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# **BOOK CHAPTER ON ARTIFICIAL INTELLIGENCE IN MANAGEMENT AND COMMERCE**



Organized by  
Department of Business Administration, Commerce, Commerce CA  
& K.M.G. Research and Development cell  
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**DEPARTMENT OF BUSINESS ADMINISTRATION,  
COMMERCE, COMMERCE CA & K.M.G. RESEARCH  
AND DEVELOPMENT CELL**

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### EDITORIAL MESSAGE FROM THE CHIEF EDITOR

As the Head of this institution I am extremely proud that the Department of Business Administration, PG & Research Department of Commerce, PG Department of Commerce CA & K.M.G. Research and Development Cell called for book chapter titled, “Artificial Intelligence in Management and Commerce”.

Artificial intelligence (AI) has profoundly changed and will continue to change our lives. AI is being applied in more and more fields and scenarios such as autonomous driving, medical care, media, finance, industrial robots, and internet services. The widespread application of AI and its deep integration with the economy and society have improved efficiency and produced benefits. At the same time, AI has become not only an important research topic in academia, but also an important topic of common concern for individuals, organizations, countries, and society. My sincere appreciation to faculties and research scholars who contributed their book chapters and I wish them for their future endeavors.

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## ARTIFICIAL INTELLIGENCE IN E-COMMERCE

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### ABSTRACT

Artificial intelligence is becoming popular with the development of information and communication technologies. In today's e-commerce world the application of artificial intelligence is to influence customers and behavior in favor of certain goods and brands. In the field of e-commerce the application of artificial intelligence as an innovative tool may seem as a positive step forward. The essence of e-commerce and artificial intelligence and their benefits is mainly focused on the description below. To evaluate the importance of artificial intelligence and its use in the context of e-commerce based on availability studies on this issue is the aim in this study.

**Keywords:** Artificial intelligence, Machine learning, Electronic commerce, CRM, Visual and voice search.

### E-COMMERCE AND ARTIFICIAL INTELLIGENCE

- The new possibilities like software and technological innovation are used in marketing and shopping. New technology came into force so companies can be more creative. Nowadays technologies are very helpful in increasing the efficiency, quality, and cost-effectiveness of services provided by businesses.
- Major impact on the development of the business environment is based on the primary development is called information and communication technology. The several factors of the effectiveness of information and communication technologies are investing in human capital and an appropriate combination of e-commerce solutions. One sector where the digital transition and importance of e-commerce are particularly pronounced is retail, where digital tools, such as Websites, replace (to a certain extent), or complement physical commerce [4].

### Meaning of E-commerce

- E-commerce was described for the first time in the 1980s. Now it has become a global growing trend and becoming more popular online activities. The advancement of digital technologies and development of the internet have caused some changes in consumer behavior. Nowadays people are highly using e-commerce to purchase.

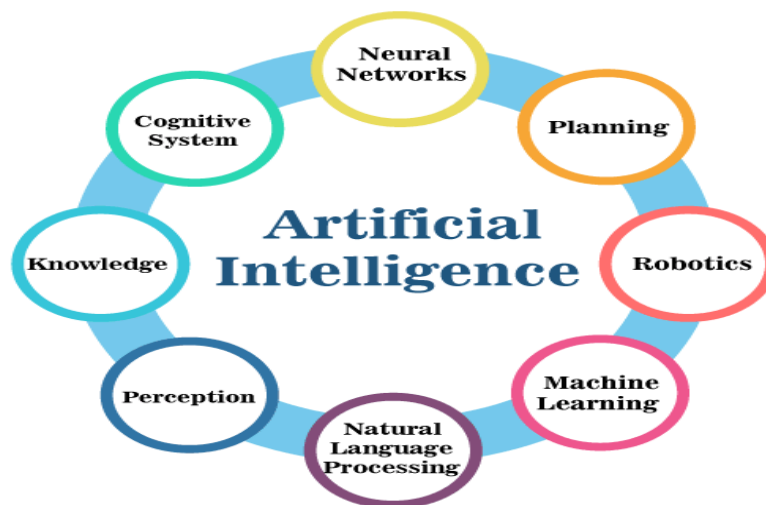
- E-commerce is the short form of Electronic commerce, it means commerce is taking place in the online environment of the Internet, with the help of the internet being considered as a single platform that connects the sellers and buyers.
- E-commerce includes all commercial transactions carried out online said by Ullman. Those commercial categories include any website displayed on computer, tablets, as well as mobile phone, which is intended to generate revenue.
- Usage of the internet, web portal, Mobile application, and browsers to make a purchase is the major factor in E-commerce.
- In this case the transaction between sellers and buyers may also be held in digital mode. All the internet users are doing online shopping only. The largest number of customers was served and a larger number of orders and better provision of information is the main advantage of e-commerce.
- Cost incurred in e-commerce business will be very low compared to the brick and mortar Store. Online shopping offers several benefits to the buyer as well as customer than the offline retailer. In online shopping the customer need not visit a physical store to purchase and this will save time for the customer. The more options will be provided to customers in online shopping.



- **Meaning of Artificial Intelligence**
- Thanks to artificial intelligence, technical systems are able to distinguish the environment in which they find themselves, recognize the problem, and solve it, while working toward the predetermined goal.
- Receiving data may be prepared or collected by computer sensors such as camaras. It processes this data and then responds. Based on the analysis of previous steps the

Artificial intelligence can adapt their behavior autonomously. Over the last few decades, artificial intelligence applications have evolved rapidly.

- In the starting stages, artificial intelligence was used in expert and knowledge systems to provide recommendations. Now-a-days a technological advancements, artificial intelligence has become more human and is more capable of problem solving, learning, manipulation of objects and navigating physical space.
- The use of technology will reduce the human participants then creation of intelligent systems that can manage and monitor business models with the less human participants. The economic benefits to humanity, improved almost all aspects of life, significantly promoted social development and brought about a new era.
- These are the development of artificial intelligence. Artificial intelligence was considered as a new interdisciplinary technological science that develops theoretical methods, technologies, and applications for the simulation and expansion of human intelligence.
- The application of artificial intelligence has been examined in sectors such as health care, business, education, manufacturing, marketing, and financial management [19–21]. It is not easy to find a uniform and correct definition for artificial intelligence. Artificial intelligence has been categorized in two categories by Russell and Norvig.
- In Artificial intelligence the system has some capabilities such as information processing for communication in natural language, the ability to store and present information, automatic reasoning-using stored information to answer questions and draw a new conclusion, learning machines to adapt to new circumstances and to detect new patterns of behavior.



**Role of Artificial Intelligence in E-commerce**

- In Today's world, e-commerce is one of the industries that makes the most of artificial intelligence. E-commerce builds a huge customer base, trying to understand customer needs, doing real-time research, coming up with ultimate solutions, and many other activities. It contains authors of the study, objective of the study, study theme, and main findings

**Artificial Intelligence Assistants—Chatbots**

- Availability of e-commerce websites 24 hours 7 days a week. 24 hours customer support will be provided by virtual assistants. The function of the chat box is to automatically answer questions asked by the customer, responding to simple voice commands, using a natural language processing system. Chatbots can also be defined as a type of software application.

**Recommendations Tool**

- By Using an artificial intelligence algorithm, it is possible to carry out statistical programming, forecasting, and analysis of consumer behavior, large datasets and predict which products have the potential to attract customers. The algorithm is able to record key information of the searching products based on recent searches for potential customers. The recommendation tool then generates the appropriate suggestions for the browser and displays what will ultimately help customers find the product quickly [12, 37, 38].

**Visual and Voice Search**

- It is possible to implement visually and search through audio on websites by using artificial intelligence. Visual and audio searches are based on image and sound processing algorithms. Customers can search for the product by using an image or voice instead of entering keywords in the search bar. A customer uses an image or photo as input in a visual search. The customer takes an object or text or uploads an image, which is recognized by the search engine and displayed in the search results. Voice search allows users to use spoken language as an input. Once a voice is transcribed by the system then display a result. Voice search is based on intelligent natural speech recognition and processing technologies. The user is thus presented either with a spoken answer or relevant results in the form of text or images [40].

**Customer Relationship Management**

- In e-commerce business customers are very important. In the past, companies used employees to manage customer relationships. In today's world artificial intelligence systems are becoming more and more popular. By using Artificial intelligence it is able to predict how customers will behave when shopping, what products selected customers will choose and how the company can build and maintain the best possible relationships with them. By Using artificial intelligence, a company may also obtain information on consumer satisfaction and carefully plan how to respond to customers' needs and requirements, regardless of time and situation. Artificial intelligence helps people to build a balanced company and the customer in which man and machine work together to make a profit and sales.

**Perspective of Artificial Intelligence in E-commerce**

- In e-commerce certain activities are performed less by human intelligence. This concerns in particular the forecasting of demand and supply chain mechanisms. A challenge for businesses is that artificial intelligence appears to be a useful tool. Artificial intelligence in e-commerce helps to increase a profit through all available tools it helps improve personalized recommendations and payment. It also improves customer relationship management, logistics management, and inventory optimization. In e-commerce Artificial intelligence technologies have been integrated into marketing and retail, where big data analysis is used to develop personalized customer profiles and forecast customer shopping habits. Understanding the customers and predicting their demand through integrated supply chains is more important than ever, and artificial intelligence technology is likely to be an essential integral element. The development and implementation may be in the future the acceptance of artificial intelligence is high and in order to ensure the efficiency can match the information of product consumption of goods and services. Artificial intelligence helps e-commerce follow business trends, changing customer needs in the market.

**CONCLUSION**

The aim of the chapter was to describe the essence of e-commerce and artificial intelligence and their benefits. The paper also provides insight into the evaluation of the importance of artificial intelligence and its future use in the context of e-commerce based on available studies on this issue. Now-a-days of digital technologies in e-commerce play an important role in today's world people are using the Internet on a daily basis; people are willing to buy new products and brands, but they are also critical and demanding. In such cases, E-

commerce appears to be a suitable option to meet their requirements. The application of artificial intelligence in e-commerce has become the subject of interest of many business scientists and experts. Previous research has highlighted the need for further research that would contribute to the development of knowledge and strategies in the application of artificial intelligence in e-commerce. It is possible to expect that artificial intelligence in the conditions of electronic commerce will be used more and more often and will become an integral part of all companies of this type.

## REFERENCES

1. Gburová J (2019) Consumer shopping behavior in the e-commerce environment. J Global Sci 4(2):1–6
2. Khrais L (2020) Role of artificial intelligence in shaping consumer demand in E-commerce. Future Internet 12(12)
3. Delina R, Vajda V (2006) Theory and practice of electronic commerce. Grafotlač, Prešov
4. Hagberg J, Sundstrom M, Egels-Zandén N (2016) The digitalization of retailing: an exploratory framework. Int J Retail Distrib Manage 44:694–712
5. Boboc PC (2020) VAT and e-commerce. Current legal framework and the 2021 changes. Cluj Tax F.J., 39
6. Menaka B, Seethal K (2018) Recent trends in E-commerce. Shanlax Int J Commerce 6(1):40–44
7. Tan S (2013) Ecom hell: how to make money in ecommerce without getting burned. Ecom Hell, San Francisco
8. Ullman L (2013) Effortless e-commerce with PHP and MySQL. New Riders, San Francisco

