



EFFECT OF CAMPUS HOSTELS FACILITIES QUALITY ON STUDENTS' SATISFACTION AND ACADEMIC PERFORMANCE IN UNIVERSITY OF JOS

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Abstract

One of the key features students and their parents are concerned about when enrolling in a university is the availability of student hostels. This research examined the effect of on-campus hostel accommodation and quality of facilities on student satisfaction and academic performance in University of Jos with a view to identifying the level of satisfaction with available facilities provided and improvement of academic performance in the study area, it also achieved one objectives, to assessed the effect of campus hostel facilities quality on students satisfaction and academic performance in the study area. The descriptive and quantitative research approach was adopted in this research. The sample frame of this study is 4,000 students which is the total number of students in the various hostels on campus while, sample size for this research was 351 which was determined using the Krejcie and Morgan (1970) sample table. Partial Least Squares Structural Equation Modeling was used to analysed research question. Finding from structural models revealed that coefficient of determination R², is 0.787 for the students' satisfaction and 0.014 for students' academic performance. This indicate that quality of facilities explain 78.7 % Variance on student satisfaction and 1.4 % variance on academic performance while, the t-statistic of each construct and the indicator revealed that, is significant as is indicated by the t-statistics of 33.698, which is more than 1.96 thresholds, while 0.767 has less significant effect. The effect of quality of facilities on students' satisfaction is significant as exposed in the result indicated a t-statistics of 33.698 which is more than the 1.96 threshold. The research recommended that the school management/authority and administrators should provide good security facilities and good fire fighting equipment facilities, in the hostel to protect the life and properties of students' on-campus.

Keywords: Campus Hostels; Facilities Quality; Students' Satisfaction and Academic Performance

Introduction

Housing has been universally acknowledged as one of the most essential necessities of human life and is a major economic asset in every nation and importance of the social environment in students' life cannot be overemphasized (Danso & Hammond 2017).). One of the key features students and their parents are concerned about when enrolling in a university is the availability of student hostels. The Effect of on campus hostel accommodation and quality of facilities on

student satisfaction and academic performance has attracted the mind of several researchers in the world especially the government of Nigeria. They face various challenges every year to accommodate and maintain hostel facilities in the universities and polytechnics which is coupled with lack of maintenance which leads to poor regular water supply, bathroom, laundry, toilet facilities due to distance from rooms and level of cleanliness, parking lots, cafeteria, mini market bookshop and banking automated teller machines (ATM), conveying systems like lift and staircases electrical wirings, fire safety, pipe repairs and 24 hour security guards (Hassana, 2008; Ajayi Nwosu & Ajani, 2015).

Therefore several researches have been conducted by various researchers into housing satisfaction to mention but a few which include studies conducted by Salleh (2008) neighborhood factors in private low-cost housing in Malaysia, Amole (2009) residential/satisfaction with student housing, Lehoaae Ayub (2010) studied the factors predicting student satisfaction with university hostels in Malaysia, Najib (2011) studied residential/satisfaction of the student housing facilities in Malaysian public universities. Clement and kayode (2012) public housing and user satisfaction in Ondo state Nigeria, Lai (2012) studied post occupancy evaluation of university student hostel/facilities in Hong Kong, Sawyir and Yusuf (2013) studied student satisfaction with facilities in Nigerian polytechnics. Mansour and Ali (2015) studied impact of hostel students' satisfaction on their academic performance in Sri Lankan universities, Danso and Hammond (2017) studied level of satisfaction with private hostels around tensest campus, Philip Ileanwa and El-Hussein (2015) studied post occupancy evaluation of standard hostel facilities in federal universities in north central Nigeria.

However, most of the existing studies carried out in other parts of the world and in Nigeria, the researches only considered student satisfaction with university hostel and failed to address the student satisfaction with hostel and academic performance of other higher institutions in the country. Most of the previous research carried out were based on the student satisfaction with university hostels, residential satisfaction of the student housing facilities without putting into consideration; satisfaction, quality of the facility and the academic performance of the students. This research therefore sets out to fill the missing link or gap by studying the effect of on-campus hostel facilities quality on students' satisfaction and academic performance in University of Jos. The aim of this study is to examine the effect of campus hostel facilities quality on student satisfaction and academic performance in University of Jos with a view to identifying the level of satisfaction with available facilities provided and improve their performance in the study area. To assess the effect of campus hostel facilities quality on students satisfaction and academic performance in study area.

Literature Review

Student Satisfaction with the Quality of Campus Hostel Facilities

Najib, Yusuf and Abidin (2011) studied student residential satisfaction in research universities. The study identified some significant predictors of student hostels satisfaction, such as "cleanliness, safety, hall program and activities, and opportunities to provide input into decision making in the hall". Similarly, Ubong (2007) study concluded that "high quality facilities, positive roommate relationships, strong floor communities and quiet study environments are the most important predictors of students' satisfaction with their hall". Studies show that giving freedom to students to choose their own roommate increases their level of housing satisfaction (Stern et al., 2007). For instance, Kayas and Erkip (2001) investigated the influence of physical attributes

of campus accommodation on student satisfaction in Bilkent University, Ankara. The outcome of this study revealed that students living on the highest floor perceived their rooms larger and found them less crowded in comparison to those on the lowest floor. The findings of research of Fatoye and Odusanmi (2009) in Nigeria on the evaluation of housing performance based on occupiers' satisfaction approach showed that the occupiers were most satisfied with criteria under design such as the number of rooms in their houses, the ceiling height, the location of different rooms, and nearness to religion (worship) location. They were least satisfied with the criteria under the subsystems of estate layout and site location, and access to local facilities and city-wide services such as nearness of house to fire-fighting stations. These factors emphasize the influence that residents' personality has on their satisfaction. Thus, one may conclude that, if these factors affect housing satisfaction, the provision of housing that fulfils everyone's needs is impossible. This may be true, but most researchers assume that there are similarities between people's perceptions of the environment. These similarities allow researchers to draw generalization about the influence of these factors on satisfaction, yet at the same time be aware that two people will not be exactly similar. Several scholars have more specifically focused on student housing satisfaction.

Amole (2009) reported the results of a study of residential satisfaction in students' housing in Nigeria. The study examined how satisfied students were and the factors which predicted residential satisfaction. Specifically, it examined whether the morphological configurations of the halls of residence would predict residential satisfaction. Data were obtained from questionnaires distributed to a sample of 1124 respondents from all the halls of residences in four residential universities in southwestern Nigeria. More than half (53%) of the respondents were dissatisfied with their residences and the variables which explained satisfaction were the social qualities of the residences, especially, the social densities; the kitchenette, bathroom and storage facilities and some demographic characteristics of the students. The morphological configuration of the halls of residence was also found to be a predictor of satisfaction and the characteristics which appeared most significant were the plan form and the length of the corridor. The regression model explained 65% of the variance in R square. An instructive finding was that satisfaction appeared most critical in the bedroom. Najib, Yusuf and Abidin (2011) investigated the level of student satisfaction with campus student housing facilities (SHF) at Malaysian Research Universities (MRU) and the relationship between satisfaction and loyalty behaviour. The student residential satisfaction (SRS) framework was proposed to investigate residential satisfaction from the students' viewpoint. Questionnaires were distributed to respondents in three RUS. In general, Students are satisfied with the provided SHF with the SRS index of 2.96 or 74 % satisfaction level and there is a significant relationship between overall satisfaction and loyalty behaviour. The results also confirmed that the proposed model was an adequate instrument to measure SRS.

Adeleye, Akinpelu and Azeez (2018) examined students' satisfaction with hostel accommodation in selected public tertiary institutions in Oyo State, Nigeria. This was accomplished by assessing the levels of housing satisfaction of the population and the degree of satisfaction of students residing in selected public tertiary institutions' hostels. Three (3) major housing components – Environment (E), Dwelling (D), and Management (M), were identified and employed for this study. Using questionnaire, 6 (six) hostels representing half of the total hostels were purposively selected. Subsequently, 293 representing twenty percent (20%) of the total population were systematically sampled from the selected hostels. The data obtained from the survey were

analysed in two stages. First, is the use of descriptive statistics such as frequency tabulation to assess the general levels of students' housing satisfaction, and second, is the use of Satisfaction Indices (RSI) to determine the degree of students' satisfaction with each of the housing components identified for the study. The results of the analysis indicate that the level of students' housing satisfaction varies and is dependent on the environment, dwelling and management interaction systems. It demonstrated that the level of students' satisfaction with the housing environment, dwellings and management in the University of Ibadan was above average (satisfactory), while these housing components in The Polytechnic, Ibadan was below average (unsatisfactory). The study shows that housing components can significantly influence students' hostels accommodation satisfaction. These should be considered strongly by planners and tertiary institutions authority, when planning and designing students' housing projects.

Ajayi Nwosu and Ajani (2015) studied students' satisfaction with hostel facilities in federal university of Technology; Akure, Nigeria the importance of the social environment in students' life cannot be overemphasized. Availability, adequacy, and functionality of hostel facilities are the key factors in the determination of students' satisfaction. Using the hostels in the Federal University of Technology, Akure as a case study, the facilities provided in the hostels were identified and the level of satisfaction with each of the facilities measured using Relative Satisfaction Index. Questionnaires were used in data collection from a total of 322 students taken as the sample size for the study. The study revealed that respondents were dissatisfied with the adequacy and functionality of some facilities such as the laundry, bathroom and toilet facilities due to distance from rooms and the level of cleanliness. The paper recommends the need for provision of more hostels with better designs and current facilities through public-private partnership to meet the needs of the growing students' population.

Danso and Hammond (2017) studied Level of Satisfaction with Private Hostels around Knust Campus the past few decades have witness tremendous increase in student population in the Kwame Nkrumah University of Science and Technology (KNUST). In an effort to address the above challenge of inadequate hostel facilities at the university, a number of private hostels have sprung up over the years on the university campus and the neighbouring communities such as Ayeduasi, Kotei, Bomso and Kentenkrono. Despite the efforts by the university community and private developers to quantitatively address the accommodation needs of students, the quality of the facilities should also be given close attention. Quality housing provides the foundation for stable communities, social inclusion and enabling environment for students to study. In view of the above, this research was conducted to identify the level of satisfaction of students with registered private hostels facilities around KNUST campus. To achieve the aim of the study, questionnaires were designed and administered to 105 students to rate their level of satisfaction with the hostel under Building features; the Environment; the quality of Social amenities; and the management system put in place by the hostel operators on a 5-point Likert scale The data collected was analysed using the Statistical Package for Social Science (SPSS) software. It was found that the students were satisfied with the design features of the building (e.g. Room size, height, quality of ventilation in the room), social amenities and the neighbourhood of the hostels. Despite the above, they indicated that some aspects of the management system especially the commitment of the hostel operators towards maintenance need improvement. Based on the findings above, it was recommended that hostel managers should regularly conduct interviews with the students to solicit their opinions on the quality of the services provided to them. The

findings from such an exercise will help to improve the design and management of their hostel facilities.

The Effect of Hostel Facilities on Student Academic Performance

According to Mansoor and Ali (2015) there are five factors significantly influence on the academic performance of the students. These factors are accommodation, food facilities, inmate cooperation, library facilities and safety & security. These five factors have to be improved in the university hostel in future for the high level of hostel students' academic performance. Scottk (2012) describes the general understanding prevalent in the literature when stating that "most people know that academic performance generally refers to how well a student is accomplishing his or her tasks and studies, but there are quite a number of factors that determine the level and quality of students' academic performance" John and Kahn. (2002) goes on to argue that if any researcher wanted to measure college students academic performance for college admission or for scholarship grants, the appropriate tool is only their GPA.

According to these all previous studies, GPA is an exact measurement to evaluate students' academic performance. In attempting to measure factors related to the university students' satisfaction with their hostels and how such factors are associated to their academic performance. According to Flores Gonzalez (2005), student experiences in both the in-class and outside of their class environment, on and off the campus contribute to educational attainment and personality growth. Zahran (1972) noted that "superior student housing promotes students interactions between roommates of different backgrounds and specializations that contributes to wider students' knowledge and student outcomes." A study conducted by Owolabi (2015) on the effects of Students' Housing on Academic Performance at the University of Ibadan in Nigerian, the study revealed that hostel accommodation enhance academic success, especially among the students of poor background as it blend this category of students with the brilliant ones, improve students social value through enhanced interactions, expose students to resource management, and prepared students for self-reliance and leadership resilience.

Mansoor and Ali (2015) investigate the impact of hostel students Satisfaction on their academic performance in Sri Lankan Universities. The selected samples for the study contained 367 final year hostel students from two universities in Eastern Province, Sri Lanka using random sampling method. A questionnaire survey was administered. The level of measuring variables was Interval and the relevant statistical techniques for these measures were invariable analysis, and bivariate analysis. One hypothesis was tested to assess the empirical relationships among variables. The overall average hostel student's satisfaction was 3.29 with significantly greater P values and the average GPA of the hostel students was 3.054 with significantly greater than the normal pass. Looking at the overall association among the variables it was observed that there is a significant positive correlation between the student's GPA and overall satisfaction factors ($r = 0.632$). Finally, these findings may lead to making some recommendations to improve the present level of satisfaction of students in hostels which might lead to an increase in their academic performance.

Conceptual Framework

Conceptual framework is the diagrammatic presentation of objectives or independent, mediator and dependent variable of the research. The research have has two independent variable, one mediator and one dependant variable. The independent variables are: hostel accommodation and

quality of facilities, mediator is the student satisfaction while the dependent variable is academic performance as shown in the figure 1.

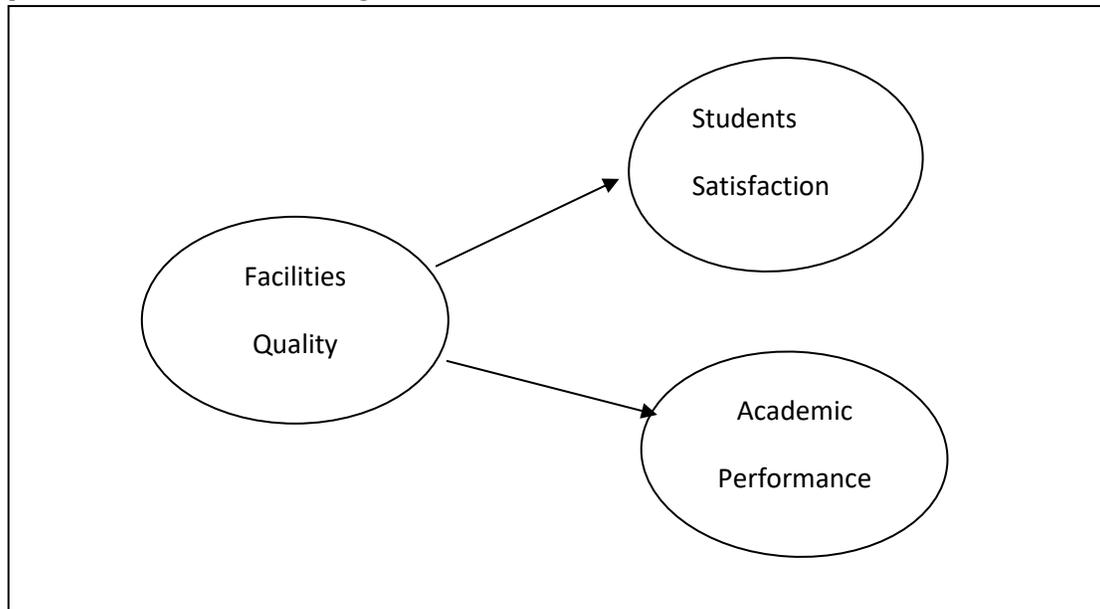


Figure 1: Conceptual frame work.

METHODOLOGY

The descriptive and quantitative research approach was adopted in this research due to the nature of the research. Quantitative research approach is an approach that numerically explains phenomena of the world by mathematically analysing the obtained data using standardized statistical methods which is objective in nature. Sample frame is the total number of students to be studied. Therefore, the sample frame of this study was 4,000 students which is the total number of students in the various hostels on campus who have at least spend one academic session on campus (University of Jos Students,' Affairs, Unit, 2020) while, sample size for this research was 351 which was determined using the Krejcie and Morgan (1970) sample table. SPSS was used to analysed research question one and research question two while, research question three analyzed by Partial Least Squares Structural Equation Modeling.

ANALYSIS OF RESULT AND DISCUSSION

Demographic Information of the Respondents

Demographic information of the respondents in Table 1, indicates that, 225 = (63.6 %) of the students' are male and 129 = (36.4 %) of the students' are female. In terms of the age 67 = (18.9%) of the students are under 20 years, 256 = (72.3 %) of the students' is between 20 to 30 years and 31 = (8.8) of the students' are over 30 years. Also 41 = (11.6%) of the students' are from block A; 113 = (31.9%) of the students' are from block B; 84 = (23.7%) of the students' are from block C; 59 = (16.7 %) of the students' are from block D; 32 = (9.0 %) of the students' are from block E; 11 = (3.1 %) of the students' are from block F; 14 =(4.0 %) of the students' are from block G. Less than 4 students' per room 157 = (44.4 %); 4 students' per room 174 = (49.2 %) and more than 5 students' per room 23 = (6.5 %). The numbers of students that stay in hostel for 1 year is 62 =

(17.5%); numbers of students that stay in hostel for 2 year is 133 = (37.6%); numbers of students that stay in hostel for 3 year is 108 = (30.5%); numbers of students that stay in hostel for 4 years is 40 = (11.3 %) and numbers of students that stays in hostel for 5 year is 11 = (3.1%).

Table 1: Demographic Information of the Respondents

S/N	Question	Option	Frequency	Percentage
1	Gender	male	225	63.6
		female	129	36.4
		Total	354	100.0
2	Age Group	Under 20 Years	67	18.9
		20 to 30 Years	256	72.3
		Over 30 Years	31	8.8
		Total	354	100.0
3	Hall of Residence	(Block A)	41	11.6
		(Block B)	113	31.9
		(Block C)	84	23.7
		(Block D)	59	16.7
		(Block E)	32	9.0
		(Block F)	11	3.1
		(Block G)	14	4.0
	Total	354	100.0	
4	Number of Students Per Room	Less than 4	157	44.4
		4 students	174	49.2
		More than 5 Students	23	6.5
		Total	354	100.0
5	How long have you Stayed in Hostel	1 year	62	17.5
		2 years	133	37.6
		3 years	108	30.5
		4 years	40	11.3
		5 years Above	11	3.1
	Total	354	100.0	

Result of R Square and R Square Adjusted

The result of Table 2 revealed that student satisfaction has the highest R square of 0.787 and adjusted R square of 0.785 while, academic performance has the lowest R square value of 0.014 and adjusted R square value of 0.003.

Table 2: R Square and R Square Adjusted

Items	R Square	R Square Adjusted
Academic Performance	0.014	0.003
Students' Satisfaction	0.787	0.785

Assessment of the Structural Model

The effect of on-campus hostel facilities quality on students' satisfaction and academic performance was assessed using PLS-SEM interface. The models in Figure 2 exposed that coefficient of determination, R², is 0.787 for the students' satisfaction and 0.014 for students' academic performance. This indicates that quality of facilities explain 78.7 % Variance on student satisfaction and 1.4 % variance on academic performance.

Path Coefficient Sizes and Significance

The inner model exposed that, quality of facilities has highest effect on students' satisfaction (0.887) which is followed by effect of quality of facilities on students' academic performance (-0.117). The inner path coefficient relationship between quality of facilities and students' satisfaction is statistically significant (0.887) and the hypothesized statistical relationship between qualities of facilities on students' academic performance is also statistically significant (-0.117). This is finally concluded that quality of facilities determine students' satisfaction and students' academic performance. This means that, quality of facilities has effect on student's satisfaction and students' academic performance in University of Jos.

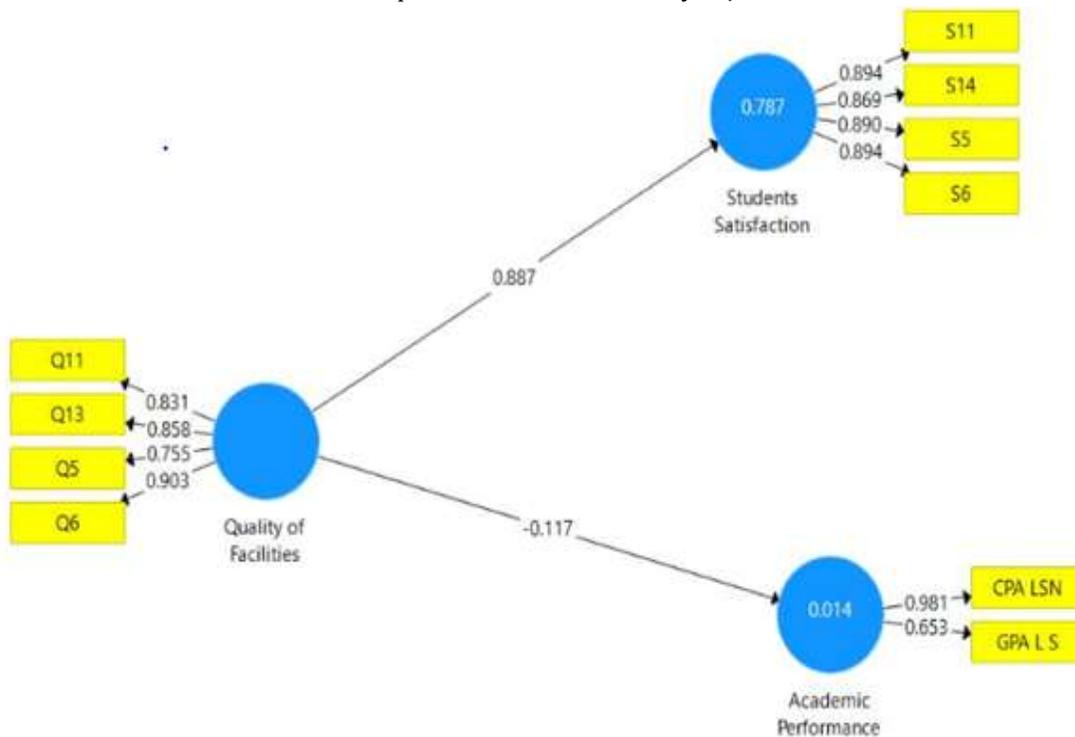


Figure 2: Effect of facilities quality on student's satisfaction and students' academic performance in University of Jos.

Q11 = Toilet and Bathrooms, Q13 = Fire fighting equipment, Q5 = Room finishing and Q6 = Drainage.

S11 = Toilet and Bathrooms, S14 = Fire fighting equipment, S5 = Room finishing and Q6 = Drainage.

CPA LSN = CGPA last session and GPA LS = GPA last semester

Assessment of Path Significance in Bootstrapping

The figure 3 shows the t-statistic of each construct and the indicator respectively. It is statistically revealed that, is significant as is indicated by the t-statistics of 33.698, which is more than 1.96 thresholds, while 0.767 has less significant effect. The effect of quality of facilities on students' satisfaction is significant as exposed in the result indicated a t-statistics of 33.698 which is more than the 1.96 threshold. Furthermore, the effect of quality of facilities is not statistically significant as it indicate a T-statistics of 0.767 which is less than the threshold of 1.96.

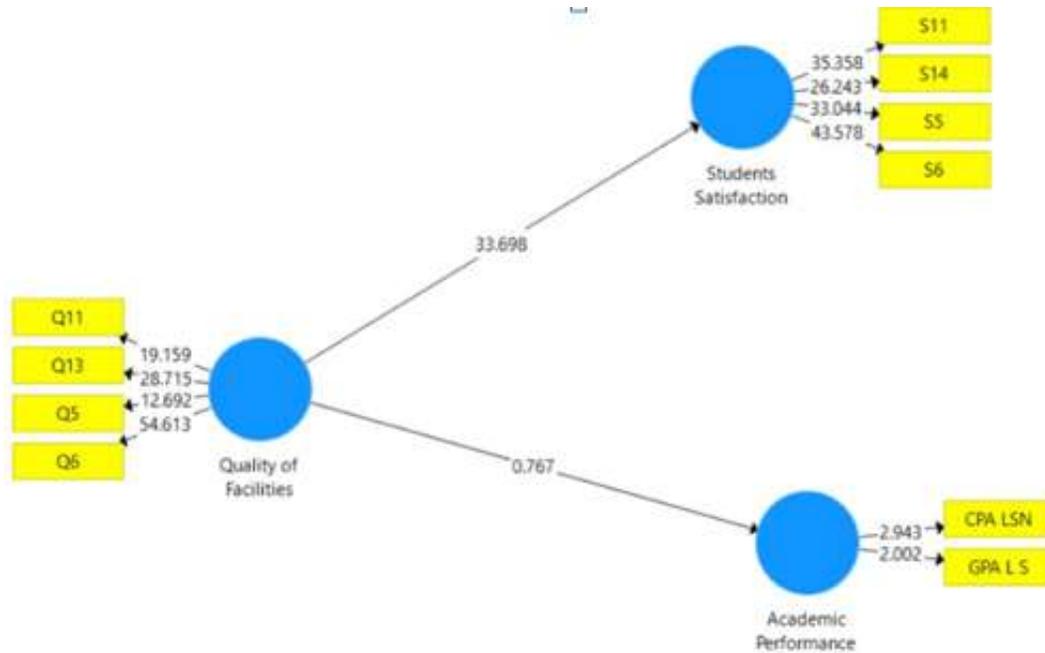


Figure 3: T-statistic of structural Model (Direct Effect)

Q11 = Toilet and Bathrooms, Q13 = Fire fighting equipment, Q5 = Room finishing and Q6 = Drainage.

S11 = Toilet and Bathrooms, S14 = Fire fighting equipment, S5 = Room finishing and Q6 = Drainage.

CPA LSN = CGPA last session and GPA LS = GPA last semester

Path Coefficients

Table 2, Shows that the T-statistics Quality of Facilities -> Students' Satisfaction is more than 1.96, this means that the outer loading are highly significant with T statistic of 33.698 while, Quality of Facilities ->Academic Performance is less than 1.96 is not significant with T statistic of 0.767 and P value of 0.443.

Table 3: Path Coefficients

Constructs	Original Sample (O)	Sample Mean (M)	Standard deviation	T Statistics	P Value
Quality of Facilities ->Academic Performance	-0.117	-0.109	0.152	0.767	0.443
Quality of Facilities -> Students' Satisfaction	0.887	0.887	0.026	33.698	0.000

Conclusion

This research examined the effect of on campus hostel accommodation and quality of facilities on student satisfaction and academic performance in University of Jos with a view to identify the level of satisfaction with available facilities provided and improve their performance in the study area. Research question one revealed that electricity supply has the high quality among the facilities. Research question two revealed that students' were very satisfied with electricity supply was ranked first followed by water supply. Finally research concluded that quality of facilities has effect on students' satisfaction and students' academic performance. This means that, quality of facilities has effect on student's satisfaction and students' academic performance in University of Jos.

Recommendations

This research makes the following recommendation based on the findings of research questions as follows:

- i. School management/authority and administrators should provide good security facilities in the hostel to protect the life and properties of students' on-campus.
- ii. School management/authority and administrators should pay more attention to provide good fire fighting equipment facilities, in particular, fire extinguishers in the hostel to protect the life and properties of students' on-campus.
- iii. School management/authority and administrators should pay more attention to provide more good toilets facilities and should be improved by making the cleaners work two shifts in university hostels.

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