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A CROSS-TABULAR ANALYSIS OF SERVICE QUALITY AND EMPLOYEE DEMOGRAPHICS IN HOSPITALITY

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Abstract

This study examines the correlation between the way hotel employees perceive the quality of service and their demographic characteristics through the use of cross-tabulation analysis. Service quality is a critical determinant of guest satisfaction and loyalty in the hospitality industry, making it imperative to understand its underlying drivers. Demographic factors such as age, gender, education level, and job role are examined to discern their influence on employee perceptions of service quality. Data was collected from a diverse sample of hotel employees through structured surveys, focusing on their perceptions of service delivery and customer interactions. Statistical analysis, particularly cross-tabulation, was employed to explore patterns and associations between demographic variables and perceived service quality dimensions.

The findings reveal nuanced relationships between demographic factors and service quality perceptions, providing insights into how different employee groups perceive and deliver service excellence. Implications for hotel management practices and recommendations for enhancing service quality based on demographic insights are discussed, highlighting the importance of tailored strategies to optimize employee performance and guest satisfaction in the hospitality sector.

Key words: Demographic factors, Service quality, Cross-tabulation analysis. Service quality.

Introduction

In the highly competitive hospitality industry, service quality stands as a cornerstone for guest satisfaction and business success. The perceptions and delivery of service quality by hotel employees play a pivotal role in shaping guest experiences and loyalty. Understanding the factors influencing these perceptions is essential for hotel management aiming to improve service standards and customer satisfaction. The demographic attributes of employees, including age, gender, educational attainment, and employment position, are known to influence their attitudes, behaviors, and perceptions in the workplace. These factors can potentially impact how hotel employees perceive service quality and interact with guests.

However, the specific nature of these relationships remains underexplored, particularly in the context of cross-tabulation analysis that allows for a detailed examination of associations between demographic variables and service quality dimensions. This study aims to address this deficiency by performing a comprehensive analysis into the correlation between perceptions of service quality and demographic characteristics among hotel personnel. By employing cross-tabulation analysis, this research aims to uncover patterns and insights that can inform strategic decisions aimed at enhancing service quality in the hospitality sector. Through this exploration, the study contributes to both theoretical advancements in service quality research and practical implications for hotel management, offering a comprehensive understanding of how demographic factors shape service delivery and guest experiences in the dynamic hospitality environment.

Literature Review

Hartline & Ferrell (1996) - "The Management of Customer-Contact Service Employees": This study explores how demographic factors (age, gender, education) influence employee perceptions



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and behaviors in customer-facing roles. Future research could investigate how demographic diversity impacts team dynamics and service outcomes in hotels.

"Siguaw, Enz, & Namasivayam (2000)" - "Adapting Quality Function Deployment to Service Quality Improvement in Hotels": This work suggests applying Quality Function Deployment (QFD) to align service quality improvements with customer and employee needs. Future research could adapt QFD methodologies to enhance internal service quality assessments based on employee demographics.

Hansen & Machum (2013) - "The Impact of Employee Demographic Characteristics on Organizational Performance": This research examines cultural differences in employee demographics and their implications for service quality in global hospitality settings. Future studies could explore strategies for managing cultural diversity to enhance service delivery.

Need for the study

The research on the correlation between service quality as well as demographic characteristics among hotel personnel aims to fulfill certain crucial requirements within the hospitality sector: The quality of service plays a crucial role in determining the satisfaction and loyalty of guests in hotels. Demographic factors, including gender, age, level of education, and occupation type, might influence the way staff engage with visitors and provide services. An investigation into the relationship among service quality as well as demographic factors between hotel employees helps to create a welcoming atmosphere at work and improve service delivery as well as customer satisfaction in the lodging sector. This study aims to fill both operational and theoretical gaps by examining how the demographic diversity within employees affects perceptions of service quality, providing actionable insights.

Objective of the study

To investigate the relationship between Service Quality and Demographic Factors among Hotel employees using a cross-tabulation analysis.

Research Methodology

Research is the term used to describe a thorough and methodical exploration of pertinent facts. The principal objective of study is to uncover concealed truths that have yet to be unveiled, or to enhance the existing discoveries of prior research endeavors.

Data Collection Methods: Once an investigation issue has been identified, the process of gathering data commences. The research is predominantly based on empirical evidence. The study's data was gathered from a blend of both secondary and primary sources.

Primary Source: Data (640 respondents) was gathered using well-structured questionnaires. Separate questionnaires were developed and distributed. The surveys had a combination of openended and closed-ended inquiries.

Table-1.1 Service Quality of Star Hotel Employees

		<u> </u>		- J		
Service Quality of Star Hotel	"Strongly				"Strongly	
Employees	Disagree"	"Disagree"	"Neutral"	"Agree"	Agree"	Total
Tangibility						
The appearance and						
professionalism of our staff are						
always maintained.	91	92	139	199	119	640
"Percentage"	14.22	14.38	21.72	31.09	18.59	100

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Reliability						
Our employees perform their						
services reliably and consistently	110	104	101	176	149	640
"Percentage"	17.19	16.25	15.78	27.50	23.28	100
Responsiveness						
Our employees promptly attend						
to guests' needs and requests.	98	108	156	138	140	640
"Percentage"	15.31	16.88	24.38	21.56	21.88	100
Assurance						
Our employees are						
knowledgeable and instill						
confidence in guests.	94	81	123	187	155	640
"Percentage"	14.69	12.66	19.22	29.22	24.22	100
Empathy						
Our employees provide						
personalized attention to guests	74	132	101	225	108	640
"Percentage"	11.56	20.63	15.78	35.16	16.88	100
"TOTAL"	467	517	620	925	671	3200

Source : Primary Data



Table -1.1 illustrates the viewpoint of the participants on "The consistent maintenance of our staff's appearance and professionalism." 31.09% of the respondents expressed agreement with the statement, while 21.72% indicated a neutral stance. Yet, 18.59% of respondents strongly agreed, whereas 14.38% of respondents disagreed. Just 14.22% of those surveyed have expressed a "Strongly Disagree" sentiment.

Table-1.1 displays the respondents' viewpoint regarding the reliability and consistency of our employees' service. 27.5% of the respondents expressed agreement with the statement, while 23.28% strongly agreed. However, 17.19% of the participants strongly disagreed, while 16.25% indicated a disagreement. Merely 15.78% of the participants have indicated a "Neutral" response.

The data shown in Table-1.1 displays the viewpoint of the participants regarding the promptness of our employees in attending to the demands and requests of guests. 24.38% of the respondents



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expressed a "Neutral" stance towards the remark, while 21.88% strongly agreed with it. 21.56% of respondents agreed, while 16.88% disagreed. Merely 15.31% of those surveyed have expressed a "Strongly Disagree" sentiment.

Table-1.1 displays the respondents' viewpoint regarding the statement "Our employees possess expertise and inspire trust in guests." 29.22% of the respondents expressed agreement with the statement, while 24.22% strongly agreed. Nevertheless, 19.22% of participants indicated a state of neutrality.14.69% of the responders have indicated a "Strongly Disagree" response. Merely 12.66% of the participants have expressed a stance of "Disagree".

Table-1.1 presents the respondents' viewpoint regarding "The level of individualized care our employees offer to guests." 35.16% of the respondents expressed agreement with the statement, while 20.63% indicated disagreement. However, 16.88% of the participants indicated a "Strongly Agree" response, while 15.78% of the participants expressed a "Neutral" viewpoint. Merely 11.56% of participants have expressed a "Strongly Disagree" viewpoint.

Cross Table

A cross table, also known as a contingency table or crosstab, is a statistical tool used to summarize the relationship between two variables. It displays the frequency or count of observations that fall into various categories of both variables.

Cross Table-Age and Service Quality of Star Hotel employee *Testing the Hypothesis*

Null Hypothesis: There is no association between Age and Service Quality of Star Hotel employees.

Table-1.2 Age group and Service Quality of employees

Table-1.2 Tige group and Service Quanty of employees							
	Service Quality of Employees						
Age of group	"Strongly	"D:	66NI 4 199	66 A 22	"Strongly	T-4-1	
	Disagree"	"Disagree"	"Neutral"	"Agree"	Agree"	Total	
Upto 30 Years	39	35	38	57	47	216	
Percentage	18.06	16.20	17.59	26.39	21.76	100	
Between 31-40 Years	24	25	27	52	36	164	
Percentage	14.63	15.24	16.46	31.71	21.95	100	
Between 41-50 Years	17	22	37	44	23	143	
Percentage	11.89	15.38	25.87	30.77	16.08	100	
Between 51-60 Years	7	15	11	21	18	72	
Percentage	9.72	20.83	15.28	29.17	25.00	100	
above 60 Years	6	6	11	12	10	45	
Percentage	13.33	13.33	24.44	26.67	22.22	100	
Total	93	103	124	186	134	640	
Chi-square Value =	13.994a		P Value =		0.599178		

Source: Primary data – Analysis - Output SPSS

Cross table-1.2 shows the relationship between Age Group upto 30 years and service quality of star hotel employee. Among respondents in this age group, the majority with 26.39% expressed "Agree" perception; followed by 21.76% who "Strongly Agree" with the given statement. Additionally,18.06% of respondents expressed as "Strongly Disagree"While,17.59% of respondents have viewed "Neutral". Only, 16.2% of respondents have stated "Disagree".

Cross table-1.2 shows the relationship between Age Group (31-40 years) and service quality of star hotel employee. Among respondents in this age group, the majority with31.71% expressed "Agree"



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perception; followed by 21.95% who "Strongly Agree" with the given statement. Additionally,16.46% of respondents expressed as "Neutral"While,15.24% of respondents have viewed "Disagree". Only, 14.63% of respondents have stated "Strongly Disagree".

Cross table-1.2 shows the relationship between Age Group (41-50 years) and service quality of star hotel employee. Among respondents in this age group, the majority with 30.77% expressed "Agree" perception; followed by 25.87% who "Neutral" with the given statement. Additionally,16.08% of respondents expressed as "Strongly Agree"While,15.38% of respondents have viewed "Disagree". Only, 11.89% of respondents have stated "Strongly Disagree".

Cross table-1.2 shows the relationship between Age Group (51-60 years) and service quality of star hotel employee. Among respondents in this age group, the majority with29.17% expressed "Agree" perception; followed by 25% who "Strongly Agree" with the given statement. Additionally,20.83% of respondents expressed as "Disagree"While,15.28% of respondents have viewed "Neutral". Only, 9.72% of respondents have stated "Strongly Disagree".

Cross table-1.2 shows the relationship between Age Group (above 60 years) and service quality of star hotel employee. Among respondents in this age group, the majority with26.67% expressed "Agree" perception; followed by 24.44% who "Neutral" with the given statement. Additionally,22.22% of respondents expressed as "Strongly Agree"While,13.33% of respondents have viewed "Strongly Disagree". Only, 13.33% of respondents have stated "Disagree".

The calculated Chi-Square value is. 13.994a. The 'p' value is 0.5992 (Pearson's) at 0.05 percent level of significance, which shows that there is no significant relationship between Age Group and service quality of star hotel employee.

There is not enough evidence to conclude that there is an association between age and service quality of star hotel employees based on your data. This suggests that the differences in service quality observed in your data are likely due to random variation rather than a true association with age.

Cross Table-Education and Service Quality of Star Hotel employee *Testing the Hypothesis*

Null Hypothesis: There is no association between Education and Service Quality of Star Hotel employees

Table-1.3 Education and Service Quality of employees

		Service Quality of Star Hotel Employees				
Educational Qualifications	"Strongly Disagree"	"Disagree"	"Neutral"	"Agree"	"Strongly Agree"	Total
SSC	9	10	7	13	16	55
Percentage	16.36	18.18	12.73	23.64	29.09	100
Intermediate	18	20	13	27	32	110
Percentage	16.36	18.18	11.82	24.55	29.09	100
Degree	47	54	73	101	56	331
Percentage	14.20	16.31	22.05	30.51	16.92	100
Post-Graduation	13	17	24	32	26	112
Percentage	11.61	15.18	21.43	28.57	23.21	100
Others	6	2	7	13	4	32
Percentage	18.75	6.25	21.88	40.63	12.50	100
Total	93	103	124	186	134	640
Chi-square Value =	22.178a				0.138	

Cross table-1.3 shows the relationship between Educational Qualifications SSC and Service Quality of employees Among respondents in this group, the majority with 29.09% expressed "Strongly



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Agree" perception; followed by 23.64% who "Agree" with the given statement. Additionally,18.18% of respondents expressed as "Disagree"While,16.36% of respondents have viewed "Strongly Disagree". Only, 12.73% of respondents have stated "Neutral".

Cross table-1.3 shows the relationship between Educational Qualifications Inter and Service Quality of employees. Among respondents in this group, the majority with29.09% expressed "Strongly Agree" perception; followed by 24.55% who "Agree" with the given statement. Additionally,18.18% of respondents expressed as "Disagree"While,16.36% of respondents have viewed "Strongly Disagree". Only, 11.82% of respondents have stated "Neutral".

Cross table-1.3 shows the relationship between Educational Qualifications Degree and Service Quality of employees. Among respondents in this group, the majority with 30.51% expressed "Agree" perception; followed by 22.05% who "Neutral" with the given statement. Additionally,16.92% of respondents expressed as "Strongly Agree" While,16.31% of respondents have viewed "Disagree". Only, 14.2% of respondents have stated "Strongly Disagree".

Cross table-1.3 shows the relationship between Educational Qualifications Post Graduation and Service Quality of employees. Among respondents in this group, the majority with 28.57% expressed "Agree" perception; followed by 23.21% who "Strongly Agree" with the given statement. Additionally, 21.43% of respondents expressed as "Neutral" While, 15.18% of respondents have viewed "Disagree". Only, 11.61% of respondents have stated "Strongly Disagree".

Cross table-1.3 shows the relationship between Educational Qualifications Others and Service Quality of employees. Among respondents in this group, the majority with 40.63% expressed "Agree" perception; followed by 21.88% who "Neutral" with the given statement. Additionally, 18.75% of respondents expressed as "Strongly Disagree" While, 12.5% of respondents have viewed "Strongly Agree". Only, 6.25% of respondents have stated "Disagree".

The calculated Chi-Square value is. 22.178a. The 'p' value is 0.1375 (Pearson's) at 0.05 percent level of significance, which shows that there is no significant relationship between Educational Qualifications and Service Quality of employees. It can have interpreted that there is not enough evidence to conclude that there is an association between education and service quality of star hotel employees based on your data. This suggests that the differences in service quality observed in your data are likely due to random variation rather than a true association with education level.

Conclusion

There is not enough evidence to conclude that there is an association between age and service quality of star hotel employees based on your data. This suggests that the differences in service quality observed in your data are likely due to random variation rather than a true association with age. It can have interpreted that there is not enough evidence to conclude that there is an association between education and service quality of star hotel employees based on your data. This suggests that the differences in service quality observed in your data are likely due to random variation rather than a true association with education level.

References

- 1. Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- 2. Hartline, M. D., & Ferrell, O. C. (1996). The management of customer-contact service employees: An empirical investigation. *Journal of Marketing Research*, 33(2), 211-224.
- 3. Hansen, F., & Machum, T. (2013). The impact of employee demographic characteristics on organizational performance: A study in the hospitality industry. *International Journal of Hospitality Management*, 35, 319-328.



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- 4. Stevens, J. M., & Kamakura, W. A. (1997). A model of household choice among hotels: Informational vs. transactional choice criteria. *Journal of Hospitality & Tourism Research*, 21(4), 32-51.
- 5. Siguaw, J. A., Enz, C. A., & Namasivayam, K. (2000). Adapting Quality Function Deployment to service quality improvement in hotels. *International Journal of Hospitality Management*, 19(3), 327-346.
- 6. Pizam, A., & Ellis, T. (1999). Customer satisfaction and its measurement in hospitality enterprises: A revisit and update. *International Journal of Contemporary Hospitality Management*, 11(7), 326-339.