

Consumer Preferences in Electronics Retailing: A Study of Online and Offline Shopping Behaviour in Varanasi and Gorakhpur District

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Abstract—The present study examines consumer preferences towards online and offline electronics retailing in Varanasi and Gorakhpur districts of Uttar Pradesh. It investigates the influence of convenience, trust, price competitiveness, promotional offers, product quality, and after-sales service on consumers' purchase intention and channel preference. A quantitative, descriptive and analytical research design was adopted. Primary data were collected from 300 respondents through a structured questionnaire, with the instrument demonstrating satisfactory reliability (Cronbach's Alpha = 0.887). The collected data were analysed using descriptive statistics, factor analysis, ANOVA, and Structural Equation Modelling (SEM). The findings reveal that product quality is the strongest determinant of purchase intention, followed by convenience, after-sales service, trust, and price competitiveness. ANOVA confirms significant differences in channel preferences across age groups. SEM results demonstrate acceptable model fit and significant relationships among the proposed constructs. The study recommends integrated omnichannel strategies, competitive pricing, trust-building measures, quality assurance, and efficient after-sales services to enhance customer satisfaction and retail competitiveness.

Index Terms—Consumer Behaviour; Electronics Retailing; Online Retailing; Offline Retailing; Omnichannel Retailing; Purchase Intention; Consumer Preference.

I. PROLOGUE

The Indian retail sector has become one of the major significant contributors to the Indian economy through employment generation, consumption growth, and business expansion. The post economic

reform period, the retail environment has experienced large transformation due to rapid digitalization, enhanced internet accessibility, smartphone adoption, and changing consumer lifestyles. Among the various retail segments, the electronics sector has witnessed remarkable growth due to the increased purchase of electronic gadgets like smartphones, laptops, televisions, home appliances, and other digital products through both online and offline channels. The adoption of digital technologies have changed the consumer decision-making processes due to easier information search, product comparison, evaluation of alternatives, and convenient purchase experiences (Kotler & Keller, 2016).

Traditionally, electronics purchases were dominated by physical retail stores where consumers valued product demonstrations, salesperson assistance, immediate possession, and after-sales support. However, emergence of e-commerce platforms has significantly transformed the retail landscape by offering wider product assortments, competitive prices, customer reviews, convenient payment options, and doorstep delivery. As a result, consumers increasingly combine online and offline channels during their purchase journey, leading to the growth of omnichannel retailing (Verhoef et al., 2015). The expansion of major e-commerce platforms and organized electronics retailers has largely intensified competition in the Indian market. Retailers are increasingly adopting omnichannel strategies by integrating websites, mobile applications, digital payments, online catalogues, and in-store technologies to provide seamless customer experiences.

Lemon and Verhoef (2016) in their study deliberated that customer experience across multiple touchpoints significantly influences satisfaction, loyalty, and repurchase behaviour. Therefore, modern retailers must focus on integrating digital convenience with physical store advantages. Consumer behaviour in electronics retailing is complex since electronic products involve high financial involvement, technological uncertainty, and perceived risk. Consumers generally evaluate product quality, brand reputation, price, warranty, customer reviews, payment security, and after-sales services before making purchase decisions. Trust has emerged as a critical factor influencing purchase intention, particularly in online environments where consumers cannot physically examine products before purchase. Research indicates that trust reduces perceived risk and encourages consumers to adopt digital shopping platforms (Mishra et al., 2021).

Price competitiveness is another major determinant affecting electronics purchase decisions. Online retailers employ strategies in order to attract consumers through discounts, cashback offers, exchange schemes, and flexible payment facilities, while offline retailers compete through personalized services, product demonstrations, immediate availability, and installation support. Consumers frequently compare prices across channels before purchasing, reflecting the increasing importance of perceived value in retail decision-making (Grewal et al., 2017).

The concept of omnichannel retailing has gained importance as consumers increasingly expect integration between physical and digital shopping experiences. Omnichannel retailing allows consumers to move smoothly between websites, mobile applications, physical stores, and customer service platforms during different stages of the buying process. Such integration enhances convenience, improves customer satisfaction, and strengthens retailer–consumer relationships (Verhoef et al., 2015).

The present research study focuses on Varanasi and Gorakhpur districts of Uttar Pradesh, which represent emerging regional markets with increasing digital adoption, expanding organized retail infrastructure, and growing consumer purchasing power. These districts provide an appropriate context for analysing the changing consumer preferences because

consumers demonstrate a combination of traditional shopping practices and increasing acceptance of online retail platforms.

II. REVIEW OF LITERATURE

Trust is one of the most influential determinants of consumer behaviour in both online and offline retailing, particularly for high-value products such as consumer electronics. Unlike low-cost products, electronic goods involve greater financial commitment and perceived risk, making consumers more cautious during the purchase process. Trust influences consumers' confidence in product authenticity, payment security, warranty services, seller credibility, and post-purchase support. Verhoef et al. (2015) in their study opined emphasized that consumers are more likely to adopt omnichannel shopping when retailers maintain consistency in pricing, product information, inventory visibility, and customer service across online and offline platforms. Mishra et al. (2021) in their study expressed that perceived trust greatly reduces consumers' uncertainty and positively affects purchase intention, especially when online and offline channels complement each other rather than compete. On the other hand Offline retailers, compete by offering immediate product availability, personalized negotiation, bundled accessories, installation services, and extended warranty packages.

Research studies indicate that consumers increasingly adopt "webrooming" and "showrooming" behaviours, comparing prices across channels before completing their purchases. Such cross-channel comparison has become a defining characteristic of omnichannel consumer behaviour. Customer experience has become a strategic competitive advantage in modern retailing. Lemon and Verhoef (2016) in their research paper expressed that customer experience extends beyond the point of purchase and includes every interaction between consumers and retailers throughout the customer journey. Retailers that provide consistent service quality across online and offline channels are more likely to develop long-term customer loyalty. In the post economic reform period India has experienced significant growth in electronics retailing due to increasing disposable incomes, smartphone penetration, digital payments, and internet accessibility. The information

technology adoption by Indian consumers has enabled them towards more awareness of electronic goods than ever before. Research studies also indicate that urban consumers increasingly combine online research with offline purchasing, particularly for high-value products requiring product inspection before purchase.

It has been observed that modern consumers no longer distinguish between online and offline shopping as separate activities. Instead, they expect a seamless transition across websites, mobile applications, physical stores, customer service centres, and social media platforms. Recent bibliometric and systematic reviews conclude that omnichannel retailing research has shifted from channel management toward integrated customer experiences, personalization, and digital engagement. These studies identify trust, convenience, customer value, and technology adoption as the dominant themes shaping future retail research.

III. RESEARCH GAP

The above review of literature has extensively examined consumer behaviour, online shopping, offline retailing, and omnichannel strategies; however, significant research gaps remain in electronics retailing within emerging regional markets. Majority of the research studies laid emphasis on metropolitan cities and developed markets, with limited evidence from tier-2 cities such as Varanasi and Gorakhpur. Previous research has often analysed online and offline channels separately, despite consumers increasingly using both channels during purchase decisions. Limited studies have explored the combined impact of convenience, trust, price, product quality, promotions, and after-sales service in electronics retailing. Insufficient research has applied ANOVA and SEM techniques in order to examine the behavioural relationships among regional consumers. The present study addresses these gaps by analysing consumer preferences towards online and offline electronics retailing in Varanasi and Gorakhpur.

IV. PROBLEM STATEMENT

The emergence of online marketplaces has created cut throat competition for electronics retailers. While

online platforms provide benefits such as competitive pricing, wider product assortment, customer reviews, and convenient shopping experiences, offline retailers continue to attract consumers. Customer relationship management strategies like through personal interaction, product demonstration, immediate possession, and reliable after-sales services. In spite of the growth of digital retailing, a large section of consumers still face uncertainty regarding product authenticity, warranty claims, delivery reliability, and online service quality. Similarly, offline retailers face challenges related to pricing competition, digital transformation, and changing customer expectations. As a result, retailers need a deeper comprehension of the factors influencing consumers' preference for online and offline shopping channels. The present research study attempts to address the lack of comprehensive understanding regarding how consumers in Varanasi and Gorakhpur districts evaluate and choose between online and offline electronics retail channels. The present study examines the manner in which factors such as convenience, trust, price, product quality, promotional offers, and after-sales service influence consumer purchase behaviour and channel preference.

Significance

The present study is significant from both academic and managerial perspectives. This research contributes to the existing literature on consumer behaviour and omnichannel retailing by providing empirical evidence from two emerging districts Varanasi and Gorakhpur. The previous research studies have laid emphasis on metropolitan cities, this study expands understanding of consumer behaviour in developing urban regions. The present research study also contributes by integrating multiple behavioural dimensions, including convenience, trust, price sensitivity, product quality, promotional influence, and service experience, into a comprehensive framework for analysing electronics purchase decisions. The application of statistical techniques such as ANOVA and SEM strengthens the methodological contribution of the research by examining relationships among various consumer behaviour constructs. The findings of the study will assist electronics retailers in understanding changing consumer expectations and designing effective retail

strategies. For offline retailers, the study provides insights into maintaining competitiveness against online marketplaces through personalized services, product demonstrations, and relationship marketing. For online retailers, it highlights the importance of trust, delivery efficiency, and customer support.

V. OBJECTIVES

1. To examine consumer preferences towards online and offline electronics retail channels.
2. To identify the factors influencing consumer purchase behaviour in electronics retailing.
3. To analyse the impact of convenience, trust, price competitiveness, promotional offers, product quality, and after-sales service on purchase intention.
4. To compare consumer preferences across demographic characteristics such as age, gender, education, occupation, and income.

Hypotheses

H₀₁: Convenience has no significant influence on consumers' purchase intention towards electronics retailing.

H₁: Convenience significantly influences consumers' purchase intention towards electronics retailing.

H₀₂: Trust has no significant influence on consumers' preference for online and offline electronics retail channels.

H₂: Trust significantly influences consumers' preference for online and offline electronics retail channels.

H₀₃: Price competitiveness and after-sales service do not significantly influence consumer purchase behaviour in electronics retailing.

H₃: Price competitiveness and after-sales service significantly influence consumer purchase behaviour in electronics retailing.

Variables

Independent Variables	Mediating Behavioural Factors	Dependent Variable
Convenience	Customer Satisfaction	Consumer Preference Towards Online and Offline Electronics Retail Channels
Trust	Perceived Value	
Price Competitiveness	Purchase Intention	
Promotional Offers		
Product Quality		
After-sales Service		

The framework assumes that consumer perceptions regarding convenience, trust, pricing, quality, promotions, and service influence satisfaction and purchase intention, which ultimately determine channel preference.

adopted to measure consumer perceptions and analyze relationships among different variables through statistical techniques.

VI. RESEARCH METHODOLOGY

Research methodology provides a systematic framework for conducting scientific investigation and achieving research objectives. It defines the procedures, techniques, and analytical approaches used for collecting, measuring, and interpreting data. A well-designed methodology ensures reliability, validity, and objectivity in research findings. The study focuses on important behavioral factors such as convenience, trust, price competitiveness, promotional offers, product quality, and after-sales service. A quantitative research approach has been

Nature of Study

The present study follows a descriptive and analytical research design. The descriptive component of the study focuses on understanding the existing purchasing behaviour of consumers regarding online and offline electronics retail channels. It describes consumer demographic characteristics, shopping preferences, purchase frequency, and perceptions regarding different retail attributes. The analytical component examines relationships among various factors influencing consumer behaviour. Statistical techniques such as factor analysis, ANOVA, and Structural Equation Modelling (SEM) are used to analyse the impact of independent variables on consumer purchase intention and channel preference.

The research follows a quantitative approach because numerical data are collected through a structured questionnaire and analysed using statistical methods. The study is empirical in nature as it is based on primary data collected directly from consumers purchasing electronic products. The research adopts a cross-sectional design because data are collected from respondents at a single point in time to understand their current shopping behaviour and preferences. The study compares consumer preferences between online and offline electronics retail channels.

Study Area

The study has been conducted in two major districts of eastern Uttar Pradesh Varanasi is one of India's oldest cities and an important centre of education, tourism, trade, and commerce. The city has experienced significant growth in organized retail, digital payment adoption, and online shopping activities. The presence of branded electronics stores and increasing internet usage makes Varanasi an appropriate location for studying changing retail behaviour. Gorakhpur is an emerging commercial and educational centre in eastern Uttar Pradesh. Growing urbanization, increasing consumer purchasing power, and expanding digital connectivity have contributed to the development of modern retail practices in the district. Both districts represent a combination of traditional retail markets and emerging digital consumption patterns, making them suitable for analysing consumer preferences toward online and offline electronics shopping.

Population

The population of the study consists of consumers residing in Varanasi and Gorakhpur districts who have purchased or intend to purchase electronic products such as: Smartphones Laptops Televisions Refrigerators Washing machines Audio devices Other consumer electronics The study includes consumers from different demographic groups, including age, gender, occupation, educational background, and income categories.

Sampling Technique

The study uses a stratified random sampling technique. Under this method, respondents are divided into different demographic strata to ensure

adequate representation of various consumer groups. The major strata considered are: Age group Gender Occupation Education level Income category After classification, respondents are selected randomly from each group. This technique improves representativeness and reduces sampling bias.

Sample Size

The sample size of 300 respondents divided equally among the sample region is considered adequate for applying multivariate statistical techniques such as factor analysis and Structural Equation Modelling (SEM). According to Hair et al. (2019), an appropriate sample size is essential for reliable estimation in multivariate analysis, particularly SEM.

Sources of Data

The study is based primary and secondary data. The primary data comprise of structured, designed and duly tested on reliability and validity through Combach alpha having value of 0.887 sufficient to carry the survey (Annexure -2). The questionnaire consist of 32 items merged in 7 factors. The secondary data comprise of information collected through published referred journals, books and periodical and related websites.

Data Analysis;

The collected data was analysed by the application of statistical tools like mean, standard deviation, ANOVA factor analysis, and Structured equation Modeling including Chi square test, Comparative FIT Index(CFI), Tucker Lewis Index(TLI) Root mean square Error of approximation (RMSEA) and standard Root mean Square Residual (SRMR)

Demographic Profile (Annexure -!)

Regarding the gender the data analysis reveal that that male respondents constitute 58.67% of the sample, while female respondents represent 41.33%. The distribution indicates adequate representation of both genders in the study. Regarding the age of the it was observed that the majority of respondents belong to the 25–35 years age group (36%), followed by respondents below 25 years (32%). This indicates that young and working-age consumers represent the major buyers of electronic products. In context of educational qualification it was observed that graduates represent the largest group (42%),

indicating that educated consumers are actively involved in electronics purchasing decision. Majority of the sample respondents (37.33%) belong to the ₹25,000–₹50,000 income group, indicating that middle-income consumers form a significant customer segment for electronics retailers. The

results indicate that 44% of consumers prefer online shopping, while 32.67% prefer offline stores. Around 23.33% consumers use both channels, indicating the growing importance of omnichannel shopping behaviour.

Table : Mean and Standard Deviation Analysis

Variables	Mean	Standard Deviation
Convenience	4.21	0.64
Trust	4.08	0.71
Price Competitiveness	4.18	0.69
Promotional Offers	3.96	0.76
Product Quality	4.25	0.62
After-sales Service	4.12	0.68

Product quality demonstrate the highest mean score (4.25), indicating that consumers consider quality as the major significant factor while purchasing electronics. Convenience and price competitiveness also possess high scores, highlighting the importance of online and offline retail benefits.

Table : ANOVA Results Based on Age Groups

Source	Sum of Squares	df	Mean Square	F-value	Sig
Between Groups	8.462	3	2.821	5.684	0.001
Within Groups	146.932	296	0.496		
Total	155.394	299			

Since the significance value ($p = 0.001$) is less than 0.05, indicating that there exist a significant difference in shopping preferences among different age groups. Hence, age significantly influences consumer preference toward online and offline electronics retail channels.

SEM Analysis

The SEM model examines the influence of: Convenience ,Trust ,Price Competitiveness ,Product ,Quality and After-sales Service on Purchase Intention and Channel Preference

Table : SEM Model Fit Indices

Fit Index	Recommended Value	Obtained Value	Result
χ^2/df	< 5	2.84	Accepted
CFI	>0.90	0.936	Accepted
TLI	>0.90	0.921	Accepted
RMSEA	<0.08	0.061	Accepted
SRMR	<0.08	0.052	Accepted

From the above table it is observed that all model fit indices meet the recommended criteria, indicating that the SEM model has an acceptable level of goodness of fit.

Table : SEM Path Analysis

Relationship	Std Estimate	t-value	p-value	Result
Convenience → Purchase Intention	0.312	5.42	<0.001	Supported
Trust → Channel Preference	0.286	4.86	<0.001	Supported
Price Competitiveness → Purchase Intention	0.274	4.21	<0.001	Supported
Product Quality → Purchase Intention	0.341	6.13	<0.001	Supported
After-sales Service → Satisfaction	0.298	5.01	<0.001	Supported

The SEM results indicate that all proposed relationships are statistically significant, as all p-values are below 0.001. Product quality has the strongest positive influence on purchase intention ($\beta = 0.341$), indicating that consumers consider product reliability and performance as major factors while purchasing electronics. Convenience also significantly affects purchase intention ($\beta = 0.312$), highlighting the importance of easy access and

shopping flexibility. After-sales service positively influences customer satisfaction ($\beta = 0.298$), while trust significantly affects channel preference ($\beta = 0.286$). Price competitiveness also has a significant impact on purchase intention ($\beta = 0.274$). Therefore, all hypotheses are supported, confirming that these factors play an important role in consumer electronics purchase decisions.

Hypothesis Testing Results

Hypothesis	Statement	Result
H1	Convenience significantly influences purchase intention	Supported
H2	Trust significantly influences channel preference	Supported
H3	Price competitiveness and after-sales service significantly influence purchase behaviour	Supported

VII. FINDINGS

The findings generated from the analysis of collected data reveal that consumers show a growing preference for online electronics shopping due to greater convenience, wider product availability, easy price comparison, and competitive pricing advantages. However, product quality emerged as the most influential factor affecting purchase intention, indicating that consumers prioritize reliability, performance, and authenticity while purchasing electronic products. Trust also plays a significant role, especially for high-value electronics, as consumers seek assurance regarding payment security, warranty, product authenticity, and service support. The analysis of data indicates the increasing adoption of omnichannel shopping behaviour, where consumers combine online and offline channels during different stages of the purchase process. In context of Demographic characteristics, particularly age, significantly affect consumers' channel preferences and shopping patterns. Additionally, efficient after-sales service contributes significantly to customer satisfaction, repeat purchases, and long-term loyalty. These findings highlight the need for retailers to integrate digital convenience with quality service experiences.

VIII. SUGGESTIONS

On the basis of the findings derived from the analysis of data, several suggestions can be recommended in

order thereby leading to consumer satisfaction and further improving the performance of electronics retailers operating through online and offline channels. Since consumers increasingly adopt both digital and physical shopping methods, retailers should develop effective omnichannel strategies by integrating online platforms with physical stores. A consistent shopping experience should be provided through uniform product information, pricing, promotional offers, inventory availability, and customer support across all channels. Retailers should focus on strengthening consumer trust by ensuring transparent product details, secure payment systems, reliable warranty policies, easy return procedures, and efficient after-sales services. Offline retailers can enhance trust through personalized assistance, product demonstrations, and expert guidance, while online retailers should emphasize authenticity and customer protection. Competitive pricing, loyalty programs, exchange offers, and flexible payment options should be adopted to attract and retain customers. Since product quality strongly influences purchase decisions, retailers must ensure genuine products, clear specifications, and effective comparison facilities. Improving after-sales support through quick installation, warranty management, and complaint resolution can increase customer loyalty. Retailers should also promote digital awareness among consumers in emerging markets like Varanasi and Gorakhpur. Finally, the use of customer analytics and personalized marketing strategies can help retailers understand consumer needs and deliver customized shopping experiences,

thereby improving satisfaction and long-term relationships.

Managerial Implications

The present research study provides important implications for electronics retail managers by highlighting the need for effective omnichannel strategies. Consumers increasingly combine online and offline channels; therefore, retailers should integrate physical stores, digital platforms, and customer services to provide seamless experiences. Online retailers should focus on trust, secure transactions, accurate information, and efficient support, while offline retailers should enhance store experiences through personalized services and digital integration. Managers should adopt competitive pricing, improve convenience, strengthen after-sales services, and use customer segmentation strategies to address diverse consumer needs. These practices can enhance customer satisfaction, loyalty, and competitive advantage.

IX. CONCLUSION

The present study examined consumer preferences toward online and offline electronics retailing in Varanasi and Gorakhpur districts. The findings indicate that digitalization, internet penetration, and changing lifestyles have significantly transformed consumer purchase behaviour. Consumers consider various factors, including convenience, trust, price competitiveness, product quality, promotional offers, and after-sales service while selecting retail channels. Although online retailing has gained popularity due to convenience, wider choices, and competitive pricing, offline retailing remains important because of personal interaction, product experience, and reliable services. The study confirms that both channels are complementary rather than substitutes. Effective omnichannel strategies integrating digital platforms with physical stores can enhance customer satisfaction and loyalty. Therefore, electronics retailers should focus on customer-centric approaches, transparent communication, competitive pricing, personalized services, and efficient after-sales support to achieve sustainable growth in India's evolving retail environment.

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Annexure :

Demographic Profile of respondents

Gender	Frequency	Percentage (%)
Male	176	58.67
Female	124	41.33
Age Group		
Below 25 years	96	32.00
25–35 years	108	36.00
36–45 years	62	20.67
Above 45 years	34	11.33
Education Level		
Undergraduate	78	26.00
Graduate	126	42.00
Postgraduate	74	24.67
Other	22	7.33
Monthly Income		
Below ₹25,000	84	28.00

₹25,000–₹50,000	112	37.33
₹50,000–₹75,000	64	21.34
Above ₹75,000	40	13.33
Preferred Channel		
Online Retail	132	44.00
Offline Retail	98	32.67
Both Online and Offline	70	23.33

Reliability Analysis

Construct	Number of Items	Cronbach's Alpha
Convenience	5	0.842
Trust	5	0.861
Price Competitiveness	4	0.814
Promotional Offers	4	0.798
Product Quality	5	0.836
After-sales Service	5	0.873
Purchase Intention	4	0.851
Total Scale Reliability	32	0.887