

The Evolving Influence of AI on Consumer Behavior

HARIHARAN V, ADARSH SINGH

Under the Supervision and Guidance of **DR. Shanthanu Ray Chaudhuri**, Professor,

Master of Business Administration

Mittal School of Business

Lovely Professional University

Phagwara, Punjab.

ABSTRACT:

Artificial intelligence (AI) is rapidly transforming the landscape of consumer behavior. Businesses are wielding AI's analytical prowess like a scalpel, dissecting vast troves of customer data to understand needs with unprecedented precision. This newfound understanding empowers them to personalize experiences, curate product recommendations, and subtly influence purchasing decisions. This paper delves into existing research on the impact of AI on consumer behavior, drawing insights from seminal studies.

Key words: Artificial intelligence (AI), Consumer behavior, Customer data, Personalization, Product recommendations, Seminal studies.

CHAPTER-1

INTRODUCTION:

In the recent span, the infusion of Artificial Intelligence (AI) into various societal domains has sparked a metamorphosis, reshaped conventional norms and proffered innovative solutions to intricate dilemmas. Among these transformations, one realm experiencing a profound metamorphosis is the study of consumer behavior. As AI advancements progress and become more accessible, both researchers and practitioners are increasingly harnessing its capabilities to delve deeper into the patterns, preferences, and decision-making processes of consumers. Consumer behavior, a multifaceted domain encompassing the examination of how individuals, groups, and organizations choose, procure, utilize, and discard goods, services, ideas, or experiences, has long captivated the attention of marketers, economists, sociologists, and psychologists. Grasping consumer behavior holds pivotal importance for enterprises endeavoring to craft effective marketing strategies, bolster customer contentment, and propel sustainable advancement.

The advent of AI has transformed the landscape of consumer behavior research by furnishing potent tools for data scrutiny, predictive modeling, and tailored marketing. AI algorithms possess the capacity to sift through copious amounts of structured and unstructured data from diverse outlets, encompassing social media, online transactions, and demographic profiles, to discern significant patterns and tendencies. Employing techniques like machine learning, natural language processing, and sentiment analysis, AI empowers researchers to distill actionable insights

from intricate datasets, illuminating consumer preferences, sentiments, and purchasing inclinations with unparalleled precision.

Exploring the enduring societal consequences, the integration of Artificial Intelligence (AI) is poised to leave an indelible mark on various facets of human existence. As AI permeates deeper into our societal fabric, its long-term ramifications unfold across multiple dimensions. In the context of economics, AI's influence is profound. The augmentation of productivity through automation and optimization promises to reshape labor markets, potentially altering employment landscapes and income distribution. While AI-driven efficiency could spur economic growth, it also raises concerns about job displacement and exacerbating inequality. In governance and policy, AI introduces novel considerations. The utilization of AI for predictive analytics in law enforcement or public health management presents opportunities for enhancing efficiency and efficacy. However, it also raises ethical dilemmas regarding privacy, bias, and accountability, necessitating robust regulatory frameworks and ethical guidelines. Culturally, AI's impact is transformative. From personalized entertainment recommendations to AI-generated art and literature, technology reshapes creative expression and cultural consumption. Yet, questions emerge about the authenticity of AI-generated content and its implications for human creativity and cultural identity.

Ethically, AI confronts us with profound moral quandaries. As autonomous systems make decisions with far-reaching consequences, questions of responsibility, transparency, and fairness come to the fore. Safeguarding against algorithmic biases and ensuring AI aligns with societal values become paramount imperatives. Environmental considerations also come into play. AI-enabled optimization in energy management, transportation, and resource allocation holds promise for sustainability. However, the environmental footprint of AI itself, from energy consumption to e-waste, warrants scrutiny to ensure that technological advancement aligns with ecological preservation. In essence, investigating the long-term societal ramifications of AI necessitates a holistic approach, considering economic, governance, cultural, ethical, and environmental dimensions. As we navigate this technological frontier, thoughtful deliberation and proactive measures are essential to steer AI's trajectory toward a future that maximizes societal benefit while mitigating potential risks.

AI algorithms, while promising efficiency and personalization, also have the potential to exacerbate existing socioeconomic inequalities in access to goods, services, and information. The

algorithms rely heavily on data to make predictions and decisions. However, if the training data is biased, reflecting historical inequalities and disparities, the algorithms may perpetuate and even amplify those biases. For example, if past consumer data disproportionately represents certain socioeconomic groups due to historical access patterns, AI algorithms may inadvertently favor those groups, further marginalizing others. Again, AI-driven decision-making processes can inadvertently discriminate against individuals from marginalized socioeconomic backgrounds. For instance, if algorithms are trained on data that correlates certain socioeconomic factors with creditworthiness or purchasing power, they may systematically disadvantage individuals from disadvantaged communities, leading to unequal access to financial services or targeted marketing.

Access Barriers: The deployment of AI-driven technologies often requires access to digital infrastructure, technical expertise, and financial resources. Socioeconomically disadvantaged communities may lack access to these resources, creating barriers to benefiting from AI-driven services and experiences. This digital divide can further widen existing socioeconomic disparities, perpetuating inequalities in access to goods, services, and information.

To address these challenges and ensure equitable outcomes in AI-driven consumer experiences, robust policies and regulations are essential in the lines of data governance which would be implemented regulations to ensure transparency and accountability in data collection, storage, and usage can mitigate biases in AI algorithms. This includes measures to audit algorithms for fairness and accountability, as well as mechanisms for individuals to

challenge algorithmic decisions. Furthermore, enforcing standards for algorithmic fairness can help prevent discriminatory practices in marketing and consumer experiences. This involves designing algorithms that are sensitive to socioeconomic factors without perpetuating biases and ensuring that AI-driven decisions are transparent and explainable. Lastly, but not the least, the need for digital inclusion, particularly in the Indian context. Investing in initiatives to bridge the digital divide and promote digital literacy in underserved communities is crucial for ensuring equitable access to AI-driven technologies. This includes expanding access to affordable internet connectivity, providing training programs for digital skills, and fostering community partnerships to address specific socioeconomic barriers.

CHAPTER-2

REVIEW OF LITERATURE:

In their study, Eze and Bello Adenike (2016) looked at the variables influencing consumers' behaviours when it comes to consumer products marketing in Nigeria. The goal of the study was to investigate how societal factors affect the way that consumers make purchases in the apparel sector. The study found that factors such as money, age, and quality of income influence customer buying decisions.

Pornpimon Kammas, Sukree Sinthupinyo, and Achara Chandrachi (2019) concluded that while research can gather data from online pages about consumable goods, its actual focus is exclusively on non-consumable goods. The study's goal is to create an analytical tool that can assist online vendors in predicting customer behaviour based on Dentsu Aisas perspectives. In an investigation into the variables influencing consumer behaviour, Pinki Rani (2014) concentrated on the role that a variety of elements, including specifications, attributes, and the consumer in the decision-making process, play. The study concluded that in order to attract customers, successful consumer-oriented market service providers need function as psychologists.

A study by Laith T. Khrais (2020) looked at the key technological advancements in e-commerce that try to sway consumer behaviour in favour of businesses and products. This study reveals that although AI systems have aided e-commerce, there is disagreement over their morality, particularly when it comes to the idea of explainability. This study recommended improving ML models to make them more understandable and interpretable to develop explainable XAI systems.

Rodgers, Waymond, et al. "Artificial intelligence-driven music biometrics influencing customers' retail buying behavior." *Journal of Business Research* 126 (2021): 401-414. Introduction This article explores the potential of artificial intelligence (AI) in music biometrics to influence customer behaviour in a retail setting. It examines the impact of music on customers' cognitive and emotional states, and how these states can be leveraged to influence their purchasing decisions. The study was conducted in a real-world retail environment in China, and the findings suggest that AI-based music biometrics can be a powerful tool for creating a more positive shopping experience and boosting sales. Body The article highlights several key points about the use of music biometrics in retail: • Music has a significant impact on customers' cognitive and emotional states. The article cites research showing that music can influence mood, heart rate, and even spending habits. • AI-based music biometrics can be used to personalize the shopping experience. By analyzing a customer's individual characteristics and preferences, AI can tailor the music selection to create a more positive and engaging experience. • Personalized music can lead to increased sales. The study found that customers who were exposed to music that matched their preferences were more likely to make purchases. The article also discusses some of the challenges and limitations of using AI-based music biometrics in

retail. For example, it is important to ensure that the music is not too intrusive or overwhelming for customers. Additionally, there are privacy concerns that need to be addressed when collecting and analyzing customer data. Conclusion Overall, this article provides a compelling case for the use of AI-based music biometrics in retail. The study's findings suggest that this technology can be a valuable tool for creating a more positive shopping experience for customers and boosting sales. However, it is important to carefully consider the challenges and limitations of this technology before implementing it in a real-world setting.

Biswas, Koushiki, and Gourango Patra. "Role of Artificial Intelligence (AI) in Changing Consumer Buying Behaviour." Role of Artificial Intelligence (AI) in Changing Consumer Buying Behaviour This article explores the increasing role of artificial intelligence (AI) in shaping consumer buying behaviour. It highlights how AI is being leveraged in marketing strategies to understand and influence consumer preferences. The article emphasizes the ability of AI to analyze vast amounts of data, uncovering trends and patterns in consumer behaviour. This valuable information is then used to craft targeted marketing campaigns that resonate more effectively with consumers. Additionally, AI is employed to personalize the shopping experience for individual consumers, potentially leading to enhanced customer satisfaction and loyalty. In conclusion, the article underscores the significant impact of AI on how businesses market and sell to consumers. Strengths: • The article provides a clear and concise overview of the growing influence of AI in consumer buying behavior. • It effectively highlights the potential of AI in data analysis and targeted marketing strategies. • The emphasis on personalization through AI aligns with current trends in customer experience optimization. Areas for improvement: • The article could benefit from delving deeper into specific examples of how AI is being applied in different marketing contexts. • A more nuanced discussion on the potential ethical implications of AI-driven marketing practices would be valuable. • Exploring the challenges and limitations associated with AI implementation in marketing could provide a more comprehensive perspective. Overall, this article offers a valuable insight into the transformative role of AI in consumer buying behavior. By incorporating the suggested improvements, the review can provide an even more insightful and well-rounded analysis of the topic.

Khan, Sameen, et al. "Impact of artificial intelligent and industry 4.0 based products on consumer behaviour characteristics: A meta-analysis-based review." Sustainable Operations and Computers 3 (2022): 218-225. Impact of Artificial Intelligence and Industry 4.0 Based Products on Consumer Behavior This article investigates the impact of artificial intelligence (AI) and Industry 4.0 based products on consumer behavior. The authors identify several key characteristics of consumer behavior that influence their perception of AI products, including:

- Intention to buy: This is the most important factor that impacts consumer perception. Consumers who are more likely to buy an AI product are more likely to perceive it as beneficial and trustworthy.
- Social influence: Consumers are influenced by the opinions and experiences of others. If they see others using and enjoying AI products, they are more likely to be interested in trying them themselves.
- Psychological factors: Consumers' attitudes, beliefs, and values also play a role in their perception of AI products. For example, consumers who are more open to new technology are more likely to be receptive to AI. The article also explores the relationship between these characteristics and intention to buy. The authors find that intention to buy is mediated by both social influence and psychological factors. This means that social influence and psychological factors can influence consumers' intention to buy, which in turn influences their perception of AI products. Overall, this article provides valuable insights into the factors that influence consumer behavior towards AI products. The authors' findings suggest that businesses need to consider these factors when developing and marketing AI products. For example, businesses could focus on building trust and credibility, highlighting the social benefits of their products, and targeting consumers who are open to new technology. Here are some additional thoughts on the article: • The article could be strengthened by including more empirical evidence to support its claims. • The authors could explore the ethical implications of AI products in more detail. • The article could be expanded to consider the impact of AI products on different consumer segments.

Jain, Varsha, Ketan Wadhwani, and Jacqueline K. Eastman. "Artificial intelligence consumer behavior: A hybrid review and research agenda." *Journal of consumer behaviour* (2023). Effects of Technological Innovations on Consumer Behavior This article explores the impact of technological advancements on consumer behavior in the context of Industry 4.0. It highlights how recent innovations have reshaped marketing activities and transformed how consumers interact with brands. The article delves into several key areas: • Technology readiness: The authors emphasize that individual technology readiness significantly influences consumer adoption of new technologies. This readiness is shaped by factors like age, income, and prior experience with technology. • Personalized marketing: The article discusses how cloud computing and big data analytics empower businesses to deliver highly personalized marketing campaigns. By leveraging consumer data, companies can tailor their messaging and offerings to individual preferences and needs. • Changing consumer behavior: The authors explore how technological advancements have altered consumer behavior in various aspects, including information gathering, purchase decisions, and brand interactions. Consumers are increasingly tech-savvy and expect seamless, omnichannel experiences. Overall, the article provides valuable insights into the dynamic interplay between technological innovations and consumer behavior. It underscores the need for businesses to adapt their marketing strategies to this evolving landscape by understanding technology readiness, embracing personalization, and catering to changing consumer preferences.

CHAPTER-3

RESEARCH METHODOLOGY:

Research Objective:

To explore the influence of artificial intelligence and technological innovations on consumer behaviour in the context of various industries.

Research Design:

Mixed-Methods Approach:

Quantitative analysis to assess the relationship between AI adoption, technological innovations, and consumer behaviour.

Qualitative analysis to gain deeper insights into consumer perceptions, preferences, and attitudes towards AI-driven marketing strategies.

Research Gap:

While the studies adequately address ethical considerations surrounding AI-powered marketing strategies, including privacy issues related to data gathering and processing, a major focus seems to be understated in terms of how the determining factors of the consumer behaviour would be associated to the usages of artificial intelligence in everyday life, and, in that, the resultant would impact in a way of changing the vector of consumables. Thus, the motivational take of the present study is to encounter to whole issue through econometric analysis by from the survey data in the metropolis like Delhi, Chennai as well as the cities like Jalandhar, Vizag, etc., for 200 samples. Understanding the ethical implications of AI in consumer behaviour is crucial, but the uses of algorithms of artificial intelligence in the context of changing determining factors would capture the intrinsic causes of the behavioural changes which is more imperative in the perspective of the changing consumer behaviour in present time. Moreover, there can be a dearth of knowledge regarding the long-term effects on society of consumer behaviour guided by AI. What effects, for instance, will the broad use of AI technologies in retail and marketing have on society trust, individual autonomy, and socioeconomic inequality? Examining these more general societal ramifications may offer insightful information on the ethical and societal aspects of AI-driven consumer behaviour. Investigating these wider societal ramifications may offer insightful information about the socio-economic aspects of AI-driven consumer behaviour.

Data Collection:

Primary Data:

Surveys and interviews with consumers to gather insights into their attitudes, behaviours, and perceptions regarding AI-based marketing strategies.

Secondary Data:

Review existing literature, articles, and studies related to AI in marketing, consumer behaviour, and technological innovations.

Sampling:

Random sampling technique to ensure representation across different demographics, including age, gender, income levels, and technological proficiency. Sample size determination based on the population size and desired confidence level.

Variables:

Independent Variables: Adoption of AI technologies, technological innovations (e.g., Industry 4.0), personalized marketing strategies.

Dependent Variables: Consumer behaviour indicators such as purchase decisions, brand loyalty, attitude towards AI-driven marketing.

Data Analysis:

Quantitative Analysis:

Utilize statistical techniques such as regression analysis to examine the relationship between AI adoption, technological innovations, and consumer behaviour.

Conduct hypothesis testing to validate research findings.

Qualitative Analysis:

Thematic analysis of interview transcripts to identify recurring themes and patterns in consumer attitudes towards AI-driven marketing.

CHAPTER-4

DATA ANALYSIS AND INTERPRETATION:

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The categories of Timestamp occur with equal probabilities.	One-Sample Chi-Square Test	1.000	Retain the null hypothesis.
2	The categories of Name occur with equal probabilities.	One-Sample Chi-Square Test	1.000	Retain the null hypothesis.
3	The categories of Age occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
4	The categories of Gender occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
5	The categories of Locality occur with equal probabilities.	One-Sample Chi-Square Test	.006	Reject the null hypothesis.
6	The categories of How often do you shop online? occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
7	The categories of When you purchase online, do you come across AI-powered tools like chatbots and product recommendations? occur with equal probabilities.	One-Sample Chi-Square Test	.146	Retain the null hypothesis.
8	The categories of Have you ever made a purchase based solely on an AI recommendation? occur with equal probabilities.	One-Sample Chi-Square Test	.079	Retain the null hypothesis.
9	The categories of How helpful are AI-powered product recommendations in influencing your purchases? occur with equal probabilities.	One-Sample Chi-Square Test	.003	Reject the null hypothesis.
10	The categories of If yes, how comfortable are you with these apps collecting your data to personalize your shopping experience? occur with equal probabilities.	One-Sample Chi-Square Test	.418	Retain the null hypothesis.
11	The categories of Have you ever used AI-powered products in real stores, such as smart mirrors or self-checkout? occur with equal probabilities.	One-Sample Chi-Square Test	.499	Retain the null hypothesis.

12	The categories of If yes , how often do you use these AI features in physical stores? occur with equal probabilities.	One-Sample Chi-Square Test	.348	Retain the null hypothesis.
13	The categories of How do AI-powered features in physical stores affect your shopping experience? occur with equal probabilities.	One-Sample Chi-Square Test	.017	Reject the null hypothesis.
14	The categories of Overall, how comfortable are you with the use of AI in consumer purchasing? occur with equal probabilities.	One-Sample Chi-Square Test	.133	Retain the null hypothesis.
15	The categories of Would you be more likely to trust a product recommendation from a well-regarded online retailer's AI system or a recommendation from a stranger in an online forum? occur with equal probabilities.	One-Sample Chi-Square Test	.000	Reject the null hypothesis.
16	The categories of Imagine you're researching a new product online. How important would it be for the retailer's website to offer AI-powered features that help you compare different options? occur with equal probabilities.	One-Sample Chi-Square Test	.032	Reject the null hypothesis.
17	The categories of How likely are you to adopt new technologies powered by AI that could further personalize your shopping experience (e.g., AI-powered stylists, virtual fitting rooms)? occur with equal probabilities.	One-Sample Chi-Square Test	.078	Retain the null hypothesis.
18	The categories of In your opinion, how can AI be used more ethically and responsibly in the world of consumer purchasing? occur with equal probabilities.	One-Sample Chi-Square Test	.002	Reject the null hypothesis.
19	The categories defined by Do you use any mobile shopping apps that make use of artificial intelligence (AI) to personalise the experience (e.g., by suggesting products, deals)? = Yes and No occur with probabilities 0.5 and 0.5.	One-Sample Binomial Test	.014	Reject the null hypothesis.
20	The categories defined by Do you think AI-powered features can influence your price sensitivity when shopping online (e.g., highlighting deals or discounts you might miss)? = Yes and No occur with probabilities 0.5 and 0.5.	One-Sample Binomial Test	.000	Reject the null hypothesis.
21	The categories defined by Would you be willing to share more personal data with retailers if it meant receiving highly personalized shopping recommendations powered by AI? = Yes and No occur with probabilities 0.5 and 0.5.	One-Sample Binomial Test	1.000	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Type of Test:

This is a one-sample binomial test. This type of test is used to assess whether a proportion (p) in a sample is statistically different from a hypothesized proportion (p_0).

Research Question:

The test likely relates to a study on consumer willingness to share personal data with retailers in exchange for AI-powered shopping recommendations. The question the test is trying to answer is whether there's a significant difference between the proportion of people who would share their data (yes) and those who wouldn't (no).

Key Findings:

Null Hypothesis (H_0): The null hypothesis states that there is no difference between the probability (p) of someone saying yes and the probability of someone saying no ($p = 0.5$). In simpler terms, people are equally likely to say yes or no.

Significance Level (α): This is set at 0.05, which is a commonly used threshold in hypothesis testing. It represents the maximum acceptable probability of rejecting the null hypothesis when it's actually true (also known as a Type I error).

Chi-Square Test and Null Hypothesis:

The "One-Sample Chi-Square Test" is a statistical test used to determine if the observed frequencies (how many people chose each answer option) for a categorical variable significantly differ from an expected distribution (in this case, an even distribution where all options are chosen with equal probability).

The null hypothesis (H_0) assumes that the observed distribution of responses for each category is the same as the expected distribution (i.e., all answer choices are equally likely).

Results and Interpretation:

Test Statistic: This is the chi-square statistic (χ^2) which is a measure of the observed difference between the data and the expected distribution. Higher values indicate a larger discrepancy.

p-value: This represents the probability of observing a chi-square statistic this extreme or higher, assuming the null hypothesis is true. Lower p-values indicate stronger evidence against the null hypothesis.

Based on these values, we can determine whether to reject the null hypothesis (meaning the observed distribution is statistically different from expected) or fail to reject it (meaning there's not enough evidence to say the observed distribution is different from expected).

Analysis of Specific Examples:

If you use these AI features in physical stores with equal probabilities (Row 1):

The p-value (0.348) is greater than the commonly used significance level of 0.05. This suggests we fail to reject the null hypothesis. There's not enough evidence to conclude that people using these AI features in physical stores do so with probabilities different from random chance (all options being equally likely).

How do AI-powered features in physical stores affect your shopping experience?(Row 2):

The p-value (0.017) is less than 0.05. Here, we reject the null hypothesis. There's evidence to suggest the observed distribution of responses regarding how AI features affect shopping experience differs statistically from an even distribution.

Overall Analysis:

The table presents a series of chi-square tests examining if responses to survey questions on consumer behavior related to AI features fall into categories distributed evenly. While some categories, like using AI features in stores, show no significant deviation from an even distribution, others, like how AI features affect shopping experience, do exhibit a statistically significant difference. This suggests people have varying opinions on the impact of AI features in physical stores.

Fig.1

Age

111 responses

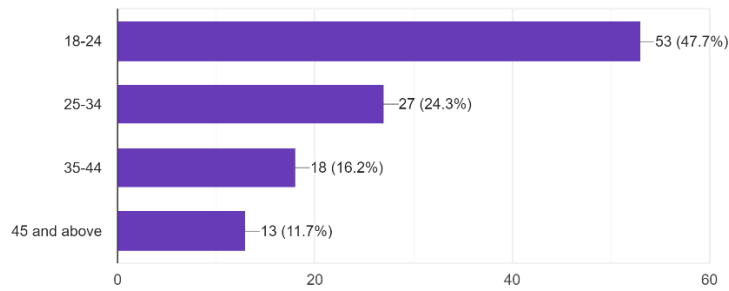


Fig.2

Locality

111 responses

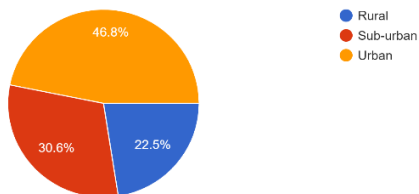
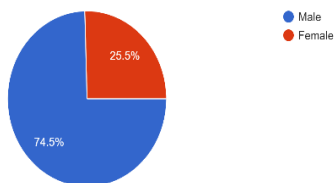


Fig.3

Gender

110 responses



CONCLUSION:

A new era of personalised, convenient, and efficient shopping experiences has begun with the incorporation of Artificial Intelligence (AI) into consumer purchase behaviour. Artificial Intelligence (AI) has entirely changed the way consumers research, assess, and ultimately decide what to buy thanks to complex algorithms. analysis.

The increased degree of personalisation provided by recommendation systems is one important way that AI is influencing consumer purchase behaviour. Artificial intelligence (AI) may customise product recommendations to individual interests by analysing past behaviours and preferences. This results in improved customer satisfaction and increased revenues for enterprises. Furthermore, chatbots and virtual assistants driven by AI offer customers rapid, tailored support, simplifying the purchasing process and improving the customer experience as a whole.

Furthermore, AI has completely changed how customers communicate with brands on social media, smartphone apps, and voice-activated gadgets. Deeper engagement and brand loyalty are promoted by AI systems' ability to comprehend and react to customer requests thanks to their natural language processing capabilities. Additionally, companies may obtain insightful knowledge about market trends and consumer behaviour thanks to AI-driven analytics, which makes it easier for them to predict and adjust to shifting customer preferences.

But in addition to these advantages, worries about algorithmic bias, data security, and privacy are also raised by the increasing use of AI in consumer purchasing behaviour. To guarantee the equitable and responsible use of customer data, transparency and ethical monitoring are essential as AI algorithms become more complex.

In conclusion, the effects of AI on consumer purchasing behaviour are multifaceted, offering both opportunities and challenges for businesses and consumers alike. By harnessing the power of AI responsibly and ethically, businesses can enhance the shopping experience, drive sales, and build stronger relationships with their customers in the evolving digital landscape.

REFERENCE:

Court D; D.Elzinga, S.mulder, and O.J.vetvik (2009), "The consumer decision journey", McKinsey Quartely. Sterne J. (2017), "Artificial intelligence fpor marketing: pratical applications", John Wiley & Sons Hoboken. Kotler.,p (2017) "Principles of marketing", Prarson education, seventh European edition.

<https://www.ijcrt.org/papers/IJCRTG020018.pdf>

Cite as: Rodgers, W., Yeung, F., Odindo, C. & Degbey, W.Y. (2021). Artificial Intelligence-Driven Music Biometrics Influencing Customers' Retail Buying Behavior. Journal of Business Research, Vol. 126, p. 401-414. <https://doi.org/10.1016/j.jbusres.2020.12.039>

Khan, S., Tomar, S., Fatima, M., & Khan, M. Z. (2022). Impact of artificial intelligence and industry 4.0 based products on consumer behavior characteristics: A meta-analysis-based review. Sustainable Operations and Computers, 3, 218–225. <https://doi.org/10.1016/j.susoc.2022.01.009>

Khare, K., & Stewart, B. (2018). Artificial Intelligence and the Student Experience: An Institutional Perspective. IAFOR Journal of Education, 6(3). <https://doi.org/10.22492/ije.6.3.04>

Varsha Jain - Mudra Institute of Communications Ahmedabad

Ketan Wadhvani - Mudra Institute of Communications Ahmedabad

Jacqueline K. Eastman - Florida Gulf Coast University

<https://scholarscommons.fgcu.edu/esploro/outputs/journalArticle/Artificial-intelligence-consumer-behavior-A-hybrid/99383963813106570>

Stone, Merlin, et al. "Artificial intelligence (AI) in strategic marketing decision-making: a research agenda." The Bottom Line 33.2 (2020):

<https://www.ezproxy.dsu.edu/login?url=https%3a%2f%2fdev-statenet-aws.lexisnexis.com%2fscholarly-journals%2fartificial-intelligence-ai-strategic-marketing%2fdocview%2f2403866243%2fse-2%3faccountid%3d2707>

https://www.researchgate.net/publication/375165740_Artificial_intelligence_and_empirical_consumer_research_A_topic_modeling_analysis

<https://www.sciencedirect.com/science/article/pii/S2212567114004924>

https://www.researchgate.net/publication/355069187_AI_in_Consumer_Behavior

<https://ieeexplore.ieee.org/document/8701356>

https://econpapers.repec.org/bookchap/sprprbchp/978-3-030-12453-3_5f151.htm

https://www.researchgate.net/publication/360984409_Enhanced_Marketing_Decision_Making_for_Consumer_Behavior_Classification_Using_Binary_Decision_Trees_and_a_Genetic_Algorithm_Wrapper