

Students' Attitude and Satisfaction Living in Sustainable On-Campus Hostels

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Abstract

This research aims to investigate whether location, facilities and quality of on-campus hostels affect students' attitude living in on-campus hostels and their satisfaction with hostel life. Next, relationship between students' attitude and their satisfaction with hostel life are also examined. Data were collected from 230 students living in on-campus hostels in a public higher learning institution in the Federal Territory of Labuan, Malaysia. Empirical results via multiple regressions discovered that students' satisfaction living in hostels is only affected by hostels quality, except for hostels location and hostels facilities. Students are very concerned that the floor be covered with tile, and the plumbing system be perfect with no water problems which affect their satisfaction living in hostels. Further investigation of the study recognized that students' attitude is strongly affected by satisfaction followed by hostel facilities. This study provides strong evidence that could help the student housing administrators and the university hostel management and other accommodation services to better understand the customer satisfaction with the service delivery by identifying the significant factors in determining student satisfaction and improving the performance of university hostels towards meeting the satisfaction of students by providing high-quality living environments. Direction for future research is also exemplified.

Keywords: *satisfaction, hostel, quality, facilities, location, attitude*

1 Introduction

A hostel is referred to a place where people can stay when their residence is located far from the educational institution and which is considered essential to students' needs, which also called student housing. Hostel is built with some institutional or formal characteristics and where students have access to the university recreational facilities (Khozaei, Ayub, Hassan & Khozaei, 2010). Life in a sustainable on-campus hostel makes students more independent as they share accommodation with at most four students at one time. Sustainable on-campus hostel life also makes them smart,

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active, disciplined, tolerant and socialized with other students and roommates, sharing space and facilities (Khozaei et al., 2010). Parents may be less worried when their children live at on-campus housing sites as there is higher security and safety than at off-campus housing.

The influence of the environment and accommodation on the satisfaction level of university students is a popular study topic and is certainly of interest to the universities (Khozaei et al., 2010). However, little is known about students' attitude and satisfaction living in sustainable on-campus hostels in Malaysia, a developing country. Specifically, there are quite a number of studies that have been conducted on the performance of university buildings in Malaysia. Hence, this research aims to investigate whether location, facilities, and quality of on-campus hostels affects students' attitude living in on-campus hostels, and their satisfaction with hostel life. Next, relationship between students' attitude and their satisfaction with hostel life are also examined. Results derived from this study offers empirical guidelines to hostel administration and facility management to provide high-quality living environments, in particular sustainable on-campus hostels environments. Besides that, the policy makers could take this opportunity for improvements as studies on the maintenance of university buildings in Malaysia are of great asset to this study.

This paper is organized as follows: the next section provide review of literature, followed by the methodology applied. The succeeding section provides results of the findings and the discussion while the final section presents conclusions drawn from the results, and summarizes the implications of the study with directions for future research.

2 Literature Review

This research focuses on factors such as hostels location, hostels facilities, students' attitude, quality of on-campus hostels and students' satisfaction with hostel life. Hassanain (2008) classified support services as parking lots, cafeteria, mini market, bookshop, and banking (automated-teller machines), conveying systems like lifts and staircases, electrical wiring, water supply, garbage disposal, fire safety, pipe repairs, and 24-hour security guards.

Hostel room size can indeed influence students' level of satisfaction (Karlin, Rosen, & Epstein, 1979). For instance, students who lived in triple-sharing rooms were less satisfied and unhappier with their living conditions than students residing in double-sharing rooms. Moreover, small rooms can be very uncomfortable for large students. This results in a very congested living environment. Dahlan, Jones,

Alexander, Salleh and Dixon (2008) studied thermal comfort in non-air-conditioned hostels in tropical climates and found that in a room of less than 50 m³, one ceiling fan cools the room sufficiently.

The maintenance and services influence the hostel facilities and quality, which in turn influence student satisfaction with the hostel management offered by an institution. Onyike and Uche (2010) found that hostel maintenance is the combination of all technical and associated administrative actions intended to retain a hostel or restore it to a state in which it can perform its required function. Maintenance can be divided into two kinds, that is planned and unplanned maintenance (Onyike & Uche, 2010). Planned maintenance is carried out with prior knowledge, control and the use of records in accordance with a predetermined plan whereas unplanned maintenance is organized when there is an unexpected breakdown or damage.

Hostels Location

The location of a hostel plays a very important role in the students' satisfaction with the hostel. Rinn (2004) noted that students living in campus housing tend to be more socially adjusted and to participate more often in extracurricular and campus activities than students living off-campus. Prior research by Khozaei et al. (2010) found that students preferred living on-campus because of its convenience, including walking distance to lecture halls, not having to wake up too early for a morning class and also the convenience of taking a shower between classes or going back to the hostel to get a forgotten item. Residents favour living in low-density locations over high-density locations (Howley, Scott & Redmond, 2009). However, location did not influence satisfaction as noted by prior researchers such as Khozaei, Ramayah, Ahmad Sanusi, and Lilis (2012). Thus, the following hypotheses are developed:

- H1: Hostels location is positively related to students' attitude living in on-campus hostels.
- H4: Hostels location is positively related to satisfaction living in on-campus hostels.

Hostels Facilities

Hostels comprise basic bedroom units with other shared facilities such as bathrooms, toilets, laundry, kitchens, common lounges and cafeterias located either per floor level, per block or for the whole student housing accommodation (Amole, 2009). Good hostel facilities provided for the university students will directly affect the level of satisfaction. Based on the expectation-disconfirmation model, satisfaction

is a function of expectation and actual performance (Adriaanse, 2007). If the actual performance is better than their expectations, this leads to positive disconfirmation or satisfaction. If students receive benefits or value based on their time, effort, per stay, the destination is worthwhile. Based on perceived performance model, consumer dissatisfaction is only a function of the actual performance, regardless of consumers' expectations (Foubert, Tepper & Morrison, 1998). Existing literature found that facilities are positively related to satisfaction (Berkoz, Turk & Kellekci, 2009; Khozaei et al., 2012). Likewise, Foubert et al. (1998: 45), and Sawyerr and Nor' Aini (2013) determined that high quality facilities influence students' satisfaction with their hall. Therefore, it is posited that:

H2: Hostels facilities are positively related to students' attitude living in on-campus hostels.

H5: Hostels facilities are positively related to satisfaction living in on-campus hostels.

Hostels Quality

Satisfactory environments in student housing are quiet, less crowded, private and have suitable room sizes (Cleave, 1996). Thus, absolute residence satisfaction can be obtained when student needs are met (Khozaei et al., 2010). If the quality of the hostels is positive, it will directly create a good attitude towards the hostel and obviously influence the students' residence satisfaction level. When students are satisfied with their living environment, it affects their lifestyle and studies in campus, and also their impression of the university's management. Accordingly, the following hypotheses are advanced:

H3: Hostels quality is positively related to students' attitude living in on-campus hostels.

H6: Hostels quality is positively related to satisfaction living in on-campus hostels.

Attitude and Satisfaction

Residence satisfaction contributes to university students' overall life satisfaction (Sirgy 2007). However, Stauss and Neuhaus (1997) noted that it is impossible for a person to be truly satisfied with his/her life only by evaluating a stay in a hostel. Colleges with higher satisfaction levels enjoy higher retention and graduation rates, lower loan default rates and increased alumni donations (Billups 2008). Greater residence satisfaction can be attained through a homelike housing atmosphere rather than an institutionalized environment (Thomsen, 2007). Indeed, attitudes positively affect

customers' intention to spread positive word-of-mouth commendation and willingly pay more for the products and services (Choi, Parsa, Sigala & Putrevu, 2009; Han, Hsu & Lee, 2009; Han, Hsu, Lee & Sheu, 2011; Han & Kim, 2010). However, Tih and Zuraidah (2012) have opposite views. If the environment is welcoming, students will apparently be satisfied with the surroundings in general (Billups, 2008). Therefore, this study proposed the following hypothesis:

H7: Students' attitude is positively related to their satisfaction living in on-campus hostels.

The proposed theoretical framework is illustrated in Figure 1.

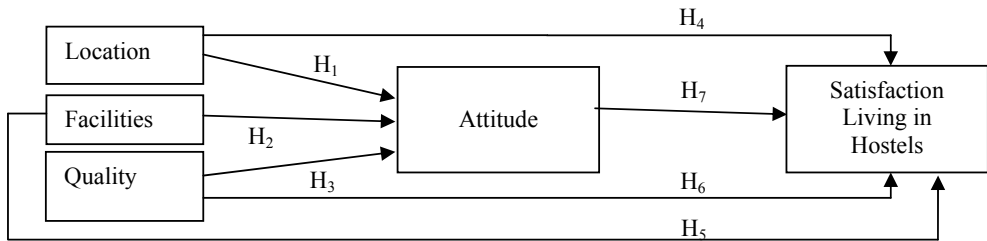


Figure 1 Proposed theoretical framework

3 Methodology

Out of 250 questionnaires, in total, 230 usable questionnaires were collected from students living in on-campus hostels in a public higher learning institution in the Federal Territory of Labuan, Malaysia, yielding a response rate of 92% using convenient sampling method. Data was collected between 1 June 2013 and 30 June 2013. The questionnaire survey consisting of 23 items, adapted from Khozaei et al. (2010) in order to ensure content validity, was used to collect data on factors such as location, facilities, attitude, quality of on-campus hostels and students' satisfaction living in hostels. All the items were measured on five-point Likert scales, with responses ranging from "strongly disagree" to "strongly agree". All were fixed-alternative questions, which required the respondent to select from a predetermined set of responses.

Statistical techniques were used to process the data using descriptive, correlation, and multiple regression analysis via the computer programme Statistical Package for Social Sciences (SPSS) version 21. The reliability of the data collected was determined using Cronbach's Alpha analysis. Next, correlation analysis is conducted to examine the correlations between variables. Finally, in order to achieve research objectives, multiple regression analysis was performed to investigate whether location, facilities, and quality of on-campus hostels affects students' attitude living in on-campus hostels, and their satisfaction with hostel life.

Data Analysis

Demographic information of the respondents is supplied in Table 1. From the 230 respondents, 140 were female representing a total of 61 per cent while 90 were male representing a total of 39 per cent. This situation is due to more varsity in Malaysia were enrolled by female students. More than half of the respondents (57 per cent) were in their second year of study, followed by year one (21.3 per cent), year three (20.4 per cent), and year four (1.3 per cent). They were mainly age 19 – 20 years old (64.8 per cent). In terms of religion, equal numbers of respondents (30 per cent) were Islam and Hindus and 40 percent were Christian.

Table 1 Demographic profile of respondents

	Frequency	Percentage
Gender		
Male	90	39.0
Female	140	61.0
Age (years old)		
18	43	18.7
19	87	37.8
20	62	27.0
21 and above	38	16.5
Religion		
Islam	69	30.0
Hindu	69	30.0
Buddha	64	27.9
Christian	28	12.1
Year of Study		
First Year	49	21.3
Second Year	131	57.0
Third Year	47	20.4
Forth Year	3	1.3

Reliability Analysis

The internal consistency of the scales is measured via Cronbach's alpha. A value of 0.70 or greater is deemed to be indicative of good scale reliability (Hair, Black, Babin, Anderson & Tatham, 2010). Table 2 shows that no item deletion was performed as the reading of Cronbach's alpha for all the variables was beyond the threshold value of 0.70, indicating the survey instrument is reliable to measure all constructs consistently.

Table 2 Reliability analysis

Variable	No. of Item	Cronbach's Alpha
Hostels Location	5	0.876
Hostels Facilities	4	0.773
Students' Attitude	3	0.708
Hostels Quality	4	0.752
Students' Satisfaction	4	0.735

Correlation Analysis

Pearson correlation coefficients were computed in order to examine the strength and the direction of the relationship between all the constructs in the study. The Pearson correlation coefficient values can vary from -1.00 to $+1.00$. A correlation value of $+1.00$ indicates a perfect positive correlation, while a value of -1.00 represents a perfect negative correlation and a value of 0.00 indicates no linear relationship between the X and Y variables or between two variables (Tabachnick & Fidell, 2007). Cohen (1988) interprets the correlation values as: small/weak when the correlation value is $r = 0.10$ to 0.29 or $r = -0.10$ to -0.29 , medium/moderate when the value is $r = 0.30$ to 0.49 or $r = -0.10$ to -0.29 , and large/strong when the correlation value is $r = 0.5$ to $r = 1.0$. The results shown in Table 3 indicate that all independent variables (i.e. location, facilities, attitude and quality) were significant and positively correlated with students' satisfaction living in hostels. Quality ($r = 0.282$, $p < 0.01$) turned out to have the highest association with students' satisfaction living in hostels, followed by facilities ($r = 0.245$, $p < 0.05$), attitude ($r = 0.195$, $p < 0.01$), and location ($r = 0.178$, $p < 0.05$).

Table 3 also shows that mean values for all factors range from 2.454 to 3.387, denoting that respondents partially agreed with the quality but were not really satisfied with certain items like room layout, plumbing system, flooring, furniture and air circulation in the room. Location wise, respondents were not satisfied with the distance to the gym, library, facilities, cafeteria and shop/minimarket. Furthermore, hostel facilities provided for students were also rated as moderate. Likewise, their attitude towards hostel satisfaction was also rated moderate which means students talks positively about the hostel, enjoy staying in the hostel, recommend juniors to stay in the hostel and are concerned about saving water. Finally, students' satisfaction with living in hostels is average. That means students still want to live in the hostel despite problems.

Table 3 Correlations between variables

	1	2	3	4	5	Mean	Std. Dev.	Skewness	Kurtosis
(1) Hostels Location	1					2.454	1.037	0.279	-0.920
(2) Hostels Facilities	0.452**	1				2.587	0.89	0.018	-0.715
(3) Students' Attitude	0.294**	0.470**	1			2.791	0.837	0.036	-0.438
(4) Hostels Quality	0.290**	0.391**	0.149*	1		2.932	0.791	0.052	-0.602
(5) Students' Satisfaction	0.178**	0.245**	0.195**	0.282**	1	3.387	0.780	-0.211	0.314

* $p < 0.05$; ** $p < 0.01$

Effects of Hostels Location, Hostels Facilities and Hostels Quality on Students' Satisfaction Living in On-Campus Hostels

The empirical results shown in Table 4 show that 10.3% of the variance of the extent of students' satisfaction living in on-campus hostels was explained by the extent of hostels location, hostels facilities and hostels quality (F value = 8.670, sig. = 0.000). This indicated that the criterion-related validity was also acceptable. Low R^2 value due to respondents rated 2 'disagree' in the questionnaire which caused mean values for all factors range from 2.454 to 3.387. Furthermore, there is no serious multicollinearity because no variance inflation factor (VIF) was larger than 10 (Hair et al. 2010). Hostels quality was found to have a positive significant impact on students' satisfaction living in on-campus hostels ($\beta_3 = 0.213, p < 0.051$) while hostels location and hostels facilities however did not have such an impact ($\beta_1 = 0.054, p = 0.448$; $\beta_2 = 0.137, p = 0.066$, respectively). Results infer that H3 is strengthened whereas H1 and H2 are not.

Table 4 Influence of hostels location, hostels facilities and hostels quality on students' satisfaction living in on-campus hostels

	Standardized Coefficients		T	Sig.	Collinearity Statistics	
	Beta				Tolerance	VIF
Hostels Location	0.054		0.760	0.448	0.780	1.282
Hostels Facilities	0.137		1.850	0.066	0.722	1.385
Hostels Quality	0.213*		3.079	0.002	0.831	1.203
R^2	0.103					
F	8.670					
Sig.	0.000					

* $p < 0.05$

Effects of Hostels' Location, Facilities and Quality on Students' Attitude Living in On-Campus Hostels

In examining the effects of hostels, location, facilities and quality on students' attitude living in on-campus hostels, hostels, facilities were positively and significantly related to students' attitude living in on-campus hostels. Thus, H5 is sustained as $\beta_7 = 0.75, t$ -value = 12.15 at $p < 0.05$ while H4, hostels location ($\beta_4 = 0.110, t$ -value = 1.666, $p > 0.05$), and H6, hostels quality ($\beta_6 = -0.055, t$ -value = $-0.862, p > 0.05$) are not

maintained. An $R^2 = 0.231$ specifies that hostels, location, facilities and quality jointly can explain about 23.1% of the variance in students' attitude living in on-campus hostels. Low R^2 value denotes that respondents partially agreed on the question items as mean values for all factors range from 2.454 to 3.387. Furthermore, no problem of multicollinearity appeared as the variance inflation factor (VIF) value was underneath 10 as recommended by Hair et al. (2010) (see Table 5).

Table 5 Effects of hostels' location, facilities and quality on students' attitude living in on-campus hostels

	Standardized Coefficients	t	Sig.	Collinearity Statistics	
	Beta			Tolerance	VIF
Hostels Location	0.110	1.666	0.097	0.780	1.282
Hostels Facilities	0.441*	6.429	0.000	0.722	1.385
Hostels Quality	-0.055	-0.862	0.390	0.831	1.203
R^2	0.231				
F	22.662				
Sig.	0.000				

* $p < 0.05$

Effects of Students' Attitude on their Satisfaction Living in On-Campus Hostels

The final hypothesis investigated the effects of students' attitude on their satisfaction living in on-campus hostels as shown in Table 6 established that the hypothesized relationship was positive and significant at $p < 0.05$ i.e. students' attitude significantly influences students' satisfaction living in on-campus hostels ($\beta_7 = 0.195$, t -value = 3.003, $p < 0.05$), conjecturing H7 is maintained. The R^2 for the model is 0.038 which means 3.8% of the variance of the students' satisfaction living in hostels was explained by students' attitude (F value = 9.016, sig. = 0.000). Low R^2 value implies that respondents rated 2 'disagree' in the questionnaire which cause the mean values for all factors range from 2.454 to 3.387. No serious multicollinearity problem exists because no variance inflation factor (VIF) was greater than 10 (Hair et al., 2010).

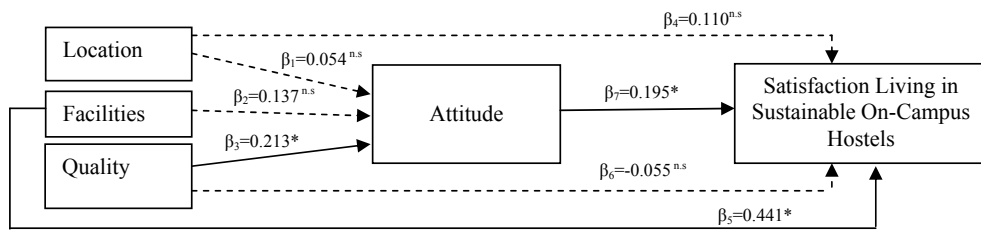
Table 6 Effects of students' attitude on satisfaction living in on-campus hostels

	Standardized Coefficients	t	Sig.	Collinearity Statistics	
	Beta			Tolerance	VIF
Students' Attitude	0.195*	3.003	0.003	1.000	1.000
R^2	0.038				
F	9.016				
Sig.	0.000				

* $p < 0.05$

5 Discussion

This study investigated the influence of location, facilities and quality of on-campus hostels with students' attitude living in on-campus hostels and their satisfaction with hostel life. Next, relationship between students' attitude and their satisfaction with hostel life are also examined. Results derived from multiple regressions as illustrated in Figure 2 discovered that students' satisfaction living in sustainable on-campus hostels is only affected by hostels quality, except for hostels, location and facilities. On the other hand, further investigation of the study recognized that students' attitude is strongly affected by their satisfaction living in sustainable on-campus hostels followed by hostel facilities.



* $p < 0.05$; n.s = not significant

Figure 2 Results of hypothesized relationships

It is clear that hostels, location does not affect students' attitude and satisfaction living in sustainable on-campus hostels (see Figure 2). This result is in tandem with existing findings by Howley et al. (2009) and Khozaei et al. (2012) but is inconsistent with Khozaei et al. (2010). Students are less concerned with the distance from the hostel to faculty, cafeteria, gym/recreation area and library. Moreover, the location of the sundry shop/minimarkets near the hostel does not affect their satisfaction living in sustainable on-campus hostels either.

Furthermore, this research also found that the relationship between hostels facilities and satisfaction living in on-campus hostels is not statistically significant but is significant with attitude living in sustainable hostels. The results reveal that the relationship of the hostels facilities with satisfaction living in sustainable on-campus hostels is not obvious. This does not correspond to the previous research by Berkoz et al. (2009) and Khozaei et al. (2012). It is imperative for the student housing administrators and the university management to ensure that the water and waste facility provided are excellent, besides providing excellent electricity service and sufficient quantity and quality of furniture in order to uphold students' satisfaction living in sustainable on-campus hostels. Indeed, the university considers redesigning buildings that have direct access to sunlight to substitute the use of electricity during day time.

Next, the results indicate that in terms of hostels quality of the on-campus hostel, students are very concerned that the floor be covered with tile and the plumbing system be perfect with no water problems which affect their satisfaction living in sustainable on-campus hostels. Moreover, they feel that it is very easy to study in this hostel because the internet facility provided is excellent. All these aspects contribute to their satisfaction living in sustainable on-campus hostels. This is analogous with Khozaei et al.'s (2010) research findings.

On the other hand the results highlight that students' attitude affects their satisfaction living in sustainable on-campus hostels. This result is comparable with prior findings (Billups, 2008; Thomsen, 2007). Hostel managers should be able to understand the emotions of students. For instance they should have the ability to recognize and to some extent share the state of mind of one another and to understand the significance of the behaviour in on-campus hostels. This particular factor is important to hostel counselors. Once hostels can improve their ability to empathize, it will gain more trust and harmony with the students. Indeed, it is imperative for university management to ensure students feel convenient and secure living in the university premises while studying in the university, besides feeling comfortable living in the on-campus hostels.

6 Conclusion and Recommendations

Retaining students' attitude and satisfaction living in sustainable on-campus hostels are crucial for the student housing administrators and the university management. This research identified factors that affecting students' attitude and their satisfaction living in sustainable on-campus hostels. Empirically, the results specified that on-campus hostel quality affect students' satisfaction living in sustainable on-campus hostels, beside which students' attitude living in sustainable on-campus hostels is influenced by aspects like hostel facilities. Moreover, students' attitude affects their satisfaction living in sustainable on-campus hostels. The results imply that the student housing administrators and the university management need to deliver quality service and offer better hostel facilities in order to improve students' attitude and satisfaction living in sustainable on-campus hostels.

The findings of this study offer several managerial implications for university hostel management and other accommodation services to better understand the customer satisfaction with the service delivery by identifying the significant factors in determining student satisfaction and improving the performance of university hostels towards meeting the satisfaction of students living in sustainable on-campus hostels. In terms of theoretical implications, this quantitative research study demonstrates that students' satisfaction living in sustainable on-campus hostels is influenced by hostels

quality. Additionally, the results show that students' attitude is affected by satisfaction living in sustainable on-campus hostels followed by hostel facilities. Hence, students have different perceptions based on their own experiences, which in turn affect their behavioural patterns.

There are a few limitations in this study. Firstly, the sample was only distributed among 230 students living in on-campus hostels from one of the public higher learning institutions in the Federal Territory of Labuan, Malaysia, limiting the generalizability of the research findings. Expansion of the coverage of sample selection is recommended as they would find differing attributes of hostels desirable. Next, demographic differences should also be explored explicitly in order to examine the dissimilar perceptions of students regarding on-campus and off-campus hostel satisfaction utilizing statistical techniques like multiple discriminant analysis or moderation and mediating analysis via structural equation modeling technique. People of differing ages would find different facilities more or less important than those younger.

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