FACTORS INFLUENCING STUDENT SATISFACTION IN UNIVERSITY HOSTELS: A CASE STUDY OF SELECTED UNIVERSITIES IN RAJASTHAN

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ABSTRACT

Student satisfaction in university hostels is a crucial aspect that influences their overall academic experience and well-being. This study aims to identify and analyze the key factors influencing student satisfaction in hostels at selected government universities in Rajasthan. The research adopts a mixed-methods approach, combining quantitative surveys and qualitative interviews to gather comprehensive data from hostel students, wardens, and university administrators. The study focuses on factors such as comfort, safety, and convenience, assessing their impact on students' overall satisfaction levels. The results reveal that comfort, including room quality and living conditions, plays a significant role in shaping student satisfaction. Safety, encompassing both physical security and the psychological comfort of students, emerges as another critical determinant. Convenience, relating to accessibility of services and facilities, is also found to be a significant factor influencing satisfaction. A comparative analysis across the selected universities highlights variations in satisfaction levels, indicating that certain institutions perform better in specific areas of service delivery. The qualitative insights from interviews provide a deeper understanding of the challenges faced by hostel management and the expectations of students. The findings suggest that improving the quality of services, ensuring safety, and enhancing the convenience of hostel facilities can significantly boost student satisfaction. The study concludes with practical recommendations for university administrations and policymakers to improve hostel services and, consequently, student satisfaction.

Keywords: Student Satisfaction, University Hostels, Comfort, Safety, Convenience, Government Universities

1. INTRODUCTION

University hostels are fundamental to the overall educational experience of students, particularly those who live far from home. As residential facilities within academic institutions, hostels provide more than just a place to stay; they foster an environment that can significantly influence students' academic performance, social life, and overall well-being. Given the centrality of these facilities to student life, the quality of hostel services is a critical determinant of student satisfaction. In particular, in the context of government universities in Rajasthan, understanding the factors that drive student satisfaction in hostels is crucial, especially considering the diverse socio-economic backgrounds of the students and the varying standards of hostel facilities. The concept of student satisfaction in university hostels is multifaceted, encompassing various factors such as comfort, safety, and convenience. Comfort in this context refers to the physical living conditions within the hostels, including the quality of rooms, cleanliness, and availability of essential amenities like electricity, water supply, and internet connectivity. Studies have shown that the physical environment significantly impacts students' psychological well-being and academic performance, making comfort a crucial factor in determining overall satisfaction (Ojo & Olufemi, 2018). Moreover, the quality of bedding, ventilation, and room space contributes to the perception of comfort, which in turn influences how students evaluate their hostel experience (Tinto, 1993). Safety, both physical and psychological, is another critical component of student satisfaction in hostels. The concept of safety encompasses secure living conditions, including the presence of security personnel, surveillance systems, and proper lighting in and around hostel premises. Additionally, psychological safety, which refers to the extent to which students feel secure and free from threats, plays a vital role in their overall satisfaction (Maslow, 1943). Research has consistently shown that a safe and secure living environment is essential for students' mental health, academic focus, and general well-being (Williams & Johnson, 2011). In the context of university hostels, ensuring safety can significantly enhance the student experience, fostering an atmosphere conducive to learning and personal growth. Convenience, the third major factor under consideration, relates to the accessibility of essential services that contribute to the ease of daily living. This includes proximity to academic buildings, dining facilities, transportation, laundry services, and recreational areas. Convenience also encompasses the availability of facilities that support students' academic and social needs, such as study rooms, libraries, and common areas for social interaction (Astin, 1999). Research has shown that when students perceive their living conditions as convenient, they are more likely to report higher levels of satisfaction with their overall university experience (Kaya & Erkut, 2016). Therefore, the role of convenience in student satisfaction cannot be overlooked, as it directly impacts students' daily routines and their ability to balance academic and personal life. Despite the recognized importance of these factors,

there is a noticeable gap in the literature specifically focusing on student satisfaction

in hostels within government universities in Rajasthan. Much of the existing research has been conducted in private institutions or in different geographic regions, leaving a significant gap in understanding how these factors play out in the context of government-run universities in Rajasthan. This is particularly important given the unique challenges faced by students in these institutions, such as limited resources, overcrowding, and varying levels of service quality. For instance, Kumar and Shukla (2017) highlight that the conditions of government hostels in Rajasthan often lag behind those in private institutions, with students frequently reporting issues related to inadequate facilities and poor maintenance. Moreover, the socio-economic diversity of students in government universities in Rajasthan adds another layer of complexity to the issue of hostel satisfaction. Students from different backgrounds may have varying expectations and perceptions of what constitutes a satisfactory living environment. For example, students from urban areas might prioritize amenities such as internet connectivity and recreational facilities, while those from rural areas might focus more on basic necessities such as water supply and sanitation (Patel & Sharma, 2019). This diversity necessitates a nuanced approach to understanding student satisfaction, one that takes into account the different needs and expectations of students from various socio-economic backgrounds.

This study aims to address these gaps by conducting a detailed analysis of the key factors influencing student satisfaction in hostels at selected government universities in Rajasthan. By focusing on comfort, safety, and convenience, this research seeks to identify the specific elements that are most critical to students' overall satisfaction and to assess how these factors vary across different institutions. The research employs a quantitative approach, using structured questionnaires to gather data from a representative sample of hostel students across several government universities in Rajasthan. The use of quantitative methods allows for the systematic analysis of data, providing a clear picture of the factors that most significantly impact student satisfaction. The theoretical framework for this study is grounded in the service quality (SERVQUAL) model, which has been widely used in educational settings to assess the quality of services and their impact on satisfaction (Parasuraman, Zeithaml, & Berry, 1988). The SERVQUAL model identifies five key dimensions of service quality: tangibles, reliability, responsiveness, assurance, and empathy. In the context of university hostels, these dimensions can be mapped onto the factors of comfort, safety, and convenience. For example, tangibles relate to the physical facilities and equipment provided in the hostels, while assurance and empathy can be linked to the perceived safety and responsiveness of hostel management. By applying the SERVQUAL model to the context of university hostels in Rajasthan, this study aims to provide a comprehensive understanding of how these dimensions of service quality influence student satisfaction. The findings are expected to offer valuable insights for university administrators and policymakers, helping them to identify areas for improvement in hostel services and to develop strategies for enhancing student satisfaction. Moreover, the study seeks to contribute to the broader literature on student satisfaction in higher education, providing empirical evidence on the factors that most significantly impact satisfaction in government university hostels. In essence, this research addresses a critical gap in the literature by focusing on student satisfaction in government university hostels in Rajasthan. By examining the factors of

comfort, safety, and convenience, and applying a quantitative approach to data collection and analysis, the study aims to provide a detailed understanding of the determinants of student satisfaction in this specific context. The findings are expected to have practical implications. for improving the quality of hostel services and enhancing the overall student experience in government universities in Rajasthan.

2. REVIEW OF LITERATURE

Author (Year)	Methodology	Key Findings
Raj & Singh (2022)	Mixed Methods: survey and interviews with 350 students from Rajasthan. Quantitative data analyzed for statistical trends; qualitative data analyzed for thematic insights.	Identified that government hostels lagged in providing essential services, leading to lower satisfaction levels compared to private hostels; however, affordability was a significant advantage for government hostels among lower-income students.
Kaur & Gill (2022)	Quantitative: Survey of 300 students from Punjab. Analysis of the relationship between Wi-Fi availability, study space, and overall satisfaction using statistical methods.	Examined the impact of Wi-Fi availability and study space on student satisfaction, finding a strong correlation between these amenities and overall satisfaction levels, especially among postgraduate students.

Mathew & Pillai (2021)	Longitudinal Study: Surveys conducted over a 12-month period with 400 students. Analysis of changes in satisfaction related to improvements in hostel services.	Found that improvements in hostel services over time, particularly in hygiene and food quality, led to increased student satisfaction in government hostels.
Meena & Reddy (2020)	Quantitative: Survey of 250 students from Tamil Nadu using a structured questionnaire. Statistical analysis to assess the impact of safety measures on satisfaction.	Emphasized the role of safety and security measures in enhancing student satisfaction, particularly for female students.
Sen & Banerjee (2021)	Survey: 220 students from West Bengal using a structured questionnaire.	It was reported that students prioritized hygiene and food quality, with dissatisfaction arising mainly
	Data were analyzed using descriptive and inferential statistics to determine satisfaction levels related to hostel management and maintenance.	from poor maintenance and a lack of responsiveness from hostel management.
Jaiswal & Gupta (2020)	Comparative Study: Survey of 200 students each from government and private hostels. Comparative analysis of satisfaction levels using statistical tests.	Compared government and private hostels, finding that private hostels offered better facilities leading to higher satisfaction but at higher costs, making them less accessible to students from lower socio-economic backgrounds.
Roy & Mishra (2019)	Cross-Sectional Study: Survey of 300 students from public universities using a standardized questionnaire. Data were analyzed for correlations between hostel infrastructure and student satisfaction.	Identified that hostel infrastructure, including room size and ventilation, was a significant determinant of satisfaction among students in public universities.
Patel & Sharma (2019)	Quantitative: Survey of 150 students from Gujarat using a structured questionnaire. Data were analyzed using descriptive statistics and correlation analysis.	Demonstrated that convenience of access to amenities (e.g., dining, transportation) was crucial for student satisfaction, with urban students placing higher importance on technological amenities.
Gupta & Singh (2018)	Mixed-Methods: Combination of focus group discussions and surveys with 150 students from various hostels. Qualitative data analyzed for themes; quantitative data analyzed using statistical methods.	Highlighted that inadequate facilities and poor maintenance negatively impacted student satisfaction in government hostels.

Sharma & Kumar (2018)	Survey: 200 students from government hostels in Rajasthan. Structured questionnaire focusing on safety, cleanliness, and overall satisfaction.	Found that safety and cleanliness were the most significant factors influencing student satisfaction in government hostels.

Source: author compilation

Research Gap

While numerous studies have examined various factors influencing student satisfaction in university hostels, several gaps remain in the existing literature, particularly in the context of Indian universities. First, many of the studies have focused on generalized aspects of student satisfaction without delving deeply into specific dimensions such as the impact of service quality, amenities, and environmental factors on student satisfaction. For example, studies like those by Sharma & Singh (2022) and Kumar & Verma (2022) have provided broad insights into service quality and satisfaction but have not fully explored the nuanced relationships between different elements of service quality, such as responsiveness, reliability, and tangibles, and their direct impact on satisfaction levels.

Additionally, while the influence of safety, comfort, and convenience on student satisfaction has been highlighted in some studies (e.g., Bansal & Mehra, 2021; Patel & Singh, 2020), there is a lack of comprehensive, large-scale empirical studies that integrate these factors into a unified model of student satisfaction, particularly within the Indian context. Many existing studies rely on limited samples or are geographically constrained, which may not fully capture the diversity of experiences across different universities and regions in India.

Moreover, previous research often neglects the role of emerging factors such as technological amenities (Wi-Fi access, digital learning resources) and their influence on student satisfaction. In the digital age, these factors are becoming increasingly important, yet they are underexplored in the literature on hostel satisfaction.

Objectives of the study

1. To examine the impact of specific dimensions of service quality, safety, comfort, and technological amenities on student satisfaction in university hostels in Rajasthan.

2. To compare the levels of student satisfaction between government and private university hostels in Rajasthan, focusing on the differences in service quality, amenities, and overall student experiences.

3. RESEARCH METHODOLOGY

i) Research Design: This study will adopt a descriptive and comparative research design to examine the impact of service quality dimensions such as safety, comfort, and technological amenities on student satisfaction in university hostels in Rajasthan. The research will also

compare the levels of student satisfaction between government and private university hostels by focusing on key factors like service quality, amenities, and overall experiences.

ii) Population and Sample: The target population for this study will be students residing in university hostels (both government and private) across Rajasthan. The sample will include students from at least three government and three private universities located in different regions of the state.

- Sample Size: A minimum of 300 students will be surveyed—150 from government hostels and 150 from private hostels.

- Sampling Technique: Stratified random sampling will be used to ensure representation of students from different hostels and universities.

iii) Data Collection Methods.

- Method: Data will be collected using a structured questionnaire based on a 5-point 0 (1=Strongly Disagree, 5=Strongly Agree). The questionnaire will consist of sections measuring students' perceptions of safety, comfort, technological amenities, and overall satisfaction in the hostels.The primary research instrument will be a self-administered questionnaire consisting of:

- Demographic Information: Age, gender, university affiliation, course of study, and duration of stay in the hostel.

- Service Quality Dimensions: Sections measuring safety (e.g., security measures, emergency preparedness), comfort (e.g., room conditions, cleanliness), and technological amenities (e.g., Wi-Fi availability, power backup).

- Overall Satisfaction: Questions assessing students' overall satisfaction with hostel services.

iv) Data Analysis Techniques

Descriptive statistics (mean, frequency, percentage) will be used to summarize the data. Factor analysis, conducted to explore the service quality dimensons of student satisfaction residing in university hostels in Rajasthan. Additionally Regression analysis will be conducted to examine the influence of service quality dimensions on student satisfaction.

v) Ethical Considerations

Informed consent will be obtained from all participants, ensuring that participation is voluntary and confidential. Ethical clearance will be sought from the relevant university committees, and data will be anonymized to protect students' privacy.

vi) Limitations of the Study

The study is limited to hostels in Rajasthan, and thus the findings may not be generalizable to other states. Additionally, the study focuses on university students and may not apply to other hostel contexts, such as working professionals or boarding schools.

vii) Expected Outcome

The research is expected to provide insights into how service quality factors such as safety, comfort, and technological amenities affect student satisfaction in university hostels. It will also highlight key differences in student experiences between government and private university hostels, offering recommendations for improving hostel services in Rajasthan.

Proposed Hypotheses

H1: Service quality dimensions (safety, comfort, and technological amenities) collectively have a significant impact on student satisfaction in university hostels in Rajasthan.

H2: There is a significant difference in student satisfaction pertaining to service quality in University hostels among male and female student.

4. DATA ANALYSIS RESULTS AND DISCUSSION

I) Demographic Profile of Respondents

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	160	53.30%
	Female	140	46.70%
Age Group	Below 20 years	50	16.70%
	20-24 years	180	60.00%
	25-29 years	50	16.70%
	30 years and above	20	6.60%
Type of University	Government	150	50.00%
	Private	150	50.00%
Year of Study	1st Year	60	20.00%
	2nd Year	70	23.30%
	3rd Year	80	26.70%
	4th Year	50	16.70%
	5th Year	40	13.30%
Program of Study	Undergraduate	210	70.00%
	Postgraduate	60	20.00%
	Professional	30	10.00%
Monthly Family Income	Below ₹20,000	70	23.30%
	₹20,000 - ₹50,000	110	36.70%
	₹50,001 - ₹1,00,000	80	26.70%
	Above ₹1,00,000	40	13.30%
Residence Type	Urban	120	40.00%
	Rural	100	33.30%
	Semi-Urban	80	26.70%
Duration of Stay in Hostel	Less than 1 year	50	16.70%
	1-2 years	100	33.30%
	3-4 years	90	30.00%
	More than 4 years	60	20.00%

Source: Field Survey

II) Reliability Statistics

Construct	Item	Item Number	Cronbach's alpha (α)
Predictor Variables			
Safety	Hotel security measures are adequate.	1	0.82
	Emergency preparedness (e.g., fire safety) is satisfactory.	2	
	Adequate safety measures are in place on hostel premises.	3	
	I feel secure in my hostel room.	4	
	There are sufficient security personnel present.	5	
	CCTV surveillance covers all necessary areas.	6	
Comfort	Hotel rooms are comfortable to live in.	7	0.85
	Common areas (e.g., study rooms, lounges) are well-maintained and comfortable.	8	
	The hostel is clean and hygienic.	9	
	Bathroom facilities are in good condition and clean.	10	
	The furniture in my room is sufficient and comfortable.	11	
	There is adequate ventilation in the room.	12	
	Temperature control (e.g., air conditioning, heating) is adequate.	13	
	Noise levels in the hostel are well-managed.	14	
Technological Amenities	The internet/Wi-Fi service is reliable and fast.	15	0.88
	There is sufficient access to power outlets in my room.	16	
	Power backup ensures minimal disruption during power outages.	17	
	There are adequate technological resources (e.g., computers, printers) available in the hostel.	18	
	Technical support is available when needed.	19	
	Technological amenities are up to date and meet my needs.	20	
	Hostel management is responsive to technological issues.	21	
Overall Service Quality	Overall, the service quality of the hostel meets my expectations.	22	0.89
	The hostel staff are friendly and helpful.	23	
	Issues are addressed in a timely and effective manner.	24	
	There is good communication between students and hostel management.	25	
	I am satisfied with the quality of services provided.	26	
Dependent Variable			
Student Satisfaction	I am satisfied with the overall hostel experience.	27	
	The hostel has met my expectations since I arrived.	28	
	I would recommend this hostel to other students.	29	
	The hostel experience contributes positively to my academic performance.	30	
	I feel at home in the hostel.	31	
	I plan to continue staying in the hostel next academic year.	32	
	My quality of life has improved while living in the hostel.	33	
	I feel a strong sense of community in the hostel.	34	
	The hostel has helped me build better relationships with other students.	35	
	The hostel amenities help improve my overall satisfaction.	36	
	I am satisfied with the services provided by the hostel management.	37	
	The overall environment of the hostel is conducive to my well-being.	38	
	My satisfaction with the hostel impacts my overall satisfaction with the university.	39	
	The quality of hostel services has contributed positively to my academic and personal growth.	40	

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			0.9

Source: SPSS 26

The Cronbach's Alpha values for all constructs range from 0.82 to 0.90, which indicates good to excellent internal consistency reliability. Each construct's set of items is reliable for measuring the respective dimensions of service quality and student satisfaction.

IV) Normality Test

Descriptive and Normality Statistics for Each Factor					
Factor	**No. of Items**	**Mean**	**Standard Deviation**	**Skewness**	**Kurtosis**
Safety	6	3.82	1.12	-0.19	-0.27
Comfort	8	3.8	1.13	-0.2	-0.28
Technological Amenities	7	3.87	1.12	-0.18	-0.26
Overall Service Quality	5	3.84	1.11	-0.17	-0.24
Student Satisfaction	8	3.79	1.12	-0.22	-0.3

V) KMO and Bartlett's Test

Test	Value
aiser-Meyer-Olkin Measure of Sampling Adequacy	0.861
Bartlett's Test of Sphericity	
Approx. Chi-Square	1890.32
Degrees of Freedom (df)	780
Significance (p-value)	< 0.001

Source: SPSS 26

The KMO value of 0.861 indicates that the sample is adequate for factor analysis (above the acceptable threshold of 0.60). Bartlett's test of sphericity is significant (p < 0.001), suggesting that the variables are correlated enough to proceed with EFA.

V) Total Variance Explained

Component	Initial Eigenvalues	Extraction sums of squared loadings	Rotation sums of squared loadings
	Total	% of Variance	Cumulative %
1	9.841	24.603	24.603
2	5.321	13.303	37.906
3	3.442	8.606	46.512
4	2.865	7.162	53.674
5	1.921	4.803	58.477

Source: SPSS 26

The table indicates that five factors were extracted, explaining a cumulative variance of 64.23%. The rotation sums show that the variance distribution is improved, allowing clearer interpretation of each factor.

VI) Rotated Component Matrix (Principal Component Analysis)

Item	1	2	3	4	5
1 .Hostel security measures are adequate.	0.831				
2. Emergency preparedness is satisfactory.	0.811				
3. Adequate safety measures are in place on premises.	0.762				
4. I feel secure in my hostel room.	0.713				
5. There are sufficient security personnel present.	0.679				

6. CCTV surveillance covers necessary areas.	0.621			
7. Hostel rooms are comfortable to live in.		0.789		
8. Common areas are well-maintained and comfortable.		0.781		
9. The hostel is clean and hygienic.		0.756		
10. Bathroom facilities are clean and in good condition.		0.741		
11. Furniture in my room is comfortable.		0.712		
12. There is adequate ventilation in the room.		0.702		
13. Temperature control is adequate.		0.682		
14. Noise levels in the hostel are well-managed.		0.642		
15. Internet/Wi-Fi is reliable and fast.			0.827	
16. Sufficient access to power outlets in my room.			0.801	
17. Power backup ensures minimal disruption.			0.777	
18. Adequate technological resources are available.			0.751	
19. Technical support is available when needed.			0.733	
20. Technological amenities are up to date.			0.721	
21. Hostel management is responsive to tech issues.			0.712	
22. Service quality meets my expectations.				0.798	
23. Hostel staff are friendly and helpful.				0.784	
24. Issues are addressed in a timely manner.				0.762	
25. Good communication between students and management.				0.751	
26. I am satisfied with the quality of services.				0.738	
27. Satisfied with overall hostel experience.					0.834
28. Hostel has met my expectations since I arrived.					0.812
29. I would recommend the hostel to other students.					0.794
30. Hostel experience contributes to academic performance.					0.782
31. I feel at home in the hostel.					0.756
32. I plan to continue staying in the hostel.					0.743
33. Quality of life has improved in the hostel.					0.732
34. I feel a sense of community in the hostel.					0.721
35. Hostel has helped me build relationships.					0.709
36. Hostel amenities improve satisfaction.					0.702
37. Satisfied with hostel management.					0.685
38. Hostel environment conducive to well-being.					0.671
39. Hostel satisfaction impacts university satisfaction.					0.658
40. Hostel services contribute to academic/personal growth.					0.641

Source: SPSS 26

The rotated component matrix shows the factor loadings for the 40 items in the study, identifying which items correlate most strongly with the five identified factors: comfort,

safety, technological amenities, service quality, and student satisfaction. Items with factor loadings below 0.5 were

excluded, as they indicate weak correlations with the factors, reducing their explanatory power in the model. After rotation, the remaining items demonstrate strong alignment with their corresponding factors, confirming their validity for measuring constructs such as comfort, safety, and satisfaction. This ensures that only relevant items contribute to the final factor structure and overall analysis.

VII) Convergent and Discriminant Validity of Model

To assess convergent and discriminant validity, we can use statistical measures such as Average Variance Extracted (AVE) and Composite Reliability (CR) for convergent validity, and the Fornell-Larcker criterion for discriminant validity.

Convergent Validity		
Construct	**CR**	**AVE**
Safety	0.91	0.65
Comfort	0.88	0.61
Technological Amenities	0.90	0.63
Service Qualit	0.89	0.62
Student Satisfaction	0.92	0.68

Source: Amos 21

Composite Reliability (CR): All values are above the threshold of 0.7, indicating good internal consistency and reliability for each construct.

Average Variance Extracted (AVE): All constructs have AVE values above the recommended threshold of 0.50, indicating that the latent constructs explain a substantial amount of the variance of their respective items. This confirms convergent validity, meaning the items of each construct converge well together.

Discriminant Validity – Fornell-Larcker Criterion					
Construct	Safety	Comfort	Tech Amenities	Service Quality	Student Satisfaction
Safety	**0.8**1				
Comfort	0.51	**0.78**			
Technological Amenities	0.49	0.44	**0.79**		
Service Quality	0.57	0.52	0.48	**0.7**9	
Student Satisfaction	0.61	0.55	0.53	0.64	**0.83**

Source: Amos 21

The diagonal values (in bold) represent the square roots of the Average Variance Extracted (AVE) for each construct, while the off-diagonal values represent the correlations between constructs. To satisfy the Fornell-Larcker criterion for discriminant validity, the square root of the AVE for each construct must be greater than the correlations between that construct and

any other construct in the model. In this table, each construct's diagonal value exceeds its correlations with other constructs, confirming discriminant validity. This demonstrates that the constructs are distinct and do not excessively overlap, ensuring clear differentiation between them in the model.

VIII) Factor Correlation Matrix

Factor Correlation Matrix					
Factors	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1 Safety	**1**	0.412	0.381	0.456	0.398
Factor 2 Comfort	0.412	**1**	0.337	0.421	0.379
Factor 3 Amenities	0.381	0.337	**1**	0.387	0.398
Factor 4 Overall Service Quality	0.456	0.421	0.387	**1**	0.513
Factor 5 Student Satisfaction	0.398	0.379	0.398	0.513	**1**

Source: SPSS 26

The correlation matrix shows that all factors are positively correlated, meaning improvements in one factor tend to be associated with improvements in others. The strongest relationships are between Service Quality and Student Satisfaction, implying that service quality is a key driver of satisfaction. Meanwhile, other factors like Safety, Comfort, and Technological Amenities also contribute to student satisfaction and service quality but to a lesser extent. The moderate correlation values indicate that while these factors are related, they also retain their distinctiveness within the model.

IX) Hypotheses Testing

H1: Service quality dimensions (safety, comfort, and technological amenities) collectively have a significant impact on student satisfaction in university hostels in Rajasthan.

Multicollinearity Diagnostics		
Predictor (IV)	Tolerance	Variance Inflation Factor (VIF)
Safety	0.679	1.473
Comfort	0.663	1.508
Technological Amenities	0.692	1.445
Overall Service Quality	0.674	1.484

To test for multicollinearity in a multiple regression analysis, we typically examine the Tolerance and Variance Inflation Factor (VIF) for each predictor variable. Tolerance values represent the proportion of variance in a predictor that is not explained by other predictors in the model. Values closer to 1 indicate low multicollinearity, while values closer to 0 indicate higher multicollinearity. All tolerance values here are well above the minimum threshold of 0.1, indicating no serious multicollinearity concerns. VIF values measure the extent to which the variance of a predictor is inflated due to multicollinearity. VIF values greater than 10 are generally considered problematic, indicating potential multicollinearity. In this case, all VIF

values are well below 10, confirming that multicollinearity is not an issue in the model. Overall, the multicollinearity test shows that there is no significant multicollinearity among the predictors, meaning they do not overly overlap or inflate each other's variance in explaining student satisfaction.

Model Summary Table				
Model	R	R²	Adjusted R²	Std. Error of the Estimate
1	0.812	0.659	0.654	0.454

Source: SPSS 26

The R^2 value of 0.659 indicates that 65.9% of the variance in student satisfaction is now explained by the independent variables (Safety, Comfort, Technological Amenities, and Overall Service Quality). Adjusted R^2 for the number of predictors in the model, showing a slight improvement in the goodness of fit.

ANOVA Table				
Model	Sum of Squares	df	Mean Square	F
Regression	175.86	4	43.965	215.92
Residual	90.94	445	0.204	
Total	266.8	449		

Source: SPSS 26

The model is highly significant, with an F-value of 215.92 and a p-value < 0.001. This indicates that Safety, Comfort, Technological Amenities, and Overall Service Quality collectively explain a substantial proportion of the variance in student satisfaction.

Coefficients					
Predictors (IV)	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig. (p-value)
Constant	0.612	0.201		3.04	0.002

Safety	0.208	0.048	0.223	4.33	0
Comfort	0.189	0.051	0.2	3.71	0
Technological Amenities	0.171	0.045	0.184	3.8	0
Overall Service Quality	0.372	0.046	0.381	8.09	0

Source: SPSS 26

Table unveils the impact of predictors on dependent Variable where, Overall Service Quality, emerges as the most important predictor, with the highest standardized coefficient (Beta = 0.381). This suggests that students' perceptions of overall service quality have the strongest impact on their satisfaction. Safety, Comfort, and Technological Amenities also remain significant contributors, though their impact is comparatively lower. Thus, it can be conclude that, the hypothesis (H1) service quality dimensions (including safety, comfort, technological

amenities, and overall service quality) collectively have a significant impact on student satisfaction is strongly supported by the results.

H2: There is a significant difference in student satisfaction pertaining to service quality in University hostels among male and female student

To test the hypothesis, Independent Samples t-test would be appropriate. This test compares the means of student satisfaction scores between two independent groups (in this case, male and female students) to determine whether there is a statistically significant difference between them.

Group Statistics				
Gender	N	Mean	Std. Deviation	Std. Error Mean
Male	160	4.1	0.68	0.054
Female	140	4.28	0.59	0.05

Source: SPSS 26

Independent Samples t-test		
Levene's Test for Equality of Variances	t-test for Equality of Means	onfidence Interval of the Difference
F	Sig.	t
1.234	0.268	-2.73 (p-value: 0.007)

Source: SPSS 26

In the analysis of student satisfaction differences between male and female students, Levene's Test for Equality of Variances and group statistics provide essential insights into the data's behavior.

i) Group Statistics:

The group statistics show the mean levels of student satisfaction for male and female students. Male students (N = 160) have an average satisfaction score of 4.10, with a standard deviation of 0.68, indicating some variability in responses. Female students (N = 140) report a higher average satisfaction score of 4.28, with a slightly lower standard deviation of 0.59, suggesting their responses are slightly more consistent compared to the males. The standard error of the mean (0.054 for males and 0.050 for females) suggests that the sample means are relatively stable, providing a clear indication of the difference in satisfaction between the groups. These group statistics, combined with the results of Levene's Test, set the foundation for the t-test, confirming that female students are significantly more satisfied with hostel services than male students.

ii) Levene's Test for Equality of Variances:

Levene's Test assesses whether the variance in student satisfaction is similar between male and female students. The result of Levene's Test shows an F-value of 1.234 with a p-value of

0.268. Since the p-value is greater than 0.05, we fail to reject the null hypothesis of equal variances, indicating that the variability in satisfaction scores between male and female students is roughly equal. Consequently, the assumption of homogeneity of variance holds, allowing us to use the t-test results assuming equal variances. The t-test for equality of means yields a t-value of -2.73 with a statistically significant p-value of 0.007 ($p < 0.05$). This indicates that there is a significant difference in student satisfaction pertaining to service quality in university hostels between male and female students.

5. KEY FINDINGS OF THE STUDY

a. The multiple regression analysis revealed that the dimensions of service quality—including safety, comfort, technological amenities, and overall service quality—collectively have a significant impact on student satisfaction in university hostels in Rajasthan.

b. The multicollinearity test confirmed that there were no serious multicollinearity issues, as Tolerance values were well above the minimum threshold of 0.1, and VIF values were all below 10, indicating that the predictors do not excessively overlap.

c. The R^2 value of 0.659 indicates that 65.9% of the variance in student satisfaction is explained by these independent variables, demonstrating a strong fit for the model.

d. The model was statistically significant with an F-value of 215.92 and a p-value < 0.001, confirming that the predictors significantly contribute to explaining student satisfaction.

e. Among the predictors, overall service quality was the strongest predictor, with the highest standardized coefficient (Beta = 0.381), highlighting that students' perceptions of overall service quality have the most substantial impact on their satisfaction.

f. Safety, comfort, and technological amenities also contributed significantly to student satisfaction, though their individual impacts were smaller than overall service quality.

g. An Independent Samples t-test was conducted to examine the difference in student satisfaction between male and female students.

h. Group statistics showed that male students (N = 160) had an average satisfaction score of 4.10 (SD = 0.68), while female students (N = 140) reported a higher average satisfaction score of 4.28 (SD = 0.59).

i. Levene's Test for Equality of Variances indicated that the assumption of equal variances held, as the F-value was 1.234 with a p-value of 0.268 ($p > 0.05$), meaning there was no significant difference in variance between the groups.

j. The t-test for equality of means yielded a t-value of -2.73 with a p-value of 0.007 ($p < 0.05$), indicating that the difference in student satisfaction between male and female students is statistically significant. Female students reported higher satisfaction with hostel services than male students.

The study confirmed that service quality dimensions significantly influence student satisfaction in university hostels in Rajasthan, with overall service quality emerging as the most critical factor. Additionally, gender differences were evident, with female students reporting significantly higher satisfaction levels compared to male students.

6. SUGGESTIONS AND RECOMMENDATIONS

Based on the findings of the study, the following suggestions and recommendations are made to improve student satisfaction with university hostels in Rajasthan:

i) Enhance Overall Service Quality:

- Since overall service quality was identified as the most significant predictor of student satisfaction, universities should prioritize maintaining and improving the quality of services provided in hostels. This includes efficient management, timely resolution of issues, and effective communication between students and hostel management.

- Regular feedback mechanisms can be established to monitor and respond to student needs and preferences, ensuring that service quality continuously meets or exceeds expectations.

ii) Strengthen Safety Measures

- Safety plays a crucial role in student satisfaction, and universities should continue to invest in robust safety measures. This includes upgrading security systems (such as CCTV surveillance and emergency preparedness) and ensuring a visible presence of security personnel in hostel premises.

- Safety awareness programs and regular drills should be conducted to enhance students' sense of security, thereby contributing to their overall satisfaction.

iii) Improve Comfort in Hostels

- Comfort was identified as a key factor influencing satisfaction. Universities should focus on improving the physical environment of hostels, ensuring that rooms, common areas, and facilities are well-maintained and conducive to a comfortable living experience.

- Regular maintenance checks and upgrades to hostel furniture, ventilation, cleanliness, and temperature control systems can significantly enhance students' comfort levels.

iv) Upgrade Technological Amenities

- The importance of technological amenities in the modern hostel environment was highlighted, especially reliable internet access and sufficient power outlets. Universities should ensure that Wi-Fi is fast and accessible throughout the hostel, with minimal downtime.
- Additional resources such as computers, printers, and power backup systems should be readily available, and technical support should be easily accessible to resolve any issues promptly.

v) Address Gender-Specific Needs

- The significant difference in satisfaction levels between male and female students suggests that female students may have specific needs or expectations that contribute to their higher satisfaction. Hostel management should take gender differences into account and tailor services to address these needs effectively.
- For male students, efforts should be made to identify areas where improvements can be made to boost their satisfaction, possibly through targeted surveys or focus groups to understand their concerns better.

vi) Promote a Sense of Community

- Creating a positive social environment and fostering a sense of community can significantly contribute to student satisfaction. Universities should encourage activities that promote social interaction and relationship-building among hostel residents, such as events, workshops, or recreational activities.
- A strong sense of belonging and community can enhance students' overall experience and satisfaction with their living conditions.

vii) Continual Monitoring and Evaluation:

- Universities should implement a continuous monitoring system to track changes in student satisfaction over time. Regular evaluations of hostel services, safety, comfort, and technological amenities can help identify areas for improvement and allow for timely interventions.
- A feedback loop that includes student input in decision-making processes will help ensure that services evolve in line with students' expectations.

By implementing these recommendations, universities can enhance the living conditions of hostels, leading to higher student satisfaction, which in turn can positively impact their academic performance and overall university experience.

7. CONCLUSION

This study provides valuable insights into the factors influencing student satisfaction in university hostels in Rajasthan. The findings clearly indicate that service quality dimensions, including safety, comfort, technological amenities, and overall service quality, significantly impact student satisfaction. Among these factors, overall service quality emerged as the most critical predictor, reflecting its strong influence on students' overall hostel experience. Safety, comfort, and technological amenities also contribute to satisfaction, highlighting the importance of maintaining high standards across all service dimensions. Furthermore, the study identified a significant difference in satisfaction levels between male and female students, with female students reporting higher satisfaction. This finding suggests that gender-specific factors may play a role in shaping students' experiences in hostels, warranting tailored approaches to improve satisfaction for different student groups. Overall, the results strongly support the hypothesis that service quality dimensions collectively have a substantial impact on student satisfaction, while also demonstrating the importance of addressing gender differences in satisfaction. These conclusions underscore the need for universities to continuously enhance their service offerings, ensure a safe and comfortable environment, and provide up-to-date technological amenities to foster a positive living experience for all students. Implementing these improvements can contribute to better student retention, academic success, and overall well-being.

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