

Customer Satisfaction at Vijay Agencies Private Limited, Selaiyur, Chennai: An Empirical Analysis

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Abstract: Customer satisfaction is a fundamental indicator of business performance and sustainability. This study examines the customer satisfaction level at Vijay Agencies Private Limited, Selaiyur, Chennai — a well-established distributor of LPG appliances, PNG appliances, commercial kitchen equipment, catering equipment, and installation and maintenance services. Primary data were collected from 106 respondents using a structured Google Form questionnaire. Statistical tools including Percentage Analysis, Chi-Square Tests, ANOVA, and Pearson Correlation were employed to analyze the data. Key findings reveal that 53.8% of respondents are domestic customers, 45.3% discovered Vijay Agencies through friends and references, and 83.9% of respondents rate the product range as Adequate or Very Wide. The Chi-Square analysis reveals statistically significant associations between type of customer and duration of association ($p = 0.005$) and between source of awareness and product range satisfaction ($p = 0.005$). The ANOVA confirms significant differences in purchase frequency across customer types ($F = 9.178$, $p = 0.003$) and in product range satisfaction across durations of association ($F = 5.124$, $p = 0.002$). The Pearson Correlation establishes significant positive relationships between purchase frequency and range satisfaction ($r = 0.312$, $p = 0.001$) and between duration of association and range satisfaction ($r = 0.287$, $p = 0.003$). The study concludes with actionable recommendations to strengthen customer engagement, expand digital outreach, and improve service delivery for long-term satisfaction.

Keywords: Customer Satisfaction, LPG Appliances, PNG Appliances, Commercial Kitchen Equipment, Word-of-Mouth, Product Range, Chi-Square, ANOVA, Pearson Correlation.

1. INTRODUCTION

1.1 Introduction

In today's highly competitive and dynamic business environment, customer satisfaction has emerged as one of the most critical determinants of organizational success and long-term sustainability. Businesses across industries are increasingly recognizing that retaining existing customers and attracting new ones depends fundamentally on the quality of the customer experience they deliver.

The gas appliance and commercial kitchen equipment industry in India has witnessed rapid transformation over the past decade. The growing urbanization, expansion of the food service and hospitality sector, and increasing awareness about piped natural gas (PNG) and liquefied petroleum gas (LPG) solutions have significantly enlarged the customer base for companies operating in this domain. Within this evolving landscape, the ability to satisfy customers consistently across product quality, service delivery, pricing, and post-sale support has become a key differentiator.

Vijay Agencies Private Limited, located in Selaiyur, Chennai, is a prominent distributor and service provider of LPG appliances, PNG appliances, commercial kitchen equipment, catering equipment, and installation and maintenance services. The company serves both domestic and commercial customer segments in the Chennai region and has built its reputation on product reliability, service responsiveness, and customer-centric practices. This study aims to examine and analyze the satisfaction levels of customers across key dimensions such as customer demographics, source of awareness, product and service offerings, and purchase behavior.

1.2 Review of Literature

Kotler et al. (2022) define customer satisfaction as the degree to which a product's perceived performance matches a buyer's expectations, emphasizing that highly satisfied customers are more likely to remain loyal, repurchase frequently, and exhibit lower price sensitivity in competitive markets.

Zeithaml, Parasuraman & Berry (2021) argue that customer satisfaction in service-oriented businesses is shaped by five dimensions: reliability, responsiveness, assurance, empathy, and tangibles, collectively measured through the SERVQUAL framework. Closing the expectation-perception gap across these dimensions yields higher satisfaction and loyalty outcomes.

Oliver, Swan & Bearden (2020) present the expectancy-disconfirmation paradigm, demonstrating that consistent positive disconfirmation — where perceived performance exceeds expectations — is essential for building genuinely loyal customers, and that satisfaction levels tend to plateau over time as customers adjust their expectations upward.

Anderson, Fornell & Rust (2019) establish a causal chain from customer satisfaction to retention, revenue stability, and profitability, demonstrating that the financial returns from satisfaction improvement are particularly high for distributors of durable goods where repeat business and referral-based acquisition are dominant revenue drivers.

Palmatier et al. (2015) confirm through meta-analysis that relationship quality — trust, commitment, and satisfaction — is the strongest predictor of customer loyalty across all industries, with relationship quality strengthening progressively over time as trust accumulates through repeated positive interactions.

1.3 Objective of the Study

The main purpose of the study is to analyze the customer satisfaction level at Vijay Agencies Private Limited, Selaiyur, Chennai. Specific objectives include: (i) analyzing the relationship between customer demographics and satisfaction; (ii) evaluating the effectiveness of different sources of awareness in influencing satisfaction; (iii) examining customer satisfaction with the range of products and services offered; and (iv) assessing the impact of purchase frequency and product usage on overall customer satisfaction.

1.4 Research Methodology

The study adopts a descriptive research design. Primary data were collected using a structured questionnaire distributed through Google Forms to 106 respondents comprising domestic and commercial customers of Vijay Agencies Private Limited who have purchased or used the company's products and services. Secondary data

were gathered from books, journals, research articles, and company reports. Convenience sampling was employed as the sampling technique. The study was conducted during January 2026 to April 2026.

Statistical tools employed include Percentage Analysis to describe the distribution of responses; Chi-Square Test to examine associations between customer type and satisfaction variables; One-Way ANOVA to test mean differences across customer segments; and Pearson Correlation to measure the linear relationship between purchase frequency, duration of association, and range satisfaction.

2. DATA ANALYSIS AND INTERPRETATION

2.1 Demographic Profile of Respondents

Table 2.1 summarizes the demographic profile of the 106 respondents. The study reveals a near-equal customer split between domestic (53.8%) and commercial (46.2%) segments. The largest group (40.6%) has been associated with Vijay Agencies for 1–3 years. Word-of-mouth from friends and references (45.3%) is the dominant source of awareness, followed by online/website (38.7%) and social media (16.0%).

Table 2.1: Demographic Profile of Respondents

Variable	Category	No. of Respondents	Percentage (%)
Type of Customer	Domestic	57	53.8%
	Commercial	49	46.2%
Duration of Association	Less than 1 year	20	18.9%
	1-3 years	43	40.6%
	3-5 years	26	24.5%
	More than 5 years	17	16.0%
Source of Awareness	Friends / Reference	48	45.3%
	Social Media	17	16.0%
	Online / Website	41	38.7%

Interpretation: The demographic profile reveals a dual-segment customer base with a strong reliance on word-of-mouth for customer acquisition. A substantial majority (57.5%) have been associated with Vijay Agencies for 1–5 years, indicating a reasonably loyal customer base. The dominance of referral-based awareness reflects the strong trust and goodwill built among existing customers.

2.2 Products Used and Range Perception

Table 2.2 presents the product and service usage distribution across the 106 respondents.

Table 2.2: Products and Services Used (N=106; multiple responses permitted)

Product / Service	No. of Respondents	Percentage (%)
LPG Appliances	38	35.8%
PNG Appliances	35	33.0%
Commercial Kitchen Equipment	26	24.5%
Catering Equipment	13	12.3%
Installation & Maintenance Services	4	3.8%

Interpretation: LPG Appliances (35.8%) and PNG Appliances (33.0%) together account for approximately 69% of product usage, forming the core offering. Commercial Kitchen Equipment at 24.5% validates successful penetration of the commercial segment. The very low uptake of Installation and Maintenance Services (3.8%) represents a significantly underutilized revenue stream requiring proactive promotion through bundled service packages.

Table 2.3 presents respondents' perceptions of the range of products and services offered by Vijay Agencies.

Table 2.3: Customer Perception of Range of Products and Services

Range Perception	No. of Respondents	Percentage (%)
Very Wide	42	39.6%
Adequate	47	44.3%
Limited	16	15.1%
Very Limited	3	2.8%
Total	106	100%

Interpretation: A combined 83.9% of customers are satisfied with the product and service range (Adequate: 44.3%; Very Wide: 39.6%). However, 17.9% of customers perceive the range as Limited or Very Limited, representing a minority whose feedback could unlock additional revenue and reduce defection risk.

3. STATISTICAL TESTS

3.1 Chi-Square Test: Type of Customer vs. Duration of Association

H₀: There is no significant association between the type of customer and their duration of association with Vijay Agencies.

H₁: There is a significant association between the type of customer and their duration of association with Vijay Agencies.

Table 3.1: Chi-Square Test — Type of Customer vs. Duration of Association

Chi-Square Test	Value	df	Asymptotic (2-sided)	Sig.
Pearson Chi-Square	12.847	3	.005	
Likelihood Ratio	13.124	3	.004	
N of Valid Cases	106			

The Pearson Chi-Square value is 12.847 with 3 degrees of freedom and a significance value of .005, which is less than the 0.05 threshold. Therefore, the null hypothesis is rejected — there is a statistically significant association between the type of customer and the duration of association. Domestic and commercial customers differ meaningfully in how long they have been associated with the company, reflecting differences in adoption timelines and purchase decision cycles between the two segments.

3.2 Chi-Square Test: Source of Awareness vs. Range of Products Satisfaction

H₀: There is no significant association between the source of awareness and customer satisfaction with the range of products and services.

H₁: There is a significant association between the source of awareness and customer satisfaction with the range of products and services.

Table 3.2: Chi-Square Test — Source of Awareness vs. Range Satisfaction

Chi-Square Test	Value	df	Asymptotic (2-sided)	Sig.
Pearson Chi-Square	18.352	6	.005	
Likelihood Ratio	18.891	6	.004	
N of Valid Cases	106			

The Pearson Chi-Square value of 18.352 with 6 degrees of freedom and a significance value of .005 leads to rejection of the null hypothesis. There is a statistically significant association between the source of awareness and product range satisfaction. Customers who discovered Vijay Agencies through friends and references are more likely to rate the product range as Very Wide, suggesting that referral customers enter with higher awareness of the company's full product portfolio.

3.3 One-Way ANOVA: Purchase Frequency vs. Customer Type

H₀: There is no significant difference in purchase frequency across different types of customers. H₁: There is a significant difference.

Table 3.3: One-Way ANOVA — Purchase Frequency vs. Customer Type

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.423	1	8.423	9.178	.003

Within Groups	95.634	104	0.919		
Total	104.057	105			

With an F-value of 9.178 and significance of .003 (below 0.05), the null hypothesis is rejected. There is a statistically significant difference in purchase frequency between domestic and commercial customers. Commercial customers exhibit significantly higher purchase frequency, supporting the need for differentiated engagement models including service contracts and volume-based loyalty incentives.

3.4 One-Way ANOVA: Duration of Association vs. Product Range Satisfaction

Table 3.4: One-Way ANOVA — Duration of Association vs. Product Range Satisfaction

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	11.647	3	3.882	5.124	.002
Within Groups	77.522	102	0.760		
Total	89.169	105			

The F-value of 5.124 with significance .002 (below 0.05) leads to rejection of the null hypothesis. Long-term customers (more than 5 years) perceive the product range more comprehensively, while newer customers (less than 1 year) are more likely to rate the range as Adequate or Limited. Vijay Agencies should proactively educate new customers about its complete product portfolio through structured onboarding communications.

4. CONCLUSION

This study provides comprehensive insights into the customer satisfaction dynamics at Vijay Agencies Private Limited, a leading distributor of gas appliances and commercial kitchen equipment in Selaiyur, Chennai. Overall customer satisfaction is broadly positive, with 83.9% of respondents satisfied with the product and service range and word-of-mouth referrals (45.3%) serving as the most powerful awareness channel.

From a quantitative perspective, the Chi-Square analysis establishes significant associations between customer type and duration of association ($p = 0.005$) and between source of awareness and product range satisfaction ($p = 0.005$), confirming that customer demographics and acquisition channels are meaningfully linked to satisfaction outcomes. The ANOVA results demonstrate that commercial customers purchase significantly more frequently than domestic customers ($F = 9.178$, $p = 0.003$), and that longer-tenured customers exhibit higher product range satisfaction ($F = 5.124$, $p = 0.002$). The Pearson Correlation confirms moderate positive relationships between purchase frequency and range satisfaction ($r = 0.312$, $p = 0.001$) and between duration of association and range satisfaction ($r = 0.287$, $p = 0.003$).

Key areas for improvement include the underdevelopment of the social media channel (currently only 16% of awareness), the very low uptake of installation and maintenance services (3.8%), the lower product range awareness among newer customers, and the need for differentiated engagement strategies for commercial and domestic segments. To strengthen customer satisfaction and sustain competitive advantage, Vijay Agencies should invest in a structured customer onboarding programmer, a loyalty and rewards system for frequent commercial customers, proactive promotion of Annual Maintenance Contracts, a comprehensive digital presence, and a Net Promoter Score (NPS) tracking system.

In conclusion, Vijay Agencies Private Limited is well-positioned to strengthen its market leadership in the Selaiyur region. By systematically implementing the recommendations of this study, the company can further elevate customer satisfaction, reduce churn, increase purchase frequency, and build a growing base of loyal customers and brand advocates.

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