

To cite this article: Dr. Sandip Vanjari and Dr. Rameshwar Gaikwad (2025). ARTIFICIAL INTELLIGENCE IN RETAIL: TRANSFORMING THE MARKET LANDSCAPE IN MAHARASHTRA, International Journal of Research in Commerce and Management Studies (IJRCMS) 7 (3): 535-541 Article No. 427 Sub Id 717

## **ARTIFICIAL INTELLIGENCE IN RETAIL: TRANSFORMING THE MARKET LANDSCAPE IN MAHARASHTRA**

**Dr. Sandip Vanjari<sup>1</sup> and Dr. Rameshwar Gaikwad<sup>2</sup>**

<sup>1</sup>Associate Professor, R.B. Attal College Georai, MS India,  
vanjarisb@yahoo.co.in

<sup>2</sup>Assistant Professor and Director, DITMS, Chhatrapati Sambhajnagar,  
ramgaikwad1757051@gmail.com

DOI : <https://doi.org/10.38193/IJRCMS.2025.7341>

### **ABSTRACT**

Artificial Intelligence (AI) is playing an increasingly pivotal role in transforming consumer behaviour within the retail industry. This research paper examines the influence of AI on consumer behaviour in Maharashtra, with a particular emphasis on the contrasts between urban and rural retail markets. By analysing AI applications such as recommendation systems, personalized marketing, chatbots, and demand forecasting tools, the study investigates how these technologies are reshaping shopping patterns, preferences, and engagement levels across diverse consumer segments.

Through a mixed-methods approach combining surveys of urban and rural consumers, in-depth interviews with retailers, and analysis of retail data, the research reveals that urban consumers are more responsive to AI-driven personalization, digital loyalty programs, and seamless omni-channel experiences. In contrast, rural consumers exhibit cautious engagement, influenced by digital literacy, infrastructural limitations, and a preference for human interaction. However, even in rural areas, exposure to AI particularly through mobile-based platforms and regional language interfaces is gradually altering shopping behaviour, especially among younger demographics.

The paper highlights key challenges such as data privacy concerns, digital inclusion, and trust in AI systems, while offering actionable insights for retailers aiming to adapt their AI strategies to distinct market segments. It concludes with policy and business recommendations to bridge the urban-rural digital divide and build a more inclusive AI-driven retail ecosystem in Maharashtra.

**KEYWORDS:** AI, Retail Market, Rural and Urban,

### **INTRODUCTION**

In the era of digital transformation, Artificial Intelligence (AI) has emerged as a powerful driver of

innovation across industries, with retail being one of the most significantly impacted sectors. Globally, AI is reshaping how retailers interact with customers, streamline operations, and develop data-driven strategies. In India, where the retail industry contributes substantially to the GDP and employment, the adoption of AI is steadily gaining momentum. Maharashtra, as one of the most industrialized and urbanized states, presents a unique and diverse retail landscape that includes everything from high-end urban malls and e-commerce hubs to traditional kirana stores in rural areas.

The growing penetration of smartphones, internet accessibility, and digital payment systems has accelerated the adoption of AI tools in Maharashtra's retail sector. From personalized product recommendations and dynamic pricing models to virtual shopping assistants and automated inventory systems, AI is increasingly influencing consumer behaviour. However, the impact of these technologies is not uniform across the state. While urban consumers are becoming more tech-savvy and responsive to AI-powered retail experiences, rural consumers often face infrastructural, educational, and cultural barriers that affect their interaction with digital tools.

This research aims to explore how AI technologies are transforming consumer behaviour in Maharashtra's retail market, with a particular emphasis on the contrasts between urban and rural areas. It seeks to understand the evolving expectations, preferences, and buying patterns of consumers exposed to AI-driven retail environments. Furthermore, it examines the challenges and opportunities faced by retailers in deploying AI tools across different market segments and socio-economic contexts. By identifying key trends and behavioural shifts, this study contributes to a better understanding of how AI can be leveraged to create more personalized, efficient, and inclusive retail experiences in Maharashtra. Ultimately, the research aims to inform policy-makers, technology developers, and business leaders on how to strategically bridge the digital divide and foster a balanced, AI-enhanced retail ecosystem throughout the state.

### ***Literature Review:***

The influence of Artificial Intelligence on retail is a well-researched global phenomenon, with scholars and industry analysts documenting its role in driving personalization, customer engagement, and operational efficiency. Studies by McKinsey (2020) and PwC (2019) highlight that AI enhances customer experience through real-time data analysis, enabling retailers to offer targeted promotions, product suggestions, and dynamic pricing. In India, the growth of AI in retail has been accelerated by the rise of e-commerce, digital wallets, and mobile-first strategies (NASSCOM, 2021).

However, literature specifically examining the Indian context reveals a significant digital divide between urban and rural areas. Urban consumers are more likely to adopt AI-driven services due to better access to technology, higher digital literacy, and greater exposure to global retail trends (KPMG,

2022). Conversely, rural consumers often exhibit limited engagement due to infrastructure gaps, affordability issues, and cultural preferences for human interaction.

While prior studies have examined AI's technical applications or economic implications, there is a growing need to explore its **behavioural impact** especially across different geographic and demographic segments. Few existing works have specifically focused on Maharashtra, a state with a rich mix of urban innovation hubs like Mumbai and Pune, and rural districts where traditional retail still dominates.

**Objective:**

To explore how AI influences consumer behaviour in Maharashtra's retail sector with emphasis on urban rural differences.

**Research Questions:**

**How is AI being implemented in retail environments across Maharashtra, and what are the key tools used?**

**METHODOLOGY:**

This study adopts a **mixed-methods research design** to capture both quantitative and qualitative insights:

*1. Quantitative Survey:*

A structured questionnaire was administered to 400 consumers 200 from urban areas (Chhatrapati Sambhajinagar, Pune, Nagpur) and 200 from rural districts (such as Beed, Ahilyanagar, and Jalna). The survey focused on consumer interaction with AI tools, perception of personalization, trust in AI, and purchase behaviour.

*2. Qualitative Interviews:*

In-depth interviews were conducted with 20 retail stakeholders, including store owners, AI solution providers, and marketing professionals. These interviews provided context on how AI is being deployed and what challenges businesses face in different regions.

*3. Secondary Data:*

The research also utilized data from industry reports, government publications, and academic journals to provide background and support findings.

*4. Data Analysis:*

Quantitative data was analysed using statistical tools to identify correlations and behavioural trends, while qualitative data was thematically coded to extract common themes and insights.

*Comparison table showing key differences in consumer behaviour between urban and rural retail consumers in Maharashtra:*

Behavioural Indicator	Urban Consumer	Rural Consumer
Awareness of AI in retail	High (74%)	Low (35%)
Preference for personalisation	High (68%)	Moderate (43%)
Trust in AI Recommendation	Moderate to High	Low to Moderate
Usage of Digital Payment	Very High	Moderate
Desire for Human Interaction	Low	High
Use of online Shopping Platform	Very High	Low to Moderate
AI Assistance	Moderate to High	Low

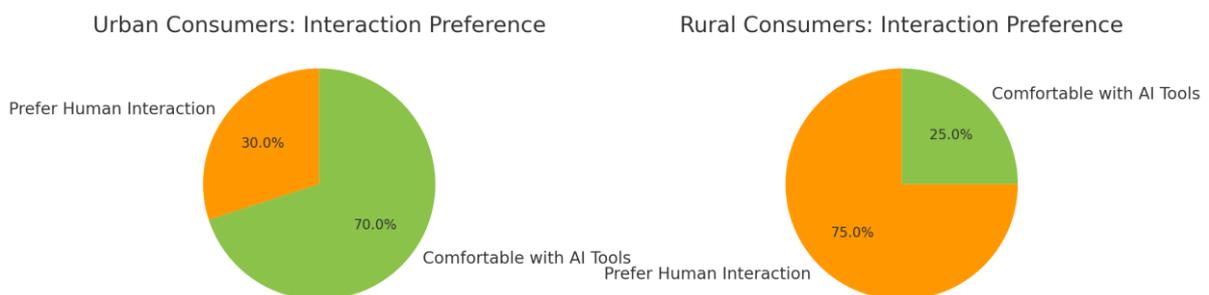
**Key Insights from the Table:**

**Awareness & Usage:** Urban consumers are highly aware and actively use AI-powered services and digital platforms. In contrast, rural consumers have lower awareness and usage, but show moderate interest especially in younger segments.

**Personalization & Trust:** Urban buyers value AI driven personalization, while rural consumers remain cautious and prioritize trust through human interaction.

**Payment & Interaction:** Digital payments and chatbot engagement are far more common in urban settings. Rural consumers tend to prefer face-to-face assistance and simpler interfaces.

**Comparing AI awareness among urban and rural consumers in Maharashtra:**



**Urban Consumers**

- **74%** are aware that AI is being used in their shopping experience.
- **26%** are not aware, often due to the seamless or invisible nature of AI tools (e.g., recommendations, dynamic pricing).

### *Rural Consumers*

- Only **35%** are aware of AI in retail.
- A significant **65%** are unaware, due to limited exposure, lower digital literacy, or reliance on traditional shopping methods.

### **Findings:**

The analysis of both quantitative and qualitative data yielded several key insights into how AI is shaping consumer behaviour in Maharashtra's retail sector.

#### *1. Adoption of AI Tools*

Retailers in urban areas are leveraging AI extensively particularly for recommendation engines, chatbots, automated billing, and targeted marketing. In contrast, rural retailers are in early stages of AI adoption, mostly through third-party platforms (e.g., WhatsApp based catalogs, regional-language apps).

#### *2. Urban Consumer Behaviour*

**Personalization Drives Loyalty:** 68% of urban respondents stated they are more likely to return to a brand that offers personalized recommendations.

**Digital-First Preferences:** Urban consumers favoured AI tools that made their shopping experience faster and more tailored.

**Trust and Awareness:** 74% of urban participants were aware that AI was used in their shopping journey, and most perceived it positively.

#### *3. Rural Consumer Behaviour*

**Low Awareness but High Curiosity:** Only 35% of rural respondents recognized AI-based features, but younger consumers expressed interest in learning more.

**Preference for Human Interaction:** Many rural consumers preferred in-person help over AI tools, citing trust and familiarity as primary reasons.

**Infrastructure Barriers:** Limited internet access and smartphone compatibility issues were commonly reported.

#### *4. Perceived Challenges*

**Data Privacy Concerns:** Both urban and rural respondents expressed hesitancy about sharing personal data, especially when the purpose of data use wasn't clear.

**Digital Literacy Gap:** Rural areas still struggle with understanding AI tools, impacting adoption and trust.

### DISCUSSION:

The findings underscore a stark contrast in AI impact between urban and rural retail markets. In urban Maharashtra, AI is reinforcing convenience and loyalty by creating hyper-personalized retail experiences. These consumers have grown to expect quick service, digital interaction, and tailored suggestions—conditions AI is well-positioned to meet.

In rural areas, while AI is slowly entering the retail ecosystem, its influence on consumer behaviour is limited by infrastructural and cultural factors. The slower adoption is not necessarily due to resistance, but rather a lack of exposure, trust, and education. Interestingly, the study also finds that younger rural consumers (ages 18–30) are showing more openness to digital tools, suggesting a potential generational shift.

Retailers must recognize that a one-size-fits-all AI strategy is ineffective in such a diverse environment. To maximize AI's benefits, solutions must be localized, user-friendly, and linguistically accessible, particularly for the rural market.

### CONCLUSION:

AI is undeniably transforming the retail market in Maharashtra by shaping how consumers discover, evaluate, and purchase products. In urban areas, the technology is already influencing consumer behaviour by providing faster, smarter, and more personalized shopping experiences. In rural areas, the potential remains largely untapped but promising if barriers like digital literacy, infrastructure, and trust are addressed.

This study highlights the urgent need for **inclusive AI strategies** that consider regional diversity, consumer readiness, and behavioural tendencies. Retailers, tech developers, and policymakers must collaborate to ensure equitable access to AI benefits across Maharashtra's retail spectrum.

Future research could explore long-term behavioural changes in rural consumers as digital infrastructure improves, or examine the role of AI in enhancing traditional retail models rather than replacing them.

### REFERENCES:

1. McKinsey & Company. (2020). *The State of AI in 2020*. Retrieved from <https://www.mckinsey.com>
2. PwC India. (2019). *AI in Indian Retail: The Next Frontier*. PwC India.
3. NASSCOM. (2021). *Unlocking Value from AI in India*. Retrieved from <https://nasscom.in>
4. KPMG India. (2022). *Digital Consumer Trends in Rural India*.



5. Government of Maharashtra. (2023). *Economic Survey of Maharashtra 2022-2023*.
6. Gartner. (2021). *How AI is Transforming Retail Customer Experience*.
7. Chatterjee, S., & Rana, N. (2020). *Artificial Intelligence and Consumer Behaviour: An Emerging Research Agenda*. *Journal of Retail & Consumer Services*, 54.
8. Statista. (2023). *Smartphone Penetration in Urban vs Rural India*. Retrieved from <https://www.statista.com>