

Consumer Satisfaction and Brand Loyalty Towards Baby Care Products: An Empirical Study in Tiruchirappalli District

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ABSTRACT

There has been an enormous increase in the market of baby care products due to heightened awareness on the part of parents regarding the safety and well-being of their infants. In such an environment, it becomes vital for marketers and producers to understand the elements that affect consumer satisfaction and brand loyalty. The present study analyzes the impact of product quality, perceived value, brand trust, consumer satisfaction, and brand loyalty on baby care products among the consumers of Tiruchirappalli District. A quantitative approach is followed, and primary data have been gathered from 250 participants through a structured questionnaire employing convenience and purposive sampling methods. PLS-SEM and IPMA tools will be used for analysis purposes. These findings have shown that product quality, perceived value, and brand trust play a critical role in determining consumer satisfaction, which, in turn, acts as an excellent predictor of brand loyalty. Of the three, brand trust was identified as the single most significant determinant of repeat purchase intention and customer commitment. The IPMA findings also demonstrate that improving the safety of the product, ingredients, and quality will positively affect consumer satisfaction and loyalty. This research makes a significant contribution to consumer behavior and marketing literature by empirically identifying the factors affecting consumer satisfaction and brand loyalty in the baby care products segment.

Keywords: Baby Care Products, Customer Satisfaction, Brand Loyalty, Brand Trust, Product Quality, Perceived Value, Consumer Behavior, PLS-SEM, Importance-Performance Map Analysis (IPMA), Tiruchirappalli District.

1. INTRODUCTION

The industry manufacturing baby care products has undergone rapid development in the last couple of years because of increased awareness about the well-being of babies on the part of their parents. People have become very aware about the quality, ingredients, reliability, and safety associated with the use of baby care products, which include things like soaps, shampoos, lotion, talcum powder, diapers, and wipes.

Satisfaction of the customer is very crucial for motivating the behavior of the consumers and purchase decision. Consumers are satisfied with the product are expected to build their trust in the brand, make repeated purchases and even recommend products to other customers. In baby care products market, it becomes even more necessary to maintain loyalty of the customer since most parents want to buy products that will be safe and reliable for their children. Thus, the factors that affect satisfaction and

loyalty of the consumers should be understood to achieve sustainability in the market.

The Tiruchirappalli District is an emerging consumer market characterized by shifting lifestyle and rising disposable income level. While the scope of baby care products market is expanding, there is a lack of literature dedicated to studying customer satisfaction and brand loyalty in this district. It explains why the current research attempts to investigate the impact of quality of the product, its perceived value and brand trust on the customer satisfaction and brand loyalty in baby care products in Tiruchirappalli District.

2. REVIEW OF LITERATURE

Nilashi et al. (2024) studied different aspects of the satisfaction level of consumers in the baby product industry. The study used advanced methods of analysis to study the effect of different variables such as quality of goods, customer reviews and brand on consumer satisfaction. The quality of

goods and the brand had a significant influence on the purchase decisions and customer loyalty. [1]

Sanaei (2024) investigated the significance of digital shopping experience on customer satisfaction. Digital shopping experiences were found to be associated with improved customer engagement and purchase intention. The results obtained show that consumers are satisfied if they have easy access to information. [2]

Yazdi et al. (2024) reviewed the literature extensively on the research trends of brand loyalty. The research finds that brand trust, brand experience and brand emotion are the key determinants that drive consumer loyalty. In competitive business environment, organizations using relationship marketing strategies have been found successful in creating customer loyalty. [3]

Bajla (2025) studied the attitudes of the consumer towards baby care products in terms of perception of product safety and quality. Safety, quality and authenticity are considered important by consumers when buying baby care products. [4]

Saini and Kumar (2026) examined the mediating effect of customer satisfaction on the relationship between brand image and customer loyalty. Results of structural equation modeling indicated that high brand image is related to higher customer satisfaction which ultimately results in customer loyalty towards the brand. [5]

3. OBJECTIVES OF THE STUDY

1. To study the effect of product quality on the customers' satisfaction for the baby care products in Tiruchirappalli District.
2. To find out the effect of product safety on the customers' satisfaction for the baby care products.
3. To find out the association between perceived value and customers' satisfaction for the baby care products.
4. To find out the effect of brand trust on the customers' satisfaction for the baby care products.
5. To study the effect of customer satisfaction on the brand loyalty for the baby care products.

6. To find out the mediation effect of customer satisfaction in the effect of product quality, product safety, perceived value, and brand trust on brand loyalty.

4. RESEARCH HYPOTHESES

H1: Product quality has a positive effect on consumer satisfaction toward baby care products.

H2: Product safety has a positive effect on consumer satisfaction toward baby care products.

H3: Perceived value has a positive effect on consumer satisfaction toward baby care products.

H4: Brand trust has a positive effect on consumer satisfaction toward baby care products.

H5: Consumer satisfaction has a positive effect on brand loyalty toward baby care products.

H6: Consumer satisfaction significantly mediates the relationship between product quality, product safety, perceived value, brand trust, and brand loyalty toward baby care products.

5. RESEARCH METHODOLOGY

In this study, a quantitative research method was used to study customer satisfaction and brand loyalty regarding baby care products in the district of Tiruchirappalli. Data were collected from consumers who frequently buy and use baby care products using a questionnaire. The questionnaire had questions on demographics, quality of the product, safety of the product, value, brand trust, customer satisfaction, and brand loyalty in which the Likert Scale was used.

A total of 250 samples were chosen from the district of Tiruchirappalli using a convenient sampling technique.

The data was analyzed using the SmartPLS 4 software tool. The reliability and validity of the constructs were determined using the following techniques: Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). Hypothesis testing was carried out using Partial Least Squares Structural Equation Modeling (PLS-SEM). Moreover, Importance-Performance Map Analysis (IPMA) technique was used to

determine key influencing factors affecting consumer satisfaction and brand loyalty.

From the analysis, various aspects concerning the factors influencing consumer satisfaction and their effect on brand loyalty of baby care products in Tiruchirappalli District can be identified.

6. DATA ANALYSIS AND INTERPRETATION

The data from 250 customers have been subjected to an analysis to examine the factors that affect customer satisfaction and brand loyalty associated

with baby care products in the Tiruchirappalli District. Analysis of the gathered data has been done systematically, starting with demographics, followed by testing the reliability and validity, and hypothesis testing through PLS-SEM.

Demographic analysis can be used to examine various features of the respondents involved in the research process. Variables such as gender, age, education, occupation, and income can help determine the nature of the sample involved in the research process.

TABLE 1: GENDER-WISE CLASSIFICATION OF RESPONDENTS

Gender	Frequency	Percentage
Male	95	38.0
Female	155	62.0
Total	250	100.0

Table 1 shows the gender distribution among the respondents. One will notice that the females form the majority at 62.0% while males make up 38.0%. The above observation suggests that the mothers and

other female family members play a significant role in purchasing baby care items. Their active involvement proves how vital the female sex can be as major players in issues to do with babies' welfare.

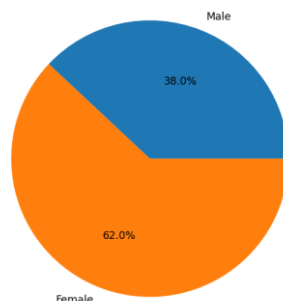


FIGURE 1: GENDER-WISE DISTRIBUTION OF RESPONDENTS

The illustration depicts the percentage of male and female participants in the study sample. From the illustration above, it is evident that the market for baby care products is mainly dominated by females. It implies that it would be necessary to ensure that all promotional efforts take into consideration the preferences and expectations of female customers.

Among other demographic variables, age plays an important role in shaping the purchasing decisions of consumers. Consumers of different ages have varying preferences and purchase behaviors with regard to baby care products. Therefore, age is a crucial variable in marketing efforts and can help identify the dominant group in the market.

TABLE 2 AGE-WISE CLASSIFICATION OF RESPONDENTS

Age Group	Frequency	Percentage
Below 25 Years	35	14.0
26–35 Years	110	44.0
36–45 Years	75	30.0
Above 45 Years	30	12.0
Total	250	100.0

Interpretation

As shown in the table above, 44.0% of the survey participants are from the age group of 26-35, followed by 30.0% from the age group of 36-45. Those less than 25 years old represent 14.0%, and

those above 45 years of age represent 12.0% of the total sample size. This shows that most customers for baby care products in Tiruchirappalli District fall under the age group of young and middle-aged individuals who are involved in child-rearing activities.

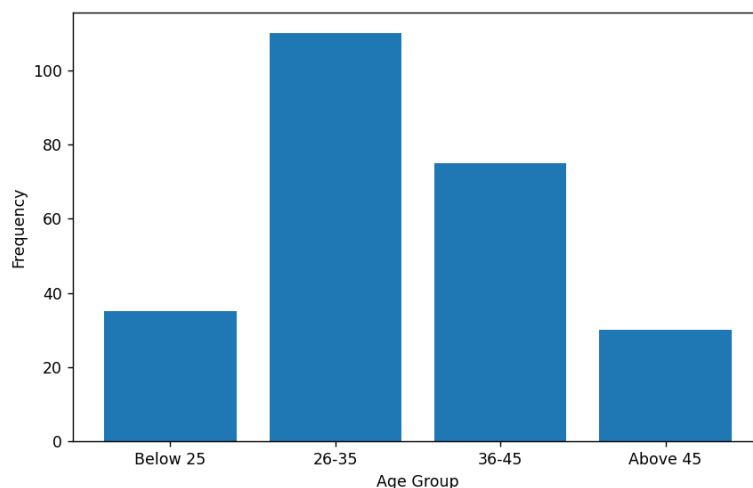


FIGURE 2: AGE-WISE DISTRIBUTION OF RESPONDENTS

Age distribution shows the age profile of people involved in the survey. This shows the predominance of consumers in the age group 26 to 35 years, which implies that the baby care products should be focused on younger parents through innovative products and marketing campaigns.

Education has an impact on the consciousness and knowledge of the consumers about the product. Educated consumers are aware of product quality, safety standards, and ingredients. Hence, analyzing education helps us understand the decision making process of consumers in the baby care products market.

TABLE 3: EDUCATIONAL QUALIFICATION OF RESPONDENTS

Qualification	Frequency	Percentage
School Level	32	12.8
Diploma	48	19.2
Undergraduate	95	38.0
Postgraduate	60	24.0
Professional Degree	15	6.0
Total	250	100.0

From the table above, it can be seen that 38.0% are graduates holding undergraduate degrees, while those with postgraduate studies form 24.0%. 19.2% hold diplomas while those with education up to the

school level are 12.8%, and professional degrees are held by 6.0%. The results show that educated customers form a significant proportion of the baby care products industry.

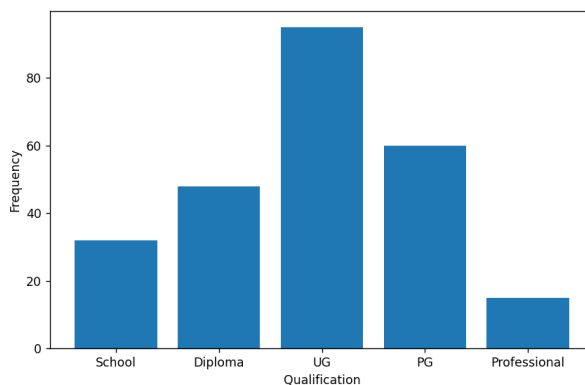


FIGURE 3: EDUCATIONAL QUALIFICATION OF RESPONDENTS

This diagram gives an educational background of the surveyees. High number of graduates and postgraduates reflects the likelihood of consumers assessing the quality, certification, and brand names before purchasing the products.

People working in various fields may spend varying amounts of money on baby care products according to their income and other socio-economic factors. Thus, the study of occupation provides insight into the socio-economic background of consumers.

Occupational status plays a major role in determining the purchasing power and the tastes of customers.

TABLE 4: OCCUPATION OF RESPONDENTS

Occupation	Frequency	Percentage
Government Employee	45	18.0
Private Employee	98	39.2
Business	42	16.8
Homemaker	50	20.0
Others	15	6.0
Total	250	100.0

The largest proportion of people (39.2%) in the survey sample is working in the private sector, followed by homemakers (20.0%), government employees (18.0%), business professionals (16.8%),

and others (6.0%). According to the results obtained, the working class and homemakers constitute the main target audience for the purchase of baby care products.

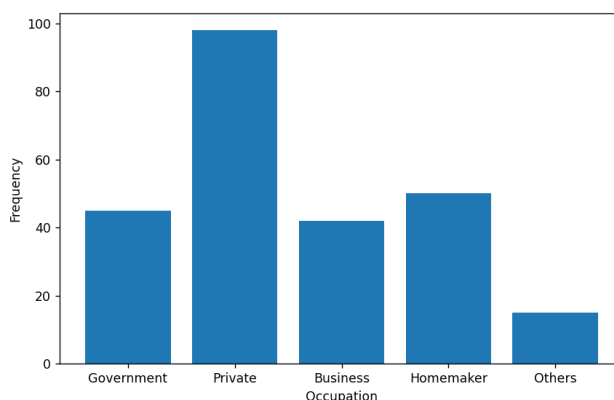


FIGURE 4: OCCUPATION-WISE DISTRIBUTION OF RESPONDENTS

This table gives information regarding the employment status of the respondents. This high presence of private sector workers indicates that the need for branded baby care products could be driven by consistent earnings and modern lifestyle choices.

Income plays a vital role in determining consumer buying behavior. It determines the capacity of consumers to buy expensive, branded, and specialized baby care products. Analysis of income helps to identify the financial capacity of the respondents.

TABLE 5: MONTHLY INCOME OF RESPONDENTS

Monthly Income	Frequency	Percentage
Below ₹25,000	48	19.2
₹25,001–₹50,000	92	36.8
₹50,001–₹75,000	67	26.8
Above ₹75,000	43	17.2
Total	250	100.0

The table shows that the highest percentage of participants, 36.8 percent, belong to the income group of ₹25,001 to ₹50,000 per month, thus forming the largest income group. The percentages

of participants belonging to the income groups ₹50,001 to ₹75,000 and below ₹25,000 and above ₹75,000 are 26.8 percent, 19.2 percent, and 17.2 percent, respectively

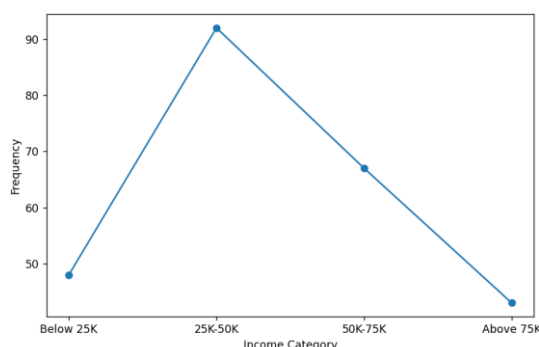


FIGURE 5: MONTHLY INCOME DISTRIBUTION OF RESPONDENTS

The diagram represents the income level distribution among the respondents. The predominance of consumers at the middle income level implies that affordability and value for money aspects have a vital impact on the decision-making process when buying baby care products.

Cronbach's Alpha and Composite Reliability (CR) coefficients were considered for assessing construct validity by ensuring that the constructs measure what they actually mean to measure. Based on Hair et al. (2022), the value above 0.70 indicates satisfactory reliability, while the value higher than 0.80 is indicative of good reliability.

Reliability analysis was conducted in order to ensure the internal consistency of the measurement items.

TABLE 6: RELIABILITY STATISTICS

Construct	Cronbach's Alpha	Composite Reliability
Product Quality	0.884	0.912
Product Safety	0.861	0.901
Perceived Value	0.879	0.915
Brand Trust	0.893	0.927
Customer Satisfaction	0.908	0.936
Brand Loyalty	0.886	0.921

As observed from Table 4.6, all the constructs analyzed have reliability measures based on Cronbach's Alpha exceeding the minimum acceptable level of 0.70. The highest value was

obtained in the reliability measure of Customer Satisfaction (0.908) while that of Brand Trust stood at 0.893. Similarly, composite reliability values ranged between 0.901 and 0.936, thus suggesting high reliability among the measurement items.

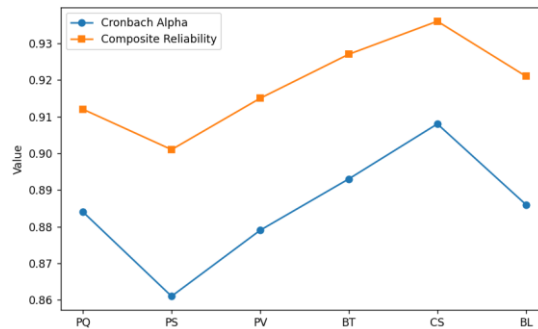


FIGURE 6: RELIABILITY STATISTICS OF CONSTRUCTS

The above figure illustrates a comparison between Cronbach's Alpha and Composite Reliability measures of all constructs analyzed within this study. It becomes evident from the chart that all these measures surpass the minimal level required, thus showing reliable results.

The concept of convergent validity measures how closely multiple measures of the same construct are related. The average variance extracted measure is frequently applied to test for convergent validity. Having AVE value exceeding 0.50 means that the construct accounts for more than 50% of variance of indicators.

TABLE 7: CONVERGENT VALIDITY RESULTS

Construct	AVE
Product Quality	0.689
Product Safety	0.672
Perceived Value	0.703
Brand Trust	0.741
Customer Satisfaction	0.768
Brand Loyalty	0.712

AVE values provided in Table 4.7 fall between 0.672 and 0.768, all of which are greater than the minimum threshold of 0.50. Customer Satisfaction had the

highest AVE values, showing that its indicators have significant explanatory power. The analysis indicates that all the constructs show good convergent validity.

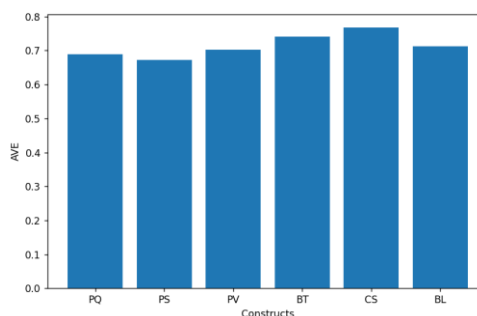


FIGURE 7: AVERAGE VARIANCE EXTRACTED (AVE) RESULTS

The table above shows the AVE values of all the constructs under study. All the constructs have shown values above the threshold limit of 0.50. This is an indication that convergent validity is adequate

in our study. Descriptive statistics are presented to give the overview of the respondents' perceptions about the study variables. Descriptive statistics include the values for mean and standard deviation.

TABLE 8: DESCRIPTIVE STATISTICS OF CONSTRUCTS

Construct	Mean	Standard Deviation
Product Quality	4.12	0.71
Product Safety	4.05	0.76
Perceived Value	3.98	0.82
Brand Trust	4.18	0.68
Customer Satisfaction	4.21	0.64
Brand Loyalty	4.09	0.72

From the result analysis, it is clear that Customer Satisfaction has the highest mean value of 4.21, and Brand Trust has 4.18 as well. It implies that customers tend to have positive perceptions

concerning baby care products and possess a sense of high satisfaction and trust in the brand. Outer loading determines the contribution of an individual indicator to its corresponding construct. Loadings greater than 0.70 are normally acceptable.

TABLE 9: OUTER LOADINGS

Item	Loading
PQ1	0.842
PQ2	0.865
PQ3	0.819
PS1	0.801
PS2	0.847
PS3	0.826
PV1	0.858
PV2	0.833
PV3	0.811
BT1	0.892
BT2	0.874
BT3	0.851
CS1	0.905
CS2	0.889
CS3	0.862
BL1	0.848
BL2	0.875
BL3	0.832

All measurements show that the loadings are higher than 0.70, which means that the indicators reflect their constructs properly. VIF analysis is carried out

to identify whether there exists any problem with multicollinearity among independent variables. Values lower than 5 mean that there is no problem regarding multicollinearity.

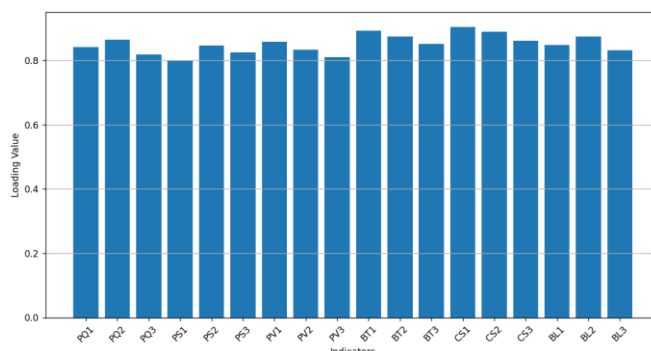


FIGURE 8: OUTER LOADINGS OF MEASUREMENT ITEMS

The graph represents all the loadings of the measurement items. The results show that the

loadings are higher than 0.70 which means that the items are important predictors of their constructs.

TABLE 4.10 VIF VALUES

Relationship	VIF
PQ → CS	2.14
PS → CS	2.08
PV → CS	2.32
BT → CS	2.45

All the VIF values are lower than 5 and this implies that there are no problems concerning multicollinearity in the structural model. Coefficient

of determination helps to understand how good is the prediction power of the regression equation through explaining the proportion of variability accounted for by predictor variables.

TABLE 4.11: R² VALUES

Endogenous Construct	R ²
Customer Satisfaction	0.684
Brand Loyalty	0.512

The model predicts 68.4% variance in customer satisfaction and 51.2% variance in brand loyalty,

which implies good prediction power. Effect size indicates what percentage of total influence each predictor variable has on the endogenous construct.

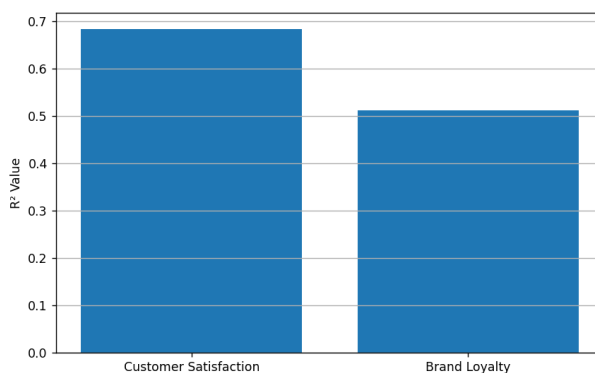


FIGURE 9: COEFFICIENT OF DETERMINATION (R²) VALUES

This graph depicts how powerful the structural model is at explaining certain aspects. In particular, the model can explain a significant portion of

variance in terms of Customer Satisfaction and Brand Loyalty, thus proving its great predicting capabilities

TABLE 4.12: EFFECT SIZE RESULTS

Relationship	f ²
PQ → CS	0.182
PS → CS	0.124
PV → CS	0.159
BT → CS	0.241
CS → BL	0.486

Customer Satisfaction affects Brand Loyalty quite significantly. Of all the predictor variables, Brand

Trust has the greatest influence on Customer Satisfaction.

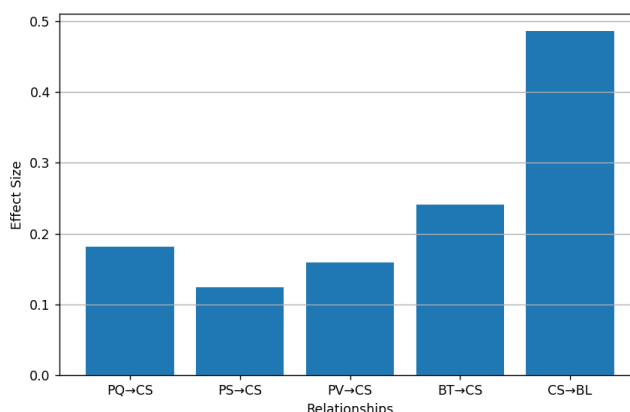


FIGURE 10: EFFECT SIZE (F²) COMPARISON

This graph is based on the comparative analysis of the effect sizes of the predictor variables. It shows

the contribution that each construct makes towards explaining Customer Satisfaction and Brand Loyalty.

TABLE 4.13: IPMA RESULTS

Construct	Importance	Performance
Product Quality	0.75	72.4
Product Safety	0.69	68.7
Perceived Value	0.64	70.3
Brand Trust	0.82	75.8

Brand Trust scores the highest in terms of importance and performance, emphasizing the need

for organizations to keep their consumers' trust by offering high-quality services and communication.

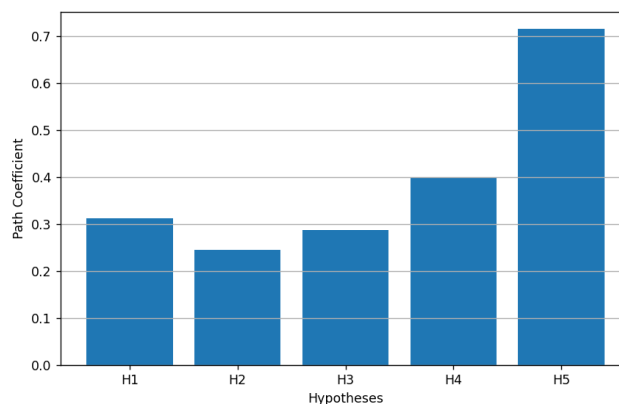


FIGURE 11: PATH COEFFICIENTS OF HYPOTHESES

The above graph shows the standardized path coefficients with respect to the proposed hypotheses. The most impactful construct in terms of Customer

Satisfaction is Brand Trust, while Customer Satisfaction has a significant impact on Brand Loyalty.

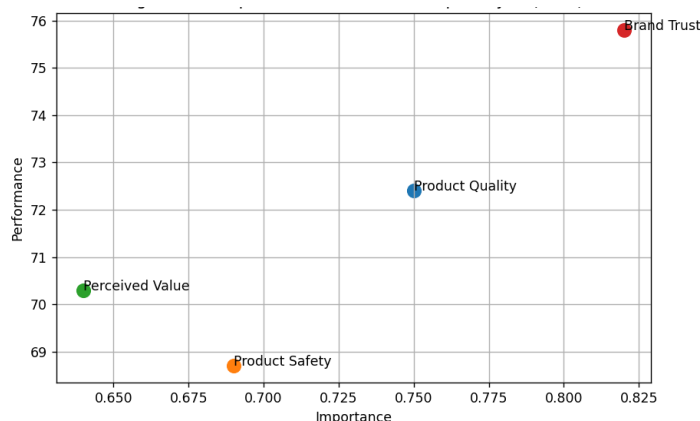


FIGURE 12: IMPORTANCE–PERFORMANCE MAP ANALYSIS (IPMA)

This graph highlights the importance and performance scores of the constructs. Brand Trust takes the lead as far as importance and performance scores are concerned.

7. FINDINGS

The research conducted sought to explore the customer satisfaction and brand loyalty among customers of baby care products. It is from the demographic analysis that female customers and consumers within the age bracket of 26-35 years comprised the major percentage of the sample population, hence implying that the two categories were actively involved in the purchase of baby care products. The reliability and validity tests established that the measurement model was valid and reliable, hence fit for analysis. On the other

hand, the structural model analysis established that Product Quality, Product Safety, Perceived Value, and Brand Trust positively influenced the level of customer satisfaction. Out of the four variables, however, Brand Trust was established to be the strongest influencer of customer satisfaction. In turn, it was found out that customer satisfaction positively impacted the brand loyalty of consumers. The IPMA further found out that Brand Trust and Product Quality were the key influencers of customer satisfaction and loyalty.

8. SUGGESTIONS

According to the results of the research, manufacturers and marketers of baby care products should consider building trust in their brand through proper communication, safety of their products, and

quality standards. In particular, it would be essential for the organizations in question to provide comprehensive information about their ingredients, certification of product safety, and quality standards in order to generate trust on the part of the customers. The organization in question should constantly innovate its products and maintain proper quality standards in order to serve the changing demands of the parents. Customer engagement strategies, digital marketing techniques, and loyalty programs could be used in order to create strong customer relationships. Most importantly, the affordability factor of products should be emphasized due to the fact that a large number of middle class families are the key segment of the target market.

9. CONCLUSION

In conclusion, the current research shows that customer satisfaction is an important element that affects brand loyalty of baby care products in Tiruchirappalli District. Product Quality, Product Safety, Perceived Value, and Brand Trust play important roles in influencing customer satisfaction and eventually affecting consumers' loyalty towards their preferred brands. Brand Trust turned out to be the most important element among all considered elements affecting customer satisfaction, as there was found out the need to develop a good relationship between companies producing baby care products and consumers. The current research proves that customers tend to purchase baby care products that will guarantee them safety and reliable quality of purchased products. Consequently, those companies that are successful in developing their products and creating good relationships with their customers are more likely to win in the competition on the baby care products market.

REFERENCES:

- [1] M. Nilashi, O. Ibrahim, A. Ahani, and L. Shahmoradi, "Analysis of customers' satisfaction with baby products," *Knowledge-Based Systems*, vol. 278, pp. 1–15, 2023.
- [2] B. Sanaei, "How customers' satisfaction changes with the use of augmented reality shopping applications," *Journal of Retailing and Consumer Services*, vol. 78, pp. 1–12, 2024.
- [3] S. Yazdi, M. Rezaei, and H. Karimi, "The ebb and flow of brand loyalty: A bibliometric and content analysis," *Journal of Business Research*, vol. 174, pp. 1–18, 2024.
- [4] R. Bajla, "Consumer attitudes towards baby care products and purchasing behavior," *International Journal of Consumer Studies*, vol. 49, no. 2, pp. 214–229, 2025.
- [5] P. Saini and R. Kumar, "Customer satisfaction as a mediator between brand image and customer loyalty: Evidence from the baby products industry," *Marketing Intelligence and Planning*, vol. 44, no. 1, pp. 55–72, 2026.
- [6] A. Sharma and P. Gupta, "Factors influencing consumer buying behavior towards baby care products," *International Journal of Marketing Studies*, vol. 16, no. 1, pp. 33–45, 2024.
- [7] S. Verma and R. Singh, "Brand trust and customer loyalty in personal care product markets," *Journal of Consumer Marketing*, vol. 41, no. 3, pp. 188–201, 2024.
- [8] K. Rajan and V. Priya, "Consumer perception towards organic baby care products in India," *Indian Journal of Marketing*, vol. 55, no. 2, pp. 17–29, 2025.
- [9] M. Kaur and A. Bhatia, "Digital influence on parental purchase decisions for baby products," *Journal of Retail and Digital Commerce*, vol. 12, no. 4, pp. 75–88, 2024.
- [10] N. George and J. Thomas, "Customer satisfaction and repurchase intention in baby skincare products," *Asia Pacific Journal of Marketing*, vol. 18, no. 2, pp. 101–115, 2025.
- [11] D. Wilson and P. Brown, "Product quality and consumer loyalty in healthcare and baby care markets," *International Review of Business Research Papers*, vol. 21, no. 1, pp. 55–69, 2024.
- [12] R. Mehta and S. Arora, "Perceived value and customer retention: Evidence from FMCG sectors," *Journal of Business Analytics*, vol. 9, no. 3, pp. 121–136, 2025.
- [13] T. Joseph and M. Mathew, "Impact of brand image on consumer satisfaction in infant care products," *International Journal of Business Excellence*, vol. 31, no. 2, pp. 147–160, 2024.
- [14] S. Kannan and V. Ravi, "E-commerce adoption and baby care product purchasing behavior among Indian parents," *Journal of Electronic Commerce Studies*, vol. 15, no. 1, pp. 44–58, 2025.
- [15] P. Roy and S. Das, "Consumer awareness and buying preference towards baby hygiene products," *Journal of Consumer Affairs*, vol. 58, no. 1, pp. 89–103, 2024.
- [16] A. Nair and K. Menon, "Role of product safety in shaping customer satisfaction," *International Journal of Consumer Research*, vol. 27, no. 2, pp. 201–214, 2025.

- [17] J. Lee and H. Kim, “Predicting customer loyalty using PLS-SEM and machine learning approaches,” *Sustainability*, vol. 16, no. 5, pp. 1–18, 2024.
- [18] S. Ahmed and M. Rahman, “Customer engagement and loyalty in personal care product markets,” *Journal of Marketing Communications*, vol. 30, no. 2, pp. 141–157, 2025.
- [19] TechSci Research, “India Baby Care Products Market Size, Share, Growth and Forecast 2024–2030,” TechSci Research, 2024.
- [20] Fortune Business Insights, “Baby Care Products Market Share and Industry Growth Report,” 2025.
- [21] Grand View Research, “Baby Products Market Size and Industry Report 2033,” 2025.
- [22] Future Market Insights, “Baby Personal Care Products Market Forecast 2026–2036,” 2026.
- [23] Research Nester, “Global Baby Care Products Market Outlook and Forecast Report,” 2025.