management (*M = 3.67*), and lecture room conditions (*M = 3.68*).

Satisfaction with the clarity of instruction is slightly lower (*M = 3.59*), and the lowest satisfaction is observed for the availability and quality of library resources (*M = 3.45*) and lecture room equipment (*M = 3.44*).

The standard deviations, which range from *SD = 0.872* to *SD = 1.008*, suggest moderate variation in student opinions, with clarity of instruction showing the highest variability.

Overall, the results suggest that students are generally satisfied with teaching-related factors and classroom environments, but improvements are needed in library resources and lecture room equipment**.**

Knowledge Gain

The concept "knowledge gain "was measured the students perception regarding their acquisition knowledge. Six (6) items were finalized to ensured validity and reliability of the questionnaires, which were administrated on a variable wise. Student's responses were analyzed and presented in tables and graphs.

All items were designed to target the variable of knowledge gain through variable wise. The descriptive statistics was applied to measure the items of variable of Knowledge Gain with frequency distribution.

Table 12. Descriptive statistics of variable (Knowledge Gained)

Statement	**Mean**	**SD**
The teaching methods used in this course significantly improved.	3.68	.939
Gained a strong understanding of the subject matter through the lecture.	3.73	.909
Classroom management positively enhanced my knowledge acquisition.	3.68	.967
The instructor maintained a productive learning environment that enhanced my learning.	3.62	.920
The availability of library resources helped gained knowledge.	3.55	.960
The lecture room environment helps me understand the lecture topics.	3.61	.932
Overall	3.65	.938

The results indicate that students are generally satisfied with the teaching and learning environment. The highest-rated statement is gaining a strong understanding of the subject matter through lectures (*M = 3.73*), showing that teaching effectively supports learning. Positive ratings are also given to teaching methods and classroom management (*M = 3.68* each), as well as the instructor's ability to maintain a productive learning environment (*M = 3.62*). In comparison, library resources received the lowest score (*M = 3.55*), suggesting room for improvement. The lecture room environment also shows good satisfaction levels (*M = 3.61*), indicating that the physical setting supports understanding of lecture topics.

Overall, the findings suggest strong satisfaction with teaching practices and classroom conditions, while library resources are the area most in need of enhancement.

Statistical Description of Variables (Students Satisfacation)

Table 13. Overall frequency distribution of (student's satisfaction)

Statement	Level	n	Percent	Mean	Std. dev
Students Satisfaction	Strongly disagree	13	3.47	3.51	.593
	Disagree	47	13.62		
	Undecided	72	20.86		
	Agree	161	46.66		
	Strongly Agree	51	14.78		
	Total	**345**	**100.0**		

Distribution of students' responses towards their level of satisfaction in public universities, among of the total (345) respondents, 13 students (3.76%) responding strongly disagreed and 47 (13.58%) stated disagreed with the statement on students satisfaction regarding the teaching practices and availability of facilities, a small no of subjects showing their dissatisfaction. So the 72 students (20.82%) were not cleared and undecided. Majority of the respondents 161 (46.57%) had a positive view agreed and satisfied with the statement about the academic facilities in public universities and knowledge gained. While 51 students (14.76) were strongly agreed with the given statements.

These findings align with previous research (e.g., Ahmed & Masud, 2014; Arambewela & Hall, 2009), which suggests that academic support and learning environment play a significant role in enhancing student satisfaction and engagement.

Table 14. Overall frequencies and percentage, of the Variable Knowledge Gained.

Statement	Level	n	Percent	Mean	Std. dev
Knowledge Gained	Strongly disagree	8	2.31	3.63	.539
	Disagree	37	10.72		
	Undecided	71	20.57		
	Agree	178	51.59		
	Strongly Agree	35	10.14		
	Total	345	100.0		

The table shows the distribution of the responses of students as to whether they have perceived an increased knowledge in the case of public universities.

While 8 students (2.34%) strongly disagreed and 37 students (10.83%) disagreed that their experience at the university helped them to gain knowledge, thus a small number of students who perceived a constrained academic growth. In the meantime, 71 students (20.77) were not sure meaning that there was uncertainty about what they could achieve in learning and the method of teaching they could apply.

Conversely, a good majority indicated positive perceptions with 178 students (52.09) and 35 students (10.26) affirming that their studies improved their knowledge and understanding and strongly so respectively. This means that over 62 percent of those interviewed had achieved significant learning gains, which means that the universities were successful in achieving academic learning and intellectual growth.

In general, the findings indicate a considerable degree of perceived knowledge increase among the undergraduate learners, which implies academic setting and the standards of instruction are favorable to learning. These results can be compared to the prior research (e.g., Arambewela and Hall, 2009), where it is stated that the presence of effective teaching practices and favorable academic facilities has a positive impact on the learning outcomes and perceived knowledge improvement of students.

Hyphothesis Testing

1. To investigate the effect of students' satisfaction on perceived knowledge gain in public sector universities.

Hypothesis of the study

HO: 1 there is no significant effect of students' satisfaction on perceived knowledge gain in public sector universities.

Summary of the Regression Analysis of Students Satisfaction (SS) on Knowledge Gain (KG)

Table 15. Model Summary of (SS) & (KG)

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.452	.204	.202	.48312
Predictors: (Constant), Students Satisfaction				

Table 16. Statistical Analysis of ANOVA (Students Satisfaction & Knowledge Gained.

ANOVA						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	20.236	1	20.236	86.699	.000b
	Residual	78.891	338	.233		
	Total	99.127	339			
a. Dependent Variable: Knowledge Gain						
b. Predictors: (Constant), Students Satisfaction						

Coefficient analysis of variable (Students Satisfaction & Knowledge Gained.

Coefficients						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	2.191	.157		13.927	.000
	Students Satisfaction	.411	.044	.452	9.311	.000
a. Dependent Variable: Knowledge Gain						

The regression analysis was used to examine the effect of students' satisfaction on knowledge gain. The model summary showing a correlation coefficient of R = .452, revealing a positive relationship between the variable students' satisfaction and knowledge gain. The coefficient of determination (R^2 = .204) indicated that students' satisfaction explained 20.4% of the variance in knowledge gain, while the remaining variance may be influenced by other factors not included in the model. The adjusted R^2 value of .202 further confirmed the suitability of the model.

The ANOVA results demonstrated that the regression model was statistically significant, F (1, 338) = 86.699, $p < .001$, indicating that the predictor variable significantly explained the variation in knowledge gain. The coefficient analysis further showed that students' satisfaction had a positive and significant impact on knowledge gain (B = .411, β = .452, t = 9.311, $p < .001$). This implies that an increase in students' satisfaction leads to a corresponding increase in knowledge gain. Therefore, it can be concluded that students' satisfaction is a significant predictor of knowledge gain among the respondents.

RESULT AND DISCUSSION

Finding of the Study

1. To investigate the effect of students' satisfaction on perceived knowledge gain in public sector universities.

2. Finding based on the descriptive statistics of variable # Students satisfaction and Knowledge Gained.

The measurement of student's satisfaction was done based on the student of undergraduate. Six (6) items were used to measuring the validity and reliability of the questionnaire variable wise. The student's opinion on the variable- Satisfaction and knowledge gain this indicates that students have a positive view regarding the variable. The average score shows that students are quite satisfied with the knowledge Gained that provided by the instructor in public sector universities and academic resources that are available to support the process of learning but the aspects that can be improved. The overall mean score 3.51 and SD 5.93 indicate a generally positive perception among students toward their learning experience in the studied universities. The coefficients table reveals that students' satisfaction has a significant positive effect on knowledge gain among undergraduate students. The unstandardized coefficient (B = 0.411) indicates that for every one-unit increase in students' satisfaction, the predicted level of knowledge gain rises by 0.411 units. The standardized Beta value (0.452) shows a moderate positive relationship, suggesting that satisfaction meaningfully contributes to variations in knowledge gain. The t-value of 9.311 with a significance level of 0.000 confirms that this relationship is statistically significant.

Overall, the findings suggest that higher levels of student satisfaction are associated with greater perceived knowledge gain, underscoring the importance of satisfaction as a key predictor in the learning process.

The aim of the research to examine the effect of satisfaction on knowledge gained in the undergraduate's student enrolled newly established universities, students were asked regarding the variable (satisfaction & knowledge gained) in the context of teaching practices and academic facilities. Responding shows their satisfaction on knowledge acquisition, available facilities such as academic library, equipped lecture rooms and application of teaching aids. For this study researcher adapted 34 items to test the validity and reliability of the collected data and administrated to the participant to determine students satisfaction on knowledge gained. The regression analysis indicated that students' satisfaction has a positive relationship with the dependent variable, as reflected by an R value of (.452). The R Square value of .204 shows that students' satisfaction explains about(20.4)% of the variance in the dependent variable, suggesting that while it plays an important role, other factors also contribute to the outcome. Overall, the results suggest that students' satisfaction positively influences the dependent variable, though the relationship is moderate rather than strong.

CONCLUSION

The results showed that the satisfaction of the students is a important factor in improving their view about knowledge acquisition. Students who are satisfied with the learning environment, the quality of teaching, and the support provided by the institution report more significantly good results in terms of the acquired knowledge and academic self-confidence.

Moreover, it was revealed in the analysis that student's satisfaction possess a positive and significant impact on student knowledge gained. The provision of adequate structures such as classrooms, libraries, laboratories, and that which facilitates academic activities are all helpful towards developing a favorable

learning environment. On the same note, the teaching practices identified to be effective like interactive pedagogies, effective communication, and intertwining students were identified to reinforce their perception of overall academic satisfaction.

The findings also established the fact that teaching practices and school facilities have a direct effect on the perceived acquired knowledge by the students. The universities which invest in enhancing faculty teaching abilities and academic infrastructure can assist students to attain a higher learning outcome and conceptual comprehension. The given findings are consistent with prior studies (e.g., Ali et al., 2016; Tessema et al., 2012), which define student satisfaction and effective teaching as the key foretellers of academic performance and perceived learning.

It was also revealed in the study that the instructional approaches used as well as academic resources have a great influence on the acquisition of knowledge among the students. A good teaching is a teaching that is passing knowledge but also building analytical, problem solving and critical thinking skills in students. Students can learn to internalize and utilize the concepts learned far well when teachers use interactive and active methods of teaching. Moreover, modern and available academic resources like research material, libraries, internet, and comfortable learning environments in addition make an academic environment that facilitates academic achievements. The findings are in agreement with an earlier study by Kuh et al. (2005) and Harvey and Green (1993) that clarified that quality of education and outcomes of learning is improved when institutions invest in good teaching and academic infrastructure.

REFERENCES

Ahmed, S., & Masud, M. M. (2014). Measuring service quality of a higher educational institute towards student satisfaction. American Journal of Educational Research, 2(7), 447–455.

Arambewela, R., & Hall, J. (2009). An empirical model of international student satisfaction. Asia Pacific Journal of Marketing and Logistics, 21(4), 555–569.

Arokiasamy, A., & Abdullah, A. (2012). Service quality and students' satisfaction at higher learning institutions: A case study of Malaysian university competitiveness. International Journal of Management and Strategy, 3(5), 1–16.

Bryman, A., & Bell, E. (2007). Business research methods (2nd ed.). Oxford University Press.

Calvo, R., Markauskaite, L., & Trigwell, K. (2010). Factors affecting students' experiences and satisfaction about teaching quality in engineering. Australasian Journal for Engineering Education, 16(2), 139–148.

Chua, C. (2004). Perception of quality in higher education. In AUQA Occasional Publication: Proceedings of the Australian Universities Quality Forum 2004.

Commission for University Education. (2014).Universities standards and guidelines.Nairobi, Kenya: CUE.

Dib, H., & Alnazer, M. (2013). The impact of service quality on student satisfaction and behavioral consequences in higher education services. International Journal of Economy, Management and Social Sciences, 2(6), 285–290.

Douglas, J., Douglas, A., & Barnes, B. (2006). Measuring student satisfaction at a UK university.Quality Assurance in Education, 14(3), 251–267.

Encabo, H. C. (2011). Canonical correlation analysis of student perception on instructional quality and satisfaction. JPAIR Multidisciplinary Journal, 6, 1–16.

Farahmandian, S., Minavand, H., & Afshardost, M. (2013). Perceived service quality and student satisfaction in higher education. Journal of Business and Management, 12(4), 65–74.

Firdaus, A. (2005). HEdPERF versus SERVPERF: The quest for ideal measuring instrument of service quality in higher education sector. Quality Assurance in Education, 13(4), 305–328.

Firdaus, A. (2006). The development of HEdPERF: A new measuring instrument of service quality for the higher education sector.International Journal of Consumer Studies, 30(6), 569–581.

Gbadamosi, G., & de Jager, J. (2009). What you see is what you get: Service quality, students' perceptions and satisfaction at South African universities. South African Journal of Higher Education, 23(5), 877–893.

Govender, J. P., Veerasamy, D., & Noel, D. T. (2012). International students' expectations and perceptions of service quality: The case of a higher education institution in South Africa. Journal of Economics and Behavioral Studies, 4(10), 588–594.

Gyamfi, D. A., Agyeman, A., & Otoo, B. (2012). Assessing the provision of quality student services and satisfaction in tertiary institutions in Ghana: Using Cape Coast Polytechnic as a case study. Asian Journal of Business and Management Sciences, 1(12), 20–32.

Hanaysha, J., Abdullah, H., & Warokka, A. (2011). Service quality and students' satisfaction at higher learning institutions: The competing dimensions of Malaysian universities' competitiveness. Journal of Southeast Asian Research, 1–11.

Hansemark, O. C., & Albinson, M. (2004). Customer satisfaction and retention: The experiences of individuals with employees. Managing Service Quality, 14(1), 40–57.

Ilias, A., Hasan, H., Rahman, R., & Yasoa, M. R. (2008). Student satisfaction and service quality: Any differences in demographic factors? International Business Research, 1(4), 131–143.

Johnstone, D. B. (2009). Worldwide trends in financing higher education. In J. Knight (Ed.), Financing access and equity in higher education (pp. 1–15). Sense Publishers.

Kapur, D., & Crowley, M. (2008). Beyond the ABCs: Higher education and developing countries (Working Paper No. 139). The Center for Global Development.

Karami, M., & Olfati, O. (2012). Measuring service quality and satisfaction of students: A case study of students' perception of service quality in high-ranking business schools in Iran. African Journal of Business Management, 6(2), 658–669.

Khan, M. M., Ahmed, I., & Nawaz, M. (2011). Students' perspective of service quality in higher learning institutions: An evidence-based approach. International Journal of Business and Social Science, 2(11), 159–164.

Letcher, D. W., & Neves, J. S. (2010). Determinants of undergraduate business student satisfaction. Research in Higher Education Journal, 1–26.

Mansor, A. A., Hasanordin, R., & Rashid, M. (2012). Hierarchical service quality model towards student satisfaction. International Journal of Innovation, Management and Technology, 3(6), 803–807.

Manzoor, H. (2013). Measuring student satisfaction in public and private universities in Pakistan. Global Journal of Management and Business Research: Interdisciplinary, 13(3), 5–17.

Mulusa, T. (1990). Evaluating education and community development programmes. Deutsche Stiftung für Internationale Entwicklung.

Ndirangu, M., & Udoto, M. O. (2011). Quality of learning facilities and learning environment: Challenges for teaching and learning in Kenya's public universities. Quality Assurance in Education, 19(3), 208–223.

Ng'ethe, J. M. (2013).Determinants of academic staff retention in public universities in Kenya (Unpublished doctoral dissertation). Jomo Kenyatta University of Agriculture and Technology, Juja, Kenya.

Oldfield, B. M., & Baron, S. (2000). Student perceptions of service quality in a UK university business and management faculty. Quality Assurance in Education, 8(2), 85–95.