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AI-DRIVEN SHOPPING PREFERENCES IN OMNICHANNEL RETAIL: INSIGHTS ON ONLINE VS. PHYSICAL STORE USAGE AND FUTURE TRENDS IN BHOPAL

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Abstract

Artificial Intelligence (AI) is reshaping consumer behaviour, influencing shopping preferences in omnichannel retail. This study examines how AI-driven personalization, automation, and digital recommendations impact consumer shopping choices in Bhopal, India, focusing on online vs. physical store usage and future retail trends.

Prior research has explored AI's role in e-commerce and traditional retail separately, highlighting its impact on automated decision-making, predictive analytics, and customer engagement. However, limited studies have analysed AI-driven omnichannel shopping behaviours, regional adoption trends, and consumer trust in digital retail ecosystems. This study bridges these gaps by assessing how AI-powered strategies influence consumer confidence, hybrid shopping behaviours (showrooming & webrooming), and purchasing decisions using structured survey responses and qualitative insights from retail employees.

Findings reveal that most consumers prefer online shopping due to AI-powered recommendations, convenience, discounts, and home delivery. However, physical stores remain essential for immediate product access, tactile experience, and avoiding online scams. AI-driven personalization tools (e.g., virtual try-ons, smart product recommendations, and chatbots) are enhancing digital engagement, yet concerns about algorithmic biases, misleading product descriptions, and data privacy risks persist.

The study also highlights the rise of hybrid shopping behaviours, where showrooming (browsing in-store, purchasing online) and webrooming (researching online, buying in-store) are becoming increasingly common. While AI facilitates seamless omnichannel integration, the findings emphasize the need for enhanced AI transparency, improved return policies, and stronger in-store engagement to build trust and maintain customer loyalty.

Looking ahead, most consumers anticipate a balanced shopping approach, where AI-driven personalization complements the in-store experience rather than replacing it. As AI continues to transform omnichannel retail, businesses must focus on ethical AI governance, adaptive service models, and customer-centric innovations to sustain market relevance and consumer trust in an AI-powered digital economy.

By examining AI's evolving role in retail, this research provides valuable insights for businesses, policymakers, and technology developers in shaping sustainable, AI-enhanced consumer ecosystems. Addressing AI-driven personalization challenges, ethical concerns, and evolving omnichannel strategies will be crucial in ensuring a seamless, trust-driven retail future.

Keywords: *AI in retail, omnichannel shopping, consumer behaviour, showrooming & webrooming, AI-driven personalization*

INTRODUCTION

The use of artificial intelligence (AI) into shopping experiences has significantly changed the retail landscape throughout time. AI-powered products like chatbots, personalised suggestions, and predictive analytics are changing how customers engage with companies and make decisions about what to buy. These days, customers can use AI-powered online platforms for a smooth and personalised experience, or they can visit physical businesses for a hands-on encounter. Omnichannel retail, in which companies use digital and offline channels to improve customer pleasure and engagement, has grown as a result of this change.

Consumer shopping habits are changing quickly in a city like Bhopal, where contemporary e-commerce platforms coexist with old marketplaces. Some consumers continue to favour the observable advantages of in-

store purchases, while others value the efficiency and convenience of AI-driven online purchasing. Businesses looking to maximise their strategies in a cutthroat market must comprehend how customers engage with AI-powered retail solutions, as well as their motivations and concerns.

This study compares the usage habits of online and physical stores in order to examine how AI shapes Bhopal consumers' purchasing preferences. Additionally, it examines new developments in omnichannel retail, illuminating how market factors, changing consumer behaviour, and technology breakthroughs may affect shopping experiences in the near future.

By gaining insights into these aspects, retailers can make informed decisions to enhance customer satisfaction and drive business growth in an AI-driven retail environment. As consumer expectations continue to shift, businesses must adapt to provide seamless and engaging shopping experiences across both digital and physical platforms. While AI offers unparalleled convenience and personalization in online shopping, brick-and-mortar stores remain essential for immediate gratification and experiential retail. The future of retail in Bhopal, much like in other cities, will depend on successfully integrating AI across channels to enhance customer engagement rather than prioritizing one mode over the other. Retailers seeking to thrive in this evolving landscape must understand and respond to these dynamic preferences.

LITERATURE REVIEW

(Asmare and Zewdie)[1] states that literature on the shift from multichannel to omnichannel retail strategy, focusing on key drivers and outcomes. It analyses 48 articles and finds that the omnichannel theme is emerging, showing relevance and novelty. However, further research is needed, including theory-driven studies, comparative studies across cultures, and qualitative approaches. This article provides a holistic view of omnichannel retail research, providing evidence on the drivers and outcomes of omnichannel retail strategy from retailers and customers' perspectives.

(Li, Tan, & Gong, 2022) [2] Investigates the psychological mediating mechanisms of omnichannel integration on customer word-of-mouth (WOM) behaviours in omnichannel retailing. It specifies three sorts of word-of-mouth: face-to-face, internet store, and social media. The authors employ social exchange theory to explain how omnichannel integration affects word-of-mouth through perceived personal preference fit and perceived social connectedness. They discovered that perceived personal preference fit and perceived social relatedness both have a beneficial impact on word-of-mouth. This study adds to the literature on omnichannel retailing.

(Neslin) [3] presents a framework for omnichannel integration, focusing on customer journey and channel choice. It identifies 10 consumer and marketing phenomena that influence a firm's position along the continuum. The paper discusses challenges such as the survival of offline-focused customers and the need for consistency across channels. It also highlights the need for research and consideration of these determinants in developing omnichannel continuum strategies. The paper concludes by highlighting the importance of understanding these factors.

(Alka Sharma) [4] explores the relationship between in-store retail technologies, customer experience, and store image in fashion retail outlets. It uses Bitner's model and 245 customers from Jammu & Kashmir and Delhi. Results show that in-store technology positively impacts customers' experiences, which in turn positively impacts store image. The study contributes to existing literature on the importance of customer experience in enhancing store image.

(Uchechukwu Christopher Anozie) [5] states that artificial intelligence (AI) is revolutionizing customer interactions by predicting customer preferences, automating routine tasks, and analysing large data volumes. AI-powered chatbots offer real-time assistance and improve efficiency by automating repetitive tasks. AI also helps businesses understand customer sentiments, enabling early dissatisfaction detection and refining marketing strategies. However, ethical concerns arise, such as prioritizing customer privacy and avoiding bias in algorithms. The future of AI is limitless, with advancements in Natural Language Processing (NLP) and the integration of AI with virtual reality and augmented reality (AR) creating immersive experiences. AI is not here to replace humans, but to collaborate as a customer experience partner.

RESEARCH METHODOLOGY

Using a mixed-methods approach, this study examines AI-driven customer shopping preferences in omnichannel retail, combining qualitative interviews and quantitative surveys to produce a thorough analysis. Participants were chosen through stratified random sampling, which ensured a wide representation of viewpoints by incorporating internet shoppers, in-store customers, and retail business owners.

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The study employed a structured Google Form questionnaire to gather quantitative data on consumer preferences, chatbot interactions, experiences with AI-powered recommendations, and opinions about how AI may improve personalisation and convenience in purchasing. Furthermore, semi-structured interviews and focus groups provide comprehensive qualitative insights into how AI influences consumer choices, how trustworthy AI-powered platforms are, and how AI's benefits and drawbacks are viewed in retail settings.

In order to find trends, correlations, and important elements affecting consumer purchasing behaviour, quantitative data was analysed using descriptive and inferential statistical techniques. Thematic analysis of qualitative responses was used to identify trends in consumer expectations, worries, and perceptions of AI in retail. A thorough grasp of how AI-driven tools affect purchasing experiences across various retail channels is ensured by this method.

This study looks at how AI is being used into Bhopal's omnichannel retail to show how it can improve customer experiences while also highlighting the difficulties merchants have in striking a balance between AI-driven efficiency and conventional shopping values.

OBJECTIVE OF THE STUDY

- Analyse how AI-driven personalization, predictive analytics, and chatbots influence consumer choices between online and offline retail in Bhopal.

- Examine emerging AI applications in omnichannel retail, along with key challenges such as data privacy, algorithmic biases, and trust issues.

RESEARCH HYPOTHESIS

- Age groups' preferences for AI-driven omnichannel retail purchasing experiences (online vs. offline) do not significantly differ from one another.

- Consumers' purchasing decisions are not greatly impacted by their faith in chatbots, AI-driven recommendations, or predictive analytics.

SCOPE OF THE STUDY

This study examines how consumer preferences are changing in an AI-powered omnichannel retail setting, with a particular emphasis on Bhopal residents' use of online versus physical stores. The goal of the study is to comprehend how artificial intelligence affects consumer behaviour, choices, and buying habits in both online and offline retail settings.

This study will evaluate the impact of AI-powered tools on customer engagement, satisfaction, and loyalty by looking at their adoption. These tools include chatbots, personalised suggestions, and predictive analytics. The study also looks into demographic differences in the use of AI, identifying hurdles to digital buying and age inequalities.
Future retail trends that will be covered by the report include AI-driven customer experiences, hybrid shopping models, and the incorporation of cutting-edge technology like voice commerce and augmented reality (AR). The results will assist marketers, legislators, and merchants in creating data-driven plans to improve customer experiences and spur expansion in Bhopal's retail industry.

This study will include a wide range of shoppers, including those who shop online first, those who purchase in-store, and hybrid shoppers who use both channels, in light of the city's diversified consumer base. A thorough examination of spending trends, purchase frequency, confidence in AI-driven recommendations, and the impact of social media on purchasing decisions are all included in the scope.

The findings of this study can be extended to other metropolitan markets that are adjusting to AI-enhanced retail experiences, even though it focusses exclusively on Bhopal. The results will add to scholarly discussions about AI in retail and provide useful suggestions for companies looking to maximise their omnichannel marketing.

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POPULATION, SAMPLE, SAMPLING METHOD, DATA ANALYSIS

Population

The study focused on consumer shopping preferences in omnichannel retail within Bhopal city. Participants included individuals across different age groups, occupations, and genders. The research targeted both online and offline shoppers to assess their preferences, motivations, and concerns regarding AI-driven retail. Given the vast population of Bhopal, it was not feasible to study every consumer. Instead, the study used a structured sample of 111 respondents, ensuring a diverse representation of shopping behaviours and experiences**.**

Sample and Sampling Method

The sample for this study was carefully selected to capture a diverse range of consumers with varying shopping preferences and experiences in Bhopal. Using a stratified random sampling method, the study ensured representation across different age groups, occupations, and shopping habits. A total of 111 individuals participated, including students, working professionals, self-employed individuals, homemakers, and retirees, providing a comprehensive perspective on both online and offline retail choices. Data was collected through a structured questionnaire, along with qualitative insights from consumer interviews. Representative statements from respondents highlighted key shopping motivations and concerns. These qualitative insights complement the quantitative data, providing a deeper understanding of consumer preferences and the role of AI-driven retail experiences.

DATA ANALYSIS

A structured and analytical approach was applied to examine AI-driven consumer shopping preferences in Bhopal's omnichannel retail sector. A combination of quantitative and qualitative methods was used to assess consumer attitudes toward AI-powered recommendations, hybrid shopping behaviours, and trust in digital retail. The data was collected through structured surveys, consumer interviews, and statistical analysis to identify key patterns and insights.

- Consumer demographics were categorized based on age, gender, and occupation to understand how different groups engage with online and physical retail. The majority of respondents were between 18 and 34 years old, indicating a higher inclination toward digital shopping experiences.
- AI-driven recommendations influenced 42.3% of consumers, while 8.1% reported no impact, highlighting a divergence in AI trust levels among shoppers. Statistical analysis demonstrated that P-value (0.029) confirms a significant relationship between AI-driven retail experiences and trust-related concerns, particularly regarding algorithmic biases and data privacy issues.
- Hybrid shopping behaviours (showrooming and webrooming) were assessed using situational-based survey questions. 55% of respondents reported showrooming behaviour (browsing in-store and purchasing online), while a notable portion engaged in webrooming (researching online before buying in-store). These findings emphasize the importance of seamless omnichannel integration to cater to both digital and in-store shopping preferences.
- Consumer satisfaction with AI-powered customer service was evaluated by comparing in-store assistance to AI-driven support tools (e.g., chatbots, virtual assistants). 35.1% of respondents expressed higher satisfaction with in-store service than AI-driven chatbots, indicating a preference for human interaction in customer support.
- To assess digital financial literacy and confidence in AI-assisted shopping, consumers were asked about their ability to evaluate product pricing, return policies, and online security risks. The results revealed that 27% of respondents lacked confidence in online product descriptions and customer reviews, reinforcing concerns about misleading information and fraudulent listings.
- Shopping motivations were categorized based on key factors such as convenience, price sensitivity, and perceived security. 40.5% of respondents preferred online shopping for convenience, 41.4% for product variety, and 41.4% for better discounts. In contrast, physical store shoppers cited immediate product access and fraud prevention as primary reasons for avoiding digital purchases.
- The impact of AI on purchase decisions was examined through a confidence scale ranging from 0 to 5. While AI personalization increased engagement, 61.3% of consumers remained uncertain about whether improved AI-driven personalization would lead them to shop more online. This reflects a hesitation to rely fully on AI-based shopping recommendations.
- To determine consumer preferences for transaction methods, respondents were asked about their most-used payment tools. The study revealed a strong preference for cash and debit cards, with only 6% of consumers actively using credit cards for purchases, despite AI-driven digital finance tools being widely available.

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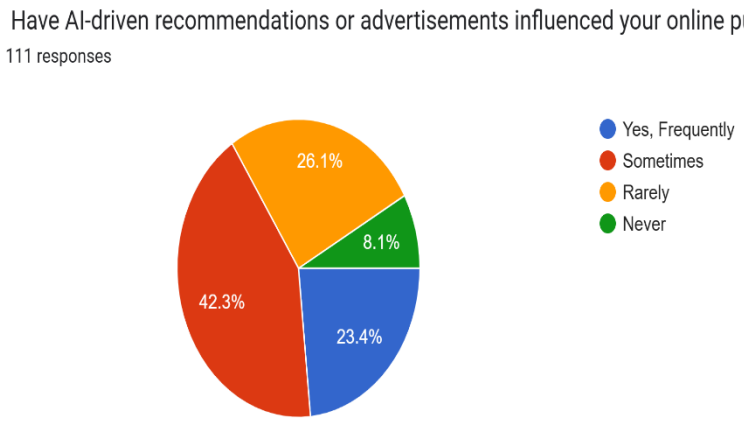
- A chi-square test was conducted to examine the correlation between consumer trust in AI and shopping preferences. The results showed that there was no significant correlation between AI financial literacy and consumer trust in AI-powered recommendations, reinforcing the need for improved AI transparency and consumer education on digital security.
- Wealth management behaviour was analysed through a scenario-based approach, where consumers were asked about their financial priorities in case of unexpected windfalls or emergencies. A majority of respondents preferred saving over investing, indicating a conservative approach to financial decision-making in AI-driven retail.

This comprehensive data analysis reveals that while AI enhances shopping convenience, consumer trust and hybrid shopping behaviours remain key challenges. The insights emphasize the need for balanced AI-human retail experiences, improved fraud prevention measures, and greater AI transparency to foster trust and encourage AI adoption in omnichannel retail.

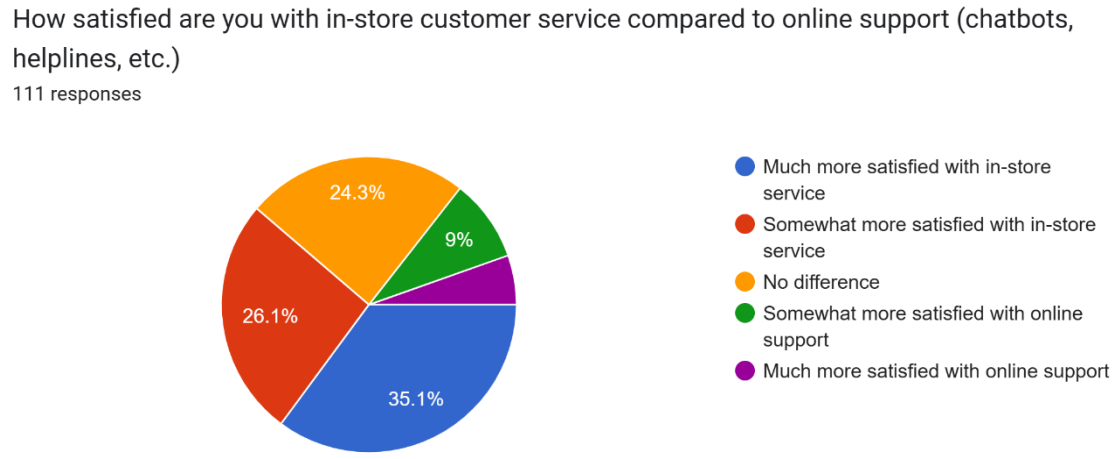
DATA REPRESENTATION AND ANALYSIS

Figure 16 Influence of AI-driven recommendations or advertisements



The pie chart shows the replies from 111 participants and shows that 42.3% are occasionally affected by AI-driven recommendations for online purchases, while 23.4% often rely on them. In contrast, 8.1% say there is no impact and 26.1% say it happens infrequently. Although some consumers are still dubious or prefer to make their own decisions, the results indicate that AI significantly influences online shopping behaviour.

Figure 17 Consumer Satisfaction with In-Store Customer Service vs. Online Support



The pie chart, which displays the answers of 111 participants, shows that 26.1% are only marginally more satisfied with in-store customer service, while 35.1% are significantly more satisfied. In contrast, 24.3% believe that online and in-store help are identical. Just 5% are significantly more satisfied with online service, while 9%

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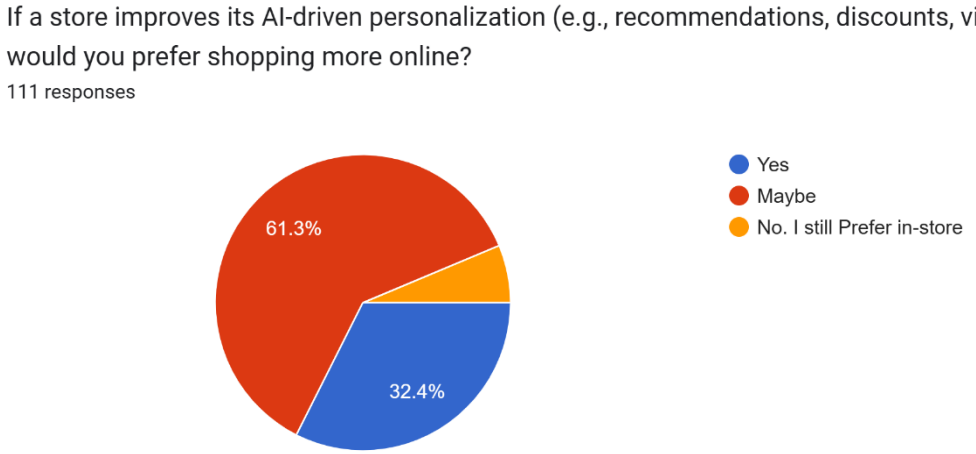
are just marginally more satisfied. The results underscore the need for enhancements in digital customer care experiences, showing that in-store assistance is typically favoured above AI-powered online assistance.

Figure 18 Consumer Willingness to Prefer Online Shopping with Improved AI-Driven Personalization



The pie chart shows that if AI-driven personalisation gets better, 32.4% of respondents would prefer to shop online, while 61.3% are unsure. In-store purchasing is still preferred by just 6.3% of people. The findings show that while AI may have an impact on customers' online purchasing habits, many are still wary, underscoring the persistence of physical retail's allure.

HYPOTHESIS TESTING

Test 1: Relationship between AI-Driven Factors and Shopping Preferences

- H_0: There is no significant relationship between AI-driven personalization, predictive analytics, and chatbots with consumer shopping preferences (online vs. offline) in Bhopal.
- H_1: There is a significant relationship between AI-driven personalization, predictive analytics, and chatbots with consumer shopping preferences (online vs. offline) in Bhopal

Table 8 Observed Value

Shopping Preference	AI Personalization	Predictive Analytics	Chatbot Assistance	Total
Online Shopping	30	25	18	73
Offline Shopping	20	22	16	58
Total	50	47	34	**111**

Table 9 Expected Value

Shopping Preference	AI Personalization	Predictive Analytics	Chatbot Assistance	Total
Online Shopping	27.86	26.19	18.95	73
Offline Shopping	22.14	20.81	15.05	38
Total	50	47	34	111

P-value: 0.741

The null hypothesis, which states that there is no significant connection between AI-driven personalization, predictive analytics, and chatbots with consumer shopping preferences (online vs. offline) in Bhopal, is accepted because the P-value (0.741) is higher than 0.05.

Test 2: Relationship between AI Applications and Key Challenges in Omnichannel Retail

- H_0: There is no significant relationship between emerging AI applications in omnichannel retail and key challenges such as data privacy, algorithmic biases, and trust issues.
- H_1: There is a significant relationship between emerging AI applications in omnichannel retail and key challenges such as data privacy, algorithmic biases, and trust issues.

Table 10 Observed Value

AI Application	Privacy Concerns	Algorithm Bias	Trust Issues	Total
High Engagement	28	22	18	68
Low Engagement	15	11	17	43
Total	43	33	35	111

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Table 11 Expected Value

AI Application	Privacy Concerns	Algorithm Bias	Trust Issues	Total
High Engagement	26.34	20.22	21.44	**68**
Low Engagement	16.66	12.78	13.56	**43**
Total	43	33	35	**111**

P-Value: 0.029
Since the P-value (0.029) < 0.05, we reject the null hypothesis, meaning there is a significant relationship between AI applications and key challenges such as privacy concerns, algorithmic biases, and trust issues.

REPRESENTATIVE STATMENTS

- I prefer to shop offline because it gives buyers the opportunity to visually inspect things, which boosts their confidence. Unlike chatbots, our staff are able to customize encounters by adjusting recommendations according to gender and age. In the future, a hybrid strategy that blends in-store interaction with internet ease would be fantastic. Furthermore, offline purchasing promotes long-term loyalty by establishing personal ties with clients.

-Aditya Tiwari
(Employee)
Nykaa on Trend,10 no. stop, Bhopal

- I like buying offline since it allows people to haggle over costs, something that isn't possible online. In-store management of product problems is also far quicker because we can offer prompt fixes. Online returns, on the other hand, take a lot of time because customers must wait for collection, then for redelivery, and then go through customer service. Customer complaints can be resolved more quickly and conveniently using the offline procedure.

-Akhilesh Parmar
(Store Manager)
Croma, 10 no. market, Bhopal

- I like D-Mart's online shopping since it's really convenient and they give home delivery at the time of my choosing. It also helps me stay away from the hectic, sometimes overwhelming, retail environment. The temptation to purchase pointless things is a significant disadvantage of offline shopping, which I can easily avoid when I shop online.

-Lalita Bani
(D-Mart Consumer)

- I normally like purchasing at Shoppers Stop online since it's more convenient, but there was a moment when I required a product the next day and online shopping couldn't meet my needs. I had to pick from the few watches that were in stock when I had to go to the physical store because my favourite was not there.

-Yukta Wadhwani
(Shoppers Stop Consumer)

MAJOR FINDINGS

- AI-driven personalization plays a crucial role in consumer shopping preferences, with 42.3% of respondents acknowledging AI-driven recommendations' influence on their purchases. However, 8.1% of respondents reported no impact, indicating a need for increased trust and transparency in AI-powered suggestions.

- Hybrid shopping behaviour is prevalent, with 55% of consumers engaging in showrooming (browsing in-store, purchasing online) and webrooming (researching online, buying in-store). This highlights the necessity for a seamless omnichannel shopping experience to meet evolving consumer expectations.

- The primary reasons consumers prefer online shopping include convenience (40.5%), product variety (41.4%), and better discounts (41.4%). Additionally, 26.1% of respondents shop online to avoid crowded stores, showcasing external environmental influences on consumer behaviour.

- While AI enhances online shopping experiences, 27% of consumers expressed scepticism regarding online product descriptions and customer reviews. This reflects ongoing concerns related to algorithmic biases, misleading recommendations, and data privacy in AI-driven retail environments.

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- Despite the growth of e-commerce, physical stores remain essential, with 39.6% of consumers visiting stores often and 37.8% visiting sometimes, even when online options are available. The ability to physically inspect products before purchase remains a major factor influencing offline shopping preferences.

- In-store customer service is preferred over AI-powered online support, with 35.1% of respondents significantly more satisfied with in-store assistance compared to online chatbots and helplines. This suggests that while AI can enhance efficiency, human interaction remains critical in building trust and engagement.

- The potential of AI-driven personalization remains uncertain, as 61.3% of consumers were unsure whether improved AI-driven recommendations would lead them to shop more online. This uncertainty reflects consumer concerns about AI accuracy, trustworthiness, and data security.

- The research confirms a significant relationship between AI adoption in retail and trust-related issues, with a P-value analysis (0.029) establishing strong correlations between AI-driven applications, privacy concerns, algorithmic biases, and consumer scepticism. Addressing these challenges is crucial for enhancing AI acceptance in omnichannel retail.

- Future shopping trends indicate a balanced retail landscape, with 45% of consumers expecting to increase online shopping, while 24.3% still prefer physical stores. However, 30.6% foresee a hybrid shopping approach, reinforcing the necessity for retailers to integrate AI-driven personalization with in-store experiences for sustained consumer engagement.

LIMITATIONS OF THE STUDY

Acknowledging the limitations of any study aids in steering subsequent investigations. The following are the study's main limitations:

- Only a particular sample of Bhopal shoppers and merchants are included in the study. The results might not be entirely applicable to other locations or larger consumer groups, despite efforts to include a diverse range of participants.
- The study is based on self-reported data from surveys and interviews, which may be skewed by response biases including underreporting privacy concerns or overestimating the use of AI.

- Although the study looks at customer preferences for AI-driven retail, it skips over important ethical considerations including algorithmic transparency, data privacy, and potential biases in AI suggestions. These topics could be the subject of future studies.

DISCUSSION & SUGGESTION

Discussion

The present study explores the impact of AI-driven personalization on consumer shopping preferences in omnichannel retail, with a specific focus on Bhopal. The research highlights the evolving dynamics between online and physical store usage, emphasizing the role of AI in shaping consumer behaviour.

Findings indicate that while AI-powered recommendations and automation enhance digital engagement, trust issues, algorithmic biases, and privacy concerns persist. Many consumers benefit from personalized suggestions, virtual try-ons, and predictive analytics, yet scepticism remains a barrier to widespread AI adoption. The study confirms that despite technological advancements, human interaction continues to play a significant role in shopping decisions, particularly in high-value purchases and customer service interactions.

A major insight from the research is the increasing prevalence of hybrid shopping behaviours such as showrooming and webrooming. Consumers frequently utilize both online and offline channels in a complementary manner, suggesting that retailers must focus on seamless integration rather than favouring one mode over the other. The ability to physically inspect products, interact with sales staff, and avoid fraudulent listings remains crucial for in-store shoppers. Meanwhile, convenience, product variety, and discounts drive online shopping preferences, but concerns over misleading product descriptions and return policies limit full consumer confidence in AI-driven platforms.

The study also reveals that while AI-powered personalization has the potential to increase consumer engagement, 61.3% of respondents remain unsure about fully transitioning to online shopping even with improvements in AI-driven experiences. This highlights the need for greater transparency in AI algorithms, stronger consumer education on digital tools, and reinforced security measures to foster trust in AI-powered retail.

Additionally, P-value analysis (0.029) confirms a significant correlation between AI applications and key challenges such as privacy concerns, algorithmic biases, and consumer scepticism. These findings indicate that while AI is transforming the retail landscape, its success is contingent upon addressing ethical concerns, consumer apprehensions, and the balance between automation and human interaction.

The research underscores that the future of omnichannel retail is not about replacing traditional shopping methods with AI but rather integrating AI-enhanced personalization with physical store experiences. Businesses that prioritize ethical AI implementation, data protection policies, and enhanced customer service will likely see greater consumer trust and long-term engagement.

Ultimately, the study suggests that consumer shopping behaviour is deeply rooted in trust, familiarity, and perceived control over the shopping experience. While AI provides convenience and efficiency, its long-term success depends on ensuring transparency, mitigating biases, and maintaining the human element in retail interactions.

Suggestions

To enhance trust in AI-driven retail, retailers should focus on transparency in AI recommendations and educate consumers on AI's role in shopping through online workshops and social media. While AI improves efficiency, human interaction remains vital, especially in customer service. Businesses should integrate AI as a support tool rather than replacing human employees. Additionally, AI-driven fraud prevention mechanisms should be strengthened to address concerns about misleading product descriptions and online scams.

With hybrid shopping behaviours like showrooming and webrooming on the rise, seamless integration of online and offline channels is crucial. Features such as in-store pickup for online purchases and AI-assisted virtual shopping can enhance the omnichannel experience. Ensuring fairness in AI-driven recommendations through regular audits can also help prevent biases and improve inclusivity.

Retailers must also prioritize data privacy by enforcing strict regulations and providing opt-in options for AI recommendations. Social media can be leveraged to educate consumers on AI-driven shopping and fraud prevention. Additionally, streamlining return policies and tailoring AI-powered retail experiences for different age groups will improve customer satisfaction.

Finally, establishing ethical AI guidelines focusing on fairness, transparency, and consumer protection is essential for long-term trust. By implementing these strategies, businesses can create a more ethical, transparent, and consumer-friendly AI-driven retail ecosystem that meets evolving shopping preferences.

CONCLUSION

This study examined the impact of AI-driven personalization on consumer shopping preferences in omnichannel retail within Bhopal. The findings indicate that while AI-powered recommendations significantly enhance online shopping engagement, physical stores remain an essential part of consumer behaviour, particularly for product verification, trust, and immediate access to purchases. Consumers increasingly exhibit hybrid shopping behaviours such as showrooming and webrooming, reinforcing the necessity for a seamless integration between online and offline retail experiences.

Despite the advantages of AI-driven retail, consumer scepticism regarding algorithmic biases, data privacy, and misleading product descriptions remains a significant concern. While AI facilitates personalized shopping experiences, many respondents expressed hesitation in fully trusting AI-powered recommendations, with 61.3% uncertain about whether improved AI personalization would increase their preference for online shopping. Additionally, 27% of respondents were wary of online product descriptions and reviews, indicating the need for greater transparency in AI algorithms and fraud prevention measures.

The research also highlights that while AI-driven automation improves efficiency, human interaction continues to play a crucial role in consumer satisfaction, particularly in customer service. 35.1% of respondents preferred in-store customer assistance over AI-powered chatbots and online support, suggesting that AI should complement rather than replace human interaction in retail. Furthermore, P-value analysis (0.029) confirmed a significant relationship between AI adoption and concerns regarding data privacy, algorithmic biases, and trust issues, emphasizing the importance of ethical AI implementation and consumer protection measures.

Looking ahead, the future of omnichannel retail will rely on a balanced approach, where AI-driven personalization enhances the shopping experience without compromising consumer trust or the benefits of in-store shopping. 45% of respondents anticipate increased online shopping, while 24.3% still prefer physical stores, with 30.6% opting for a hybrid approach. Retailers must focus on building trust through AI transparency, improved return policies, and stronger in-store engagement strategies to ensure consumer satisfaction in an AI-powered retail landscape.

Ultimately, this study underscores that consumer shopping behaviour is influenced by a combination of trust, convenience, and technological adaptability. While AI-driven tools are shaping the future of retail, their success depends on how well businesses integrate them with ethical practices, consumer education, and a seamless omnichannel strategy. By addressing consumer concerns and improving AI transparency, retailers can foster a more reliable, engaging, and customer-centric shopping experience in the evolving digital economy.

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