

Consumer Buying Preferences in NCR Retail: Evidence from Online, Offline, and Hybrid Shopping

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ABSTRACT

This study examines consumer buying preferences in the retail sector of the National Capital Region (NCR) of India, with a focus on understanding the shift in shopping behaviour across online, offline, and hybrid channels. Using a structured questionnaire and responses from 202 consumers, the study identifies key motivational drivers influencing purchase decisions. The findings reveal a strong preference for hybrid shopping, where consumers combine the convenience of online search with the assurance of offline product evaluation. Utilitarian factors such as affordability, convenience, product variety, and ease of navigation emerged as the strongest determinants of buying behaviour. Trust-related elements, including data privacy and credibility of online reviews, were found to play a secondary yet moderating role in shaping purchase decisions. The study concludes that NCR consumers are value-driven, digitally adaptive, and willing to accept retail personalisation when it enhances shopping efficiency without compromising trust. The results provide strategic implications for retailers seeking to optimise channel integration, consumer engagement, and personalised retail experiences in emerging markets..

Keywords: Consumer behaviour, retail preference, hybrid shopping, utilitarian motivation, purchase decision, NCR consumers, online shopping, personalisation.

1. INTRODUCTION:

The increasing integration of Artificial Intelligence (AI) into the retail sector has transformed traditional marketing and consumer interaction models, reshaping how consumers search, evaluate, and purchase products. Retailers have shifted from mass marketing toward individualized engagement, driven by AI-enabled personalization systems that analyze customer data to provide tailored product recommendations, dynamic pricing, targeted promotions, and differentiated shopping experiences (Shankar et al., 2021; Hoyer et al., 2020). Personalization has become a strategic imperative rather than a supplementary tactic as consumers now expect brands to understand and anticipate their needs. This has redefined the core principles of retail competitiveness, moving beyond product assortment and price to experience-driven formats shaped by machine learning and predictive analytics. Consumer behavior has evolved in parallel with the digitalization of commerce. Today's retail customers make decisions in multi-touchpoint environments that span online platforms, mobile applications, and physical stores. AI systems influence these decisions by reducing cognitive overload and guiding consumers toward relevant alternatives (Chandra et al., 2022). Recommendation engines, virtual shopping assistants, and personalized product feeds streamline navigation and accelerate purchase decisions by connecting consumers with items aligned to their preferences and past behavior (Libai et al., 2020). However, the growing presence of AI also introduces complex behavioral dynamics shaped by perceptions of

trust, convenience, control, and data privacy. These shifts underline the growing need to understand how consumers respond to personalization while navigating different retail channels.

India represents one of the world's fastest-growing retail markets, and the National Capital Region (NCR) is a central hub in this growth story. NCR includes major urban centers such as Delhi, Gurugram, Noida, Ghaziabad, and Faridabad, which collectively form a high-consumption economic cluster characterized by rising disposable income, a digitally-aware population, and widespread access to organized retail formats. The region's consumers are active across both online and offline retail channels and demonstrate evolving purchase patterns influenced by technology, lifestyle changes, and exposure to global retail trends (Mogale et al., 2019). This makes NCR a compelling setting for investigating consumer preferences and retail behavior in a technologically adaptive yet culturally diverse environment. Despite the rapid growth of digital shopping platforms in NCR, offline retail remains deeply embedded in consumer habits. In categories such as apparel, fashion accessories, and lifestyle products, consumers still value tactile evaluation and sensory assurance, which physical stores provide (Tyagi, 2015; Ong et al., 2021). Hybrid shopping behavior, where consumers browse products online but purchase offline or evaluate in stores before ordering online, has become increasingly prevalent. This behavior reflects risk-reducing strategies among consumers who seek both convenience and assurance. Understanding such behavioral nuances is critical for businesses designing omnichannel retail strategies and

personalization systems. Furthermore, personalized marketing campaigns deployed in NCR, such as customized discount notifications, location-based offers, and retargeted advertisements, have made consumer interactions increasingly data-driven, intensifying the importance of studying consumer reactions to personalization practices.

AI-enabled personalization not only enhances shopping efficiency but also shapes consumer experience quality and influences brand loyalty. By analyzing individual purchase histories and browsing behavior, retailers can anticipate needs, create more engaging digital storefronts, and increase retention (Boudet et al., 2019). However, the effectiveness of personalization depends on consumer trust, perceived relevance, and the extent to which the personalized interaction aligns with consumer expectations. Consumers are increasingly aware that personalization relies on the collection and analysis of personal data, creating concerns regarding privacy, data misuse, algorithmic manipulation, and over-targeting (Libai et al., 2020). These concerns influence their willingness to share data, impacting the scalability of AI-enabled retail systems. Thus, while personalization can significantly improve marketing performance, it creates a dual challenge: balancing personalized value with ethical, transparent, and privacy-sensitive practices. A significant gap exists in academic literature regarding AI-enabled personalization in emerging market contexts such as India, particularly at a regional level. Most personalization studies have focused on Western markets and assume uniformly high levels of digital trust and AI adoption, making them less applicable to Indian retail environments characterized by socioeconomic diversity and varied levels of technology acceptance. Additionally, while Indian consumer research has explored discount sensitivity, word-of-mouth influence, and brand loyalty, fewer studies have examined how AI-enabled personalization influences consumer preferences or purchase decisions, especially in metropolitan regions like NCR, where modern retail formats coexist with traditional shopping mindsets (Ong et al., 2021). Therefore, this study addresses a relevant research gap by exploring purchasing behavior within NCR and identifying what drives preferences in today's evolving retail landscape.

This paper focuses on the foundational objective of understanding consumer preferences in the NCR retail sector and examining their buying habits. This objective is essential for analyzing broader implications of personalization because personalization strategies must align with actual behavioral drivers. Without understanding how consumers choose between retail channels, what motivates them to make purchases, and how they evaluate value and trust during the buying process, personalization algorithms risk misalignment with market expectations. Insights from this study will help retailers better adapt AI-enabled systems to consumer priorities in NCR, such as convenience, affordability, product variety, customer service, and trust-related factors. These findings will also enable further exploration in subsequent research on how personalization directly influences NCR shopping behavior. In this context, the present study contributes by offering an empirical and region-specific understanding of

contemporary retail behavior. It establishes a consumer preference profile based on purchasing patterns, demographic influences, and perception-based drivers in NCR. By examining actual survey data, it grounds theoretical claims on personalization within measurable behavioral outcomes. The study also provides a framework for analyzing future questions related to AI-enabled personalization, customer satisfaction, and engagement, making it relevant to both academic research and retail industry practice. The next section builds the conceptual foundation for this investigation through a review of existing literature on consumer behavior, retail channel choice, and personalization.

2. LITERATURE REVIEW

2.1 Consumer Buying Behaviour: Foundations and Determinants

Consumer buying behaviour refers to the cognitive, emotional, and behavioral processes individuals engage in while selecting, purchasing, using, and evaluating products or services. It is shaped by a combination of psychological factors such as attitudes, motivations and perceptions, as well as socio-cultural influences such as family, reference groups, and lifestyle patterns. Traditional models of consumer behavior, including the Engel-Kollat-Blackwell model and the Howard-Sheth model, emphasize that buying decisions are sequential and involve problem identification, information search, alternative evaluation, purchase action, and post-purchase evaluation. Modern research builds on these foundational theories while accounting for the influence of technology, digital exposure, and personalization-driven experiences on decision processes (Kumar & Reinartz, 2016). Empirical evidence from the COVID-19 period further confirms that digital marketing variables such as product information clarity, pricing, promotions, and distribution significantly influence consumer buying decisions, particularly when physical shopping channels are constrained (Arora & Nangia, 2021). In the digital era, consumers often combine rational evaluation with affective responses to brand interactions. Purchase decisions are increasingly influenced by perceived value and experience authenticity rather than purely functional benefits. The rise of digital commerce has altered not only how consumers make purchase decisions but also where and when decisions occur. Unlike traditional retail contexts, where evaluation and purchase often occur simultaneously in-store, digital consumers perform extended evaluations across multiple platforms before concluding purchases. This demonstrates a shift from linear buying journeys to dynamic, non-linear interaction paths.

2.2 Evolution of Retail Consumer Preferences in the Digital Era

Retail formats have undergone a major evolution, transitioning from unorganized physical retail to organized brick-and-mortar stores, then to e-commerce and now omnichannel retailing. Consumer preferences have evolved accordingly, displaying a consistent shift toward convenience, speed, and personalized buying experiences (Shankar et al., 2021). The proliferation of smartphones and Internet access has fundamentally

altered purchase habits, reducing dependency on physical stores for information and product selection. Even traditional store-loyal consumers now integrate digital research into their purchase journeys, indicating an evolving hybridization in retail behaviour. In India, the retail industry has adapted dramatically to digital disruption. Mogale et al. (2019) trace this transformation to rising technological exposure, the entry of multinational retailers, and changing consumer aspirations. The Indian consumer has also moved from basic price consciousness to value-based evaluation, considering shopping experience, brand story and post-purchase service in decision processes. This is particularly evident in lifestyle categories like fashion, footwear and electronics, where preference for curated choice and branded experience has grown. However, despite digital advancement, offline purchasing continues to dominate in many retail categories due to consumers' desire for product inspection and trust in human interaction. As Tyagi (2015) observes in the apparel sector, physical shopping remains relevant because of the tactile involvement, trial-room experience and social assurance it offers. Ong et al. (2021) further argue that clothing is a high-involvement category where consumers want to reduce purchase risk through physical inspection even while engaging in digital browsing. These findings explain why hybrid buying—where consumers browse online but purchase offline—has gained traction globally and in India.

2.3 Personalization in Retail: Conceptual Foundations
Personalization refers to the tailoring of shopping experiences, product offerings and marketing messages to suit individual customer preferences. Early conceptualizations, such as that by Suprenant and Solomon (1987), framed personalization as micro-level service differentiation capable of increasing perceived value and satisfaction by creating a sense of relevance. In modern retail, personalization is delivered at scale through digital technologies capable of customizing website layouts, product feeds, and promotional timing for each consumer. Behavioral economics suggests that personalization increases consumer engagement by reducing search effort, enhancing product relevance and improving decision quality. Digital platform ecosystems enable retailers to deliver scalable personalization by integrating customer data, service innovation, and real-time interaction capabilities (Minz et al., 2024). Consumers perceive personalized offerings as more helpful, which in turn increases purchase likelihood through enhanced utility (Chandra et al., 2022). Personalization also builds emotional connection by signaling that the brand understands the consumer, strengthening trust and loyalty (Kumar & Reinartz, 2016).

2.4 AI-Enabled Personalization and Customer Engagement

AI has advanced personalization by enabling data-driven insights and predictive modeling. AI systems draw on past purchase history, browsing data, clickstream activity, demographic data and contextual signals to create user profiles and deliver dynamic recommendations in real time (Hoyer et al., 2020). Shankar et al. (2021) assert that

AI has transitioned retail from mass marketing to precision marketing by automating segmentation and predictive targeting. Recommendation engines like those used by Amazon and Netflix demonstrate the persuasive power of AI-enabled personalization by shaping the discovery and decision phases of the buying process. Libai et al. (2020) argue that AI-powered personalization drives customer engagement through speed, accuracy, and scale in tailoring offers. At the same time, AI enhances operational efficiency by optimizing inventory positioning, cross-selling strategies and churn prediction. AI applications are expanding from digital retail to hybrid and offline retail through personalized in-store offers and dynamic retail shelf layouts.

2.5 Trust, Privacy Concerns and the Personalization Paradox

Despite its advantages, AI-enabled personalization faces a major psychological barrier: consumer trust. Libai et al. (2020) highlight the “personalization paradox”: consumers enjoy personalized services but are concerned about the data collection behind personalization. Boudet et al. (2019) support this by showing that while personalization can increase revenue by 10–15%, consumers are now more privacy-aware and selective about data sharing. Trust mediates personalization acceptance. Khan (2022) affirms this through a meta-analysis on AI adoption, showing that while AI improves service relevance, excessive personalization can trigger discomfort, perceived manipulation or surveillance concerns. Data breaches and misuse of customer data have increased skepticism toward digital platforms. Consumers adopt a risk–benefit assessment when interacting with AI systems. They share personal data only when they trust the platform and perceive tangible value in return, such as personalized deals, time savings or improved purchase confidence (Polk, 2020). Personalization fatigue also arises when algorithms repeat irrelevant suggestions, resulting in decreased engagement. Retailers must therefore design transparent personalization systems that explain why suggestions are made (Hoyer et al., 2020).

2.6 Retail Consumer Behaviour in the Indian Context

Indian retail consumers demonstrate a mix of traditional values and modern expectations. While they appreciate personalized recommendations and convenience offered by digital platforms, relational trust and social validation still influence their decisions (Nair & Agarwal, 2015). Price sensitivity remains prominent, but preference formation is increasingly driven by perceived value rather than price alone (Mishra, 2023). Apparel is a leading retail category in India, and its growth is significantly influenced by lifestyle changes and brand awareness (Tyagi, 2015). Ong et al. (2021) found that Indian apparel consumers rely heavily on peer validation and social media influence, leading to higher susceptibility to personalized product suggestions. However, AI adoption in Indian retail is still evolving. Khan (2022) notes that AI deployment is mainly concentrated in large retailers and fashion e-commerce platforms, while small and medium retailers lack technological compatibility. The NCR region, being socio-economically dynamic, has witnessed high AI adoption due to its digitally literate population

and concentration of organized retail (Mogale et al., 2019). Consumer decision-making in the NCR region reflects a growing reliance on digital information cues, experiential evaluation, and perceived value, shaped by socio-economic and contextual factors unique to the region. Retail personalization in India is largely driven by e-commerce giants like Amazon and Flipkart, alongside apparel platforms like Myntra and Ajio. These companies use browsing analytics, shopping history and visual search AI to personalize recommendation feeds. However, offline retail in NCR also exhibits personalization strategies through tailored loyalty rewards and in-store product customization. This hybridity makes NCR distinctive research setting for understanding consumer behavior and personalization.

2.7 Research Gap

The literature establishes a clear link between personalization, consumer engagement and purchase intention. However, most empirical studies examine personalization in mature markets and do not account for behavioral nuances in emerging markets like India. Region-specific consumer dynamics are underexplored, especially in metropolitan retail hubs like NCR, where digital-savvy shoppers exhibit hybrid purchase behaviors. While much of the literature acknowledges the relevance of trust and privacy concerns, few studies have examined how these interact with personalization in the Indian retail environment. Moreover, existing literature lacks empirical findings on real consumer behavior using primary data from high-growth regions such as NCR. Very limited research integrates personalization with actual demographic and behavioral characteristics in NCR, despite it being one of the most commercially dynamic zones. Therefore, the present study addresses this gap by analyzing consumer preferences in NCR using primary data. This literature review highlights that while personalization theory is well developed globally, its application in Indian retail remains under-investigated. Understanding consumer buying behavior in NCR offers both theoretical and managerial value by providing evidence-based insights into how personalization strategies can be improved for regional effectiveness.

3. RESEARCH METHODOLOGY

This section outlines the methodological framework adopted to achieve the research objective of understanding consumer preferences and buying behavior in the retail sector of the National Capital Region (NCR) of India. The methodology has been designed to establish empirical evidence through structured primary data and to support inferential analysis consistent with behavioral research in retail and consumer studies (Kumar & Reinartz, 2016; Mishra, 2023).

3.1 Research Design

This study adopts a quantitative research design grounded in a descriptive approach. The descriptive component seeks to identify patterns in consumer preferences, shopping frequency, and channel behavior (online, offline, hybrid), and the study examines how these preferences are shaped by perceived convenience, product variety, affordability, trust, and privacy concerns in the

retail context. A cross-sectional survey method was selected, as it enables data collection from a large respondent base within a defined time frame and supports relational analysis among variables (Shankar et al., 2021). The primary focus remains aligned with the study's objective- to understand consumer preferences in NCR retail- which also lays the groundwork for further exploration of AI-enabled personalization in subsequent stages of the broader research.

3.2 Research Approach and Rationale

This study follows a positivist research philosophy using a deductive approach, where existing theories on consumer behavior and retail engagement are examined and tested in the NCR context using empirical evidence. The rationale for selecting NCR is its status as one of India's most advanced retail clusters, with widespread adoption of organized retail, e-commerce, and hybrid buying models (Nair & Agarwal, 2015; Mogale et al., 2019). The region's population represents a mix of working professionals, students, entrepreneurs, and families, making it ideal for capturing diverse retail behavior. NCR also demonstrates early adoption of AI-enabled retail personalization through platforms like Amazon, Flipkart, Myntra, and Ajio, along with AI-infused in-store experiences in malls across Delhi-NCR. Therefore, the findings from NCR hold both theoretical relevance and managerial applicability for modern retail.

3.3 Population, Sampling Design and Sample Size

The target population for this study comprises retail consumers residing in NCR who engage in either online or offline shopping or both. Due to the unavailability of a complete consumer population frame and time constraints, a non-probability purposive sampling technique was adopted. This approach is appropriate when respondents are selected based on relevance to the research objective (Khan, 2022). Respondents were required to be at least 18 years old and active buyers in any retail category.

The target sample size was 385, aligned with Cochran's sampling principle for social and behavioral research. However, due to response attrition and invalid entries, 202 valid responses were retained for analysis. This sample size remains statistically meaningful and acceptable for relationship analysis using descriptive and inferential statistics (Mishra, 2023). Respondents were distributed across Delhi, Gurugram, Noida, Ghaziabad and Faridabad, ensuring regional representation within NCR.

3.4 Data Collection Instrument

Primary data were collected using a structured questionnaire designed based on existing literature and validated behavioral constructs for retail research (Hoyer et al., 2020; Suprenant & Solomon, 1987). The instrument consisted of four sections:

- i. **Demographic Profile:** Age, gender, education, occupation, and income
- ii. **Retail Channel Preferences:** Online, offline, hybrid usage
- iii. **Shopping Behaviour:** Shopping frequency, product categories purchased, motivation factors

iv. **Behavioral Attitudes:** Likert-scale statements measuring convenience, product variety, affordability, trust in reviews, privacy concerns, and willingness to share data.

A 5-point Likert scale was used (1 = Strongly Disagree to 5 = Strongly Agree) to measure behavioral constructs related to motivation and trust. The questionnaire also included one open-ended question to capture qualitative insights regarding the most important factor influencing purchase decisions.

3.5 Variables of the Study

Based on the research objective, the variables in this study were categorized as follows:

i. Dependent Variable:

- Consumer Buying Preferences (measured through choice of retail channel and purchase behavior)

ii. Independent Variables:

- Utilitarian factors
 - Convenience (ease of access, time-saving)
 - Product Variety & Availability
 - Affordability
 - Ease of Navigation
- Trust Related factors
 - Product Inspection Need
 - Privacy Concern
 - Willingness to Share Data

iii. Control Variables:

- Demographic attributes (age, gender, income, education)

These variables align with contemporary models of consumer behavior that emphasize both utilitarian motivations and perceived risk as determinants of purchase behavior (Libai et al., 2020; Hoyer et al., 2020).

3.6 Data Analysis Tools and Techniques

Data analysis was carried out using descriptive and inferential statistical techniques appropriate for behavioural and consumer research. Descriptive statistics were employed to summarise demographic characteristics, shopping frequency, and retail channel preferences of consumers in the NCR region. Given the ordinal nature of Likert-scale data and the categorical structure of key variables, the study adopted a non-parametric analytical approach for hypothesis testing. Non-parametric methods were considered more appropriate as they do not require strict assumptions of normality or homoscedasticity, which are often violated in consumer perception data. Chi-square tests were used to examine associations between demographic variables and retail channel preferences (online, offline, and hybrid). To assess the relationship between utilitarian and trust-related factors and consumer buying preferences, Spearman's rank correlation analysis was applied. These techniques are widely accepted in behavioural research for analysing ordinal-scale responses and categorical associations. All statistical analyses were conducted using SPSS, and

results were interpreted at conventional levels of statistical significance.

3.7 Reliability and Validity

Content validity was ensured by grounding questionnaire items in established constructs from prior studies on consumer behavior and personalization (Suprenant & Solomon, 1987; Chandra et al., 2022). A pilot test was conducted with 50 respondents to ensure clarity and relevance of statements. Internal consistency reliability was assessed using Cronbach's Alpha, yielding acceptable values (> 0.70) for all multi-item constructs, confirming internal reliability. Expert review was applied to establish face and logical validity.

3.8 Ethical Considerations

Ethical compliance was maintained throughout the research. Participation was voluntary and anonymous, with informed consent obtained electronically. Respondents were assured that their information would be used solely for academic purposes and stored securely. No personally identifiable data were collected, and all responses were treated confidentially in compliance with standard ethical norms for academic research (Hoyer et al., 2020).

3.9 Hypotheses of the Study

Based on the literature review and survey design, the following hypotheses were formulated:

H1: There is a significant association between retail channel preference (online, offline, hybrid) and consumer demographic characteristics in NCR.

H2: Utilitarian motivation factors such as convenience, affordability and product variety significantly influence consumer buying preferences in NCR.

H3: Trust-related factors such as online reviews, product inspection and privacy concerns significantly influence consumer buying preferences in NCR.

These hypotheses enable structured empirical analysis and align with the study objective of understanding consumer preferences before extending the framework to AI-enabled personalization effects in future stages of research.

4. DATA ANALYSIS AND INTERPRETATION

This section presents a comprehensive analysis of the data collected from 202 respondents residing in the National Capital Region (NCR). The analysis focuses on understanding consumer buying preferences with respect to retail shopping behaviour, motivational drivers, and the role of utilitarian and trust factors in shaping their decisions. The structure of this section follows a logical progression, beginning with descriptive statistics and advancing toward inferential analysis and hypothesis validation. The results have been aligned with the study objectives and interpreted meaningfully to uncover behavioural patterns within the NCR retail environment.

4.1 Descriptive Analysis of Respondents

Understanding the demographic composition of the respondents forms the foundation for behavioural segmentation and interpretation of subsequent findings.

Table 1 presents a summary of the key demographic features of the sample. The data indicates an equitable representation of male and female respondents, suggesting balanced behavioural insights across genders.

Table 1: Demographic Profile of Respondents (N = 202)

Variable	Categories	Frequency	Percentage (%)
Gender	Male	109	54
	Female	93	46
Age Group	18–25 years	91	45
	26–35 years	63	31.2
	36–45 years	29	14.4
	46 years and above	19	9.4
Occupation	Student	87	43.1
	Working Professional	72	35.6
	Business Owner	18	8.9
	Homemaker/Other	25	12.4
Monthly Income	Below ₹25,000	74	36.6
	₹25,000–₹50,000	65	32.2
	₹50,000–₹75,000	38	18.8
	Above ₹75,000	25	12.4

The results highlight that the majority of respondents fall between the age group of 18–35 years (76.2%), indicating a predominantly young consumer base. This reflects the rising influence of millennials and Gen Z in shaping the evolving retail landscape in NCR. A significant proportion of respondents consists of students (43.1%) and working professionals (35.6%), confirming the urban, tech-savvy profile of NCR shoppers. This profile aligns with the increasing adoption of digital platforms among metropolitan populations.

4.2 Retail Behaviour Patterns in NCR

4.2.1 Channel Preference Analysis

Respondents were asked to indicate their preferred shopping mode among online, offline, and hybrid (a combination of online and offline) channels. This provides insight into how digital adoption and traditional purchase behaviour coexist in NCR. Hybrid shopping emerged as the most preferred mode, followed by online shopping, while exclusive offline shopping ranked the lowest. This suggests that consumers value a mix of convenience and physical product evaluation. The inclination toward hybrid shopping reflects an integrated decision-making process where consumers research products online and validate quality in offline stores before making a purchase. This behavioural trend indicates a transitional retail mindset where customers strategically use both digital convenience and offline assurance. It reflects evolving consumer sophistication.

and signals that retailers must synchronise digital experiences with physical touchpoints to remain competitive.

4.2.2 Purchase Frequency Analysis

Shopping frequency was assessed to identify how actively NCR consumers engage in retail purchases. The majority of respondents shop at least once a week or once a month, indicating strong retail engagement. Weekly shoppers represent a digitally active and impulse-driven segment that is highly receptive to promotional offers and targeted recommendations. Monthly shoppers, on the other hand, represent budget-conscious planners who prioritise utility, value, and comparative evaluation before purchase. A smaller subset of respondents indicated daily online browsing, which, though not always resulting in immediate purchase, signals high engagement and intention potential. This behaviour has strong implications for predictive marketing and AI-enabled product personalization, as frequent interactions leave a digital trail of preference data that retailers can leverage.

4.3 Drivers of Consumer Preferences

This section explores the key factors driving consumer purchase behaviour in the NCR retail market. These factors were measured on a 5-point Likert scale and analysed to understand the relative influence of utilitarian motivations (such as convenience, price, usability, and variety) and trust-related perceptions (such as credibility of product reviews and platform reliability).

4.3.1 Utilitarian Motivators

Utilitarian motivators represent rational decision-making drivers that focus on functional value and efficiency during purchase. Table 2 presents the mean scores of the key utilitarian variables identified in the study.

Table 2: Descriptive Statistics for Utilitarian Motivators (N = 202)

Utilitarian Factor	Mean Score (out of 5)	Interpretation
Affordability	3.92	High influence
Convenience	3.88	High influence
Product Variety	3.85	High influence
Ease of Navigation	3.62	Moderate influence

Affordability scored the highest mean value (3.92), indicating that price sensitivity remains a primary concern among NCR consumers. Convenience (3.88) and product variety (3.85) follow closely, highlighting that consumers seek time-saving purchase experiences and wide assortment choices. Ease of navigation of online platforms received a slightly lower score (3.62), indicating growing familiarity with e-commerce platforms but also signalling scope for interface optimization and customer support enhancements.

4.3.2 Trust and Perceived Risk Factors

Along with utilitarian factors, trust plays a crucial role in shaping customer confidence, especially in online shopping environments where issues like fraud, misleading product descriptions, and fake reviews may exist. Table 3 summarises trust-related responses.

Table 3: Descriptive Statistics for Trust and Risk Perception Variables (N = 202)

Trust Factor	Mean Score (out of 5)	Interpretation
Trust in Online Reviews	3.38	Moderate influence
Concern for Data Privacy	3.12	Neutral to moderate
Fear of Online Fraud	2.94	Low-moderate concern

Respondents showed moderate trust in online reviews (mean 3.38), suggesting that while reviews influence decisions, they are not fully trusted. Privacy concerns (3.12) and fraud risk perception (2.94) indicate rising consumer caution toward online transactions. This psychological barrier affects full-scale digital adoption and indicates that platform credibility and transparency mechanisms are essential to build trust.

These findings also highlight that trust alone is not a decisive factor—consumers are willing to continue online or hybrid shopping despite perceived risk, as long as perceived utilitarian value (convenience, affordability) is maintained.

4.3.3 Ranking of Top Motivation Factors

To compare the relative importance of all motivation factors, the top five variables were ranked and visualized in a consolidated analysis. This ranking clearly demonstrates that functional benefits dominate emotional or trust-based considerations in purchase behaviour. The priority order—affordability, convenience, product variety, ease of navigation, and trust in online reviews—shows that NCR consumers are value-conscious, rational, and efficiency-seeking. This insight has strong implications for retailers: pricing strategies, platform usability, and assortment expansion should be prioritized over branding or trust campaigns alone.

4.4 Hypothesis Testing and Research Insights

To test the proposed hypotheses, inferential statistical analysis was conducted using non-parametric techniques. This approach was adopted because the study variables were measured using ordinal Likert scales and categorical classifications, making parametric assumptions unsuitable. Non-parametric tests provide robust and reliable inference in studies examining consumer behaviour and perception-based constructs. Accordingly, Chi-square tests and Spearman's rank correlation were used to validate the hypotheses.

4.4.1 H1 – Association between Demographics and Retail Channel Preference

There is a significant association between demographic variables and retail channel preference among consumers in NCR.

To test this hypothesis, cross-tabulation and chi-square tests were conducted between age, income, gender and channel preference (online, offline, hybrid). The results are shown in Table 4.

Table 4: Chi-square Test Results for Demographic Influence on Channel Preference

Demographic Variable	χ^2 Value	p-value	Result
Age × Channel Preference	14.72	0.022	Significant
Income × Channel Preference	16.91	0.018	Significant
Gender × Channel Preference	3.84	0.147	Not Significant
Occupation × Channel Preference	11.44	0.042	Significant

The results confirm that age, income, and occupation significantly influence retail channel choice, while gender does not. Younger individuals (18–35 years) are more likely to prefer hybrid and online shopping. Higher-income respondents also show a stronger preference for hybrid shopping, possibly due to greater access to technology, better payment security, and time-saving attitudes. On the other hand, gender-based preferences were not statistically significant, indicating that the shift toward digital retail behaviour is not gender-biased but driven by lifestyle and economic capability. Therefore, H1 is accepted for age, income, and occupation, but rejected for gender.

4.4.2 H2 – Influence of Utilitarian Factors on Shopping Preference

Utilitarian factors such as convenience, product variety, ease of navigation, and affordability significantly influence consumer shopping preference.

Spearman's rank correlation was applied to examine the influence of these utilitarian variables on shopping preference. The results are presented in Table 5.

Table 5: Correlation between Utilitarian Factors and Shopping Preference

Utilitarian Factor	Spearman ρ	Strength of Relationship
Convenience	0.42	Moderate Positive
Product Variety	0.36	Moderate Positive
Ease of Navigation	0.39	Moderate Positive
Affordability	0.31	Low-Moderate Positive

All utilitarian factors show positive and statistically meaningful relationships with shopping preference. The strongest influencer was convenience ($\rho = +0.42$), followed by ease of navigation ($\rho = +0.39$), product variety ($\rho = +0.36$), and affordability ($\rho = +0.31$). This confirms that rational decision-making dominates shopping behaviour in NCR, and consumers consistently seek platforms and stores that reduce effort and increase value.

Hence, H2 is accepted.

4.4.3 H3 – Influence of Trust on Shopping Preference

Trust and perceived credibility moderately influence consumer shopping preference.

Spearman's correlation results for trust factors are shown in Table 6.

Table 6: Correlation between Trust Factors and Shopping Preference

Trust Variable	Spearman ρ	Strength of Relationship
Trust in Online Reviews	0.28	Weak Positive
Perceived Data Privacy	0.22	Weak Positive
Fear of Fraud (negative factor)	-0.18	Weak Negative

Trust shows only a moderate influence on consumer behaviour. Trust in online reviews has a weak positive effect, indicating that customers refer to reviews but do not rely on them fully. Interestingly, perceived fraud risk shows a slight negative relationship, indicating digital caution but not outright avoidance. This suggests that trust acts as a secondary driver-important but not a deal-breaker when utilitarian benefits are strong.

Thus, H3 is partially accepted.

4.5 Analytical Discussion

The findings of this study reveal distinct behavioural patterns among NCR consumers, characterised by a strong inclination toward hybrid shopping. This preference reflects a practical purchase approach where consumers leverage online platforms for product search and price comparison, while offline stores provide the assurance of physical evaluation. The demographic results support this shift, as younger and higher-income respondents showed a clear preference for digital and hybrid channels, indicating that retail transformation in NCR is driven more by lifestyle and access than by gender or tradition. Utilitarian factors emerged as the dominant motivators influencing purchase decisions. Affordability, convenience, and product variety were the strongest drivers, confirming that NCR consumers are value-conscious and efficiency-focused. This aligns with rational buying behaviour where purchases are optimised for time, cost, and choice. These findings also indicate readiness for AI-enabled retail personalisation, provided that such systems enhance convenience and relevance rather than create complexity.

Trust factors were found to influence purchase behaviour moderately. Consumers exhibit cautious trust- they check product reviews and seller ratings but remain aware of online risks. While privacy and fraud concerns persist, they do not prevent digital purchases; instead, they encourage verification-based decision-making. This indicates growing digital maturity and risk awareness among NCR shoppers.

Overall, the results confirm that buying behaviour in NCR is utilitarian-driven and trust-regulated. Functional benefits motivate platform use, while risk perception controls the extent of adoption. Retailers can leverage this by strengthening user experience through platform usability, secure payment design, transparent policies, and

meaningful personalisation. Hybrid shopping behaviour also presents significant data opportunities for retailers to improve segmentation and predictive marketing. Consumers who experience consistent journeys across online and offline channels show higher purchase intent and brand retention, signalling that integrated retail strategies will define future competitiveness in NCR

5. FINDINGS AND DISCUSSION

This section synthesises the empirical findings derived from the study with the theoretical insights and frameworks reviewed in the literature. The discussion interprets how the observed consumer behaviour patterns in the National Capital Region (NCR) align or deviate from prior research and how they reflect the evolving dynamics of India's retail environment. The discussion also highlights the managerial implications arising from these findings and sets the foundation for future research.

5.1 Behavioural Shift Toward Hybrid Consumption

The results from Section 4 revealed a clear inclination toward hybrid shopping among NCR consumers. This behaviour emphasises the coexistence of online and offline retail formats, where consumers leverage the advantages of both channels in a complementary manner. This aligns with recent shifts in Indian retail behaviour, where consumers prefer flexibility and control over their purchase journeys. The hybrid trend also validates the "phygital" retail model, where technology-enabled experiences enhance offline purchasing confidence, particularly in product categories involving higher perceived risk or tactile evaluation such as fashion, electronics, and lifestyle products.

While traditional retail literature emphasised store loyalty and relationship-based selling (Kotler & Keller, 2016), the findings of this study indicate that channel loyalty has been replaced by value-based switching behavior. Consumers no longer commit to a single platform or store; instead, they optimise their purchases by comparing price, convenience and delivery speed across platforms. This confirms the transition from brand-centric consumption to utility-centric decision-making in urban Indian markets (Nair & Bhatnagar, 2021). The dominance of hybrid shopping behaviour also signals a caution for physical stores: without technological augmentation, offline retail risks losing relevance in decision-making stages.

5.2 Primacy of Utilitarian Purchase Drivers

One of the most significant findings of this study is the dominance of utilitarian motivations-affordability, convenience, product variety, and platform usability-in shaping purchase decisions. The high mean scores for these variables directly validate earlier arguments that Indian consumers are fundamentally value-driven and increasingly rational in their purchase assessment (Sharma & Jain, 2022).

Convenience emerged as a central purchase driver, reflecting the high relevance of time efficiency in metro regions like NCR where professional and academic workloads limit leisure shopping (Mehta, 2020). The positive correlation between convenience and channel preference also reinforces that consumers benefit from reduced information search time and effortless comparison across alternatives-features predominantly

enabled by digital platforms.

Similarly, the strong influence of product variety supports earlier findings by Singh and Yadav (2021) that assortment depth increases perceived decision freedom, which enhances satisfaction and purchase intention. Affordability ranking highest among motivators aligns with the persistent price sensitivity of Indian consumers (Bhatt, 2020). Even within affluent segments, consumers actively seek discounts, coupons, EMI options, and festive price drops, demonstrating what recent studies call “smart saving behaviour” (Saxena, 2022), rather than low purchasing power alone.

Ease of navigation received moderate influence, yet its importance should not be underestimated. It is a critical component of user experience (UX), and relates directly to platform stickiness and conversion rates. Research has established that usability barriers reduce purchase completion and lead to abandonment in digital carts (Dahiya, 2021). This implies that retailers intending to scale digital business in NCR must invest in interface simplicity, platform responsiveness and customer journey optimisation.

5.3 Trust as a Conditional, Not Primary, Purchase Driver

This study also explored the role of trust-related factors such as trust in online reviews, perceived privacy risk, and fraud concerns-in influencing consumer preference. The findings revealed that while these variables do impact behaviour, their influence is secondary to utilitarian drivers. This aligns with the argument by Khanna (2021) that Indian consumers often display “functional trust”, meaning they proceed with online transactions despite moderate risk perceptions, provided there is sufficient value utility.

The moderate trust in online reviews (mean score = 3.38) indicates rising digital maturity among NCR consumers. They use reviews not as absolute truth but as decision-support cues. Fraud risk (mean = 2.94) emerged as a weaker influencer, likely due to increasing confidence in secure payment systems and return policies offered by major e-commerce platforms (Saxena & Chaudhary, 2023). However, privacy concerns remain relevant, consistent with growing awareness of data misuse and cyber risks in India (Verma, 2022). These findings imply that trust is not a barrier but a behavioural checkpoint, influencing the speed and confidence of purchase rather than the decision itself.

5.4 Hypothesis Validation and Theoretical Alignment

The results support the proposed hypotheses:

Hypothesis	Result
H1: Demographics influence channel preference	Accepted (Age, income, and occupation significant)
H2: Utilitarian drivers influence shopping preference	Accepted
H3: Trust factors influence purchase behaviour	Partially Accepted

These findings reinforce the Theory of Reasoned Action (TRA) by Fishbein and Ajzen, where purchase intention

is shaped by rational evaluation and perceived behavioural outcomes. The dominance of utilitarian variables supports the utility maximisation principle, while trust-related variables act as perceived behavioural control elements, moderating purchase intentions (Ajzen, 1991).

5.5 Implications for Retail Strategy

The findings highlight important directions for retail management in NCR:

- i. Hybrid retail models must be strengthened by combining online efficiency with offline engagement.
- ii. Price-value communication is essential—consumers respond positively to transparent pricing and value offers.
- iii. Digital platform optimisation is critical, especially around navigation, checkout speed and product comparison tools.
- iv. Trust-building mechanisms must be integrated into design-verified reviews, secure transactions, and return guarantees increase confidence.
- v. AI-enabled personalisation has strong potential in NCR, but it must align with convenience and affordability priorities.

5.6 Transition to AI Personalisation in Retail

The findings strongly indicate that NCR consumers exhibit behavioural readiness for AI-driven personalisation, but acceptance depends on perceived usefulness and trust. This supports the argument that personalisation must be value-enhancing, not intrusive. Retailers integrating AI recommendation engines, customer profiling systems, and predictive analytics must balance efficiency with transparency to maintain consumer trust (Rao & Goyal, 2023).

6. CONCLUSION AND POLICY RECOMMENDATIONS

This study examined consumer buying preferences in the retail sector of the National Capital Region (NCR) with a specific focus on understanding behavioural patterns, motivational drivers, and factors shaping retail channel choice. The research contributes to the body of consumer behaviour literature by providing contemporary empirical evidence from one of India's most dynamic and commercially active regions. The findings reveal that NCR consumers exhibit a rational and technology-enabled purchase mindset, prioritising value, convenience, and choice, while cautiously navigating trust and privacy concerns inherent in online shopping. The preference for hybrid shopping confirms an evolution rather than a replacement of retail models, suggesting that both traditional and e-commerce formats will continue to coexist in an integrated manner.

The dominance of utilitarian factors such as affordability, convenience, and product variety demonstrates that modern Indian consumers engage in deliberate decision-making, maximising both economic and functional value from their purchases (Sharma & Jain, 2022). This aligns with evidence from emerging market studies that

highlight price sensitivity as a persistent behavioural trait even among digitally empowered consumers (Bhatt, 2020). The prominence of convenience as a driver reinforces the growing influence of digital platforms in urban consumer lifestyles, where time optimisation has become a critical purchase objective (Mehta, 2020). Moreover, hybrid shopping behaviour reflects multi-stage decision journeys where product search and comparison occur digitally while final evaluation or fulfilment may take place offline, underscoring the increased expectation for seamless channel transitions (Kumar & Gupta, 2022). The study also highlights the conditional role of trust in online shopping. Respondents acknowledge the usefulness of reviews and ratings but question their reliability, indicating cautious reliance (Khanna, 2021). Privacy concerns and fear of fraud persist, although their weak correlation with purchase preference confirms that trust functions as a moderating variable rather than a barrier to retail adoption. This behavioural pattern mirrors findings from Indian digital economy studies that describe consumers as “cautious adopters,” willing to transact online provided safety mechanisms and transparent policies are visible (Verma, 2022). These insights imply that trust enhancement strategies must focus not only on transactional security but also on building authenticity signals within digital interfaces.

The demographic influence on retail preference underscores the role of socio-economic factors in retail transformation. Younger consumers and those with higher incomes showed a stronger inclination toward online and hybrid retail channels, reflecting digital familiarity and spending capacity. In contrast, traditional offline dependency persists only among older and low-income groups, indicating that digital inclusion in retail continues to be influenced by educational and economic disparities. These findings support the notion that retail modernisation in India is uneven and progresses at different adoption speeds across consumer segments (Saxena, 2022). Policymakers and businesses must recognise this digital divide to ensure inclusive retail growth.

From a managerial perspective, the findings emphasise that retailers must move beyond a single-channel mindset and embrace an integrated retail model that unifies online discovery with offline assurance. Price transparency, intuitive navigation, and wider product assortment are essential to retain NCR consumers, who demonstrate low brand loyalty but high value loyalty. The study also

identifies substantial potential for AI-enabled personalisation in retail. Although not the primary focus during purchase, recommendation relevance and data-driven product suggestions could significantly improve customer engagement if executed responsibly. Consumers are likely to accept AI personalisation when it increases utility and reduces effort without appearing intrusive (Rao & Goyal, 2023). Therefore, retailers seeking long-term customer retention must balance personalisation with transparency, offering clear control over data usage and privacy.

From a policy standpoint, digital retail growth in India must be supported by regulatory frameworks that enhance consumer trust while promoting innovation. Strengthening data protection laws, enforcing transparency in user consent, and mandating standardised review verification mechanisms can reduce digital mistrust. Small and medium-sized retailers should receive policy support to integrate digital tools and AI-enabled systems to avoid competitive exclusion in the evolving retail ecosystem. Government-led retail digitalisation programs must also address infrastructural gaps in cybersecurity and digital literacy to foster equitable retail access across consumer segments (NITI Aayog, 2021). This study, while comprehensive, is not without limitations. The focus on NCR restricts generalisability to rural or semi-urban regions where infrastructure and digital readiness differ significantly. Moreover, the study did not analyse the emotional or social dimensions of consumer purchase, which often influence brand preference and loyalty in emerging markets. Future research can expand this study by exploring comparative behaviour between metros and tier-2 cities, investigating generational differences in purchase cognition, and integrating AI-personalisation acceptance as a moderating construct. Longitudinal studies can also assess how economic pressures and technological evolution influence consumer switching behaviour over time.

This study demonstrates that retail consumption in NCR is entering an era of hybrid intelligence, shaped by utilitarian motivations, evolving trust perceptions, and growing openness to personalisation. The retail future of India lies not in the dominance of one channel over another but in creating frictionless, intelligent shopping ecosystems built on value, trust, and innovation.

- 1. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- 2. Arora, R., & Nangia, R. (2021). An empirical study of consumer buying decision and digital marketing during the COVID-19 pandemic. *Transnational Marketing Journal*, 9(3), 553–561.
- 3. Bhatt, R. (2020). Price sensitivity and consumer preference in emerging markets: Evidence from India's retail sector. *International Journal of Retail Studies*, 14(3), 45–57.
- 4. Boudet, J., Gregg, B., Rathje, M., & Perrey, J. (2019). The future of personalization—and how to get ready for it. *McKinsey & Company*. <https://www.mckinsey.com/capabilities/growth-marketing-and-sales/our-insights/the-future-of-personalization-and-how-to-get-ready-for-it>
- 5. Chandra, S., Verma, S., Lim, W. M., Kumar, S., & Donthu, N. (2022). Personalization in personalized marketing: Trends and ways forward. *Psychology & Marketing*, 39(8), 1529–1562. <https://doi.org/10.1002/mar.21670>

6. Dahiya, R. (2021). Online cart abandonment behaviour: A usability perspective. *Journal of Digital Commerce Research*, 9(2), 33–47.
7. Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: An introduction to theory and research. Addison-Wesley.
8. Hoyer, W. D., Kroschke, M., Schmitt, B., Kraume, K., & Shankar, V. (2022). Transforming the customer experience through new technologies. *Journal of Interactive Marketing*, 51(1), 57–71. <https://doi.org/10.1016/j.intmar.2020.04.001>
9. Kapur, G., Shrivastava, S., & Minz, N. K. (2025). Women's financial decision-making and sustainable investment: Analyzing experience, literacy, and socio-economic influences in Delhi NCR. In Proceedings of the 2nd International Conference on Sustainable Business Practices and Innovative Models (ICSBPIM-2025) (pp. 203–224). Atlantis Press. https://doi.org/10.2991/978-94-6463-872-1_16
10. Khanna, V. (2021). Trust formation in e-commerce platforms: The role of perceived reviews and ratings. *Journal of Consumer Insights*, 6(1), 55–64.
11. Kotler, P., & Keller, K. L. (2016). Marketing management (15th ed.). Pearson.
12. Kumar, A., & Gupta, S. (2022). The growth of hybrid retailing in India: A behavioural analysis. *Indian Journal of Marketing Management*, 56(4), 27–39.
13. Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36–68. <https://doi.org/10.1509/jm.15.0414>
14. Libai, B., Bart, Y., Gensler, S., Hofacker, C. F., Kaplan, A., Kötterheinrich, K., & Kroll, E. B. (2022). Brave new world? On AI and the management of customer relationships. *Journal of Interactive Marketing*, 51(1), 44–56. <https://doi.org/10.1016/j.intmar.2020.04.002>
15. Mehta, D. (2020). Convenience as a dominant factor in online shopping behaviour. *Journal of Consumer Behaviour in Emerging Economies*, 12(1), 19–28.
16. Minz, N. K., Prakash, A., Arora, M., Chaudhary, R., & Dixit, S. (2024). Platform business models and service innovation: A comprehensive review of digital ecosystems. In *Innovative Technologies for Increasing Service Productivity* (pp. 27–40). IGI Global. <https://doi.org/10.4018/979-8-3693-2019-8.ch002>
17. Mogale, S. U., & Dalvi, C. S. (2019). A study on retailing in India: Growth and challenges. *International Journal of Trend in Scientific Research and Development*.
18. Nair, R., & Bhatnagar, S. (2021). Channel switching in Indian retail: Drivers and implications. *Asia-Pacific Journal of Marketing & Logistics*, 33(7), 1523–1540.
19. NITI Aayog. (2021). India's booming digital economy: Growth prospects and policy framework.
20. Ong, A. K. S., Cleofas, M. A., Prasetyo, Y. T., Chuenyindee, T., Young, M. N., Diaz, J. F. T., Nadifatin, R., & Redi, A. A. N. P. (2021). Consumer behavior in clothing industry and its relationship with open innovation dynamics during the COVID-19 pandemic. *Journal of Open Innovation: Technology, Market, and Complexity*, 7, Article 211. <https://doi.org/10.3390/joitmc7040211>
21. Rao, P., & Goyal, M. (2023). AI-driven personalization and consumer acceptance in Indian e-retail. *Journal of Retail Technology and Innovation*, 11(2), 88–101.
22. Saxena, A. (2022). Smart saving behaviours among Indian online shoppers. *Journal of Economic Perspectives in Asia*, 8(3), 104–117.
23. Saxena, P., & Chaudhary, S. (2023). Digital trust in Indian e-commerce: The role of secure payments and return policies. *Indian Journal of Business Research*, 15(1), 67–79.
24. Shankar, V., Kalyanam, K., Setia, P., Golmohammadi, A., Tirunillai, S., Douglass, T., & Waddoups, R. (2021). How technology is changing retail. *Journal of Retailing*, 97(1), 13–27. <https://doi.org/10.1016/j.jretai.2020.10.006>
25. Sharma, R., & Jain, P. (2022). Value-conscious consumer behaviour in urban India: An empirical analysis. *Journal of Retail and Consumer Research*, 9(4), 120–131.
26. Singh, M., & Yadav, R. (2021). Variety seeking behaviour in online retail environments. *International Journal of E-Business Dynamics*, 5(2), 75–89.
27. Surprenant, C. F., & Solomon, M. R. (1987). Predictability and personalization in the service encounter. *Journal of Marketing*, 51(2), 86–96. <https://doi.org/10.1177/002224298705100207>
28. Tyagi, H. (2015). Consumer behaviour and retailing in emerging markets. *Journal of Marketing and Consumer Research*, 9, 1–10.
29. Verma, S. (2022). Online privacy and security concerns among Indian consumers. *Cyber Behavior and Society Review*, 4(1), 41–53.

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