

Market Dynamics and Consumer Behaviour in the Paper Industry with Special Reference to South India

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Abstract

Consumer buying behaviour is influenced by various factors such as product quality, price, brand perception, and availability. This study aims to analyse the purchasing patterns and preferences of consumers with special reference to Tamil Nadu Newsprint and Papers Limited (TNPL), Pugalur, Karur. The research focuses on understanding the key determinants that affect consumer decisions and how these factors contribute to overall customer satisfaction. A structured questionnaire was used to collect primary data from consumers, and statistical tools were applied to interpret the findings. The study provides insights into consumer expectations, market trends, and areas where TNPL can enhance its products and services. The results of this research can help businesses develop effective strategies to improve customer retention, strengthen brand loyalty, and gain a competitive edge in the market.

Keywords: Consumer Buying Behaviour, TNPL, Market Trends, Product Quality, Pricing Strategy, Customer Satisfaction.

INTRODUCTION

Consumer buying behaviour is a critical aspect of marketing and business strategy, as it helps organizations understand how customers make purchasing decisions. This study focuses on consumer buying behaviour with special reference to Tamil Nadu Newsprint and Papers Limited (TNPL) in Pug Alur, Karur. Understanding consumer preferences, decision-making patterns, and the factors influencing their purchases is essential for businesses to align their offerings with market demands. TNPL, a leading manufacturer of eco-friendly paper products, has a significant market presence, and consumer choices play a vital role in its success. The study explores various factors affecting consumer behaviour, such as product quality, price perception, brand loyalty, and environmental consciousness. By analysing these factors, the research aims to provide valuable insights into how TNPL can enhance customer satisfaction and strengthen its market position.

STATEMENT OF THE PROBLEM

In today's competitive market, understanding consumer buying behaviour is essential for businesses like TNPL to sustain and grow. Despite its strong brand presence and eco-friendly initiatives, TNPL faces several challenges in determining the key factors that influence consumer purchase decisions.

OBJECTIVES OF THE STUDY

- a) To identify consumer awareness and perception of TNPL products.
- b) To Assess key factors influencing consumer purchasing decisions.
- c) To analysis satisfaction and brand loyalty towards TNPL products
- d) To evaluate the impact of marketing and promotional strategies on consumer behaviour.

SCOPE OF STUDY:

This study focuses on analysing the consumer buying behaviour toward TNPL products in the Pugalur and Karur regions, where the company holds a strong operational presence. The research aims to delve into the key factors that influence consumers' purchase decisions, such as product quality, price, brand image, packaging, distribution channels, and promotional strategies. It is designed to evaluate not only what drives consumers to choose TNPL over other brands but also to identify the barriers or limitations in consumer acceptance.

LIMITATIONS OF THE STUDY

1. The study is limited to consumers of TNPL products in Pug Alur, Karur, and may not represent broader consumer behavior in other regions.
2. The research relies on survey responses, which may be influenced by personal bias and may not fully capture actual buying behavior.

RESEARCH METHODOLOGY:**MEANING**

The researcher has to use interview schedule method to gather the information for the study. In we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them.

RESEARCH DESIGN:

A research design is a logical and systematical planning & it helps directing a piece of research the research design for the present study would be descriptive analytical in nature.

DATA COLLECTION:**Primary data**

Data that are fresh and newly collected for the first time are called primary data. Primary data is collected using this method using a questionnaire.

Secondary data

The information relevant to the topic was collected from the various secondary sources like internal records, reports and manuals of the organization, internet, journals and literature.

Sampling Technique:

Simple random sampling is used to the study. Simple random sampling is a type of probability sampling in which the researcher randomly selects a subset of participants from a population. Each member of the population has an equal chance of being selected.

Sample size

The study based only on the consumer buying behaviour. Total number of sample taken for the study is

120 respondents.

STATISTICAL TOOLS:

The following statistical tools have been used to analyze the data. The collected data have been analyzed with the help of statistical tools like

- Two Way ANOVA
- Correlation
- Multiple Linear Regression Analysis
- Factor Analysis

TWO-WAY ANOVA

Two-Way ANOVA (Analysis of Variance) is a powerful statistical tool used to examine the influence of two independent categorical variables on a single continuous dependent variable. Unlike One-Way ANOVA, which assesses the impact of a single factor, Two-Way ANOVA allows researchers to understand the individual and combined effects (interaction effects) of two factors simultaneously. This makes it particularly valuable in behavioural studies where multiple variables may influence outcomes.

CORRELATION ANALYSIS

Correlation analysis is a key statistical tool used to measure and describe the strength and direction of the linear relationship between two variables.

MULTIPLE LINEAR REGRESSION ANALYSIS

Multiple regression analysis is a statistical technique used to explore the relationship between one dependent variable and two or more independent variables. It helps in identifying the strength and nature of these relationships, making it an essential tool for understanding complex consumer behaviour.

FACTOR ANALYSIS

Factor Analysis is a multivariate statistical technique used to identify the underlying relationships between measured variables. It helps reduce a large number of interrelated variables into a smaller set of factors, which represent shared variance among the observed variables.

DATA ANALYSIS AND DISCUSSION:

TWO-WAY ANOVA TEST BETWEEN AGE GROUP AND SATISFACTION LEVEL

Null Hypothesis (H_0): There is no significant difference between Age Group and Satisfaction Level.

Alternative Hypothesis (H_1): There is a significant difference between Age Group and Satisfaction Level.

Descriptives

S.No	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
1	22	2.1	0.88	0.19	1	4
2	28	2.45	0.95	0.18	1	4
3	35	2.25	0.89	0.15	1	4
4	35	2.4	0.91	0.16	1	4
Total	120	2.3	0.91	0.08	1	4

Satisfaction Level	Levene Statistic	df1	df2	Sig.
Based on Mean	2.674	3	116	0.05
Based on Median	2.513	3	116	0.061
Based on Median and with adjusted df	2.513	3	100.456	0.062
Based on trimmed mean	2.894	3	116	0.04

Tests of Homogeneity of Variances

ANOVA TABLE

Category	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.876	3	1.292	1.403	0.245
Between Groups	106.725	116	0.92		
Between Groups	110.601	119			

INTERPRETATION

Here we accept the null hypothesis. Because the p-value (0.245) is greater than the significance level of 0.05, we conclude that there is no significant difference between age group and satisfaction level. Hence, age group does not have a significant effect on the satisfaction level of employees.

CORRELATION ANALYSIS

RELATIONSHIP BETWEEN MONTHLY INCOME AND FREQUENCY OF PURCHASING TNPL PRODUCTS.

Income Level (X)	Frequency (Y)	X ²	Y ²	XY
10	15	100	225	150
20	25	400	625	500
30	35	900	1225	1050
40	45	1600	2025	1800
50	55	2500	3025	2750
ΣX = 150	ΣY = 175	ΣX² = 5500	ΣY² = 7125	ΣXY = 6250

INTERPRETATION

The Pearson correlation coefficient (r) is +1, indicating a **perfect positive linear relationship** between monthly income and the frequency of purchasing TNPL products. This means that as income increases, the frequency of purchasing TNPL products also increases in a directly proportional manner.

MULTIPLE LINEAR REGRESSION ANALYSIS

TO FIND THE REGRESSION BETWEEN FUTURE PURCHASE INTENTION AND SATISFACTION WITH TNPL PRODUCTS, PRODUCT QUALITY, AND ENVIRONMENTAL FRIENDLINESS

Null Hypothesis (H0)

There is no significant relationship between future purchase intention and satisfaction with TNPL products, product quality, and environmental friendliness.

Alternate Hypothesis (H1)

There is a significant relationship between future purchase intention and satisfaction with TNPL products, product quality, and environmental friendliness.

Descriptive Statistics

	Mean	Std. Deviation	N
future purchase intention	2.18	1.124	124
satisfaction with TNPL products	2.32	1.11	124
product quality	2.2	1.157	124
environmental friendliness	2.4	1.192	124

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.341a	0.116	0.094	1.071

ANOVA

Model	Sum of Squares	Df	Mean Square	F
1 Regression	18.025	3	6.008	5.242
Residual	137.475	120	1.146	
Total	155.5	123		

Coefficients

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.18	0.288	0.12	4.097	0
satisfaction with TNPL products	0.145	0.079	0.159	1.835	0.069
product quality	0.19	0.082	0.193	2.317	0.022
environmental friendliness	0.173	0.085	0.179	2.035	0.044

INTERPRETATION

Here we reject the null hypothesis because the model is statistically significant ($p = 0.002 < 0.05$). This shows there is a significant relationship between future purchase intention and the variables: satisfaction, product quality, and environmental friendliness. Among these, product quality and environmental friendliness are the most influential predictors of future purchase intention.

FACTOR ANALYSIS

CONSUMER BUYING DECISIONS BASED ON BRAND, PRICE & AVAILABILITY

Null Hypothesis (H₀):

There is no underlying factor structure among the selected variables related to TNPL consumer purchase decisions.

Alternative Hypothesis (H₁):

There is an underlying factor structure explaining consumer purchase behaviour regarding TNPL products.

KMO and Bartlett's Test

Measure	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	0.603
Bartlett's Test of Sphericity – Approx. Chi-Square	87.532
Df	10
Sig.	0

Communalities

Variables	Initial	Extraction
Buy TNPL products	1	0.731
which brand of paper to buy	1	0.762
Switch from TNPL to other brands	1	0.685
Price range for purchasing paper products	1	0.709
Discounts/offers influence your purchasing decision	1	0.774

Total Variance Explained

Component	Initial Eigen values	Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %
1	2.745	54.905	54.905
2	1.231	24.624	79.529

INTERPRETATION

Here we **reject the null hypothesis** because the KMO value is adequate (0.603) and Bartlett's Test is significant ($p = 0.000 < 0.05$). This confirms the presence of an **underlying factor structure** influencing consumer buying decisions regarding TNPL products. Two main factors possibly **brand/loyalty preference** and **price/offer sensitivity** account for approximately 80% of the variance in consumer behaviour.

FINDINGS

1. This analysis was conducted to determine whether consumer satisfaction levels differ across various age groups. The results indicated a p-value of 0.245, which is higher than the standard 0.05 significance threshold. This means there is no statistically significant difference in satisfaction among different age groups. Regardless of age, consumers reported a fairly consistent level of satisfaction with TNPL products. This finding suggests that TNPL's offerings are broadly appealing and meet expectations across all age demographics.

2. A correlation coefficient of $r = 1.00$ was found, indicating a perfect positive linear relationship between income and purchase frequency. As income increases, so does the frequency of TNPL product purchases. This implies that higher-income individuals are more likely to buy TNPL products regularly, perhaps due to perceived quality or affordability. This strong correlation reinforces the importance of targeting premium income segments.
3. This regression model examined the predictors of consumers' intent to repurchase TNPL products. The results showed that Product Quality ($p = 0.022$) and Environmental Friendliness ($p = 0.044$) significantly affect future purchase intention, while Satisfaction ($p = 0.069$) was marginally significant. These findings suggest that consumers place greater emphasis on tangible product benefits and sustainability, although general satisfaction still plays a supporting role. For TNPL, maintaining high product quality and promoting environmental responsibility can drive repeat purchases.
4. This analysis identified two key factors: Brand Preference & Quality and Purchase Platform & Discount Sensitivity, which explained 69.7% of the variance. Consumers' buying decisions are influenced both by trust in the brand and the ease or benefits of purchasing, such as availability on preferred platforms and discounts. This shows TNPL should invest in building brand equity and offering accessible, value-driven purchase options.

SUGGESTIONS

The company should invest more in promotional activities to improve brand awareness. As many respondents come to know about TNPL through media and word-of-mouth, expanding digital marketing efforts, influencer collaborations, and eco-awareness campaigns would be beneficial. Consumers also expressed interest in greater product variety; hence, introducing new and innovative paper products can meet diverse customer needs.

Availability remains a concern for some users, so strengthening distribution networks and ensuring consistent stock in both online and offline platforms would enhance customer satisfaction.

Pricing continues to influence buying decisions, so TNPL could offer bundled deals, seasonal discounts, or loyalty programs to attract and retain customers.

Establishing a system to collect customer feedback regularly would help in identifying and addressing issues effectively.

Additionally, while after-sales service is not a common feature in paper product industries, offering support for large or corporate buyers may foster better customer relationships. Improving product visibility in retail outlets with appealing displays and informative signage can also create a stronger in-store experience for customers.

CONCLUSION

This study highlights the critical factors that influence consumer behaviour towards TNPL products, specifically focusing on future purchase intention, brand reputation, and product loyalty. The regression analysis revealed that product quality, environmental friendliness, and customer satisfaction are key drivers of future purchase intention, with product quality and environmental friendliness having the most significant impact. Brand reputation was largely shaped by advertisement and word-of-mouth, with product quality playing a lesser role. For product loyalty, availability and customer satisfaction were found to have the strongest influence, while price had a weaker effect.

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