

ARTIFICIAL INTELLIGENCE AS A  
BASIS FOR THE DEVELOPMENT OF  
THE DIGITAL ECONOMY  
*Textbook*

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eBook ISBN 978-80-88415-17-6

Print ISBN 978-80-88415-18-3

**OKTAN PRINT  
PRAHA 2021**

Recommended for publication by the Precarpathian Institute named of M. Hrushevsky of Interregional Academy of Personnel Management (Protocol №10 dated 27.05.2021)

The work was performed within the research topic of the Mykhailo Hrushevsky Precarpathian Institute «Ukraine in the context of world and national modernization processes of statehood and civil society: political, legal, economic, social, psychological and administrative aspects» (Registration number 0119U100492. Date of registration - February 12, 2019)

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ARTIFICIAL INTELLIGENCE AS A BASIS FOR THE DEVELOPMENT OF THE DIGITAL ECONOMY: *textbook*; Edited by I. Tatomyr, Z. Kvasnii. Praha: OKTAN PRINT, 2021, 376 p.

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The publication is assigned with a DOI number: <https://doi.org/10.46489/aiabftd-07>

The paper version of the publication is the original version. The publication is available in electronic version on the website: <https://www.oktanprint.cz/p/artificial-intelligence-as-a-basis-for-the-development>

Passed for printing 31.05.2021

Circulation 50 copies

Cover design: *Irina Tatomyr*

eBook ISBN 978-80-88415-17-6

Print ISBN 978-80-88415-18-3

OKTAN PRINT s.r.o.

5. května 1323/9, Praha 4, 140 00

[www.oktanprint.cz](http://www.oktanprint.cz)

tel.: +420 770 626 166

jako svou 59. publikací

Vydání první

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advertising displays at auctions; Artificial Intelligence; native advertising; audio content for more coverage; internet television; prompt response to mentions; microinfluencers; strategic planning and omnichannel; end-to-end analytics as the most effective way to optimize advertising budgets and make management decisions.

### **10.3. E-commerce trends in the digital economy**

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Currently, e-commerce is becoming a modern challenge to accelerate the development of the global economy. This requires the introduction of qualitatively new approaches to the strategic management of marketing activities using information technology. This is especially true in the context of the digitalization of business processes in the context of the concept of Industry 4.0. According to expert estimates, the share of retail sales in the e-commerce market in 2021 will reach 17.5% or 4878 billion dollars USA. According to a report by The Fashion and Apparel Industry, global revenue from e-commerce will grow in 2018-2022 by 48.2%, or from 481.2 to 712.9 billion dollars USA. The total global revenue from e-commerce in 2022 will be 6.5 trillion dollars USA.

Thus, the problems of transformation of logistics activities with the use of digital technologies in the context of intensifying the development of the information environment remain relevant and require further research. And first of all, it concerns clarification of the conceptual apparatus on problems of development of e-commerce. Analysis and generalization of scientific literature show that scientists pay considerable attention to:

definition from different scientific points of view of the essence and content of the concepts "electronic business" (D. Chaffey); "e-commerce" (V. Zwass; A. Summer, Gr. Dunkan; D. Kozié); "Internet trade"; "Internet commerce"; "E-retail" (M. Hargrave);

improving the customer relationship management system using information technology (G. Balabanis, K. Keller, P. Kotler, A. Payne, V. Souitaris);

practical aspects of application of digital technologies in logistics activity of enterprises and substantiation of scientific and methodical approaches to the estimation of effect from their introduction (A. Amaral, L. Barreto, H. Dzwigol, A. Kwilinski, T. Pereira).

At the same time, the versatility, multifacetedness, and debatability of certain issues on the selected topic necessitate further research. And especially the solution of this problem is actualized in modern conditions of digital transformation of business processes of the enterprises and intensive development of e-commerce owing to COVID-19. Analysis of the specialized literature shows that there is no single scientific approach to the term "e-commerce". It is established that foreign and domestic researchers identify e-commerce with different terms: e-business, IT-commerce, e-payment service, online commerce, virtual commerce, e-trading, e-marketing, digital marketing, e-transaction, e-commerce retail trade, distance trade.

The categories "e-business" and "e-commerce" emerged in the United States in the 1980s as a result of the development of the ideas of the global information economy. As a rule, scientists and practitioners considered e-business and e-commerce to be synonymous. However, over time, researchers have begun to separate e-commerce from e-business.

According to D. Kozie [58], "... e-commerce began with the sale and transfer of funds through computer networks. But then this concept expanded significantly and included trade in fundamentally new types of goods, such as information in electronic form. To benefit from the possibilities of e-commerce, it is necessary to understand that the view of it exclusively as business transactions through computer networks is irrevocably obsolete ... E-commerce is based on the structure of traditional commerce, and the use of e-networks gives it flexibility ...". As a result of the conducted theoretical analysis and own previous researches on the chosen problems [59-62] various scientific approaches to the definition of essence and maintenance of concept "electronic commerce" are generalized (*Table 38*).

Scientists and experts under this definition, as a rule, understand:

economic activity, for the implementation of which information and communication technologies and networks are used, which allow enterprises to receive income;

economic activity, as a result of which ICT and networks play an important role in the implementation of key processes (consumption, exchange, distribution, production);

activities that create added value through ICT;

the interaction of a set of economic entities in the sales process using network technologies;

electronic interaction between business entities using Internet technologies;

purchase and sale of goods and services via the Internet for direct profit;

a set of operations between the company and contractors, which are carried out using information technology to optimize costs and increase the efficiency of business processes;

commercial interaction of business entities on the purchase and sale of goods and services using information networks;

sale or purchase of goods/services through electronic transactions made via the Internet or other computer networks;

activities that are focused on making a profit as a result of transactions and transactions on the Internet;

one of the modern forms of organization and implementation of economic activity, the distinctive feature of which is the use of public information systems and computer networks integrated into the Internet;

type of economic activity, where the object of the action is trade, purchase, and sale of goods, customer service via the Internet;

a set of rules governing the implementation of electronic relations in the execution of contracts of sale of goods;

commercial activities related to the Internet;

a process that is mediated through a network of interconnected computers;

a transaction using electronic media or computer networks;

a set of interactive methods of conducting activities to provide consumers with goods and services;

activities covering all types of electronic transactions between enterprises and stakeholders.

*Table 38*

**Systematization of scientific approaches to formulation  
the term "e-commerce"**

Group	Components
Element of e-business	<ul style="list-style-type: none"> <li>• type of entrepreneurship;</li> <li>• a form of business process;</li> <li>• a component of e-business;</li> <li>• business activity</li> </ul>
Type of activity	<ul style="list-style-type: none"> <li>• commercial activity;</li> <li>• type of electronic commercial activity;</li> <li>• type of economic activity;</li> <li>• economic activity;</li> <li>• modern form of organization and implementation of economic activity</li> </ul>
Type of trade	<ul style="list-style-type: none"> <li>• a specific type of trade;</li> <li>• a form of trade through ICT;</li> <li>• a form of supply of products through computer networks</li> </ul>
Form of electronic relations	<ul style="list-style-type: none"> <li>• electronic interaction of economic entities;</li> <li>• a set of rules for electronic relations in the sale of goods;</li> <li>• the technology of commercial transactions;</li> <li>• type of public relations for the sale of goods;</li> <li>• commercial interaction of business entities in the process of buying and selling;</li> <li>• the relationship between economic entities</li> </ul>

Agreement	<ul style="list-style-type: none"> <li>• purchase and sale of goods via the Internet;</li> <li>• electronic commercial agreement;</li> <li>• a form of business transactions by electronic means</li> </ul>
Type of electronic transaction	<ul style="list-style-type: none"> <li>• electronic transaction in the process of selling or buying goods;</li> <li>• a system of non-cash payments</li> </ul>
Strategy	<ul style="list-style-type: none"> <li>• marketing strategy</li> </ul>

*Source:* suggested by the authors.

On the basis of methods of groupings and classifications, the theoretical approaches to the interpretation of e-commerce which are offered by various scientific schools are conditionally systematized. As a result of generalization of existing scientific developments in the conceptual apparatus and analysis of its compliance with modern conditions of enterprises, the author's approach to the definition of the term "e-commerce" is given, which is considered as:

component of e-business, the essence of which is to achieve partnerships in the process of buying and selling products using digital technologies and information systems;

an effective form of organization of logistics activities of enterprises with the use of information and communication technologies and systems;

a tool for promoting products on the market using digital technologies.

The lockdown due to the COVID 2020 pandemic led to a boom in e-commerce, which was already growing steadily. In some areas, switching to online trading is the only way to keep a business. In others, it is an opportunity to reach an additional target audience. In 2022, online trading revenue is expected to be 6.54 trillion dollars USA (up from 3.53 trillion dollars in 2019). The mobile e-commerce sales niche is projected to reach 73% by the end of 2021. Of these, 30% of customers are likely to abandon checkout if they find that the site is not optimized for mobile use.

GroupM predicts more modest results and notes that the growth rate of e-commerce. However, the report says that the share of e-commerce in the retail turnover of the entire planet will reach 25% by 2024, and by 2027 the e-commerce industry will sell goods and services worth 10 trillion dollars USA. China has already become the main beneficiary in the segment, and in 2021 the share of e-commerce in the country will reach 27.3%.

Marketplaces will continue to gain popularity. They are easy to reach for businesses not yet familiar with digital aspects, and buyers prefer to find everything they need in one place. But not only giants will attract business – there are many undervalued sites that will receive their development in 2021. Personalization will evolve in the battle for the buyer. This approach is pushing nearly half of customers (48%) to spend more. And in the digital world, it cannot exist without data collection. Direct sales to consumers, gamification, discounts in exchange for filling out a questionnaire are all ways to get exactly the information you need for a personalized experience.

Social commerce will become a serious sales channel. And this is not about the fact that the user is redirected from the social network to the shopping site, but



about the fact that he makes a deal directly on the pages of Facebook, Instagram, or Pinterest. But this does not mean that you do not need to attract customers to your selling site through social networks, it should be remembered that consumers want maximum simplicity when making a transaction.

Voice commerce will allow you to get closer to the buyer. Smart gadgets are gradually entering the lives of consumers, simplifying the buying process. Businesses have to optimize such contacts. Earlier, Gartner predicted that in 2020 50% of companies will use chatbots for voice communication with customers. In 2021, there will be even more such enterprises.

Shopify is adding a few more trends to this. Order fulfillment will become an important competitive factor. The consumer expects fast, high-quality, and inexpensive delivery. And for this, you need to optimize fulfillment as much as possible: place warehouses as close to customers as possible, offer flexible delivery and return options. FinancesOnline notes in its forecast that additional shipping costs are the most common reason for abandoning a purchase.

Refunds are becoming an e-commerce scourge. In 2020, they cost entrepreneurs 205 billion dollars USA. It is assumed that by 2023 the amount of annual damage will reach 348 billion dollars USA. Customer retention is becoming a priority against the background of the cost of attracting them. Loyalty programs, subscription sales models, and audience segmentation are the tricks that businesses will increasingly use to keep customers from leaving their competitors.

According to FinancesOnline, the growth rate of sales through mobile devices will decrease. The main reason here is saturation. Already, most online orders are made from smartphones.

Thus, the key trends in the development of e-commerce are:

- online trading will continue to grow steadily;
- mobile shopping will continue to gradually replace desktops;
- social networks – the new elevator for trading;
- voice commerce or “Ok Google, I want to buy ...”;
- instant delivery is not just a nice bonus, but a competitive advantage;
- multichannel sales to increase audience reach and increase conversions;
- visual Commerce – The New Minimum Plan for Online Platforms;
- AR is becoming the new e-commerce reality;
- new payment options for greater security and convenience;
- ecology and “green” consumption shape consumer preferences.

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