

AN ANALYTICAL FRAMEWORK FOR EVALUATING SERVICES QUALITY AND CUSTOMER LOYALTY IN UNIQ TECHNOLOGIES AT PUDUCHERRY

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Abstract—This study titled “An Analytical Framework for Evaluating Service Quality and Customer Loyalty at Uniq Technologies” focuses on analyzing the relationship between service quality and customer loyalty among customers of the organization. The study aims to evaluate the effectiveness of services provided by the company and identify the factors that influence customer satisfaction, trust, and loyalty. Service quality dimensions such as reliability, responsiveness, assurance, empathy, and tangibility are considered to understand customer perceptions toward the organization’s services.

The research is based on both primary and secondary data. Primary data were collected through structured questionnaires distributed to customers, while secondary data were gathered from journals, articles, company sources, and related websites. Statistical tools such as percentage analysis, chi-square analysis, and correlation analysis were used to interpret the collected data. The findings of the study indicate that high-quality service plays a significant role in improving customer satisfaction and strengthening customer loyalty. The study concludes that maintaining effective service standards and customer relationship practices can help Uniq Technologies enhance customer retention, build a positive organizational image, and achieve long-term business growth.

For analyzing the collected data, statistical tools such as percentage analysis, chi-square analysis, correlation analysis, and graphical representation methods were applied. The findings of the study reveal that service quality has a significant positive influence on customer satisfaction and loyalty. Customers highly value professional service delivery, prompt response, staff behavior, and overall service experience provided by the organization. The study concludes that maintaining consistent service quality and strengthening customer relationship management practices can improve customer retention and organizational performance. The research provides useful insights for Uniq Technologies to enhance its service standards, improve customer experience, and develop effective strategies for achieving long-term customer loyalty and competitive advantage in the market.

INTRODUCTION

An analytical framework for evaluating service quality and customer loyalty provides a structured, data-driven approach to understanding how service delivery influences customer retention and advocacy. In competitive, high-velocity industries, such as telecommunications, banking, or retail, this framework serves as a critical diagnostic tool to map the journey from perceived service quality to long-term loyalty.

In an increasingly competitive global economy, where products are often commoditized, service quality has emerged as the primary differentiator for business success. As customer expectations rise, simply satisfying customers is no longer sufficient; organizations must cultivate deep-rooted loyalty to ensure long-term profitability and sustainability.

In today's hyper-competitive, service-driven economy, delivering exceptional quality is not merely a differentiator but a requirement for survival. Service quality is defined as the customer's holistic judgment of an organization's relative excellence or inferiority, often stemming from a pleasant emotional experience and perceived value. As customer retention becomes more cost-effective than acquisition, understanding the direct link between service delivery and, consequently, customer loyalty is critical.

NEED OF THE STUDY:

- To bridge the gap between perceived service quality and the development of long-term customer loyalty.
- Identifying the key drivers of performance is essential for informed decision making.
- By analyzing key data, actionable strategic insights can be delivered to drive measurable business outcomes.
- By leveraging real-time data, organizations succeed in addressing dynamic environments, driving resilient and informed strategies.
- By integrating user feedback, contextual validation ensures accuracy and enhances decision-making across processes.

OBJECTIVES OF THE STUDY:

PRIMARY OBJECTIVES:

The primary objectives of an analytical framework for evaluating service quality and customer loyalty are to measure, analyze, and enhance the impact of service delivery on customer satisfaction, retention, and brand loyalty.

SECONDARY OBJECTIVES:

- ✓ To enhance product, services development.
- ✓ To study about the personalize customer journeys.
- ✓ To study about the measure and improve aspects like tangibles, reliability, responsiveness, assurance and empathy.
- ✓ To improve cross functional collaboration.
- ✓ To measure customer lifetime value (CLV) and loyalty.

SCOPE OF THE STUDY:

- Analyzing the specific service aspects (e.g., trainer expertise, infrastructure, course material) that impact client satisfaction.
- Measuring behavioral (repurchase, recommendation) and attitudinal (intent, preference) loyalty.
- Creating an analytical model to link service delivery gaps with customer satisfaction, potentially using methodologies like SERVQUAL or PLS-SEM.
- Investigating how customer satisfaction mediates the relationship between service quality and long-term loyalty.
- Focusing on the unique industry-specific measures of service quality and brand image.
- Providing recommendations for improving service quality to foster higher customer loyalty.

LIMITATION OF THE STUDY:

- Disconnect between short term satisfaction and long-term value.
- Inability to differentiate satisfaction from loyalty.
- Subjectivity and cultural/regional bias.
- Methodological limitations in data collection.

- Ineffective tracking of complaints vs feedback.

RESEARCH METHODOLOGY INTRODUCTION:

This research employs a quantitative, cross-sectional approach to develop an analytical framework evaluating service quality and its impact on customer loyalty. Utilizing established models like SERVQUAL (tangibles, reliability, responsiveness, assurance, empathy), data is collected via structured surveys and analyzed using SPSS/AMOS for structural equation modeling (SEM).

By collecting data through surveys and analyzing it using statistical techniques like regression analysis or Structural Equation Modeling (SEM), the research investigates key dimensions—reliability, responsiveness, assurance, empathy, and tangibles—to develop a robust framework for assessing customer loyalty.

RESEARCH DESIGN:

A **quantitative, descriptive** research design is best for analyzing the relationship between service quality and customer loyalty. Using structured surveys based on SERVQUAL models, this design measures how dimensions like reliability and responsiveness impact satisfaction and loyalty, typically using Structural Equation Modeling (SEM) to test the framework. The research integrates both primary and secondary data collection methods to ensure accuracy and reliability in findings.

DATA COLLECTION METHODS:

Primary Data Collection:

The primary data collection methods for an analytical framework evaluating service quality and customer loyalty rely on capturing direct, first-hand feedback from customers to measure perceptions, attitudes, and behaviors. The most effective approach typically combines structured surveys with qualitative methods to understand the "why" behind the loyalty metrics.

Structured Questionnaires (Surveys):

Primary data is collected directly from customers using a structured questionnaire.

- The questionnaire includes questions related to service quality dimensions (such as reliability, responsiveness, assurance, empathy, and tangibles) and customer loyalty factors.
- The survey is distributed to selected respondents to gather their opinions, perceptions, and satisfaction levels.
- The collected responses are then analyzed using statistical tools to evaluate the relationship between service quality and customer loyalty.

Secondary Data Collection:

In addition to the primary data, the study will rely on secondary data sources involves retrieving, auditing, and re-analyzing existing data from internal company records, public datasets, and previous research, rather than collecting new data firsthand. This approach is faster, more cost-effective, and efficient for establishing baselines for metrics like Net Promoter Score (NPS), Customer Satisfaction (CSAT), and retention rates.

SAMPLING TECHNIQUES:

To analyzing service quality and customer loyalty are crucial for ensuring the data collected accurately reflects customer perceptions and behaviors. Because surveying an entire customer base is rarely feasible, studies employ both probability (random) and non-probability (convenience) methods, often in combination with frameworks like SERVQUAL (tangibles, reliability, responsiveness, assurance, empathy).

- **Simple Random Sampling:** Used to select respondents randomly from the population. Each individual has an equal chance of being selected. This helps ensure fairness and reduces bias in the study.
- **Convenience Sampling:** Used to quickly and cheaply gather data from easily accessible, readily available, or volunteering subjects.

For this study, a sample size of approximately 100–150 respondents is selected to collect primary data through structured questionnaires. This size is adequate to analyze the relationship between service quality and customer loyalty using statistical tools such as Chi-square test.

DATA ANALYSIS AND INTERPRETATION

CORRELATION

NULL HYPOTHESIS(H_0):

The correlation test is conducted using a 2-tailed significance test.

ALTERNATIVE HYPOTHESIS(H_1):

There is a significant relationship between improving service quality and analytical research involvement.

IMPROVE SERVICE QUALITY BY * ANALYTICAL RESEARCH INVOLVES

Count		Analytical research involves				Total
Improve service quality by		Random guessing	Systematic evaluation of data	Ignoring information	Personal opinions	
Training employees	Count	17	17	13	6	53
	Row %	32.1%	32.1%	24.5%	11.3%	100.0%
	Column %	60.7%	38.6%	50.0%	27.3%	44.2%
	Total %	14.2%	14.2%	10.8%	5.0%	44.2%
Ignoring customer	Count	2	8	5	0	15
	Row %	13.3%	53.3%	33.3%	.0%	100.0%
	Column %	7.1%	18.2%	19.2%	.0%	12.5%
	Total %	1.7%	6.7%	4.2%	.0%	12.5%
Reducing service speed	Count	3	19	4	6	32
	Row %	9.4%	59.4%	12.5%	18.8%	100.0%
	Column %	10.7%	43.2%	15.4%	27.3%	26.7%
	Total %	2.5%	15.8%	3.3%	5.0%	26.7%
Increasing waiting time	Count	6	0	4	10	20
	Row %	30.0%	.0%	20.0%	50.0%	100.0%
	Column %	21.4%	.0%	15.4%	45.5%	16.7%
Total %		5.0%	.0%	3.3%	8.3%	16.7%
Total	Count	28	44	26	22	120
	Row %	23.3%	36.7%	21.7%	18.3%	100.0%
	Column %	100.0%	100.0%	100.0%	100.0%	
Total %		23.3%	36.7%	21.7%	100.0%	100.0%

SYMMETRIC MEASURE

		Value	Asymp. Std. Error	Approx.T
Ordinal by Ordinal	Spearman Correlation	.22	10	2.43
Interval by Interval	Pearson's R			
N of Valid Cases		120		

The correlation test is conducted using a 2-tailed significance test.

INTERPRETATION:

The 2-tailed correlation analysis reveals that there is a significant positive relationship between improving service quality and analytical research involvement, as the significance value is less than 0.05; therefore, the null hypothesis is rejected and the alternative hypothesis is accepted.

FINDINGS:

1. Majority of the respondents 29.2% belong to the aged 25–30 years.
2. Majority of the respondents 50.0% are female.
3. Majority of the respondents 66.7% are working professionals.
4. Majority of the respondents 42.5% expressed a neutral opinion regarding whether UNIQ services meet their expectations.
5. Majority of the respondents 63.3% expressed a neutral opinion about employee responsiveness and helpfulness.
6. Majority of respondents 48.3% agreed to continue using the service in the future.
7. Majority of the respondents 66.7% expressed a neutral opinion about recommending the service to others.
8. Majority of the respondents 40.0% expressed a neutral opinion about the staff being knowledgeable and professional in delivering services.
9. Majority of the respondents 34.2% believed that service quality is related to product manufacturing.
10. Majority of the respondents 45.0% considered the SERVQUAL model as the most commonly used model for measuring service quality.
11. Majority of the respondents 52.5% correctly identified Parasuraman, Zeithaml and Berry as the developers of the SERVQUAL model.
12. Majority of the respondents 35.0% considered responsiveness as not a SERVQUAL dimension.
13. Majority of the respondents 38.3% considered responsiveness as cost reduction.
14. Majority of respondents 37.5% believe that empathy refers to personalized attention to customers.
15. Majority of respondents 35.0% believe that customer satisfaction is mainly influenced by service quality and warehouse location.
16. Majority of respondents 37.5% believe that the analytical framework helps in evaluating service performance systematically.
17. Majority of respondents 36.7% believe that data collected from customers in surveys is internal data.
18. Majority of respondents 42.5% believe that SPSS is used for analyzing survey data.
19. Majority of respondents 43.3% believe that the Likert scale ranges from strongly agree to strongly disagree.
20. Majority of the respondents 43.3% believed that Likert scale is mainly used to measure customer opinions and attitudes.
21. Majority of the respondents believed that service recovery mainly refers to reducing service failures 38.3%.

22. Majority of the respondents believed that customer retention refers to keeping existing customers for the long term 45.0%.
23. Majority of the respondents believed that product packaging helps in identifying service gaps 40.0%.
24. Majority of the respondents believed that benchmarking refers to comparing performance with industry leaders 39.2%.
25. Majority of the respondents believed that customer loyalty aims to reward repeat customers 38.3%.
26. Majority 48.3% of the respondents inferred that high service quality builds customer trust.
27. Majority 37.5% of the respondents believe that data analysis mainly helps in improving service quality and understanding customer behavior.
28. Majority 44.2% of the respondents believe that training employees is the best way to improve service quality.
29. Majority 36.7% of the respondents believe that analytical research mainly involves systematic evaluation of data.
30. Majority 31.7% of the respondents believe that continuous improvement mainly supports business growth.

SUGGESTIONS:

- Organizations should focus on improving the reliability of services, ensuring that services are delivered accurately and consistently as promised to customers.
- Service providers should enhance responsiveness by responding quickly to customer requests, complaints, and inquiries. Faster service delivery improves customer satisfaction and loyalty.
- Employees should be given proper training and development programs so they can provide better service and interact professionally with customers.
- Companies should improve personalized customer care (empathy) by understanding customer needs and providing individual attention.
- Organizations should maintain attractive physical facilities and modern equipment, which improves customer perception of service quality.
- Customer feedback systems such as surveys, suggestion boxes, and online feedback platforms should be implemented to regularly monitor service quality.
- Companies should develop customer loyalty programs such as discounts, rewards, and membership benefits to retain existing customers.
- Management should regularly evaluate service quality using models like the SERVQUAL Model to identify gaps between customer expectations and actual service performance.
- Organizations should focus on building long-term relationships with customers by providing consistent service experiences.
- Continuous improvement strategies should be adopted to ensure that service quality standards are maintained and improved over time.

CONCLUSION:

The study “An Analytical Framework for Evaluating Service Quality and Customer Loyalty” aimed to examine how different dimensions of service quality influence customer loyalty. Service quality was analyzed using the dimensions of the SERVQUAL Model, which include tangibility, reliability, responsiveness, assurance, and empathy.

The findings of the study indicate that service quality plays a significant role in determining customer loyalty. Customers who experience high levels of service quality are more likely to remain loyal, continue using the services, and recommend the organization to others. Among the service quality dimensions, reliability and responsiveness were identified as the most influential factors, as customers expect services to be delivered accurately and promptly. They also revealed that

assurance and tangibility contribute positively to customer perception, while empathy requires further improvement in order to provide more personalized attention to customers. The statistical analysis showed a positive relationship between service quality and customer loyalty, indicating that improvements in service quality directly enhance customer satisfaction and long-term loyalty. Overall the research concludes that organizations must focus on continuous improvement in service delivery, employee training, and customer relationship management to maintain high service standards. By strengthening service quality dimensions and understanding customer expectations, organizations can build strong customer relationships, increase retention rates, and achieve long-term competitive advantage. In conclusion, the analytical framework used in this study demonstrates that maintaining high service quality is essential for developing and sustaining customer loyalty in today's competitive service environment.

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