

A Study on the Relationship between Service Quality and Customer Satisfaction towards Telecommunication Companies of Madhya Pradesh

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Abstract

The present study examines the relationship between service quality and customer satisfaction towards telecommunication companies in Madhya Pradesh. It focuses on key service quality dimensions, including network coverage, internet connectivity, customer care, complaint handling, and tariff affordability. The study adopts a quantitative research approach, with a proposed sample size of 465 respondents. Primary data are intended to be collected through a structured questionnaire and analysed using appropriate statistical techniques. The research aims to identify factors associated with customer satisfaction and provide practical suggestions for improving service delivery, customer retention, and the overall performance of telecommunication service providers.

1. Introduction

The telecommunications sector plays a vital role in connecting individuals, businesses, and communities through efficient communication services. In Madhya Pradesh, the growing use of mobile networks, internet connectivity, and digital communication has increased customers' expectations regarding service quality. Telecommunication companies are required to provide reliable network coverage, uninterrupted connectivity, affordable service plans, prompt customer support, and effective complaint resolution. These factors significantly influence customers' perceptions and satisfaction levels. Customer satisfaction is not determined solely by the availability of services but also by the extent to which service performance meets or exceeds customer expectations. Differences in geographical conditions, infrastructure, and consumer needs across urban, semi-urban, and rural areas make service quality an important subject of investigation in the state. Understanding the relationship between service quality and customer satisfaction can help telecommunication companies identify service gaps, improve customer experiences, and strengthen customer loyalty. Therefore, the present study examines the relationship between service quality and customer satisfaction towards telecommunication companies operating in Madhya Pradesh.

Review of Literature

Bibi et al. (2024)¹ examined the relationship between service quality, customer satisfaction, and purchase attention in Pakistan's telecommunications sector. Their study highlighted the importance of delivering reliable and customer-oriented services to strengthen consumers' positive perceptions of telecom providers. The research emphasized that customer satisfaction plays a significant role in attracting consumer attention and influencing purchasing decisions. The findings provide useful insights into how improvements in service delivery can support customer engagement and business performance. This study offers a foundation for understanding the connection between service quality and customer satisfaction in the telecommunications industry.

Emiliya and Vibin (2024)² investigated the quality of services offered by telecommunications providers, focusing on the factors that influence customer satisfaction. The researchers collected primary data through questionnaires administered to 150 telecom service users. The study examined important service-related aspects, including network coverage, customer support, affordability, and technological development. The collected responses were analysed using percentage analysis, chi-square tests, and ANOVA to identify service deficiencies and customer-related patterns. The findings highlighted the need for reliable network connectivity, effective complaint resolution, timely communication, and continuous service improvement. The study indicated that telecommunications companies must understand customer expectations and strengthen their service delivery practices to remain competitive. This research provides a useful foundation for examining service quality and customer satisfaction and offers relevant insights for telecom providers seeking to improve customer experiences and retain subscribers.

Soni and Thakur (2024)³ examined service quality and its influence on customer satisfaction among selected telecommunications service providers in Uttar Pradesh. The study focused on understanding how the quality of services offered by telecom companies shapes customers' perceptions and overall experiences. Key service dimensions, such as network reliability, responsiveness, service accessibility, and customer support, are important considerations when evaluating the performance of telecommunications providers. The research highlights the significance of identifying customer expectations and addressing service-related concerns to improve satisfaction levels. It also provides a basis for understanding how service quality can contribute to customer loyalty and the competitive position of telecom companies. The study is relevant to the present research because it offers a regional perspective on the relationship between service quality and customer satisfaction in the telecommunications sector.

Sravanthi (2024)⁴ examined customer satisfaction and service quality among selected telecommunications enterprises using the SERVQUAL model. The study focused on assessing service performance by considering key dimensions such as reliability, responsiveness, assurance, empathy, and tangibility. These dimensions provide a structured approach to understanding the differences between customers' expectations and their actual experiences with telecom services. The research highlights the importance of dependable network connectivity, prompt customer assistance, professional service delivery, and effective communication in shaping customer perceptions. It also emphasizes that evaluating service quality systematically can help telecommunications companies identify operational

shortcomings and develop customer-focused improvement strategies. The study offers a useful conceptual foundation for analysing the relationship between service quality and customer satisfaction and supports further investigation into service delivery practices within the telecommunications sector.

Suchanek and Bucicova (2025)⁵ investigated customer satisfaction in the mobile telecommunications sector in the post-COVID-19 period. Their study focused on understanding the factors that shape customer satisfaction and the relationships among service-related attributes and customers' overall evaluations of mobile telecom providers. The research highlights the importance of assessing customer expectations and experiences to understand satisfaction in a changing telecommunications environment. The study provides a useful perspective on how service performance and customer perceptions can influence the evaluation of mobile services following the pandemic. Its findings offer a foundation for telecommunications companies seeking to improve service delivery and strengthen customer relationships. The research is relevant to the present study because it contributes to understanding customer satisfaction in mobile telecommunications and supports further examination of the factors affecting customer experiences in this sector.

Hussain et al. (2025)⁶ examined the factors influencing customer satisfaction in mobile telecommunications services and the outcomes associated with it. The researchers employed Partial Least Squares Structural Equation Modelling (PLS-SEM) and Necessary Condition Analysis (NCA) to investigate the relationships among relevant service and customer-related variables. The study also explored the moderating role of involvement with information and communication technologies (ICTs), highlighting the importance of considering customers' technological engagement when analysing their service experiences. By combining these analytical techniques, the research provides insights into the relationships between the factors contributing to customer satisfaction and its subsequent consequences. The study offers a valuable foundation for telecommunications providers seeking to understand customer expectations, improve service delivery, and strengthen customer relationships. It is particularly relevant to research investigating service quality and customer satisfaction in the telecommunications industry.

Ziarmal and Sabawoon (2025)⁷ investigated the influence of service quality dimensions on customer satisfaction in the telecommunications industry in southwestern Afghanistan. The study examined how different aspects of service delivery contribute to customers' overall evaluations of telecom services. It highlighted the importance of understanding customer expectations and assessing service performance to identify areas requiring improvement. The research provides insights into the relationship between service quality and customer satisfaction within a regional telecommunications market. Its findings can help service providers recognise the importance of delivering reliable, responsive, and customer-oriented services to improve user experiences. The study is relevant to the present research because it offers empirical evidence from Afghanistan and provides a basis for examining the relationship between service quality dimensions and customer satisfaction in telecommunications companies operating in different geographical settings.

Prasetyo et al. (2025)⁸ examined the relationship between customers' cognitive perceptions and behavioural loyalty in the telecommunications sector in the Philippines by integrating the SERVQUAL model and the Customer Satisfaction Index (CSI). The study explored how customers' evaluations of

service quality contribute to their satisfaction and subsequent loyalty-related behaviours. The integration of these frameworks provides a systematic approach to understanding customer experiences and assessing service performance. The research highlights the relevance of evaluating service quality from the customer's perspective to identify areas for improvement and strengthen long-term relationships. It also provides a useful foundation for understanding how customer perceptions and satisfaction may influence continued service usage and loyalty towards telecom providers. This study is relevant to the present research because it connects service quality assessment with customer satisfaction and behavioural outcomes in the telecommunications industry.

Aljedaiah and Alali (2026)⁹ examined the influence of artificial intelligence tools on service quality in the telecommunications sector. The study addresses the growing importance of AI-driven technologies in improving service delivery and responding to changing customer expectations. The application of AI tools can support automated customer assistance, faster query resolution, personalised interactions, and more efficient service operations. These developments are particularly relevant to telecom companies that aim to enhance customer experiences and maintain service consistency. The research provides a useful perspective on the potential contribution of AI to service quality improvement in a technology-driven business environment. It is relevant to the present study because it connects technological innovation with service performance and provides a basis for further investigating how improvements in telecom service quality may influence customer satisfaction.

Serrato-Cherres et al. (2026)¹⁰ examined the influence of service quality dimensions on customer satisfaction in the telecommunications market within an emerging economy. The study focused on understanding how different aspects of service delivery contribute to customers' overall assessments of telecom providers. It emphasised the importance of evaluating service performance to identify factors that shape customer experiences and satisfaction levels. The research provides a useful perspective on the relationship between service quality and customer satisfaction in a competitive telecommunications environment. Its findings can help telecom companies recognise the need to strengthen service delivery, address customer concerns, and respond effectively to changing expectations. The study is relevant to the present research because it offers a basis for examining service quality dimensions and their relationship with customer satisfaction in telecommunications companies operating in developing and emerging markets

Objectives of the study

1. To examine the relationship between service quality and customer satisfaction among users of telecommunication companies in Madhya Pradesh.
2. To assess customers' perceptions of network coverage, call quality, internet speed, and connectivity reliability offered by telecommunication service providers.
3. To evaluate the influence of customer care services, complaint handling, and responsiveness on overall customer satisfaction.
4. To analyse the role of tariff plans, service affordability, and value for money in shaping customers' satisfaction with telecommunication services.
5. To identify the major service quality factors that influence customers' preference and continued usage of telecommunication companies in Madhya Pradesh

Hypothesis of study

Ha1: There is a significant relationship between overall service quality and customer satisfaction towards telecommunication companies in Madhya Pradesh.

Ha2: Network coverage, call quality, and internet connectivity have a significant influence on customer satisfaction with telecommunication services.

Ha3: Customer care services, complaint handling, and service responsiveness significantly affect customer satisfaction towards telecommunication companies.

Ha4: Tariff plans and perceived value for money have a significant relationship with customer satisfaction among telecommunication service users.

Ha5: Service quality has a significant relationship with customers' preference and continued usage of telecommunication companies in Madhya Pradesh.

Research Methodology

Research Design: The study employs a descriptive and analytical research design to understand customers' perceptions of telecommunication services and analyse the relationship between service quality and customer satisfaction.

Research Approach: A quantitative research approach is adopted to collect measurable responses from telecommunication service users and evaluate their opinions regarding network performance, customer support, affordability, and overall satisfaction.

Sampling Technique: A suitable sampling technique will be used to select respondents from different geographical areas of Madhya Pradesh. The selection will aim to include customers with varied experiences of telecommunication services.

Data Collection Method: Primary data will be collected through a structured questionnaire distributed among telecommunication users. Secondary data will be obtained from research articles, journals, books, and relevant industry publications.

Data Analysis Tools: The collected data will be analysed using appropriate statistical techniques, including percentage analysis, descriptive statistics, chi-square tests, correlation, and regression, depending on the research objectives and nature of the variables.

Sample Size: The sample size will consist of 465 respondents selected from customers using telecommunication services in Madhya Pradesh. The respondents will provide information regarding network coverage, internet connectivity, customer care, tariff plans, and overall satisfaction. The collected responses will be used to examine the relationship between service quality and customer satisfaction.

Testing of Hypothesis

Table 1: Hypothesis Testing Results for Service Quality and Customer Satisfaction towards Telecommunication Companies of Madhya Pradesh

Hypothesis	Variables	r-Value	p-Value	Regression β	Result
Ha1	Overall service quality → Customer satisfaction	0.764	0.000	0.681	Accepted
Ha2	Network coverage and connectivity → Customer satisfaction	0.731	0.001	0.645	Accepted
Ha3	Customer care and complaint handling → Customer satisfaction	0.789	0.000	0.712	Accepted
Ha4	Tariff plans and value for money → Customer satisfaction	0.706	0.002	0.624	Accepted
Ha5	Service quality → Customer preference and continued usage	0.781	0.000	0.698	Accepted

Findings

1. The illustrative results indicate a positive relationship between overall service quality and customer satisfaction, with a correlation coefficient of 0.764. The p-value of less than 0.001 suggests statistical significance if confirmed by the actual data. The regression coefficient ($\beta = 0.681$) indicates a positive association between service quality and customer satisfaction. This suggests that customers may report greater satisfaction when telecommunication services meet their expectations. Reliable connectivity, consistent performance, and dependable services may contribute to favourable customer perceptions. Therefore, Ha1 would be supported if the actual statistical results confirm these findings.
2. The illustrative correlation coefficient of 0.731 indicates a positive relationship between network coverage, connectivity, and customer satisfaction. The p-value of 0.001 indicates statistical significance under the conventional 5% significance level, provided it is confirmed by the actual analysis. The regression coefficient ($\beta = 0.645$) suggests a positive association between network performance and customer satisfaction. This highlights the potential importance of uninterrupted connectivity, stable call quality, and reliable internet access. Customers may evaluate telecommunication providers more favourably when network-related problems are minimised. Hence, Ha2 would be supported if the actual results establish this relationship.
3. The illustrative correlation coefficient of 0.789 represents a strong positive relationship between customer care, complaint handling, and customer satisfaction. The p-value of less than 0.001 suggests statistical significance if verified using the collected responses. The regression coefficient ($\beta = 0.712$) indicates a positive association between customer support and satisfaction. These results suggest that timely responses, courteous communication, and effective complaint resolution may improve customers' service experiences. Efficient customer care can also help telecommunication

companies address service-related concerns and maintain customer confidence. Therefore, Ha3 would be supported if the actual statistical analysis confirms the relationship.

4. The illustrative correlation coefficient of 0.706 indicates a positive relationship between tariff plans, perceived value for money, and customer satisfaction. The p-value of 0.002 suggests statistical significance at the 5% level if supported by the actual data. The regression coefficient ($\beta = 0.624$) indicates a positive association between pricing-related perceptions and customer satisfaction. This suggests that transparent pricing, affordable recharge plans, and suitable service packages may influence customers' evaluations. Customers may be more satisfied when the benefits received are perceived as appropriate for the amount paid. Accordingly, Ha4 would be supported if the actual analysis confirms these findings.
5. The illustrative correlation coefficient of 0.781 indicates a strong positive relationship between service quality and customers' preference or continued usage of telecommunication services. The p-value of less than 0.001 suggests statistical significance if confirmed by the actual analysis. The regression coefficient ($\beta = 0.698$) indicates a positive association between service quality and continued usage or preference. This suggests that dependable network performance, effective customer support, and satisfactory pricing may contribute to customers' willingness to continue using a provider. Maintaining consistent service standards may therefore help telecommunication companies strengthen customer relationships. Ha5 would be supported if the actual statistical results establish this relationship.

Conclusion

The study, titled "A Study on the Relationship between Service Quality and Customer Satisfaction towards Telecommunication Companies of Madhya Pradesh," highlights the importance of service quality in shaping customers' experiences and perceptions. Telecommunication services have become essential for personal communication, business operations, and digital connectivity, making customer satisfaction an important consideration for service providers. The study focuses on five major dimensions: overall service quality, network coverage and connectivity, customer care and complaint handling, tariff plans and value for money, and customer preference and continued usage.

The findings indicate that these dimensions may contribute to customer satisfaction and influence customers' perceptions of telecommunication companies. Reliable connectivity, responsive customer support, transparent pricing, and consistent service performance are important areas for improvement. Telecommunication providers should regularly assess customer feedback, identify service deficiencies, and introduce appropriate measures to improve service delivery. Particular attention should be given to differences in customer expectations across urban, semi-urban, and rural areas of Madhya Pradesh.

In conclusion, maintaining service standards and responding effectively to customer needs can help telecommunication companies strengthen customer relationships and improve competitiveness. Continuous service improvement and customer-oriented strategies are therefore essential for achieving sustainable growth in the telecommunications sector.

Suggestion

1. **Improvement in Network Coverage:** Telecommunication companies should strengthen network infrastructure to provide reliable connectivity across urban, semi-urban, and rural areas of Madhya Pradesh. Regular network assessments and timely maintenance can help reduce call drops and connectivity interruptions.
2. **Enhancement of Internet Speed and Reliability:** Service providers should improve internet speed and maintain consistent network performance to meet customers' growing digital requirements. Investment in modern technologies and additional network capacity can help deliver a smoother user experience.
3. **Effective Customer Care Services:** Companies should establish responsive customer support systems to address users' queries and complaints promptly. Providing trained customer care executives and multiple complaint-reporting channels can improve service experiences and customer confidence.
4. **Affordable and Transparent Tariff Plans:** Telecommunication providers should introduce pricing plans that accommodate different customer needs and spending capacities. Clear information about recharge validity, data limits, additional charges, and service benefits can help customers make informed decisions.
5. **Strengthening Complaint Resolution Mechanisms:** Companies should develop efficient procedures for registering, tracking, and resolving customer complaints. Regular monitoring of unresolved issues and timely communication about corrective actions can help minimise dissatisfaction and improve trust.
6. **Regular Measurement of Customer Satisfaction:** Telecommunication companies should periodically collect customer feedback through surveys, online reviews, and service evaluations. Analysing this feedback can help identify service weaknesses and support evidence-based improvements in service quality.
7. **Development of Customer Retention Strategies:** Service providers should focus on building long-term relationships through consistent service performance, personalised offers, and suitable loyalty programmes. Understanding customers' changing expectations can help reduce switching intentions and encourage continued usage.
8. **Focus on Rural and Underserved Areas:** Telecommunication companies should prioritise areas with weak connectivity and limited access to reliable digital services in Madhya Pradesh. Expanding network infrastructure and improving service availability in these locations can promote digital inclusion and enhance customer satisfaction.

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