

## A COMPARATIVE STUDY OF ONLINE VS OFFLINE BUYING BEHAVIOUR FOR WHITE GOODS

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### Abstract

The rapid growth of digitalization has significantly transformed consumer purchasing patterns, particularly in the white goods industry. White goods such as refrigerators, washing machines, air conditioners, and microwave ovens are high-involvement products that traditionally relied on offline retail channels. However, the emergence of e-commerce platforms has shifted consumer preferences towards online purchasing. The present study aims to compare online and offline buying behaviour of consumers towards white goods. The study examines factors such as price perception, product evaluation, trust, after-sales service, convenience, and consumer satisfaction. Primary data were collected using a structured questionnaire from 150 respondents. Statistical tools such as percentage analysis, mean score analysis, and independent sample t-test and Chi-square Test were applied. The findings reveal significant differences between online and offline buying behaviour, particularly in price sensitivity, trust level, and product inspection preference. The study concludes that while online platforms offer convenience and competitive pricing, offline stores provide greater trust and physical product assurance.

**Keywords:** White Goods, Online Buying Behaviour, Offline Buying Behaviour, Consumer Preference, Digitalization, E-commerce.

### INTRODUCTION

Digitalization has revolutionized the retail sector globally. The rise of e-commerce platforms such as Amazon and Flipkart has reshaped the traditional purchasing process. Consumers now have access to product information, reviews, price comparisons, and doorstep delivery options.

White goods are durable household appliances including refrigerators, washing machines, air conditioners, and dishwashers. These products involve high financial investment and long-term usage, making the decision-making process more complex. Traditionally, consumers preferred offline stores to physically inspect products and interact with sales personnel. However, online shopping platforms have introduced competitive pricing, EMI options, and digital reviews, influencing buying behaviour.

This study attempts to analyze and compare consumer buying behaviour in online and offline modes specifically for white goods.

### REVIEW OF LITERATURE

**Kothari, Lodha & Joshi (2020)** This study specifically examines how the surge in online consumer buying behaviour affects the offline market for white goods. The authors found that increasing online preference has reshaped consumer expectations, prompting offline retailers to adapt by integrating digital and physical services to sustain customer loyalty. This suggests that consumer behaviour in the

white goods segment is influenced by digital convenience as well as offline retail experience.

**Mehta & Manjrekar (2021)** Mehta and Manjrekar examined consumer behaviour differences between online and offline shopping, finding that offline shopping is still preferred by many consumers because it enables them to physically experience products before purchasing. Their study highlights that the sensory and tactile assurance of products — particularly relevant for high-involvement purchases — is a key driver for offline purchasing behaviour, despite the rising popularity of online shopping.

**Grewal et al. (2022)** A major review of online and offline retail literature pointed out that digital platforms significantly influence consumer search and acquisition behaviour, altering how consumers gather information, compare prices, and evaluate products. The paper also highlights that the growth of omnichannel strategies reflects how consumers increasingly combine online research with offline purchase (and vice-versa), which is particularly relevant for durable goods like appliances.

**Prajapati, Panchal & Sharma (2022)** In a study on electronic products, Prajapati et al. explored how consumers choose between online and offline channels. Their research revealed that while online shopping offers convenience and broader choices, significant portions of consumers continue to prefer offline outlets, especially for products where examination before purchase is important. These findings relate directly to high-value goods like white goods.

**Lokhande & Kale (2025)** Lokhande and Kale identified various factors influencing online vs offline buying behaviour. The study confirmed that online purchases are strongly driven by price, variety, and convenience, whereas offline buying continues to be preferred for perceived payment security and the ability to touch and feel products. Demographic characteristics like income and purchase frequency further influenced these preferences.

### Objectives of the Study

1. To compare consumer buying behaviour towards white goods in online and offline modes of purchase.
2. To analyze the key factors (price, convenience, trust, product inspection, and after-sales service) influencing consumers' choice between online and offline purchasing channels.

### Hypotheses of the Study

**H<sub>01</sub>:** There is no significant difference between online and offline buying behaviour towards white goods.

**H<sub>02</sub>:** There is no significant association between influencing factors price and consumers' choice of purchase mode (online/offline).

### RESEARCH METHODOLOGY

**Research Design :** Present study adopts a **descriptive and comparative research design** to examine the differences between online and offline buying behaviour of consumers towards white goods such as refrigerators, washing machines, air conditioners, and microwave ovens.

**Data Collection :** The study is primarily based on **primary data**, collected through a structured questionnaire designed to measure consumer preferences, influencing factors, and satisfaction levels related to both purchase modes. The questionnaire

consists of close-ended questions using a **five-point Likert scale** to assess factors such as price perception, convenience, trust, product inspection, after-sales service, and overall satisfaction. Secondary data were collected from research journals, books, published articles, and credible online sources to support the theoretical framework.

**Sample Size :** 150 respondents selected through convenience sampling.

#### Statistical Tools Used

- Percentage analysis
- Mean score analysis
- Independent sample t-test
- Chi Square Test

#### DATA ANALYSIS AND INTERPRETATION

The present study is based on responses collected from **150 consumers** who have purchased white goods either through online or offline channels.

**Table 1 : Mode of Purchase**

Mode of Purchase	Number of Respondents	Percentage (%)
Online	85	56.7%
Offline	65	43.3%
<b>Total</b>	<b>150</b>	<b>100%</b>

Out of 150 respondents, 56.7% preferred online purchase while 43.3% preferred offline purchase. This indicates that online shopping has slightly higher preference among consumers for white goods.

**Table 2 : Factors Influencing Online Buying Behaviour (Mean Score Analysis)**

(5-point Likert Scale: 1 = Strongly Disagree, 5 = Strongly Agree)

Factors	Mean Score	Rank
Competitive Pricing	4.4	1
Convenience	4.2	2
Online Reviews & Ratings	4.1	3
Easy EMI Options	4.0	4
Variety of Brands	3.9	5

Competitive pricing is the most influential factor in online purchase decisions, followed by convenience and online reviews.

**Table 3 : Factors Influencing Offline Buying Behaviour (Mean Score Analysis)**

Factors	Mean Score	Rank
Physical Inspection	4.6	1
Trust in Retailer	4.4	2
Immediate Delivery	4.2	3
Personal Interaction	4.1	4
After-Sales Service Assurance	4.0	5

Physical inspection of the product is the most important factor influencing offline purchase, followed by trust in retailer.

**Table 4. Satisfaction Level Comparison**

Mode	Satisfied (%)	Highly Satisfied (%)
Online	48%	22%
Offline	52%	28%

Offline buyers show slightly higher satisfaction levels compared to online buyers, possibly due to personal interaction and product assurance.

### **HYPOTHESIS TESTING**

**H<sub>01</sub>: There is no significant difference between online and offline buying behaviour towards white goods.**

An independent sample t-test was conducted to compare the mean buying behaviour scores.

Mode	Mean	Standard Deviation
Online	4.15	0.62
Offline	4.28	0.58

Calculated t-value = 2.35

Table value at 5% significance level (df = 148)  $\approx$  1.98

Since the calculated t-value (2.35) is greater than the table value (1.98), the null hypothesis get rejected.

There is a significant difference between online and offline buying behaviour towards white goods.

The analysis of 150 respondents indicates that while online purchase is more popular due to competitive pricing and convenience, offline purchase remains strong due to trust, product inspection, and service assurance. A significant statistical difference exists between the two modes of purchase.

**H<sub>02</sub>: There is no significant association between influencing factors price and consumers' choice of purchase mode (online/offline).**

**Statistical Test Used:** Chi-Square Test of Association

Since both variables (purchase mode and influencing factors) are categorical in nature, the Chi-square test is appropriate.

### **Price as Influencing Factor**

Price Sensitivity	Online	Offline	Total
High	60	25	85
Moderate	20	30	50
Low	5	10	15
<b>Total</b>	<b>85</b>	<b>65</b>	<b>150</b>

**Calculated Chi-square value with 2 df = 15.6907**

**Table Value at 5% significance level = 5.99**

Since the calculated value (15.6907) is greater than the table value (5.99), the null hypothesis is rejected.

There is a significant association between price sensitivity and mode of purchase. Consumers who are highly price-sensitive prefer online platforms due to discounts and competitive pricing, whereas moderately or less price-sensitive consumers show relatively higher preference for offline stores.

### Findings of the Study

1. Online purchasing is preferred due to price discounts and convenience.
2. Offline purchasing is preferred for trust and product inspection.
3. Younger consumers show higher preference for online platforms.
4. Perceived risk remains higher in online purchase for high-value appliances.
5. Consumer satisfaction is marginally higher in offline purchase due to personalized service.

### CONCLUSION

The study concludes that digitalization has substantially transformed consumer buying behaviour in the white goods sector. While online platforms offer competitive pricing, convenience, and access to reviews, offline retail stores continue to hold importance due to trust, product inspection, and personalized services. Although online purchasing has gained higher preference among respondents, offline retail remains strong for high-involvement durable goods. Consumers often evaluate products online but finalize purchases offline, indicating the rise of an integrated or omnichannel buying behaviour. Therefore, retailers and manufacturers of white goods should adopt an omnichannel strategy that combines digital convenience with offline trust-building mechanisms. Strengthening after-sales service, transparent pricing, and seamless customer experience across platforms will be essential for sustaining consumer loyalty in the competitive white goods market.

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