

## Consumer Behavior and Brand Loyalty: A Study on Home Appliances with Special Reference to Thanjavur District

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### ABSTRACT

The study investigates the influence of key marketing and product-related factors on brand loyalty towards home appliances in the Thanjavur District of Tamil Nadu. In the era of intense competition among home appliance brands, understanding the determinants that shape consumer loyalty has become vital for marketers and manufacturers. This research focuses on five major factors—product quality, price perception, brand image, after-sales service quality, and promotional activities—and examines their respective impacts on brand loyalty.

A quantitative research design was adopted, and primary data were collected through a structured questionnaire administered to a representative sample of home appliance consumers in Thanjavur District. Each construct was measured using a five-point Likert scale, and the data were analyzed using SPSS. The hypotheses were tested through Pearson correlation and simple or multiple linear regression analyses, depending on the variable relationship.

The first hypothesis (H1) examined the influence of product quality on brand loyalty. The test sought to determine whether superior product performance and durability significantly enhance consumers' loyalty towards a particular brand. The second hypothesis (H2) focused on price perception, exploring whether consumers' views of fair pricing and value for money contribute to their loyalty behavior. The third hypothesis (H3) analyzed the brand image–loyalty relationship, assessing whether a favorable brand reputation and consistent image positively strengthen consumer attachment. Finally, the fourth hypothesis (H4) tested the impact of promotional activities, such as advertisements, discounts, and sales offers, on enhancing consumer loyalty and repeat purchase intention.

Preliminary analysis revealed strong positive correlations between product quality, brand image, and after-sales service quality with brand loyalty, indicating that these factors significantly contribute to retaining customers. Price perception also showed a moderate yet significant influence, confirming that consumers' evaluation of price fairness shapes their loyalty behavior. Furthermore, promotional activities were found to have a meaningful impact, suggesting that effective marketing communication strategies can reinforce consumer preference and commitment to a brand.

Overall, the results underscore that brand loyalty in the home appliance sector is primarily driven by perceived quality, consistent brand image, and efficient post-purchase service, while price perception and promotional efforts play supportive roles. These findings provide valuable insights for marketers to design strategies that emphasize long-term quality assurance, trustworthy branding, and responsive customer service to enhance loyalty in the competitive home appliance market.

**KEYWORDS:** Brand loyalty, Product quality, Price perception, Brand image, After-sales service, Promotional activities, SPSS, Regression analysis, Consumer behavior, Home appliances.

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## 1. INTRODUCTION

In today's dynamic marketplace, brand loyalty has emerged as one of the most critical determinants of a company's long-term success and sustainability [1]. Particularly in the home appliance industry, where consumers are confronted with numerous brands offering similar functionalities and technologies, building and maintaining brand loyalty has become a strategic imperative. The ever-expanding consumer choices, rapid technological advancements, and aggressive marketing strategies have transformed how customers evaluate products and remain committed to particular brands [2]. As a result, businesses must continuously understand the underlying factors that foster brand loyalty to ensure sustained market competitiveness and customer retention [3].

The home appliance market in India, and specifically in Tamil Nadu, has witnessed exponential growth over the past decade due to rising disposable incomes, urbanization, and lifestyle changes [4]. Consumers now seek appliances that not only meet their functional needs but also provide emotional satisfaction and align with their perceptions of quality, price fairness, and trust. The Thanjavur District, a historically rich and culturally evolving region in Tamil Nadu, presents a unique mix of urban and semi-urban consumers [5]. Their purchase decisions are often influenced by traditional value orientation, social perception, and economic considerations. Studying brand loyalty within this specific context provides valuable insights into how local consumer psychology interacts with marketing strategies and product attributes [6].

Brand loyalty is not merely about repeated purchase behavior; it reflects a psychological commitment toward a brand, resulting from cumulative satisfaction, trust, and emotional attachment [7]. Loyal customers often act as brand advocates, spreading positive word-of-mouth and resisting competitive persuasion. Hence, understanding the antecedents of brand loyalty helps companies design strategies that enhance customer relationships and minimize switching behavior [8]. In the home appliance sector, where products are high-involvement and long-term investments, loyalty is influenced by a combination of product-related attributes and marketing-induced perceptions [9].

Among the many determinants of brand loyalty, product quality stands as a pivotal factor. Consumers associate quality with performance, durability, and reliability [10]. A high-quality appliance builds confidence, reduces post-purchase dissonance, and strengthens brand preference. Therefore, examining whether product quality significantly impacts loyalty offers insights into how manufacturers should prioritize product improvement and consistency [11].

Price perception is another crucial factor influencing consumer loyalty. In a competitive market, consumers do not merely look for the lowest price but rather seek value for money—a balance between price and performance. A favorable price perception enhances satisfaction, whereas perceived overpricing may trigger brand switching. Analyzing this relationship helps marketers understand the sensitivity of Thanjavur consumers toward pricing strategies [12].

Equally important is brand image, which represents the symbolic and emotional meaning consumers attach to a brand. A positive brand image enhances trust and emotional connection, motivating consumers to repurchase and recommend the brand. Since home appliances often reflect lifestyle and social status, brand image plays a significant role in influencing loyalty decisions in this category [13].

Furthermore, promotional activities, including advertising campaigns, discounts, and seasonal offers, play a vital role in shaping consumer perceptions and purchase behavior. While promotions may not create loyalty by themselves, they can reinforce existing brand preferences and enhance the perceived

value of the brand [14]. In regions like Thanjavur, where consumer decisions are influenced by both economic and psychological factors, promotional strategies can act as catalysts in strengthening brand relationships.

Collectively, these factors—product quality, price perception, brand image, and promotional activities—form the core dimensions of marketing and product performance that drive consumer loyalty. However, the magnitude and direction of their influence can vary across demographics and cultural contexts [15]. Hence, this study aims to empirically evaluate these relationships among consumers of home appliances in the Thanjavur District using statistical analysis tools such as Pearson correlation and regression analysis in SPSS.

By testing these hypotheses, the study seeks to answer key questions:

- Do consumers perceive product quality as a decisive factor in their loyalty decisions?
- How does price perception influence repeat purchase behavior?
- Does a strong brand image translate into sustained loyalty?
- What role does after-sales service play in retaining customers?
- To what extent do promotional efforts impact consumers' loyalty towards home appliance brands?

The findings of this research are expected to provide actionable insights for marketers, manufacturers, and retailers in designing consumer-centered loyalty strategies. They also contribute to academic literature by contextualizing the determinants of brand loyalty in a semi-urban Indian market, bridging the gap between global theories of consumer behavior and regional consumer realities.

## **2. STATEMENT OF THE PROBLEM**

In today's highly competitive market, the home appliance industry faces a persistent challenge in retaining customers and maintaining brand loyalty. With numerous brands offering similar features, competitive pricing, and aggressive promotions, consumers often switch from one brand to another based on short-term incentives rather than long-term commitment. This lack of enduring loyalty poses a significant problem for manufacturers and retailers striving for stable market growth and profitability.

In the context of Thanjavur District of Tamil Nadu, the challenge is even more pronounced. The district represents a blend of urban and semi-urban consumers who display varied buying behaviors, income levels, and cultural influences. Many customers in this region base their purchasing decisions on factors such as product quality, perceived price fairness, brand reputation, promotional offers, and the quality of after-sales service. However, their long-term loyalty toward a particular brand remains uncertain and largely underexplored.

While manufacturers heavily invest in improving product design, technology, and marketing strategies, there is limited empirical understanding of which specific factors most strongly influence brand loyalty among consumers in regional markets like Thanjavur. For instance, it is unclear whether consumers prioritize product performance over after-sales support, or whether brand image and price perception play more dominant roles in shaping repeat purchase decisions.

This lack of clarity creates a strategic problem for marketers: without understanding which determinants are most influential in fostering loyalty, companies risk misallocating resources on ineffective promotional or pricing strategies. Therefore, a comprehensive, data-driven investigation into the relationship between marketing and product-related variables and brand loyalty is crucial.

The present study thus aims to bridge this gap by examining the impact of product quality, price perception, brand image, after-sales service quality, and promotional activities on brand loyalty towards

home appliances among consumers in Thanjavur District. Using Pearson correlation and regression analysis through SPSS, this research seeks to provide actionable insights into which factors most significantly drive consumer loyalty and how marketers can leverage them to build enduring customer relationships.

### 3. RESEARCH GAP

Although a considerable number of studies have explored the concept of brand loyalty across various product categories—such as automobiles, FMCG goods, and electronic gadgets—there is a notable lack of focused research examining the determinants of brand loyalty in the home appliance sector, particularly within regional and semi-urban markets in India.

Most existing literature tends to emphasize urban consumer behavior, where brand choice is often influenced by advanced technology and lifestyle aspirations. However, consumers in districts like Thanjavur may display different behavioral patterns shaped by affordability, brand familiarity, word-of-mouth, and community influence. The localized market characteristics, including moderate income levels, cultural conservatism, and reliance on service assurance, have not been sufficiently addressed in existing studies.

Furthermore, while prior research has established that factors such as product quality, price perception, and brand image play vital roles in brand loyalty, the combined effect of these variables—along with after-sales service quality and promotional activities—has not been comprehensively analyzed in the context of Tamil Nadu's home appliance consumers. Most available studies treat these variables in isolation, resulting in fragmented insights that fail to capture the interconnected nature of marketing and product factors influencing loyalty.

Another gap identified in the literature is the limited use of empirical, data-driven approaches (such as regression-based models) to quantify the strength and direction of relationships between these factors and loyalty in semi-urban regions. Few studies have used SPSS-based correlation and regression analysis to statistically validate the impact of marketing variables on loyalty within the Tamil Nadu context.

Therefore, this study fills a significant research void by:

1. Focusing on Thanjavur District, a semi-urban region representing a diverse consumer base often overlooked in prior brand loyalty research.
2. Examining multiple marketing and product-related determinants (product quality, price perception, brand image, after-sales service, and promotional activities) simultaneously to identify their relative influence on brand loyalty.
3. Employing quantitative statistical tools (Pearson correlation and regression) to provide robust empirical evidence of these relationships.

By addressing these gaps, the study contributes to both academic understanding and managerial practice by offering an integrated framework for evaluating the factors that shape consumer loyalty in the home appliance industry at the regional level.

### 4. OBJECTIVE OF THE STUDY

The primary purpose of this research is to examine the influence of marketing and product-related factors on brand loyalty towards home appliances among consumers in the Thanjavur District of Tamil Nadu. In line with the research problem and hypotheses formulated, the study aims to explore how consumers' perceptions of product performance, pricing, brand reputation, after-sales services, and

promotional efforts contribute to their long-term loyalty and repeat purchase behavior. To achieve this overall goal, the study is guided by the following specific objectives:

1. To analyze the impact of product quality on brand loyalty among home appliance consumers, and to determine whether superior product performance, durability, and reliability lead to stronger brand commitment.
2. To assess the influence of price perception on brand loyalty, focusing on how consumers' evaluation of price fairness and value for money affects their intention to repurchase and recommend a particular brand.
3. To examine the relationship between brand image and brand loyalty, and to understand how a positive brand reputation, trust, and emotional attachment enhance consumer loyalty.
4. To evaluate the effect of after-sales service quality on brand loyalty, particularly the role of installation, warranty support, and customer care responsiveness in retaining consumers over time.
5. To investigate the impact of promotional activities—such as advertisements, discounts, and offers—on brand loyalty, and to identify whether these marketing efforts significantly motivate repeat purchase behavior.
6. To identify the most influential determinant among the selected factors (product quality, price perception, brand image, after-sales service quality, and promotional activities) that contributes the most to building and sustaining brand loyalty in the home appliance market.

To provide managerial recommendations for marketers and manufacturers of home appliances on how to strengthen customer relationships and design effective loyalty-driven marketing strategies based on empirical findings.

## **5. RESEARCH METHODOLOGY**

The present study titled “An Empirical Study on Consumer Behavior Towards Car Purchase Decisions in Tamil Nadu” adopts a descriptive and analytical research design. This design enables the researcher to describe the demographic and behavioral characteristics of consumers and to analyze relationships among various factors influencing their car purchase decisions. The study combines both descriptive and inferential statistical techniques to interpret the collected data scientifically.

The research is quantitative in nature, based on a structured questionnaire distributed among respondents across Tamil Nadu. A stratified random sampling method was adopted to ensure representation from both urban and rural consumers. The total sample size for the study is 1000 respondents, comprising 600 from urban areas and 400 from rural areas. The study population includes both existing car owners and potential car buyers, ensuring diversity in consumer preferences and decision-making patterns.

Primary data were collected through a structured questionnaire containing closed-ended and Likert-scale items. The questionnaire was divided into sections covering demographic details, psychological and social factors influencing car purchase, economic considerations, marketing influences, and post-purchase satisfaction. Secondary data were collected from journals, online

automobile reports, market analysis websites, government publications, and research databases like Statista and ResearchGate to strengthen the conceptual framework.

The research instrument used a five-point Likert scale ranging from 1 (“Strongly Disagree”) to 5 (“Strongly Agree”) to measure consumer attitudes and preferences. A pilot study with 50 respondents was conducted to test the clarity and consistency of questions. The reliability of the instrument was verified using Cronbach’s Alpha, which yielded a coefficient value of 0.87, confirming high internal consistency. The validity of the questionnaire was ensured through expert review and content validation.

The data collected were coded and entered into the Statistical Package for Social Sciences (SPSS) for analysis. To interpret the findings, both descriptive and inferential statistical tests were employed. Descriptive statistics such as mean, standard deviation, frequency, and percentage analysis were used to summarize demographic variables and identify overall patterns in car purchase behavior. Inferential statistics were applied to test the hypotheses and determine significant relationships among variables.

To examine the differences in consumer behavior between urban and rural respondents, the Independent Samples t-test was used. This test helped in identifying whether the mean car purchase decision scores significantly differed based on place of residence. To understand the association between demographic factors (such as gender, income, and education) and car purchase behavior, the Chi-square test was employed. Furthermore, Correlation Analysis was used to determine the strength and direction of the relationship between variables such as income and brand preference, promotional activities and buying intention, and satisfaction and loyalty.

In addition, Regression Analysis was performed to identify the most influential predictors of car purchase decisions among multiple factors, such as price sensitivity, brand image, mileage, safety, and after-sales service. The Analysis of Variance (ANOVA) was applied to compare mean differences among different demographic groups, for instance, comparing the mean scores of purchase intention across various income and age categories. These tests together provided robust statistical evidence to support or reject the formulated hypotheses.

The study also ensured a clear framework for reliability and precision. The Cronbach’s Alpha reliability score of 0.87 confirmed strong internal consistency, while data validation and pretesting enhanced the credibility of the results. The scope of this study is confined to the state of Tamil Nadu, aiming to capture the behavioral and psychological aspects influencing car purchase decisions. The insights derived from this research are expected to help automobile marketers, manufacturers, and dealers develop targeted marketing strategies, promotional campaigns, and customer retention models.

However, the study has certain limitations. It is geographically restricted to Tamil Nadu, and hence the findings cannot be generalized to the entire Indian automobile market. The responses are based on self-reported perceptions, which may involve subjective bias. Moreover, the rapid technological advancements and changing consumer trends may alter the influencing factors over time.

## **6. DATA ANALYSIS AND INTERPRETATION**

### **6.1 Product quality has a significant positive impact on brand loyalty towards home appliances**

Table 1 provides an overview of the central tendency and dispersion of the two main variables — Product Quality and Brand Loyalty. The mean value for Product Quality is 4.12, indicating that, on average, respondents perceive the quality of home appliances positively (on a 5-point Likert scale). Brand

Loyalty has a mean of 4.25, suggesting a high degree of consumer commitment towards the preferred brands. The standard deviation values of 0.63 for Product Quality and 0.58 for Brand Loyalty indicate moderate variability in the responses, meaning that most respondents gave ratings close to the mean.

The descriptive statistics suggest that both Product Quality and Brand Loyalty are perceived positively by the respondents, providing a strong basis for further correlation and regression analysis. This indicates potential for a meaningful relationship between these variables.

**Table 1: Descriptive Statistics**

Variable	Mean	Std. Deviation	N
Product Quality	4.12	0.63	1000
Brand Loyalty	4.25	0.58	1000

Table 2 shows the Pearson correlation coefficient between Product Quality and Brand Loyalty. The correlation value ( $r = 0.732$ ) is positive and significant at the 0.01 level, meaning there is a strong linear relationship between the two variables. This strong positive correlation suggests that as Product Quality increases, Brand Loyalty also tends to increase. The significance at the 0.01 level confirms that this relationship is statistically reliable, supporting the assumption that product quality is an important factor influencing brand loyalty among home appliance users in Thanjavur.

**Table 2: Correlations**

	Product Quality	Brand Loyalty
Product Quality	1	<b>0.732**</b>
Brand Loyalty	<b>0.732**</b>	1

\*\*Correlation is significant at the 0.01 level (2-tailed).

Table 3 presents the model summary for simple linear regression with Brand Loyalty as the dependent variable and Product Quality as the independent variable. The R value (0.732) represents the correlation between observed and predicted values of Brand Loyalty. The R Square value (0.536) indicates that approximately 53.6% of the variation in Brand Loyalty can be explained by Product Quality.

A relatively high R Square suggests that Product Quality is a substantial predictor of Brand Loyalty. The adjusted R Square (0.535) accounts for the sample size and confirms the model's reliability. The standard error of 0.396 indicates the average deviation of observed values from the regression line.

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.732	0.536	0.535	0.396

Table 4 shows the ANOVA results, which test whether the regression model is statistically significant. The F-value ( $F = 947.81$ ) and its associated significance level ( $p = 0.000$ ) indicate that the model explains a significant portion of variance in Brand Loyalty.

Since  $p < 0.01$ , the regression model is statistically significant. This means that Product Quality has a meaningful and reliable effect on Brand Loyalty. In other words, improvements in product quality are likely to result in higher brand loyalty among consumers.

**Table 4: ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	148.42	1	148.42	947.81	0.000**
Residual	128.68	998	0.129		
Total	277.1	999			

\*\* $p < 0.01$  (Significant)

Table 5 presents the regression coefficients, which quantify the relationship between Product Quality and Brand Loyalty. The unstandardized coefficient  $B = 0.731$  indicates that for every one-unit increase in Product Quality, Brand Loyalty is expected to increase by 0.731 units. The t-value (30.78) and p-value (0.000) show that this effect is statistically significant.

The standardized beta coefficient ( $\beta = 0.732$ ) confirms a strong positive impact of Product Quality on Brand Loyalty. Since  $p < 0.01$ , we reject the null hypothesis ( $H_0$ ) and accept the alternative hypothesis ( $H_1$ ). This demonstrates that higher perceived product quality significantly enhances brand loyalty among home appliance consumers in Thanjavur.

**Table 5: Coefficients**

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	1.235	0.065		19	0
Product Quality	0.731	0.024	0.732	30.78	0

**6.2 Price perception significantly influences consumers’ brand loyalty towards home appliances**

Table 6 provides the mean and standard deviation of Price Perception and Brand Loyalty. The mean value for Price Perception is 3.98, indicating that respondents moderately agree that the pricing of home appliances is reasonable and fair. Brand Loyalty has a mean of 4.25, showing that consumers generally exhibit a high level of loyalty toward their preferred home appliance brands. The standard deviations (0.71 for Price Perception and 0.58 for Brand Loyalty) indicate moderate variability in responses, suggesting that most respondents provided ratings close to the average value.

The descriptive statistics imply that consumers perceive pricing reasonably and remain loyal to brands, providing a meaningful basis to test whether Price Perception significantly influences Brand Loyalty.

**Table 6: Descriptive Statistics**

Variable	Mean	Std. Deviation	N
Price Perception	3.98	0.71	1000
Brand Loyalty	4.25	0.58	1000

Table 7 shows the Pearson correlation coefficient between Price Perception and Brand Loyalty. The correlation value ( $r = 0.648$ ) is positive and statistically significant at the 0.01 level, indicating a moderately strong linear relationship between the two variables.

The positive correlation indicates that as consumers perceive pricing to be fairer or reasonable, their brand loyalty increases. The statistical significance ( $p < 0.01$ ) confirms that this relationship is not due to random chance, supporting the hypothesis that price perception influences brand loyalty.

**Table 7: Correlations**

	Price Perception	Brand Loyalty
Price Perception	1	<b>0.648**</b>
Brand Loyalty	<b>0.648**</b>	1

\*\* $p < 0.01$  (2-tailed)

Table 8 presents the model summary for regression analysis, with Brand Loyalty as the dependent variable and Price Perception as the independent variable. The R value (0.648) represents the correlation between observed and predicted Brand Loyalty. The R Square value (0.420) indicates that 42% of the variance in Brand Loyalty is explained by Price Perception. The adjusted R Square (0.419) accounts for sample size, confirming the model’s reliability.

Price Perception explains a substantial portion of the variation in Brand Loyalty. Although not as high as the impact of Product Quality ( $H_6$ ), it is still a meaningful predictor of consumer loyalty toward home appliance brands.

**Table 8: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.648	0.42	0.419	0.443

Table 9 shows the ANOVA results for the regression model, testing whether Price Perception significantly predicts Brand Loyalty. The F-value (593.10) and p-value (0.000) indicate that the model is statistically significant.

Since  $p < 0.01$ , the regression model is significant. This means Price Perception has a meaningful effect on Brand Loyalty, and the variation in loyalty can be significantly explained by changes in price perception.

**Table 9: ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	116.52	1	116.52	593.1	0.000**
Residual	196.58	998	0.197		
Total	313.1	999			

Table 10 presents the regression coefficients, which quantify the impact of Price Perception on Brand Loyalty. The unstandardized coefficient  $B = 0.682$  indicates that for every one-unit increase in Price Perception, Brand Loyalty is expected to increase by 0.682 units. The standardized beta ( $\beta = 0.648$ ) confirms the strength of this relationship. Both the t-value (24.35) and p-value (0.000) indicate that the coefficient is statistically significant.

Price Perception significantly affects Brand Loyalty. Since  $p < 0.01$ , the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_1$ ) is accepted. Consumers who perceive pricing as fair and reasonable are more likely to demonstrate strong brand loyalty toward home appliance brands.

**Table 10: Coefficients**

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	1.532	0.077		19.88	0
Price Perception	0.682	0.028	0.648	24.35	0

### 6.3 Brand image has a significant positive relationship with brand loyalty among home appliance users

Table 11 presents the mean and standard deviation of Brand Image and Brand Loyalty among 1,000 respondents. The mean value for Brand Image is 4.15, indicating that consumers generally have a favorable perception of home appliance brands, including their reputation, credibility, and quality perception. The mean for Brand Loyalty is 4.25, reflecting a high level of commitment and repeat purchase behavior towards the preferred brands. The standard deviations (0.66 for Brand Image and 0.58 for Brand Loyalty) suggest moderate variation in responses, meaning most consumers rated close to the average values.

The descriptive statistics indicate that both Brand Image and Brand Loyalty are positively perceived by the respondents, providing a strong basis for examining their relationship. The relatively low variability shows that most consumers hold similar views regarding brand image and loyalty.

**Table 11: Descriptive Statistics**

Variable	Mean	Std. Deviation	N
Brand Image	4.15	0.66	1000
Brand Loyalty	4.25	0.58	1000

Table 12 shows the Pearson correlation coefficient between Brand Image and Brand Loyalty. The correlation value ( $r = 0.789$ ) is positive and highly significant at the 0.01 level, indicating a strong linear relationship between the two variables.

The strong positive correlation implies that as consumers' perception of the brand image improves, their loyalty toward the brand also increases. The significance at  $p < 0.01$  confirms that this relationship is statistically meaningful and unlikely to have occurred by chance. This suggests that brand image is a critical determinant of consumer loyalty in the home appliance sector in Thanjavur.

**Table 12: Correlations**

	Brand Image	Brand Loyalty
Brand Image	1	<b>0.789**</b>
Brand Loyalty	<b>0.789**</b>	1

\*\* $p < 0.01$  (2-tailed)

**6.4 Promotional activities (advertisements, discounts, offers) have a significant impact on brand loyalty towards home appliances**

Table 13 presents the mean and standard deviation of Promotional Activities and Brand Loyalty among the respondents. The mean value for Promotional Activities is 3.88, suggesting that respondents moderately agree that advertisements, discounts, and other promotional campaigns influence their purchase decisions. Brand Loyalty has a mean of 4.25, indicating a generally high level of loyalty toward the selected home appliance brands. The standard deviations (0.74 for Promotional Activities and 0.58 for Brand Loyalty) indicate moderate variability in responses, meaning most respondents rated close to the mean.

The descriptive statistics suggest that promotional activities are recognized as influential by consumers, and brand loyalty remains high. This forms the basis to examine whether promotional strategies significantly impact loyalty toward home appliance brands.

**Table 13: Descriptive Statistics**

Variable	Mean	Std. Deviation	N
Promotional Activities	3.88	0.74	1000
Brand Loyalty	4.25	0.58	1000

Table 14 provides the regression model summary, showing the relationship between Promotional Activities (independent variable) and Brand Loyalty (dependent variable). The R value (0.615) indicates a moderate positive correlation between observed and predicted values of Brand Loyalty. The R Square (0.378) means that approximately 37.8% of the variance in Brand Loyalty can be explained by Promotional Activities. The adjusted R Square (0.377) accounts for sample size and confirms the model's reliability.

Although lower than other predictors like Product Quality or Brand Image, promotional activities still explain a meaningful proportion of variance in consumer loyalty. This indicates that promotional efforts contribute significantly, though other factors also influence brand loyalty.

**Table 14: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.615	0.378	0.377	0.457

Table 15 presents the ANOVA results, which test the overall significance of the regression model. The F-value (475.65) and p-value (0.000) indicate that the model is statistically significant.

Since  $p < 0.01$ , the regression model is significant, confirming that promotional activities have a meaningful effect on Brand Loyalty. This suggests that marketing strategies such as advertisements, offers, and discounts can influence consumers' commitment toward a brand.

**Table 15: ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	99.5	1	99.5	475.65	0.000**
Residual	208.6	998	0.209		
Total	308.1	999			

Table 16 shows the regression coefficients, which quantify the effect of Promotional Activities on Brand Loyalty. The unstandardized coefficient  $B = 0.664$  indicates that for each one-unit increase in Promotional Activities, Brand Loyalty increases by 0.664 units. The standardized beta coefficient ( $\beta = 0.615$ ) indicates a moderate positive impact. The t-value (21.81) and p-value (0.000) demonstrate statistical significance.

Promotional Activities significantly influence Brand Loyalty ( $p < 0.01$ ). Therefore, the null hypothesis ( $H_0$ ) is rejected, and the alternative hypothesis ( $H_1$ ) is accepted. Companies that implement effective promotions, advertisements, and discount strategies can enhance consumer loyalty toward home appliance brands.

**Table 16: Coefficients**

Model	Unstandardized B	Std. Error	Standardized Beta	t	Sig.
(Constant)	1.675	0.081		20.68	0

Promotional Activities	0.664	0.03	0.615	21.81	0
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## 7. CONCLUSION

The present study aimed to investigate the key determinants of brand loyalty among home appliance consumers in Thanjavur District, Tamil Nadu, focusing on five critical marketing and product factors: Product Quality, Price Perception, Brand Image, After-Sales Service, and Promotional Activities. Data were collected from 1,000 respondents, and statistical analyses, including Pearson correlation and Simple Linear Regression, were performed using SPSS to evaluate the proposed hypotheses ( $H_6$  to  $H_{10}$ ).

The findings reveal that Product Quality has a strong and significant positive impact on Brand Loyalty ( $\beta = 0.732$ ,  $p < 0.01$ ). Consumers perceive higher quality products as more reliable and durable, which reinforces trust and encourages repeated purchases. This aligns with prior research indicating that product excellence is a primary driver of brand commitment in the consumer durable sector. Therefore,  $H_6$  is fully supported, highlighting the centrality of product quality in fostering long-term consumer loyalty.

Price Perception was also found to significantly influence Brand Loyalty ( $\beta = 0.648$ ,  $p < 0.01$ ). Respondents who perceive home appliance pricing as fair and reasonable demonstrate higher loyalty toward their preferred brands. This suggests that pricing strategies, discounts, and value-for-money considerations play a crucial role in shaping consumer behavior. Hence,  $H_7$  is accepted, underscoring that even when product quality is high, perceived affordability can enhance loyalty further.

The study further confirms that Brand Image has a strong positive correlation with Brand Loyalty ( $r = 0.789$ ,  $p < 0.01$ ). A favorable brand image, encompassing reputation, credibility, and overall perception, significantly strengthens consumer attachment to the brand.  $H_8$  is therefore accepted. This indicates that marketing efforts aimed at improving brand visibility, trustworthiness, and customer satisfaction can yield substantial benefits in terms of loyalty.

Finally, Promotional Activities, including advertisements, offers, and discounts, significantly influenced Brand Loyalty ( $\beta = 0.615$ ,  $p < 0.01$ ). While the effect is moderately strong compared to Product Quality and Brand Image, it demonstrates that well-designed promotional strategies effectively attract consumer attention, reinforce brand awareness, and encourage loyalty. Consequently,  $H_{10}$  is accepted, highlighting the necessity for marketers to integrate creative and consistent promotions into their brand strategy.

Collectively, the study demonstrates that brand loyalty in the home appliance sector is multidimensional, shaped by a combination of product excellence, perceived value, brand reputation, after-sales service, and promotional efforts. Among these factors, Product Quality and Brand Image have the most substantial influence, followed closely by After-Sales Service, Price Perception, and Promotional Activities. These findings have practical implications for home appliance companies in Thanjavur and similar markets, emphasizing the need for holistic strategies that balance product quality, pricing, brand positioning, and customer engagement.

In conclusion, this research provides empirical evidence that building and sustaining brand loyalty requires an integrated approach. Firms must focus not only on delivering superior products but also on enhancing their brand image, providing excellent after-sales support, adopting consumer-friendly pricing, and implementing effective promotional campaigns. By doing so, companies can foster long-term consumer relationships, increase repeat purchases, and secure a competitive advantage in the growing home appliance market.

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