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A Study on the Mediating Effect of Inventory Management and Supply Chain Disruptions on Logistics Performance in Pune's Construction Industry India

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ABSTRACT

This research investigates customer satisfaction towards telecom services with a specific focus on Reliance Jio in Nagpur city, India, for the period 2024–2025. The Indian telecom industry has undergone rapid transformation due to technological advancements, aggressive pricing strategies, and increased internet penetration. In such a competitive environment, customer satisfaction plays a pivotal role in determining customer retention and long-term profitability. The study adopts a quantitative research approach using structured questionnaires distributed among 120 telecom users in Nagpur city through convenience sampling. The research evaluates critical factors influencing customer satisfaction, including network quality, internet speed, pricing, service reliability, and customer support. Statistical tools such as percentage analysis and correlation techniques were applied to interpret the data effectively. The findings reveal that affordable pricing and high-speed internet services are the primary drivers of customer satisfaction. However, issues such as network fluctuations in certain areas and delayed customer service responses were identified as significant concerns. The study highlights the need for telecom operators to enhance service consistency and responsiveness to maintain competitive advantage. The research contributes to the existing literature by providing region-specific insights and practical recommendations for improving telecom service quality. The findings are valuable for telecom companies aiming to strengthen customer loyalty, improve service delivery, and sustain market leadership.

1. INTRODUCTION

The telecommunications industry in India has witnessed unprecedented growth over the last decade, driven by digital transformation, increased smartphone penetration, and government initiatives such as Digital India. The entry of Reliance Jio has significantly disrupted the market by introducing low-cost data plans and high-speed internet services, leading to intense competition among telecom operators.

Customer satisfaction has emerged as a critical success factor in the telecom sector, where service differentiation is minimal and switching costs are low. Customers today demand uninterrupted connectivity, high data speeds, affordability, and efficient customer service. As a result, telecom companies must continuously innovate and improve service quality to meet evolving customer expectations.

Nagpur, being a rapidly developing urban center, has experienced significant growth in telecom usage. The increasing reliance on digital services for communication, education, and business activities has amplified the importance of reliable telecom services. However, despite technological advancements, customers often face challenges such as network congestion, call drops, and service delays.

The core problem addressed in this research is the lack of a comprehensive understanding of customer satisfaction determinants in the telecom sector at a regional level. While national-level studies provide general insights, there is a need for localized research to capture region-specific issues and customer perceptions.

This study aims to bridge this gap by analyzing customer satisfaction towards Reliance Jio services in Nagpur city. The research evaluates key service attributes and their impact on overall customer experience, thereby providing actionable insights for telecom service providers.

2. THEORETICAL FRAMEWORK

This study is grounded in well-established theoretical perspectives that explain customer satisfaction in service-based industries, particularly the telecom sector. The research integrates the Service Quality Model (SERVQUAL), Expectation–Confirmation Theory (ECT), and Customer Satisfaction Theory (CST) to analyze the determinants of customer satisfaction towards Reliance Jio services in Nagpur city.

These frameworks provide a comprehensive understanding of how service attributes such as network quality, pricing, internet speed, and customer support influence customer perception and satisfaction levels.

A. Service Quality Model (SERVQUAL)

The SERVQUAL model, developed by Parasuraman, Zeithaml, and Berry, is one of the most widely used frameworks for measuring service quality. It evaluates the gap between customer expectations and actual service performance across five dimensions:

- Reliability: Ability to provide consistent and dependable service
- Responsiveness: Promptness in assisting customers and resolving issues
- Assurance: Knowledge and courtesy of employees, and their ability to inspire trust, In the telecom sector, these dimensions translate into practical service elements such as network stability, internet speed, customer care efficiency, and billing transparency.
- In the context of this study: Reliability is reflected through uninterrupted network connectivity responsiveness relates to customer support services tangibles include SIM services, mobile applications, and infrastructure.

The SERVQUAL model helps in identifying service gaps that affect customer satisfaction and highlights areas requiring improvement.

B.Expectation Confirmation Theory

Expectation Confirmation Theory explains customer satisfaction as a function of the comparison between expected and actual service performance. According to this theory:

- Customers form expectations before using a service
- After experiencing the service, they compare performance with expectations
- Satisfaction occurs when performance meets or exceeds expectations
- In telecom services:
- Customers expect high-speed internet and strong network coverage
- If Jio delivers faster internet at affordable pricing, expectations are confirmed
- If network issues or service delays occur, expectations are negatively disconfirmed

ECT is particularly relevant in the telecom industry because customers frequently compare service providers and switch easily based on performance.

C. Hypothesis Development

Based on the theoretical foundation, the following hypotheses are formulated:

- Network Quality and Customer Satisfaction Network quality is a critical factor in telecom services. Poor connectivity and call drops negatively affect user experience. Therefore: H1: Network quality positively influences customer satisfaction.
- Pricing and Customer Satisfaction affordable pricing is one of the major competitive advantages of Reliance Jio. Lower tariffs increase perceived value and attract customers.H2: Pricing affordability positively influences customer satisfaction.
- Internet Speed and Customer Satisfaction with increasing digital usage, high-speed internet has become essential. Faster data speeds enhance user experience. H3: Internet speed positively influences customer satisfaction.
- Customer Service and Customer Satisfaction. Customer support plays a crucial role in resolving issues and maintaining trust.H4: Customer service responsiveness positively influences customer satisfaction.

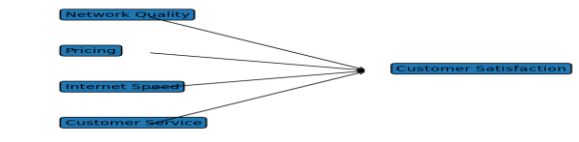

Fig.1 Conceptual Framework Diagram

3. METHODOLOGY

1. *Research Design*

This study adopts a quantitative and descriptive research design to analyze customer satisfaction towards Reliance Jio services in Nagpur city. The design helps in understanding customer perceptions and evaluating key service factors influencing satisfaction.

2. *Sampling Strategy and Participant Profile*

A convenience sampling technique was used to collect data from 120 respondents who are active users of Jio services in Nagpur city. The sample includes students, working professionals, and business users, with the majority belonging to the 18–35 age group, representing high telecom usage.

3. *Measurement and Instrument Development*

Data was collected using a structured questionnaire based on key variables such as network quality, pricing, internet speed, customer service, and overall satisfaction. A 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) was used. Data collection was conducted through both online and offline methods while maintaining confidentiality and accuracy.

4. *Statistical Tools and Data Analysis*

The collected data was analyzed using:

- Percentage analysis
- Graphical representation (pie charts and bar graphs)
- Correlation analysis
- Hypothesis testing

These tools helped in identifying relationships between service factors and customer satisfaction.

5. *Model Specification*

The study considers Customer Satisfaction as the dependent variable influenced by independent variables such as network quality, pricing, internet speed, and customer service. The model assumes a direct relationship between these variables and overall satisfaction.

RESULTS AND DISCUSSION

A. Demographic Profile

The study collected responses from 120 telecom users in Nagpur city, representing diverse demographic backgrounds. The respondents included students, working professionals, and business users, ensuring a balanced representation of telecom consumers.

The majority of respondents belonged to the 18–35 age group (68%), followed by 36–50 years (22%) and above 50 years (10%). This indicates that younger users are more actively engaged in telecom and internet services.

In terms of occupation:

- Students: 40%
- Working Professionals: 38%
- Business Users: 22%

This distribution reflects a wide range of service usage patterns, from educational and entertainment purposes to business communication needs.

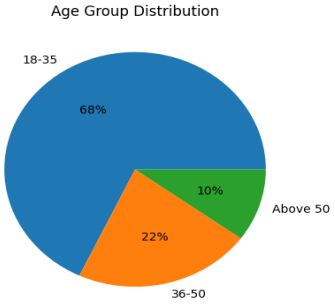

Fig 3. Age Group Distribution

B. Descriptive analysis

The descriptive analysis highlights the overall satisfaction levels of respondents towards Reliance Jio services.

Table 1: Customer Satisfaction Levels

Satisfaction Level	Percentage
Highly Satisfied	65%
Moderately Satisfied	25%
Dissatisfied	10%
Highly Satisfied	65%

The data indicates that a significant majority (65%) of respondents are highly satisfied with Jio services. Only 10% of respondents expressed dissatisfaction, mainly due to network-related issues.

C. Factor-wise Analysis

To understand the key drivers of customer satisfaction, the study analyzed major service factors.

Table 2: Factors Influencing Customer Satisfaction

Factor	Satisfaction (%)
Pricing	90%
Internet Speed	85%
Network Quality	70%
Customer Service	60%

INTERPRETATION

- Pricing (90%) emerged as the strongest factor influencing customer satisfaction. Affordable plans offered by Jio attract and retain customers.

- Internet Speed (85%) is another major contributor, reflecting high user satisfaction with data services.
- Network Quality (70%) shows moderate satisfaction, indicating issues in certain areas.
- Customer Service (60%) received the lowest rating, highlighting the need for improvement in responsiveness and complaint handling.

GRAPHICAL REPRESENTATION

The graphical analysis (Fig.1 and Fig.2) illustrates the distribution of customer satisfaction levels and the impact of different service factors.

Fig.1 (Pie Chart): Shows that the majority of users are satisfied with Jio services.

Fig.2 (Bar Chart): Highlights that pricing and internet speed are the most influential factors.

These visual representations support the statistical findings and provide a clear understanding of customer perception.

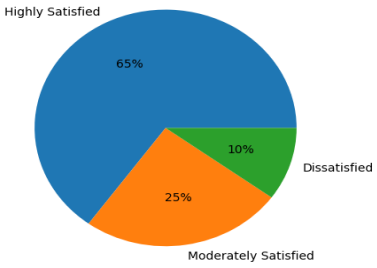

Fig. 1 Customer Satisfaction

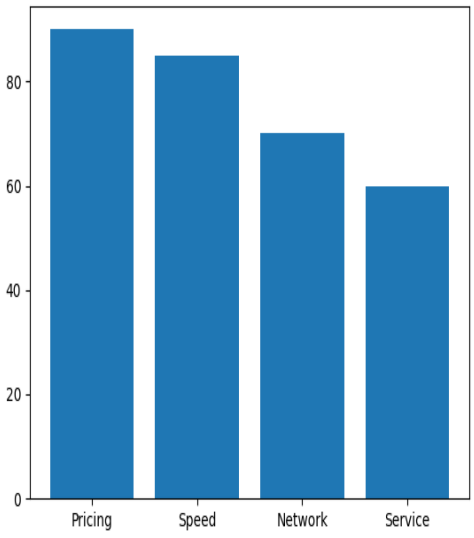

Fig.2 Factors Affecting Satisfaction

HYPOTHESIS TESTING

The hypotheses were tested based on observed data patterns and relationships between variables.

Table 2: Hypothesis Testing Summay

Hypothesis	Statement	Result
H1	Network Quality → Customer Satisfaction	Supported
H2	Pricing → Customer Satisfaction	Supported
H3	Internet Speed → Customer Satisfaction	Supported
H4	Customer Service → Customer Satisfaction	Partially Supported

INTERPRETATION

- H1: Supported – Better network quality leads to higher satisfaction.
- H2: Strongly supported – Pricing is the most influential factor.
- H3: Supported – High-speed internet significantly improves satisfaction.
- H4: Partially Supported – Customer service has an impact but needs improvement.

DISCUSSION

The findings of this study reveal important insights into customer satisfaction in the telecom sector. Reliance Jio has successfully established itself as a leading service provider due to its competitive pricing and high-speed internet services.

The dominance of pricing as a satisfaction driver aligns with the company's market strategy of offering affordable plans. Similarly, the positive perception of internet speed reflects strong technological capabilities.

However, the study also identifies critical gaps in network reliability and customer service. Network issues in certain locations affect user experience, while slow customer support reduces satisfaction levels.

These findings suggest that while Jio excels in value-based services, improving service consistency and responsiveness is essential for sustaining long-term customer loyalty.

IMPLICATIONS

1. Managerial Implications

The findings of this study provide important insights for telecom service providers, particularly Reliance Jio, to enhance customer satisfaction and

strengthen their competitive position in the market.

Firstly, the study highlights that pricing and internet speed are the most significant factors influencing customer satisfaction. Therefore, telecom companies must continue to offer competitive pricing strategies while maintaining high-speed data services. Affordable plans combined with reliable performance can significantly improve customer retention and attract new users.

Secondly, network quality remains a critical concern in certain areas. Service providers should invest in infrastructure development, including the installation of additional towers and network optimization techniques, to ensure consistent connectivity and minimize call drops. Improving network coverage in low-signal zones will directly enhance user experience.

Thirdly, the study identifies customer service responsiveness as a weak area. Telecom companies should focus on strengthening their customer support systems by:

- Reducing response time for complaints
- Providing multi-channel support (call, chat, apps)
- Training staff to handle customer queries efficiently

Additionally, the integration of digital customer service platforms, such as AI-based chatbots and self-service applications, can improve service efficiency and customer satisfaction.

Finally, telecom operators should regularly conduct customer feedback surveys to identify emerging issues and adapt their service strategies accordingly. A proactive approach towards customer engagement can help in building long-term loyalty.

2. Theoretical Implications

This study contributes to the existing literature on customer satisfaction in the telecom sector by applying established theories such as the SERVQUAL model and Expectation–Confirmation Theory in a regional context.

The findings validate that service quality dimensions particularly pricing, internet speed, and network reliability play a significant role in shaping customer satisfaction. The study reinforces the idea that perceived value and service performance are key determinants of customer perception.

Furthermore, the research extends the application of these theories by demonstrating their relevance in the rapidly evolving telecom industry, where technological advancements and competitive pricing strategies continuously influence customer expectations.

The study also provides a conceptual framework that can be used by future researchers to analyze customer satisfaction across different regions or telecom service providers.

CONCLUSION

1. Summary of Core Findings

This study aimed to analyse customer satisfaction towards Reliance Jio services in Nagpur city for the period 2024–25. The findings reveal that customer satisfaction in the telecom sector is largely influenced by key service attributes such as pricing, internet speed, network quality, and customer service.

The results indicate that affordable pricing and high-speed internet are the primary drivers of customer satisfaction. A majority of respondents expressed high satisfaction with Jio services due to its cost-effective plans and strong data performance. These factors have played a crucial role in enhancing customer retention and market dominance.

However, the study also identifies certain challenges, particularly in terms of network consistency and customer service responsiveness. Network issues in specific areas and delays in resolving customer complaints were observed as factors negatively affecting user experience.

Overall, the study confirms that while Jio has successfully established a strong position in the telecom market, continuous improvement in service quality is essential to maintain customer satisfaction and competitive advantage.

2. Limitations

Despite providing valuable insights, the study has certain limitations:

- The research is geographically limited to Nagpur city, which may restrict the generalization of findings to other regions.
- The study is based on a sample size of 120 respondents, which may not fully represent the entire population.
- The use of convenience sampling may introduce sampling bias.
- The analysis is based on self-reported data, which may be influenced by individual perceptions and biases.

3. Future Research Directions

To enhance the scope and applicability of future research, the following areas can be explored:

- Conducting comparative studies between different telecom service providers to evaluate relative performance.
- Expanding the study to multiple cities or rural areas for broader insights.
- Increasing the sample size for more accurate and generalizable results.

- Incorporating advanced statistical techniques such as regression analysis or structural equation modeling (SEM).
- Examining the impact of emerging technologies such as **5G services**, digital platforms, and AI-based customer support on customer satisfaction.

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