

Determinants of Resident's Satisfaction from Hostel Facilities

**Sana Komal¹, Waseem Ahmad^{1,*}, Tanvir Ahmed², Fahad Gill³, Muhammad Nazam¹,
Muhammad Moazzam⁴, and Fatima Zia¹**

¹*Institute of Business Management Sciences, University of Agriculture, Faisalabad, Pakistan*

²*Department of Economics, Forman Christian College (A Chartered University), Lahore. Pakistan*

³*NextEra Energy Inc. USA.*

⁴*Department of Operations and Supply Chain, NUST Business School, National University of Sciences and Technology, Islamabad, Pakistan*

waseem@uaf.edu.pk

**corresponding author*

Abstract: Resident's satisfaction of students depends on quality residential facilities, quiet study environment and positive roommate relationships. For this purpose, the present study aims to analyze determinants of residents' satisfaction with hostel facilities by using a convenience sampling to collect 500 residents of public and private hostels from a metropolitan city of Pakistan i.e. Faisalabad. The logistic regression model was employed to estimate the impact of hostel facilities on resident satisfaction. The Results infer that different facilities; mess, kitchen, washroom, electricity, water supply, cleanliness, staff, security, accommodation, and bedroom, have a significant impact on the resident's satisfaction. However, a non-significant level of certain variables exposed that these variables are not playing an important role in the resident's satisfaction, so the hostel administration does not need to spend money and time to provide these facilities for hostel residents. The present study results implied that the management should focus on those factors where the residents are assigning positive values to increase resident satisfaction. It will have a significant impact on the revenue streams of the hostel business.

Keywords: Public hostel, Private hostel, Customer satisfaction, Hostel facilities, Faisalabad

1. Introduction

Hostels are used for the accommodation of students and travelers. School, colleges, or universities encompasses a place of hostel flat. A large number of students use the hostel facilities. Hostel facilities can be defined as rooms furnished with sophisticated amenities suitable for social activities and indicative of a certain lifestyle [20]. Similarly, [14] described that residential satisfaction among students depends on residential facilities, study environments, and relationship among residents. A secure and healthy environment can encourage the students' health and refresh dynamic learning [12]. However, some of the hostels do not meet a simple standard of a student residence. Students living in hostels face many problems such as economic, adjustment issues, home sickness, food quality, and many other problems.

Nowadays, resident satisfaction has been used as a vital indicator to evaluate students' accommodation facilities. Good accommodation has a significant impact on the studies of students

[7]. Consequently, the factors affecting resident's satisfaction will provide guidance to the resident planner, designers, and policy makers [22]. Various scholars in previous studies have specifically concentrated on student residence satisfaction. To the best of our knowledge, no study has been conducted to understand the resident's satisfaction in the major metropolitan city of Pakistan i.e., Faisalabad. To fill the gap in the literature, the objective of the present study is

1) To identify factors of satisfaction for the users of hostel facilities; 2) To investigate the impact of different factors on the customer satisfaction, and 3) To suggest policy implications for stakeholders

The paper has four sections, the first section deals with the literature review, the second section describes the research methodology, and section three explains the results and discussion. The final section discusses the main outcomes and implications of the study.

2. Literature Review

Several studies were conducted to explain various determinants of resident satisfaction such as [5] presented students' viewpoints and how resident amenities impact the satisfaction. The study used purposive sampling and obtained information from 476 respondents. The study's outcomes showed that community amenities, locality features, and accommodation features were the foremost cause of residents' gratification. [6] explained the relationship between housing features and residents' satisfaction. Data were composed of 517 residents, and a regression model was employed. The study presented housing gratification level by four measurements that contain in commercial & societal atmosphere, physical lodging conditions, occupants' safety & privacy, place, and entrances. Housing gratification level is forcefully affected by lodging capability. [1] examined the relationship between various hostel facilities and resident's satisfaction. For this purpose, they have obtained information from families residing in hostels in Ibadan, southwest Nigeria. They collected data from 856 respondents and applied a regression model. The study results showed that the locality and cleanliness have a significant impact on the residents' satisfaction. [9] investigated the impact of various factors on the choice of hostel. For this purpose, they collected information from 350 respondents and applied a logistic regression model. The study concluded that security and water has a significant impact on the choice of hostel. [10] investigated the effect of cleanliness on the residents. Using the convenience sampling technique, they collected primary data from 100 students and 30 management representatives. The study results showed that the absence of cleaning staff, lack of water, etc. were considered as major factors. [17] considered the effect of social features on educational performance of students. Self-administered questionnaire were utilized to collect information from 250 respondents. The study revealed that insufficiency places, absence of internet facilities, overloading and non-availability of leisure services were considered as important factors for hostel residents. The study further mentioned that hostel management should improve the residents' cupboards and waste disposal or air conditioner facilities. [18] specified that kitchens, private washrooms, study lounges, and social spaces were considered necessities in student housing, and these facilities have a significant impact on the resident's satisfaction. [13] found such facilities as the overall quality of accommodation, requirements of lights, availability of electricity and water supply, bedroom facility, rules, and regulations or physical atmosphere of accommodation, received good ratings from the students. According to [16], the level of users' satisfaction with some parameters such as noiselessness, indoor temperatures, natural lighting, ventilation, and water supply was good. [4] concluded that cleanliness, and safety plays an important role in the resident's satisfaction. [3] emphasize the need for internet access, either through a network connection or Wi-Fi, in each student's room for their research.

Hostel users face a lot of storage problems due to limited space in the wardrobe; they cannot store their clothes, shoes, and other storage accessories [19]. The prior study indicated that some students

were not satisfied due to the availability of CCTV cameras in their residences and the effectiveness of security guards [8]. [4] concluded that staff was the most important dimension in explaining the willingness to recommend hostels. In the past decades, numerous studies have focused on issues relating to residents' satisfaction; however, there are still gaps in the literature since the field of campus safety still growing in countries [11]. The present study fills the gap in the literature by addressing the determinants of residents' satisfaction in the metropolitan city of a developing country i.e., Pakistan.

3. Research Methodology

The motive of this study is to discover the determinants of residents' satisfaction with hostel facilities. For the present study, the data were collected from a metropolitan city i.e., Faisalabad, Pakistan, using a self-administered questionnaire. Following [21] and [9], data from 500 girls' hostel residents were collected by using a convenience sampling technique. The relationship between resident's satisfaction and various hostel facilities can be written as

$$Y = F(X_i) \quad (1)$$

Where:

Y= resident's satisfaction and X denotes various factors affecting resident satisfaction such as mess, water, cleanliness, internet, wardrobe, fridge, staff, security, parking area, laundry and public hostel.

A dichotomous response strategy was used to collect the information of residents' satisfaction and the facilities available to the residents. The Logistic regression analysis was applied. It estimates the probability of residents' satisfaction by fitting data to a logistic curve. Binary logistics regression is often used when the independent variables are categorical or continuous, and the dependent variable is dichotomous.

The econometric model can be written as follows:

$$\text{Probability of resident's satisfaction} = \frac{1}{1 + e^{-(\alpha_1 + \alpha_2 X_i)}} \quad (2)$$

Further, the present study computes the marginal effect of kth facility by $X_k = \Pr(Y = 1|X, X_k = 1) - \Pr(y=1|X, X_k = 0)$. It shows how $P(Y=1)$ changes as the categorical variable changes from 0 to 1, holding all other variables at their means.

4. Results and Discussion

The result of the study showed that 72.8 % of respondents were satisfied with the given facilities at their hostels. Out of 500, 54.8% of respondents said that the mess facility is available in their hostel. The benefit of the mess facility available in the girls' hostel is that they do not need to go outside the hostels to buy food. 81.4% of respondents' said that the drinking water is available in their hostel, as shown in table 1. Cleanliness in the highest hygiene standards in hostels, 77.6% say that the hostel has a cleaning facility/staff available. The current study revealed that most of the respondents were satisfied with the cleaning facility/staff of their hostels. The data were obtained from 50 % of respondents from public and private hostels.

Table 1: Definition of Variables and Descriptive Statistics.

Variable	Definition of variable	Mean	Standard Deviation
Satisfaction	Satisfaction = 1, if the resident is satisfied, 0 otherwise	0.728	0.4454
Mess	Mess=1, if there is a mess facility is available, 0 otherwise	0.548	0.4981
Water	Water =1, if the drinking water supply available in the hostel, 0 otherwise	0.814	0.3894
Cleanliness	Cleanliness=1, if there is a cleanliness services are available in the hostel, 0 otherwise	0.776	0.4173
Internet	Internet=1, if there is an internet available in the hostel, 0 otherwise	0.862	0.3452
Wardrobe	Wardrobe=1, if there is a wardrobe available in the hostel, 0 otherwise	0.648	0.4780
Fridge	Fridge=1, if there is a fridge available in the hostel, 0 otherwise	0.458	0.4987
Staff	Staff=1, if the helping staff is available in the hostel, 0 otherwise	0.72	0.4494
Security	Security=1, if there is a security available in the hostel, 0 otherwise	0.716	0.4513
Parking area	Parking area=1, if there is a parking area available in the hostel, 0 otherwise	0.626	0.4843
Laundry	Laundry=1, if there is a laundry available in the hostel, 0 otherwise	0.396	0.4895
Public hostel	Public hostel=1, if respondents belong to public hostels, 0 otherwise	0.5	0.5005

The pseudo- R^2 shows 0.1762, which means that 17.6% variation in resident's satisfaction is due to independent variables i.e., mess, water, cleanliness, internet, wardrobe, fridge, staff, security, parking area, laundry, and public hostel. The Wald test statistic is 85.22, significant at a one percent significance level. It indicates that the overall model is significant. The coefficient of mess facility is significant at 5 percent level of significance. The coefficient shows that the mess facility positively impacts user gratification. The marginal effect of the mess facility indicates that the chances of customer satisfaction will be 0.1208 more if the mess facility is available in a hostel relative to if the mess facility is not available. The study implies that each hostel should need to provide a well-equipped mess for their users in their hall of residence. These results are consistent with the findings of [2]. They believed that every hostel should provide nutritious and delicious food items for its residents. It will have a significant positive impact on the health of residents. The availability of drinking water has a significant positive impact on the resident's satisfaction. The probability of customer satisfaction will be 0.1910 more for the availability of drinking water supply relative to if it is not available in hostels. [15] concluded that hostel authorities should provide a sufficient water supply for their residential users. The facility of staff has a significant relationship with customer gratification. The staff facility has a positive impact on user satisfaction. The marginal effect of the availability of helping staff is 0.2788. It shows that the probability of the resident's satisfaction is 0.2788 more than if helping staff is not available (see table 2). These results are in line with [4]. The

coefficient of security shows a positive relationship with the resident's satisfaction. The marginal effect of security is 0.1283, it indicates that there are 0.1283 higher probability of resident's satisfaction if security is available in the hostel. The parents consider security as an important factor when deciding about the stay of their daughters in the developing country; similar findings have been reported by [4]. The coefficients of cleanliness, internet, fridge, parking area, laundry and public hostel are insignificant. This means that residents are not assigning any importance to these facilities. Normally, girls (hostel residents) clean their room by themselves, so the non-availability of cleanliness services is having no significant impact. Different cellphone service providers are offering internet packages at a very affordable rate, so the availability of the internet is not considered an important facility by the residents. Hostel residents did not own any vehicles, so the parking area was not considered an important factor in residents' satisfaction. The residents did not consider public or private hostel ownership a critical attribute, as the residents care for the facilities, not the ownership.

Table 2: Estimates of Logistic Regression Model and Marginal Effect.

Variables	Coefficient	Robust Std. Err.	Z	P Value	Marginal Effect
Mess	0.6620*	0.2443	2.7100	0.0070	0.1208
Water	0.9325*	0.2789	3.3400	0.0010	0.1910
Cleanliness	-0.4139	0.2840	-1.4600	0.1450	-0.0699
Internet	0.3625	0.3225	1.1200	0.2610	0.0696
Wardrobe	0.4766**	0.2454	1.9400	0.0520	0.0888
Fridge	-0.4725**	0.2751	-1.7200	0.0860	-0.0858
Staff	1.3706*	0.2532	5.4100	0.0000	0.2788
Security	0.6658*	0.2665	2.5000	0.0120	0.1283
Parking area	0.1726	0.2637	0.6500	0.5130	0.0314
Laundry	0.0473	0.2623	0.1800	0.8570	0.0085
Public hostel	-0.0348	0.2853	-0.1200	0.9030	-0.0063
Constant	-1.5986*	0.5551	-2.8800	0.0040	
Pseudo-R ² = 0.1762		Wald $\chi^2_{11} = 85.22^*$			

*, ** Shows that coefficient is significant at 1%, 10% respectively

5. Conclusion

The primary purpose of this study is to identify the factors and its impact on hostel residents' satisfaction. For this purpose, the primary data relating to facilities offered by hostels such as mess, water, wardrobe, fridge, staff, security, parking area, and laundry were collected from 500 respondents residing in both public and private hostels. The findings of this study indicate that hostel needs to provide a high standard of facilities to their residents. The study results showed that mess plays an important role in the resident's satisfaction. In order to enhance residents' satisfaction, the management should provide a mess facility, that may include nutritious and delicious food items. The drinking water availability has a significant positive impact on residents' satisfaction. Therefore, the management should supply the facility of drinking water. Cleanliness in the highest standard of hygiene in hostels. Hostel management should provide housekeeping facilities for their residents. The present study suggests that hostel authorities should provide all functional facilities for their users that meet the compulsory conditions and standards to improve students learning outcomes. The current study's findings can be useful for hostel authorities in improving facilities, enhancing their competitive standard, and maintaining policies for all public & private hostels. Non-significant level

of certain variables showed that these variables are not playing a significant role in the residents' satisfaction, so the management does not need to spend money and time to provide these facilities.

References

- [1] Adewale, B. A., Ibem, E. O., Amole, B., & Adeboye, A. B.: Assessment of residential satisfaction in the core area of Ibadan Metropolis, Nigeria. *Journal of Human Behavior in the Social Environment*, 29(2), 206- 233 (2019).
- [2] Ajayi, M., Nwosu, A., & Ajani, Y.: Students' satisfaction with hostel facilities in federal university of technology, Akure, Nigeria. *European Scientific Journal*, 11(34), 1857-7881 (2015).
- [3] Bankole, O.M., & Adio, G.: Pattern of usage of internet among students of federal university Oye-Ekiti, Ekiti State, Nigeria. *Library Philosophy and Practice*, 1-30 (2018).
- [4] Brochado, A., Rita, P., & Gameiro, C.: Exploring backpackers' perceptions of the hostel service quality. *International Journal of Contemporary Hospitality Management*, 27(8), 1839-1855 (2015).
- [5] Huang, Z. and Du, X.: Assessment and determinants of residential satisfaction with public housing in Hangzhou, China. *Habitat International*, 47:218-230 (2015).
- [6] Ibem, E.O., Adeboye, A.B. and Alagbe, O.A.: Similarities and differences in residents' perception of housing adequacy and residential satisfaction. *Journal of Building Performance*, 6(1):1-14 (2015).
- [7] Ifikhar, A., & Ajmal, A.: A qualitative study investigating the impact of hostel life. *International Journal of Emergency Mental Health and Human Resilience*, 17(2), 511-515 (2015).
- [8] Krishnan, A. R., Mat Kasim, M., Bakar, E. A., & Nazri, E. M.: A hybrid multiple attribute decision-making (MADM) procedure for developing strategies to enhance students' satisfaction of university hostels. *International Journal of Management Studies*, 22(2), 33-51 (2015).
- [9] Mahama, F., Boahen, P. A. N., Saviour, A. W., & Tumaku, J.: Modeling satisfaction factors that predict students' choice of private hostels in a Ghanaian Polytechnic. *British Journal of Mathematics & Computer Science*, 19(3), 1-11 (2016).
- [10] Mensah-Kufuor, A.G. and Gablah, G.P.: Sanitation in Accra technical university hostel and its environs: A case study of Accra technical university old hostel. *International Journal of Hospitality and Tourism Management*, 1:11-22 (2017).
- [11] Mugambwa, J., Mugerwa, G. W., Mutumba, W. W., Muganzi, C., Namubiru, B., Waswa, Y., & Kayongo, I. N.: Privately provided accommodation service quality and customer satisfaction: The case of Nsamizi Training Institute of Social Development. *SAGE Open*, 6(2), 1-11 (2016).
- [12] Musa, R. M., & Haque, M.: Assessment of factors to contributing poor environmental sanitation in the University's student's male hostel. *International Journal of Pharmaceutical Research*, 8(3), 59-63 (2016).
- [13] Nimako, S. G., & Bondinuba, F. K.: An empirical evaluation of student accommodation quality in higher education. *European Journal of Business and Social Sciences*, 1(12), 164-177 (2013).
- [14] Nora, I. B. M., Jumadia, N., Abdullaha, L., Fawzy, F. F. M., Arshada, H., Shaharudina, M., & Nasrulb, F. S.: Student's satisfaction towards hostel's maintenance In UiTM Perak. 2nd international conference on innovation and technology for sustainable built environment. 5(22). 1-8 (2014).
- [15] Olagunju, R. E., & Zubairu, S. N.: Post occupancy evaluation of students' hostel accommodation in federal university of technology, Minna. *Journal of Building Performance*, 7(1), 105-115 (2016).
- [16] Oladiran, O. J.: A post occupancy evaluation of students' hostels accommodation. *Journal of building performance*, 4(1). 33-43 (2013).
- [17] Philip, A., Ileanwa, A.C. and El-Hussain, A.M.: Post-occupancy evaluation of students hostel facilities in federal universities in North Central, Nigeria. *Architecture Research*, 8(4):123-128 (2018).
- [18] Sanusi, N. A.: A study on the building maintenance practices in students' hostels at public universities. E-Bangi. *International Journal of Humanities and Social Science*, 16(3), 1-17 (2019).
- [19] Siraj, H. H., Salam, A., Hasan, N. A. B., Jin, T. H., Roslan, R. B., & Othman, M. N. B.: Internet usage and academic performance: a study in a Malaysian public university. *International Medical Journal*, 22(2), 83-86 (2015).
- [20] Sawyerr, P. T., & Yusof, N. A.: Student satisfaction with hostel facilities in Nigerian polytechnics. *Journal of Facilities Management*, 11(4), 306-322 (2013).
- [21] Ugwu, O. O., Okafor, C. C., & Nwoji, C. U.: Assessment of building maintenance in Nigerian university system: a case study of University of Nigeria, Nsukka. *Nigerian Journal of Technology*, 37(1), 44-52 (2018).
- [22] Zotorvie, J. S. T.: Students' accommodation and academic performance: The case of ho technical university, Ghana. *European Scientific Journal*, 13(13), 290-302 (2017).