STUDIA UBB NEGOTIA, LXIX, 4, 2024, pp. 69-83
(RECOMMENDED CITATION)
DOI:10.24193/subbnegotia.2024.4.04

UNLOCKING THE SHOPPER'S MIND: HOW EMERGING TECHNOLOGIES LIKE ARTIFICIAL INTELLIGENCE IS SHAPING THE FUTURE OF RETAIL

Florina-Gabriela MITU[1], Marius BOTA[2*], Emil Emanuel SAVAN[3]

Article History: Received: October 18, 2024; Reviewed: November 29, 2024; Accepted: December 9, 2024; Available online: December 17, 2024.

ABSTRACT. The fast-changing landscape of consumer behavior, driven by digitalization in retail, fosters big changes in industry. Two other major trends are omnichannel strategies, integrating physical experience with online shopping, and the rise of experiential shopping technologies such as AR (augmented reality) in shaping how retailers connect with consumers. The increasing function of artificial intelligence and machine learning to optimize supply chains also raises crucial questions regarding the ethics of these developments in retail marketing.

This paper also discusses neuromarketing, an innovative approach whereby neuroscience is combined with marketing, as a tool to help optimize sales techniques and improve customer service. Techniques such as EEG (electroencephalogram), eye-tracking, and fMRI (functional magnetic resonance imaging) offer retailers insight into customers' unconscious responses to stimuli, from advertising to product placement. While these approaches have been increasingly adopted by retailers, the current study investigates whether the drift toward digital platforms impacts the efficiency of neuromarketing strategies and how AI takes further priority in this direction (Goncalves et al., 2024).

[1] Master's graduate, Faculty of Business, Babes-Bolyai University Cluj-Napoca, Romania, mituflorina08@gmail.com.
[2] Assoc.prof.dr., Department of Hospitality Services, Faculty of Business, Babes-Bolyai University Cluj-Napoca, Romania, marius.bota@ubbcluj.ro.
[3] Lect.dr. Emil Emanuel Savan, Faculty of Business, Babes-Bolyai University Cluj-Napoca, Romania, emanuel.savan@ubbcluj.ro.
[*] Corresponding author: marius.bota@ubbcluj.ro

The backbone of this research is to establish the level at which businesses have integrated neuromarketing into their greater marketing strategies and to find any new consumer behavior that could be proposed within a retail context. This paper will attempt to contribute, by exploratory research and secondary data analysis, to a better understanding of how these new trends adapts to the digitization of retail due to technological development and ethical concerns raised by its increased use.

Keywords: Retail, E-commerce, Omnichannel, Personalization, Artificial Intelligence, Neuromarketing, Ethical implications.

JEL classification: **M310, M160**

Recommended citation: Mitu, F-G., Bota, M., Savan, E.E., ***Unlocking the shopper's mind: how emerging technologies like artificial intelligence is shaping the future of retail***, Studia UBB Negotia, vol. 69, issue 4 (December) 2024, pp. 69-83, doi:10.24193/subbnegotia.2024.4.04

Introduction

Over the past two decades, the retail industry has undergone a profound transformation, driven by increasingly rapid technological advances and changes in consumer behavior. Beyond monitoring stocks and decisions based on data, the influence of digitalization is extensive and transformative, as is the management strategy of facilitating customer interactions. Digitization has become necessary for companies in this sector that aspire to remain competitive in a dynamic and globalized market (Nodirovna & Sharif o'g'li, 2024). Moreover, according to the authors from McKinsey's Consumer & Retail Practice, they explained in their article how countless retailers, witnessing the evolution of e-commerce and artificial intelligence as well as Big Data and advanced analysis, have begun to explore new ways to improve this consumer experience, the supply chain and in terms of increasing operational efficiency (Bick et al., 2022). Today's customers have considerable expectations regarding both the online and the offline experience, that's why according to the specialists in the field, the winners in a better position in terms of consumer loyalty are those retailers who can offer a combination of personalized interactions, efficiency and better compatibility between channels (PwC, 2023). All these authors mention how this series of factors that led to the remodeling of the industry has accelerated since the pandemic. These factors are the growth of e-commerce but also omnichannel, changing customer behavior and hyper-personalization as well as the increasing complexity of the supply chain (Bick et al., 2022).

Literature Review

Omnichannel retail: a modern approach

Omnichannel commerce is one of the essential strategies in contemporary retail because it emphasizes an exceptional integration of online and offline channels (Nodirovna & Sharif o'g'li, 2024). In specialized publications, a popular definition is "the synergistic management of numerous channels and contact points, so that the customer experience and channel performance are optimized" according to the authors Verhoef et al. (2015). Through this synergistic management of all contact points, the final goal becomes to offer customers a unique, coherent, and amorphous experience, compared to multichannel retail, which aims to optimize each channel in an independent way (Cai & Lo, 2020; Mishra et al., 2021).

Extension to social commerce

Social commerce is an essential step in the omnichannel strategy because it facilitates shopping directly on social media platforms such as Facebook, Tok-Tok, or Instagram. In the article written by Nodirovna & Sharif o'g'li, (2024) there appears a blurring of the boundaries between the process of socialization and that of commerce, thus allowing consumers to discover, analyze and eventually buy the product without having to leave the social media application. They also explain how merchants use shopping posts, these in-app purchases, and influencer marketing manage to stimulate sales, turning social interaction into a shopping experience.

This pattern is supported by additional research. Hutter et al. (2013), for example, point out how social media platforms have developed into powerful venues for branding and marketing, improving customer experiences by enabling direct communication between customers and brands. Authors describe how, by leveraging the social element of purchasing, which many customers find more alluring, this type of interactive shopping increases customer loyalty. In a similar vein, Shankar et al. (2003) explain that social commerce is about developing relationships, forming communities, and cultivating brand champions rather than just transactions. Customers feel more involved in the process thanks to this experience, which turns the passive activity of shopping into an active, community-driven event.

Personalization – A KEY FACTOR

Personalization is truly a game changer in the omnichannel strategy because it reaches parameters such as a more engaging and relevant experience for consumers. Moreover, advanced technologies help retailers, both large and small, to analyze consumer behaviors and preferences with greater ease. Thus, by using data analysis or artificial intelligence (AI), they manage to deliver personalized recommendations, promotions, and offers of products or services much more easily according to the needs of their consumers (Nguyen et al., 2021). At the same time, marketing campaigns have also experienced considerable progress due to the involvement and advancements in big data and machine learning (ML), together with natural language processing (NLP) and computer vision, thus having greater predictability in the offer and the more advanced outlining in personalized recommendation allowing a different implementation of personalized marketing campaigns and a dynamic pricing strategy (Balakrishnan et al., 2018, Artun & Levin, 2015).

Consumer experience

Customers' "cognitive, emotional, behavioral, sensory, and social responses to a firm's offerings" are part of customer experiences, which are typically multidimensional (Verhoef et al., 2009). The pandemic has changed how satisfactory customer experience works and has allowed retailers to provide superior customer experiences (Murugan & Kumar, 2024).

According to Kotler (2017), a consumer's decision to buy consists of five distinct phases: determining needs, gathering information, weighing options, making a purchase decision, and post-purchase behavior experiences (Murugan & Kumar, 2024). It was pointed out how AI helps marketers analyze customer preferences and turn vast amounts of data into useful insights. Hence, by optimizing product cataloging and providing personalized recommendations, AI improves marketing tactics leading to a more relevant and efficient shopping experience. As mentioned in the article written by Sagar (2024), digitization has revolutionized the interaction of consumers with brands, contributing to an accelerated migration to online and omnichannel commerce. Thus, following the thread of ideas provided above, e-commerce platforms have radically transformed the way consumers shop, offering a certain convenience due to easy navigation, the opportunity to compare prices, access to reviews, and various product options (Sagar, 2024). These changes have led consumers to prefer personalized online experiences, emphasizing intuitive interfaces and secure transactions with fast delivery.

Moreover, the impact that influential people have on consumer preferences has contributed to the success of marketing that influences (Abidin, 2016). To promote their goods, brands work with influencers, leveraging the trust and genuine relationship they have with their audience. Users produce content such as photos, videos, and reviews to build brand credibility. Because customers believe that this type of content is more dependable and realistic than traditional advertising, brands that promote this type of content gain authenticity (Kaplan & Haenlein, 2010). This shift in marketing demonstrates a shift from traditional promotion to more direct interactions tailored to customer needs.

Key technologies and innovations in omnichannel

This advancement in omnichannel also provides for the integration of modern technologies such as Augmented Reality (AR) and Virtual Reality (VR), which brings real success to this type of strategy (Grewal et al., 2020; Nodirovna & Sharif o'g'li, 2024). One of the examples offered by specialty items is the Sephora Virtual Artist platform that allows you to try on cosmetics before purchasing them virtually, thus leading to higher loyalty and a better shopping experience (Quach et al., 2022; Thaichon et al., 2024). At the same time, based on AI, predictive analysis helps retailers more easily identify emerging trends and adjust their strategies to increase their competitiveness in the market. (Huang & Rust, 2021). Thus, AI also helps to optimize the inventory, creating a forecast of growth patterns, but also reducing at the same time the risk of running out of stocks or overstock by adjusting their levels according to seasonal fluctuations and market trends, as is also mentioned by the authors indicated above in the text.

In the same vein, according to the author Sagar (2024), Logistics Chain Management has seen a reinvention and evolution in terms of visibility, efficiency, and adaptability. Thanks to technologies such as RFID (Radio-Frequency Identification) and the Internet of Things (IoT), real-time tracking of the movement of goods is facilitated, thus increasing the degree of control over the logistics chain by retailers. Through this monitoring, the delivery time is reduced, a much more qualitative and faster communication between producers and consumers is created, as well as ensuring a constant supply. In addition, IoT has also brought a change regarding physical stores, bringing them to the level of intelligent spaces. (Varakantham et al., 2018). Customer satisfaction and loyalty increase due to the optimization of the store layout and the efficient placement of products on the shelf.

Neuromarketing

In an age where the retail industry is being profoundly transformed by modern technologies, the concept of neuromarketing is essential to understanding and influencing consumer behavior. Neuromarketing uses neurological and biometric research to study consumers' subconscious reactions to marketing stimuli (Goncalves et al., 2024). This gives us a better understanding of consumer buying actions.

Based on the same article written by Goncalves et al. (2024), the evolution of omnichannel strategies, which aim to offer customers a unique and personalized experience on each sales channel, has expanded this field. Retailers can improve customer shopping experiences in real time by using AI and ML to collect and analyze customer behavioral data from multiple sources, from physical stores to online platforms (Goncalves et al., 2024). Therefore, neuromarketing thus offers greater personalization and a closer connection between emotional reactions and purchase decisions.

On the other hand, neuromarketing research has made progress, but more extensive studies are still needed to integrate it into the marketing mix, say the specialists Goncalves et al. (2024). The same authors say that researchers have primarily focused on neuroimaging and physiological tools such as EEG, eye tracking, and skin response to study consumer behavior, emotions, attention, and decision-making processes have focused primarily on neuroimaging and physiological tools such as EEG, eye tracking, and skin response to study consumer behavior, emotions, attention, and decision-making processes, demonstrating how different areas of consumers' brains are connected to their reactions, providing useful data for marketing (Goncalves et al., 2024). Also, what is important is the final help given by this technology, more precisely objectivity in measurement by preventing biases in self-reported data about customers, such as cognitive biases or emotional influences. Neuromarketing also includes AI and ML. These technologies improve productivity by reducing the time required for analysis processes and providing better customer data (Goncalves et al., 2024).

The combination of neuromarketing and AI technologies improves marketing efficiency by analyzing consumer behavior and targeting campaigns. However, because AI is used discreetly in many marketing applications, ethical concerns about its impact on consumer privacy are often ignored.

Ethical implications

Increasing transparency in the decision-making processes of these systems is necessary as artificial intelligence grows. As authors Thaichon et al., (2024) highlighted, explainable AI (XAI) techniques improve understanding of how AI models make decisions. This builds trust in AI systems and encourages informed decision-making in organizations (Thaichon et al., 2024). The same authors say that to maintain accountability, AI transparency helps identify problems and validate predictions. Additionally, there is growing concern about the morality of using AI. Companies face issues of bias, accountability, and fairness, and implementing ethical practices and auditing frameworks that guarantee the impartiality of AI models is essential to address them (Thaichon et al., 2024). These measures are necessary to maintain high ethical standards in AI applications and to reduce associated risks (Hamadaqa et al., 2024). Companies need customer data for omnichannel retail strategies to enhance the customer experience across all points of contact (Ameen et al., 2021; Tyrväinen et al., 2020). For instance, AI can use customer tracking data to personalize multiple components of the offer, such as the cost, advertisement, goods, duration, and delivery location (Weber & Schütte, 2019). However, access to customers' personal information can have a negative impact on merchants and customer privacy (Cui et al., 2021). In this case, omnichannel research demonstrates that technology has both positive and detrimental consequences. For instance, research conducted by Quach et al., (2022) shows that while canal integration enhances customer satisfaction in omnichannel retail, it also increases customer privacy risk, which results in a decrease in customer trust. In addition, the findings of Shi et al. (2020) findings support the idea that elements like confidentiality, adaptability, personalization, and compatibility are perceived as improving customers' perceptions of risk.

Methodology

This paper uses an exploratory research approach, focusing on a literature-based analysis to examine emerging technologies and strategies in the retail industry. The methodology primarily used referral-based approach and citation chain analysis. This began with general searches on Google Scholar, which led to relevant sources on sites such as ResearchGate and other academic and specialist sites. A dynamic and iterative process was used to find relevant materials, tracking the bibliographies of key articles and examining relevant works that appeared in the search results. The adoption of transformative omnichannel

strategies and the integration of AI and neuromarketing in retail are some of the main trends that were identified through this process. Secondary data was collected over a period of one month, and information was gathered from authoritative industry sources and academic databases. Table 1 presents a summary of the data collection process. Comparative analysis of these findings helped to trace general trends in the industry and assess success factors for businesses that implemented these innovations.

Table 1. Data Collection Summary

Step	Source/ Platform	Purpose
Initial Search	Google Scholar	Conduct a thorough search for pertinent articles about retail tactics and technologies.
Citation Chaining	Bibliographies of articles	Locating important cited publications for additional research.
Further Exploration	ResearchGate, related links	Browsing publications that are linked to or quoted by preliminary findings
Industry Reports	McKinsey & Company, PwC, Gartner	Incorporating insights from industry leaders on practical applications.
Iterative Refinement	Revisited Google Scholar searches	Adjusting search parameters in response to emerging themes to locate more sources.

Source: Authors' compilation

Results and Discussions

The retail sector has seen significant transformation in the last ten years. The COVID-19 epidemic has accelerated several of these tendencies, and retailers are finding it difficult to keep up with their development, according to McKinsey & Company's 2023 research technological capabilities, while consumers have moved from offline to online. They also point out that in order to become more responsive to these changes, retailers can leverage technology as a crucial component in a number of high-end retail industries. End-to-end customer choice journeys are made simpler by technology, which makes it possible to seamlessly integrate online and offline channels with intelligent digital services (McKinsey & Company, 2023). Reliable and customized offers are backed by eye-catching digital content and can be updated almost instantly.

A general idea found after the study is the need for changes in IT operations by traders. More precisely, this change can be found in 6 interconnected steps, which could be helpful to many businesses in this new digitalization context. In the following paragraphs these steps will be presented as well as the explanation of their implementation. Companies that have succeeded in thriving in today's digital age are those that have adopted an omnichannel strategy, harnessed the power of data, and updated their technology infrastructure to provide customers with efficient and personalized shopping experiences, from integrating sales channels to improving operational models.

Omnichannel integration: creating a unified consumer experience

As suggested by the authors of the study carried out by the specialists from McKinsey & Company, retailers were also a big exception because they are used to traditionally manage their online and offline operations separately, thus creating a break between customer experiences. However, there are leading companies today that have adopted "headless commerce" architectures that unify all touchpoints, such as appointments, wish-lists, and payments, to provide a single experience across all channels (Bick et al., 2022). The same authors talk about a remarkable retail company that has implemented a strong omnichannel strategy Home Depot. The company has created options such as click and collect, which allow customers to order products online and pick them up in-store, ensuring a seamless interaction between the digital and physical environments. In addition, Nike has integrated its mobile app into its physical store network, giving consumers the ability to reserve items online and try them in-store. This method improves both consumer experience and the conversion rate (Bick et al., 2022).

Datafication: the potential of data to make informed choices

Traditional retail architecture stores data in disparate systems, which prevents scalability and the use of advanced analytics. Cloud platforms that facilitate automation and data reuse help market-leading retailers make fast and efficient decisions. Delivery Hero uses customer data to determine their lifetime value. The company can decide which marketing campaigns to prioritize for specific customer groups and which markets to expand into with the help of this information. Similarly, Sephora enhances the shopping experience by using a sophisticated analytics platform to understand consumer behavior and provide personalized recommendations (Bick et al., 2022).

Technology modernization: micro-services that provide scalability and flexibility

Retailers have traditionally used monolithic applications, but these do not allow rapid adaptation to market changes and an increase in operational costs. Moving to micro-services-based architecture, which offers more scalability and flexibility, was the solution. Walmart has invested heavily in technological advancement, establishing Walmart Global Tech, which has a team of more than 15,000 engineers and data scientists. Through this change, the company was able to quickly create new digital functionalities and compete effectively with the online giants. By adopting micro-services, Luiza stores in Brazil managed to transform from a traditional company to a digital leader. In just four years, the stock has increased in value by more than 18,000% (Bick et al., 2022).

The product-based operating model: efficiency and agility

Retailers use a product-oriented operating model that combines business resources and technology in cross-functional groups to help drive digital transformation. This allows processes to be optimized and quickly adapted to changing market demands. To improve efficiency and speed of delivery, the organization must transform IT functions into a product-focused organization. Inventory management, demand forecasting, and checkout process optimization are important skills that dedicated teams work on. Amazon and Alibaba have enabled the rapid release of new products and features by automating the software development cycle (Bick et al., 2022).

Talent-based transformation: investing in the internal team

Many retail companies have historically relied on external partners to develop and maintain their applications. However, technology has become a differentiator today and retailers are investing in in-house teams of professionals to preserve their intellectual property and speed time to market. For example, in India, Decathlon has employed more than 2,000 engineers in a technology center of excellence. The company was able to create innovative digital products that could quickly adapt to changes in customer preferences thanks to this initiative (Bick et al., 2022).

Retailers must invest in technological innovation, implement omnichannel architectures and use scalable data platforms to remain competitive. Companies that can combine technology with customer-centric strategies will become market leaders as digitization redefines the industry. Investment in talent and operational modernization improves not only productivity, but also the ability to provide customers with personalized experiences that retain them for the long term.

The incorporation of AI is growing as a crucial component of digital transformation strategies for businesses across all industries. Companies are required to provide personalized services and increase operational efficiency in the digital world. Below in Table 2, it can be observed a structuring of how Starbucks, Zara, Microsoft, and Waymo use AI to enhance customer experiences, optimize operations, and create innovative solutions.

Table 2. Implementation of Artificial Intelligence by companies from different fields

Company Name	*Concerns discovered*	*Implemented Solution*	*Result*
Starbucks	They needed to reduce waiting time and make the in-store experience more personalized.	Launched Deep Brew, its proprietary AI platform that anticipates orders and shortens wait times by analyzing customer data. Companies can optimize store operations and adapt the way they interact with customers using AI.	Improved customer experience and reduced wait times, increasing loyalty to the Starbucks Rewards program
Zara	Experienced difficulty in anticipating demand, resulting in excess inventory or product shortages.	Uses AI to analyze sales data, social media trends and external variables in real time. This helps to adjust inventories, reducing overstock and improving demand response.	Optimized the supply chain by reducing excess inventory and quickly adapting to changing customer preferences
Microsoft	Faced high customer response times, which affected user satisfaction.	Virtual agents implemented artificial intelligence to automate technical support interactions. This reduced response times and resolution of customer issues.	Reduced the number of repetitive tasks associated with support processes, resulting in improved user satisfaction and the efficiency of support teams.
Waymo	It was necessary to improve the safety and navigation skills of autonomous vehicles in complicated areas.	A subsidiary of Alphabet Inc. uses sensor fusion and deep learning for AI to improve road safety and navigation for autonomous vehicles. AI reduces traffic risks by assisting vehicles in real-time decision-making.	Has advanced autonomous vehicle technology, improving safety and the ability to navigate independently

Source: Authors' work based on the information provided by Ajiga et al. (2024) and Sagar (2024)

These case studies show that the use of AI can optimize processes and improve customer experience in many industries. AI adoption improves efficiency and user satisfaction across a wide range of industries, not limited to a specific domain. These examples show how digital technologies are changing the internal operations of companies and the way they interact with their customers, thus redefining the shopping experience.

Conclusion

Retailers must quickly adapt to customers' growing expectations for personalized, convenient, and integrated shopping experiences across all channels to remain competitive in today's dynamic marketplace. Investments in infrastructure and technology are required to optimize omnichannel operations, integrate digital with physical and upgrade e-commerce platforms, as well as adopt cloud solutions for scalability.

By using AI solutions and data analytics to provide personalized recommendations and offers, personalizing the customer experience becomes even more important. Additionally, retailers should examine social commerce opportunities to increase direct conversions on social platforms, such as shoppable posts and influencer promotion. The use of emerging technologies such as voice commerce, AR, and AI have the potential to provide customers with experiences that are interactive and engaging, allowing goods to differentiate themselves from the competition. In addition, flexibility and speed are crucial; retailers must follow market trends and consumer preferences to quickly adapt their strategies and maintain a competitive edge in the digital age.

The future of predictive analytics promises to provide increasingly detailed insights into market trends and consumer behavior, supported by rapid advances in AI. Real-time data processing will be improved with accuracy and timeliness by combining AI with emerging technologies such as edge computing and quantum computing. However, companies must have strong data governance and invest in security and ongoing training to address data quality issues, privacy, and the need for advanced skills. Continued research and development will be essential to improve methodologies and discover new opportunities for the use of predictive analytics in various industries, giving companies a strategic advantage in today's competitive landscape. Consequently, AI-based predictive analytics has become a useful tool for innovation and informed decision-making. However, there are still obstacles that need to be addressed to maximize the use of this technology.

REFERENCES

Abidin, C. (2016). Visibility labour: engaging with influencers' fashion brand advertisement on instagram. *Media International Australia*, 161(1), 86-100. https://doi.org/10.1177/1329878X16665177

Ajiga, D.I., Ndubuisi, N.L., Asuzu, O.F., Owolabi, O.R.T.S. & Adeleye, R.A. (2024). AI-driven predictive analytics in retail: a review of emerging trends and customer engagement strategies. *International Journal of Management & Entrepreneurship Research*, 6(2), 307-321. https://doi.org/10.51594/ijmer.v6i2.772

Ameen, N., Tarhini, A., Shah, M.H. & Nusair, K. (2021). A cross-cultural study of gender differences in omnichannel retailing contexts. *Journal of Retailing and Consumer Services*, 58, 102265. https://doi.org/10.1016/j.jretconser.2020.102265

Artun, O. & Levin, D. (2015). Predictive marketing: easy ways every marketer can use customer analytics and big data. Hoboken: Wiley. https://doi.org/10.1002/9781119175803.

Balakrishnan J., Cheng C.H., Wong K.F. & Woo K.H. (2018). Product recommendation algorithms in the age of omnichannel retailing – An intuitive clustering approach. *Computers & Industrial Engineering*, 115, 459–470. https://doi.org/10.1016/j.cie.2017.12.005

Bick, R., Bout, S., Frick, F., Keutel, M. & Skinner, V. (2022). The tech transformation imperative in retail. McKinsey & Company. Retrieved from: https://www.mckinsey.com/industries/retail/our-insights/the-tech-transformation-imperative-in-retail#/

Cai Y.J. & Lo C.K.Y. (2020). Omnichannel management in the new retailing era: A systematic review and future research agenda. *International Journal of Production Economics*, 229, 107729. https://doi.org/10.1016/j.ijpe.2020.107729

Cui T.H., Ghose A., Halaburda H., Iyengar R., Pauwels K., Sriram S., Tucker C. & Venkataraman S. (2021). Informational challenges in omnichannel marketing: Remedies and future research. *Journal of Marketing*, 85(1), 103–120. https://doi.org/10.1177/0022242920968810

Goncalves, M., Hu, Y., Aliagas, I. & Cerdá, L. M. (2024). Neuromarketing algorithms' consumer privacy and ethical considerations: challenges and opportunities. *Cogent Business & Management*, 11(1), 2333063. https://doi.org/10.1080/23311975.2024.2333063

Grewal, D., Hulland J., Kopalle P. K. & Karahanna E. (2020). The future of technology and marketing: A multidisciplinary perspective. *Journal of the Academy of Marketing Science*, 48, 1–8. https://doi.org/10.1007/s11747-019-00711-4

Hamadaqa, M.H.M., Alnajjar, M., Ayyad, M.N., Al-Nakhal, M.A.. Abunasser, B.S. & Abu-Naser, S.S. (2024). Leveraging artificial intelligence for strategic business decision-making: Opportunities and challenges. *International Journal of Academic Information Systems Research,* 8 (8), 16-23. Available at: https://philarchive.org/archive/HAMLAI

Huang, M.H. & Rust, R.T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49, 30-50. https://doi.org/10.1007/s11747-020-00749-9

Hutter, K., Hautz, J., Dennhardt, S. & Füller, J. (2013). The Impact of User Interactions in Social Media on Brand Awareness and Purchase Intention: The Case of MINI on Facebook. *Journal of Product & Brand Management*, 22, 342-351. https://doi.org/10.1108/JPBM-05-2013-0299

Kaplan, A.M. & Haenlein, M. (2010). Users of the World, unite! The Challenges and opportunities of social media. *Business Horizons*, 53(1), 59-68. https://doi.org/10.1016/j.bushor.2009.09.003

Kotler, P. (2017). Consumer neuroscience. MIT Press. Cambridge, Massachusetts

Mishra R., Singh R.K. & Koles B. (2021). Consumer decision-making in omnichannel retailing: Literature review and future research agenda. *International Journal of Consumer Studies*, 45(2), 147–174. https://doi.org/10.1111/ijcs.12617

Murugan, T.S. & Kumar, C.M. (2024). Unveiling the evolution: Impact of artificial intelligence on consumer buying behaviors in online retail purchase. *Educational Administration: Theory and Practice*, 30(5), 1072-1078. https://doi.org/10.53555/kuey.v30i5.3011

Nguyen, T-M., Le, D., Quach, S., Thaichon, P. & Ratten, V. (2021), The current trends and future direction of digital and relationship marketing: A business perspective. In *Thaichon, P. & Ratten, V. (eds.) Developing Digital Marketing*, Emerald Publishing Limited, Leeds, pp. 191-200. https://doi.org/10.1108/978-1-80071-348-220211011

Nodirovna, M.S. & Sharif o'g'li, A.S. (2024). E-Commerce trends: Shaping the future of retail. *Open Herald: Periodical of Methodical Research*, 2(3), 46-49. Retrieved from https://academiaone.org/index.php/6/article/view/637

PwC. (2023). Tech fuels retail growth in 2024: Five trends, available at https://www.pwc.com/us/en/industries/consumer-markets/library/retail-technology-trends.html

Quach S., Barari M., Moudrý D.V. & Quach K. (2022). Service integration in omnichannel retailing and its impact on customer experience. *Journal of Retailing and Consumer Services*, 65, 102267. https://doi.org/10.1016/j.jretconser.2020.102267

Sagar, S. (2024). The impact of digital transformation on retail management and consumer behavior. *IOSR Journal of Business and Management*, 26(1), 06-14. https://doi.org/10.9790/487X-2601010614

Shankar, V., Smith, A.K. & Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline environments. *International Journal of Research in Marketing*, 20, 153-175. https://doi.org/10.1016/S0167-8116(03)00016-8

Shi S., Wang Y., Chen X. & Zhang Q. (2020). Conceptualization of omnichannel customer experience and its impact on shopping intention: A mixed-method approach. *International Journal of Information Management*, 50, 325–336. https://doi.org/10.1016/j.ijinfomgt.2019.09.001

Thaichon, P., Quach, S., Barari, M. & Nguyen, M. (2024). Exploring the Role of Omnichannel Retailing Technologies: Future Research Directions. *Australasian Marketing Journal*, 32(2), 162-177. https://doi.org/10.1177/14413582231167664

Tyrväinen, O., Karjaluoto, H. & Saarijärvi, H. (2020). Personalization and hedonic motivation in creating customer experiences and loyalty in omnichannel retail. *Journal of Retailing and Consumer Services*, 57, 102233. https://doi.org/10.1016/j.jretconser.2020.102233

Varakantham, P., Viswanathan, S. & Hollinger, R.C. (2018). Internet of Things in retail: A review. *International Journal of Production Research*, 56(1-2), 13-32

Verhoef, P.C., Kannan, P.K. & Inman, J. J. (2015). From multi-channel retailing to omni-channel retailing. *Journal of Retailing*, 91(2), 174–181. https://doi.org/10.1016/j.jretai.2015.02.005

Verhoef, P.C., Lemon, K. N., Parasuraman, A., Roggeveen, A., Tsiros M. & Schlesinger, L.A. (2009). Customer experience creation: Determinants, dynamics and management strategies. *Journal of Retailing*, 85(1), 31–41. https://doi.org/10.1016/j.jretai.2008.11.001

Weber, F. D. & Schütte, R. (2019). State-of-the-art and adoption of artificial intelligence in retailing. *Digital Policy Regulation and Governance*, 21(3), 264–279. https://doi.org/10.1108/DPRG-09-2018-0050