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ARTIFICIAL INTELLIGENCE IN WHOLESALE AND RETAIL

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A major phenomenon of the contemporary world, artificial intelligence (AI) represents the ability of electronic equipment to perform duties and skills naturally associated with human intelligence. John McCarthy (1955) defines it as a situation where "... the machine behaves in a way that could be considered intelligent, if it were human." AI has experienced a technological trend, which has exploded in the last decade, being a concept with continuous evolution, offering a very attractive market, with many new opportunities for various businesses. The field of commerce offers the widest applicable range to artificial intelligence because it ensures contact with most of the population as potential clientele.

A comprehensive approach to researches into the penetration and proliferation of AI in the wholesale and retail trade must be carried out along the value chain, from the producer of the deliverables to the end user. It holds a wide scope: from the automatic launch of orders to suppliers to the logistics of goods, from the receipt of products within the commercial network to their merchandising on the shelf, from significant changes in the buying and consumption habits of the demand carriers to the trader's communication with his clientele, from the reduction of waste in the commercial network to the elimination of waste in consumption. Automations in the sphere of goods' circulation, including the introduction of humanoid robots, nowadays favours the concept of intelligent commerce, once all retail stakeholders are connected to the internet and a new dimension of research through Real Time Data Analysis is developed. This approach provides scientific support for the development of marketing strategies of the "Proximity Marketing" type, which communicate to the real and potential customers the specific offer depending on their buying behaviour.

Issue 56 of the Journal aims to publish the results of researches which tackle the multiple valences of the implementation of artificial intelligence in the sphere of commerce, focusing on the following topics: Benefits and risks of introducing artificial intelligence into trade/commerce; The impact of using artificial intelligence in the trading activity on purchasing and consumption behaviour; Ethical, legal and societal aspects related to the promotion of artificial intelligence in trade; Artificial intelligence in customer relationship management;

The partnership between the consumer and the smart technology confirms the reinvention of retail organizations, the advancement of retailers on this direction involving the action on new models and behaviours considering the adoption of the new technology in the context of COVID-19. The paper "*The profound nature of the connection between the impact of using artificial intelligence in retail on buying and the consumers' perceptions of artificial intelligence on the path to the next normal*" is focused on the nature of the link between the impact of using artificial intelligence in retail on the consumers' behaviour and their

perceptions of Artificial Intelligence (AI) in order to give retailers an in-depth view of changing buying and consuming behaviour in Romania on the path to the next normal, which looks different from any of the years leading up to the current pandemic.

The presence of devices equipped with artificial intelligence in the daily lives of individuals and consumers holds a number of advantages and disadvantages. Therefore, in order to better integrate these devices into the lives of consumers, it is important to understand both their advantages and disadvantages. The paper *"The impact of artificial intelligence on consumers' identity and human skills"* analyses the relationship between the benefits of artificial intelligence by increasing efficiency and the fascination created by them and the main fears related to the human abilities of consumers. It also highlights the role of the social circle in multiplying the benefits created by artificial intelligence, as well as its impact in reducing fears related to artificial intelligence. This paper presents a model of mediation between efficiency and fascination with artificial intelligence and consumer perception of preserving identity and human skills, having as mediator the influence and the model of the social circle.

Another paper that highlights the advantages and disadvantages of using artificial intelligence in commerce is *"Artificial intelligence in retail: benefits and risks associated with mobile shopping applications"*. This paper explores the practical implications of using mobile shopping apps, along with solutions based on AI to increase customer engagement, improve the online shopping experience and encourage the buying impulse, also focusing on data privacy, legal and ethical implications. This research provides practical insights into the benefits of integrating IT solutions from the sphere of artificial intelligence into mobile applications for online commerce, in an ethical manner, protecting users' data privacy and their freedom of decision in accordance with their own personalities.

The use of artificial intelligence in commerce allows a better analysis of customer needs and the development of effective marketing strategies. However, although these cutting-edge technologies offer significant benefits to businesses, some risks may arise as these technologies grow continuously and eventually become increasingly difficult to control. In this context, it is important to know how consumers perceive the risks associated with the use of artificial intelligence in commerce. Therefore, the purpose of the paper *"Consumers' perception of risk towards artificial intelligence technologies used in trade: a scale development study"* is to substantiate an instrument, called the Scale for Assessing Consumer Perceptions on the Risks of Using Artificial Intelligence in Commerce, to measure how consumers perceive the risks associated with artificial intelligence technologies used in commerce.

The paper *"Artificial intelligence in electronic commerce: basic chatbots and the consumer journey"* aims to empirically cover the impact of the use of artificial intelligence through chatbots on online retail in terms of content implemented within the communication process. The study makes an analysis of how the top ten retailers in Romania, chosen according to the number of users, react to initiatives to communicate with the public, through instant messages from the Facebook Messenger application (*basic chatbots*).

In the paper *"Risks of observable and unobservable biases in artificial intelligence used for predicting consumer choice"* a brief summary of cognitive biases and the potential risks of being replicated in the AI used in consumer choice prediction is presented. The paper also highlights a separation of biases into two categories, namely observable and unobservable,

and why unobservable biases with their multiplier effects can pose a double risk to AI, affecting consumer choices.

The research referring to *“The integration of artificial intelligence in retail: benefits, challenges and a dedicated conceptual framework”* brings to the fore a variety of advanced solutions, benefits, but also risks that AI generates in retail, in different segments of the value chain, briefly noted CECoR, respectively, from improving the customer experience (Customer Experience, CE), due to virtual agents (chatbots, virtual assistants, etc.), to cost reductions (Cost, Co) achieved by using smart shelves, to revenue growth (Revenue, R), determined by product recommendations, offers and customized discounts. The proposed conceptual framework is focused on the consumer profile and includes recommendations on the implementation of AI from the perspective of CECoR factors, in a retail company.

As customers interact more and more with companies through digital channels and social networks, marketers have realized the need to track these interactions and to measure their performance. In this regard the paper regarding *“The impact of artificial intelligence use on e-commerce in Romania”* highlights the role of management teams in e-commerce companies to automate processes and streamline data flows through predictive analytical platforms based on artificial intelligence algorithms. At the same time, the research specifically aims to test the correlations between the intention of managers to automate certain marketing processes through artificial intelligence algorithms and the desire to identify customer satisfaction, respectively the use of a customer relationship management application.

Using as a theoretical background the technology acceptance model (TAM) and an online survey conducted in Hungary, the paper *“Consumer acceptance of the use of artificial intelligence in online shopping: evidence from Hungary”* approaches the problem of confidence and acceptance by the consumers of the artificial intelligence within online commerce.

The paper *„Benefits and risks of introducing artificial intelligence in commerce: the case of manufacturing companies in West Africa”* refers to an empirical research on a sample of 2.903 manufacturing companies from four West African countries, exploring the ways in which AI is integrated into trade as well as its impact on customers and its efficiency in sales processes.

Commerce has been at the forefront of using artificial intelligence, and online stores have applied all the innovations in the market to attract and retain customers. The use of AI in commerce brings a number of benefits including: predictive market analysis, facilitating the decision-making process, systematizing the sales process, automating and optimizing the data transcription process as well as improving the customer experience.

**Editor in Chief,
Vasile Dinu**