Chapter 1

IMPACT OF GLOBALIZATION CHALLENGES ON THE MANAGEMENT OF SOCIO-ECONOMIC SYSTEMS

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ASSESSMENT OF THE BALTIC COUNTIES E-TRADE IN GLOBAL ENVIRONMENT

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Abstract
The article analyses the topic of e-trade assessment in a global environment. Based on the data collected, a multi-criteria assessment of e-trade was carried out, dividing the factors into five dimensions: emotional (consumer satisfaction and trust), technological (internet accessibility, data security and privacy), financial (e-GDP, e-trade sales, impact of e-trade on overall company turnover), social (internet usage and purchasing volumes) and tax environment (VAT), and a comparative analysis of the countries to compare the results of economically similar countries (for that purpose, a comparative analysis of the Baltic countries – Lithuania, Latvia and Estonia – was carried out), to find out why the market leaders are performing so well in the e-trade sector, and to identify the methodologies and practices used in these countries, so as to identify the most effective methods and practices that can be applied in other countries. After carrying out a comparative analysis of the Baltic countries, it was found that Estonia is the leading country in the assessment of trust, technological and social indicators of electronic commerce. Lithuania surpasses Estonia in the field of financial indicators and consumer satisfaction when shopping online.

Keywords: *e-trade, globalization, global economy, e-trade assessment models.*

Introduction

Today, the internet is becoming an integral part of everyone's life and business life. During the COVID-19 pandemic, more and more operations are moving online, giving businesses the ability to reach their customers on a global scale and helping to reduce geographic boundaries. According to Huirong (2014), e-trade is changing the world's business model, influencing corporate governance, consumers' purchasing habits and becoming a key driver of economic growth. As e-trade removes time and space constraints, it increases international cooperation between different countries. For this reason, international standards and government regulations have an important influence on e-trade. It should be stressed that all these regulations are not defined on a statistical basis, but on a legislative basis, and it is therefore very difficult to incorporate these factors into a framework for assessing e-commerce. However, the increasing use of information and communication technologies makes it increasingly difficult to assess the effectiveness of e-trade. The assessment of e-trade needs to be carried out in the light of changes and trends in the global economy. The object of the study is the assessment of electronic commerce in the context of globalization and the global economy. This paper explores the issue of what factors are necessary to assess e-trade performance and what is the importance of applying e-trade assessment models in a global environment.

Materials and Methods

Defence expenditure as a part of government spending may serve to influence economic development in various ways. E-trade becomes an increasingly important phenomenon in the global business world. According to Murphy and Bruce (2003), the development of e-trade is important because it helps to improve the efficiency of the overall market, facilitating accessibility and market entry. The academic literature uses various terms to describe e-trade: online trade, electronic commerce (ecommerce), electronic commerce (e-trade), etc. It is worth pointing out that the most

commonly used term is “e-trade”, which does not have a single and precise definition (Table 1.1).

In the most general sense, e-trade is defined (Gangeshwer, 2013; Khan et al., 2014; Longo & Yonah, 2017; Villa et al., 2018) as the buying and selling of goods or services online. Other authors (Nanehkaran, 2013; Georgiadis et al., 2013; Khan, 2016) define e-trade in a broader sense that it is not only the buying and selling of goods or services online, but the concept encompasses the whole process from the description of the product, the posting of pictures on the internet, up to the point where the consumer receives the goods.

Although the majority of scientific works mention and examine the benefits of electronic commerce, some authors are more inclined to emphasize the disadvantages of electronic commerce. Therefore, various factors limiting the development of e-commerce can be found in the scientific literature (Table 1.1).

Table 1.1

E-trade limitations

Technical deficiencies	– Lack of generally accepted security and reliability standards; – Insufficient telecommunications bandwidth; – Constantly evolving software development tools; – Difficulty integrating e-commerce software with existing applications and databases; – Dedicated web servers are required; – Internet availability problem.
No technical limitations	– Lack of state regulation and e-commerce standards; – Distrust of customers; – Greater risk of financial fraud; – High development costs; – Security and privacy issues; – Inability to verify product quality; – Customer loyalty; – It is not possible to touch/view the product; – Delay in delivery of goods.

Source: Awais and Samin, 2012; Niranjanamurthy, Kavyashree, Jagannath et al., 2013; Paradkar, 2014; Deshpande, 2016

According to Koenig and Wigand (2004), the main driving force of e-commerce is the business-to-business (B2B) sector, where there is strong international competition and globalization. Multifaceted international trade links increase the speed of diffusion of

standardized electronic transactions. Meanwhile, according to Palacios (2003), thanks to the development of the Internet, the increasing amount of information, which has become easily accessible to both consumers and businesses, has strengthened competition not only in local but also in international markets. Companies of all types and sizes have felt the need to update and improve their business practices in order to find new, more efficient ways to create added value. It was an inevitable condition to remain in the competitive market. So, over the years, more and more companies started using the World Wide Web to expand their markets or help integrate their business in foreign countries to help manage their supply chain. All these factors have led to the emergence of e-commerce, which has rapidly spread throughout the world and affected the economies of many countries.

Totonchi and Manshady (2012), examined in detail the relationship between globalization and e-commerce. It is claimed that the process of globalization and technological changes have created the basis for the emergence of a new economy operating on a global scale, which is based on knowledge and information. The study revealed that e-commerce helps strengthen a company's existing competition and helps expand it internationally.

According to Donici and Diacon (2011), electronic commerce will have an increasing impact on the global economy. Small and large businesses have become dependent on e-commerce to survive in the local, national and global economy. These companies have transferred communication with customers and suppliers to the Internet space, so that they can more easily enter into and create electronic transactions, and more effectively advertise their offered products.

Aydın and Savrul (2014), also examined the relationship between e-commerce and globalization. The authors argue that in the transition to a new form of economy that is based on knowledge and information, e-commerce has helped to remove the constraints of time and space, and has also provided an opportunity to reduce production costs. In the presented figure (Table 1.2), the authors propose, based on Aydın and Savrul (2014), such a representation of the globalization of e-commerce, which shows that the state policy of each country should be based on the promotion of e-commerce,

which should be directed to business to business (B2B), and business-to-consumer (B2C), encouraging not only to expand the circle of customers, but also to strengthen international cooperation opportunities, which is easiest to do for large (large) or small companies.

Table 1.2

Globalization of electronic commerce

GLOBAL ENIRONMENT	✓ Global outsourcing ✓ Technological innovations (innovations) ✓ Market liberalization
NACIONAL ENVIRONMENT	✓ Sector structure ✓ Information infrastructure ✓ Financial systems ✓ Human Resources ✓ User needs ✓ Social/cultural factors
STATE POLICY	✓ Liberalization of telecommunications ✓ Investments in infrastructure ✓ Regulatory and legal environment ✓ Education ✓ Promotion of electronic commerce
EL.TRADE DEVELOPMENT	✓ Business to Business (B2B) ✓ Business - to Consumer (B2C) ✓ Large/small companies
SOCIAL /ECONOMIC FACTORS	✓ Employment ✓ Trade ✓ Productivity

Source: composed by the authors and Aydın ir Savrul, 2014

As the use of information communication and technology in business and everyday life intensifies, it is becoming more and more difficult to assess the effectiveness and benefits of e-trade, not only for the business, the country but also for the global economy. For this reason, evaluation is becoming more complex, as it is no longer enough to look at the technological characteristics of a website or customer satisfaction alone, but it is worth looking at the impact of e-trade on a national scale.

When looking at the benefits and drawbacks of e-trade, it has been noted that there is a strong focus on the emotional state of consumers. Emphasis is placed on the importance of consumer satisfaction (Awais & Samin, 2012; Delone & McLean, 2003; Molla & Licker, 2001; Brilliant & Achyar, 2016; Chaffey & Ellis-

Chadwick, 2012; Aydın & Savrul, 2014) and trust (Molla & Licker, 2001; Brilliant & Achyar, 2016; Gheiji, 2015; Christensen & Methlie, 2003; European Commission, 2016) in e-trade.

Since e-trade can be understood as the interaction between communication, data management and security systems that facilitate the exchange of commercial information related to the sale of products or services (Nanehkaran, 2013), it is useful to include technological factors in the measurement model for effective e-trade measurement (Totonchi & Manshady, 2012). The literature analysis has shown that the main factors related to technical characteristics of e-trade are security (Awais & Samin, 2012; Quayle, 2002; Brilliant & Achyar, 2016; Huirong, 2014, Chaffey, 2012), ensuring privacy (Awais & Samin, 2012; Brilliant & Achyar, 2016; Chaffey, 2012), and increasing the reach of the internet (Niranjanamurthy *et al.*, 2013).

The analysis of the assessment models shows that very few models include financial factors in the assessment framework. According to Wen et al. (2003), it is very important to include financial indicators in the e-trade evaluation framework, which are typical for a normal business Marginean (2015).

When examining the benefits, drawbacks and evaluation models of e-trade, it has been observed that only a small number of authors emphasise the influence of tax environment factors on the effectiveness of e-trade. Awais and Samin (2012), argue that changes in the tax environment, legal framework and regulations can affect e-trade sales.

In order to justify the application of the e-commerce evaluation model presented in the theoretical part in a global context, a comparative analysis of the Baltic countries (Lithuania, Latvia and Estonia) is performed. A statistical analysis of Baltic countries was carried out, looking at five dimensions: emotional, technological, financial, the tax environment, social, growth rates.

The comparative method is a set of logical procedures, with the help of which the empirical validity of alternative (competing) hypotheses about causal relationships between phenomena is systematically checked and those hypotheses are either confirmed or rejected (Norkus & Morkevičius, 2011).

This analysis is based on the data and results obtained in the

multi-criteria evaluation method. The comparative analysis was chosen because it aims to compare the results of economically similar countries, to find out why the countries considered to be market leaders achieve such good results in the e-commerce sector, what methodology and practices are used by these countries, in order to discover the most effective methods and methods of operation and apply them to the activities of other countries.

Research results and discussion

This study uses an 11-indicator framework comprising indicators identifying five dimensions (Table 1.3).

Table 1.3

Multi-criteria evaluation indicator framework

DIMENSION	FACTORS	INDICATORS	SOURCE
Emotional	Consumer confidence in e-trade	Percentage of the population who have not bought goods or services online in the last year due to lack of confidence in e-trade (%)	Eurostat
	Consumer satisfaction with e-trade	Percentage of the population that did not experience any problems when shopping online, (%)	Eurostat
Technological	Internet accessibility	Internet accessibility (%)	Eurostat
	Ensuring security	Number of secure internet servers (pcs.)	World Bank
	Ensuring privacy	Cyber security, index	International Telecommunication Union
Financial	E-trade sales	E-trade sales, EUR (billion)	Statista
	Impact of e-trade sales on total turnover of the company	Share of turnover generated by e-trade revenues (%)	Eurostat
	Contribution of e-trade to GDP	E – GDP, (%.)	Ecommerce Foundation
Fiscal environment	National regulations, international/European standards	VAT – value added tax, (%)	Ecommerce Foundation
Social	Scale of e-trade purchases	Share of the population that buys goods or services online (%)	Eurostat
	Scale of internet usage	Percentage of the population that uses the internet (%)	Eurostat

Source: composed by the authors

Emotional factors include customer satisfaction and trust in e-trade. To measure these factors, Eurostat data on the proportion of the population (in percentage) that did not buy goods or services online in the last year (2017) due to a lack of confidence in e-trade is used, while the satisfaction criterion is best represented by an indicator showing the proportion of the population (in percentage) that bought goods or services online and was satisfied with the product and had no problems with the quality or delivery. As e-trade is the result of technological advances, technological factors, which include internet accessibility and data security and privacy issues, are of great importance in the study of this topic.

Internet accessibility is best described by data collected by Eurostat on the percentage of a country's population with access to the Internet.

Security is defined using data collected by the World Bank on the number of secure internet servers per million inhabitants. The privacy factor is represented by data collected by the International Telecommunication Union on a country's cyber security index. To reflect economic factors, we selected Eurostat, the Ecommerce Foundation and Statista collected data on the share of a company's turnover generated by e-trade revenues, the contribution of e-trade to the country's GDP, and the country's e-trade sales volume.

The countries Lithuania, Latvia and Estonia were chosen because they are similar in size and are united by the same historical events that influenced the development of the states. As separate polar units, these countries were formed at a very similar time in 1918, independence was restored in 1990-1991. Other country characteristics are presented in Table 1.4.

Thus, according to the data collected by the Ecommerce Foundation, Payments & E-commerce Report (2018), it can be said that the largest in terms of area and population is the state of Lithuania, where 65,300 sq. km 2.9 million people live in the area population (of which as many as 2.48 million are over 15-year-olds). The area of the state in neighbouring Latvia is very similar, where this figure reaches 64,589 square meters. km., but the population is almost 32 percent lower than in Lithuania and amounts to 1.98 million (where, respectively, as many as 1.68 million of the country's inhabitants are over 15 years old). The smallest Baltic state

in terms of area and population is Estonia, where the country's area is only 45,226 square meters. km., and the population is 1.3 million (twice less than in Lithuania). In Estonia, even 1.1 million of the country's population is over 15 years old. All the Baltic countries joined the European Union in 2004, but Lithuania was the last country to change its national currency to the common currency of the European Union - the euro. It did this only in 2015, while Estonia changed its national currency to euros in 2011.

Table 1.4

Comparison of data from the Baltic States, 2018

Indicator/ State	Lithuania	Latvia	Estonia
Area	65 300 km²	64 589 km²	45 226 km²
Population	2,9 million	1,98 million	1.31 million
Population (+15 years old)	2,48 million	1,68 million	1,1 million
Accession to the EU	2004	2004	2004 m.
Changing the national currency to euros	01/01/2015	01/01/2014	01/01/2011
GDP per capita	$ 14 251,78	$ 13 654,85	$ 17 084,52
Number of Internet users	2,1 million	1,57 million	1,16 million
Average online spend, USD	$ 392,75	$ 324,00	$ 389,00
E-Commerce Market, Business-to-Consumer (B2C), USD (Billion)	$ 0,52	$ 0,28	$ 0,18
Digital Economy and Society Index (DESI)	13 place	19 place	9 place

Source: compiled by the authors based on data collected by the Ecommerce Foundation, Eurostat, Payments & E-commerce Report

GDP per capita is an economic indicator showing the country's level of economic development. The lower the gross domestic product per capita, the poorer the country's economy and the people living in the country. According to the GDP per inhabitant of the country, the leading state is Estonia, where the GDP per inhabitant reaches 17,084.52 US dollars, while in Lithuania this figure is equal to 14,251.78 US dollars. The lowest indicator is in Latvia, where GDP per capita is equal to 13,654.85 US dollars. This shows that Latvia is the economically poorest country in the Baltic region according to this indicator.

When comparing the number of Internet users in the Baltic region, the leading country is Lithuania, where the number of Internet users is the highest and reaches 2.1 million population, and

an average of $392.75 is spent online. 1.57 million people use the Internet in Latvia of the country's population (average online spending 324.00 US dollars), and in Estonia 1.16 million respectively population, where the average online shopping spend is $389.00).

Evaluating the entire e-commerce business-to-consumer market, it can be noted that this market is the largest in Lithuania and amounts to 0.52 billion US dollars, while in Latvia and Estonia, respectively, this figure reaches 0.28 billion and 0.18 billion US dollars.

Digital Economy and Society Index (DESI) is a composite indicator used to measure progress in the digital field in Europe, which includes opportunities to use e-communication skills, internet usage skills, e-assessment of resource volumes, integration of key digital technologies and public sector electronic services. It is calculated by evaluating the countries of the European Union according to five aspects: Infrastructure connectivity (fixed broadband, mobile broadband, broadband speed and prices), human capital (internet use, basic and advanced digital skills. The digital skills of the population are assessed based on their ability to use digital services), use of the Internet (citizens' use of content, communications and transactions on the Internet), integration of digital technologies (digitalization of business and e-commerce. The use of digital technologies in business is measured taking into account the use of digital technologies – e-commerce in daily business processes), digital public services (public sector services are evaluated by recording the level of development of public electronic services in the country).

According to this indicator, Estonia is the leader, which ranks 9th in all the previously mentioned areas. Lithuania's results are better than the European Union average in all areas, except for human capital. In terms of infrastructure connectivity, Lithuania's indicators are among the best in Europe, especially in the field of fixed and mobile communication coverage, but Lithuania lags behind in terms of the utilization of opportunities and ranks 13th. In Latvia, the situation is even worse, it ranked only 19th out of all 28 European countries (D. Britain was a member of the EU at the time of the study).

In order to carry out a comprehensive assessment of e-commerce, it is worth examining the data of the indicators used during the multi-criteria assessment and comparing them on the scale of the Baltic region (Table 1.5).

Table 1.5

Analysis of e-commerce indicators in the Baltic States, 2017

Dimen-sions	Factors	Characteristics	Lithuania	Latvia	Estonia
Emotional	Consumer confidence in electronic commerce	Share of the population who did not buy goods or services online in the last year due to lack of trust in e-commerce, (percent)	11	12	6
	Consumer satisfaction in electronic commerce	Share of the population who did not experience any problems when buying online, (percent)	80	73	71
Technol-gical	Internet availability	Internet availability, (%)	75	79	88
	Ensuring security	Number of secure internet servers, (units)	13 061,40	11 957,29	29 173,38
	Ensuring privacy	Cyber Security, Index	0,504	0,688	0,846
Financial	The impact of e-commerce sales on the company's total turnover	Share of turnover, which consists of income received from e-commerce, (percent)	13	9	16
	E-commerce sales	E-commerce sales, EUR (billion)	0,515	0,29	0,25
	Contribution of e-commerce to GDP	E - GDP, (percent)	1,13	1,3	1,08
Social	Scales of Internet users	Share of the population who use the Internet, (%)	79	82	89
	Scales of e-commerce purchases	Share of the population who buy goods or services online, (percent)	38	46	58
Tax environment	State regulations, international/ European standards	VAT - value added tax, (%)	21	21	20

Source: compiled by the author based on the collected data to perform a multi-criteria evaluation

Evaluating the emotional dimension, it is observed that the

highest trust in e-commerce exists in Estonia, where in the analyzed year, the smallest part of the population (percent) did not buy goods or services online due to lack of trust in e-commerce. The lowest distrust is in Latvia (even 12 percent of the country's population did not buy goods online due to distrust). However, satisfaction with e-commerce is the highest in Lithuania, here even 80 percent residents did not experience any problems when shopping online and were satisfied with their shopping. The lowest percentage of satisfied buyers is in Estonia, where only 71% of the country's residents were satisfied with online shopping.

Analyzing the factors included in the technological dimension, it can be seen that Estonia is the leading country in all areas: internet availability, the number of secure internet servers and the highest cyber security index. Lithuania has the lowest indicators in the areas of internet accessibility and cyber security.

The analysis of financial factors revealed that the largest share (percentage) of the turnover of the country's companies, which consists of income from e-commerce, is in the country of Estonia, and this number is correspondingly equal to 16%. However, it is worth noting that according to the number of e-commerce sales, the largest number is in Lithuania (EUR 0.515 billion), but in terms of the contribution of e-commerce to the gross domestic product (E-GDP), Latvia leads, where e-commerce accounts for 1.3 percent country's GDP.

In the social dimension, where the scale of the country's population using and shopping on the Internet is examined, Estonia leads the way. In this country, even 89 percent use the Internet, and 58 percent buy of the country's population. The worst results are in Lithuania, where only 79 percent use the Internet and only 38 percent buy of the country's population.

Examining the factor of the tax environment – the amount of value added tax in the Baltic countries, it was noticed that the lowest tax and a more favourable business environment is in Estonia, where this tax reaches 20%, while in Latvia and Lithuania – 21%. This fee shows what part of the shopping cart is taxed.

The payment and e-commerce report prepared by PPRO companies (2018) examined the e-commerce environment in individual countries of the Baltic region. This report mentions that

Estonia is a leading Baltic country because it operates an open, comprehensive economy based on a developing and digitally literate society. In Estonia, even 98 percent population have bank accounts and even 31 percent citizens of the country – credit cards. In the field of financial settlements, Estonia is on a par with Western European countries, as merchants have no problems choosing payment methods that are acceptable at the national level. Meanwhile, Latvia is named, like many Central and Eastern European countries, as a rapidly growing e-commerce market. The digital society is one of the essential features of the country, which makes the country attractive for expanding e-commerce. In Latvia, even 90 percent of the country's population have bank accounts and 22 percent of the population – use credit cards. Comparing all three Baltic countries – Lithuania is the least distant from the main e-commerce markets – good internet penetration, residents are used to shopping online not only in the local market, but also from foreign merchants. Although the banking system works well, 78 percent use bank accounts, and only 10 percent use credit cards of the country's population. Internet accessibility is still a pressing issue in the country.

In summary, it can be said that Estonia is the leading country in the assessment of e-commerce trust, technological (internet accessibility, security and privacy assurance), social (internet use and purchase scale in electronic space) indicators. These results could also be influenced by the business-friendly tax environment of the country. Lithuania surpasses Estonia only in the field of financial indicators (number of e-commerce sales, contribution to the country's GDP) and consumer satisfaction when shopping online. It can be assumed that Lithuania's results in the e-commerce market are not so good because there are still restrictions on Internet accessibility, security and privacy in the country.

Conclusions

The analysis of e-trade evaluation models shows that most of the models described in the literature have a number of limitations. One of the main ones is that they are only applicable at the company level without taking into account national or global indicators. It was observed that most models only look at the technical characteristics of an e-trade website or at indicators describing the state of the

consumer (satisfaction, trust), which help to evaluate e-trade only from the point of view of the consumer or the seller, but do not take into account all the actors involved in the sector: the consumers (buyers), the organisations (sellers) and the government.

The article analyzed the scientific literature on the benefits and limitations of e-commerce in order to determine the most important factors influencing the evaluation of e-commerce. It was found that researchers tend to divide the benefits of e-commerce for sellers into tangible and intangible. From a material point of view, e-commerce has enabled sellers to reduce operating costs, increase investment return, business efficiency and profitability indicators. In an intangible sense, e-commerce has helped companies to make business processes more efficient, to provide better and faster customer service, and to increase their loyalty. Analyzing the limiting factors of e-commerce, it was found that the biggest limitations of e-commerce are: lack of internet availability, security and privacy assurance, and lack of user satisfaction and trust in e-commerce.

Taking into account the shortcomings observed, the authors propose to classify the constituent factors into five dimensions when developing an e-trade evaluation model: emotional (customer trust and satisfaction with e-trade), technological (internet accessibility and security, privacy), financial (impact of e-trade on business turnover, contribution of e-trade to the country's overall GDP, and the scale of e-trade sales), tax environment (government regulation, influence of international e-trade standards), and social (scale of internet usage and purchases). This assessment model allows for an analysis of e-trade at national and global level, comparing countries with each other.

After conducting a comparative analysis of e-commerce evaluation in the Baltic countries, it was established that Estonia is the leading country in the evaluation of e-commerce trust, technological (internet accessibility, security and privacy assurance), social (internet use and purchase scales in electronic space) indicators. This was also confirmed by the results of the multi-criteria assessment, according to which Estonia is the leading country in the Baltic region. These results could also be influenced by the business-friendly tax environment of the country.

References:

1. *Awais, M., & Samin, T. (2012). Advanced SWOT Analysis of E-Commerce. International Journal of Computer Science Issues, 9(2), 569–574. http://ijcsi.org/papers/IJCSI-9-2-2-569-574.pdf.*
2. *Aydın, E., & Savrul, B. K. (2014). The relationship between globalization and e-commerce: Turkish case. Procedia – Social and Behavioral Sciences, 150, 1267–1276. https://doi.org/10.1016/j.sbspro.2014.09.143.*
3. *Brilliant, M. A., & Achyar, A. (2016). The impact of satisfaction and trust on loyalty of e-commerce customers. ASEAN Marketing Journal, 5(1). https://doi.org/10.21002/amj.v5i1.2175.*
4. *Chaffey, D., & Ellis-Chadwick, F. (2012). Digital marketing: Strategy, implementation and practice. Pearson Education; 5th edition.*
5. *Christensen, G. E., & Methlie, L. B. (2003). Value creation in eBusiness: Exploring the impacts of internet-enabled business conduct. In 16th Bled ECommerce Conference ETransformation (pp. 1–17).*
6. *Delone, W. H., & McLean, E. R. (2003). The DeLone and McLean Model of information systems success: A ten-year update. Journal of Management Information Systems, 19(4), 9–30. https://doi.org/10.1080/07421222.2003.11045748.*
7. *Deshpande, S. (2016). Influence of E-commerce on Stakeholders of India and Its Limitations. International Journal of Engineering Development and Research, 4(2), 2114–2116.*
8. *Donici, A., & Diacon, P. (2011). E-commerce across European Union. CES Working Papers, 390–397. http://www.ceeol.com/aspx/getdocument.aspx?logid=5&id=b588f517c18f4f21af7d3c96d0ddbcd*
9. *Ecommerce Foundation. (2017). European Ecommerce Report 2017. https://www.eurocommerce.eu/media/142202/c_european_ecommerce_report_2017_v170623-published_28basic_29.pdf.*
10. *European Commission. (2016). Boosting e-commerce in the EU. https://ec.europa.eu/digital-single-market/en/policies/ecommerce.*
11. *European Union. (2017). Digital Economy and Society Index. https://ec.europa.eu/commission/presscorner/detail/en/MEMO_17_352.*
12. *Eurostat Statistics. (2016). Glossary: E-commerce. http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:E-commerce.*
13. *Gangeshwer, D. K. (2013). E-Commerce or Internet marketing: A business review from Indian context. International Journal of U- and e-Service, Science and Technology, 6(6), 187–194. https://doi.org/10.14257/ijunesst.2013.6.6.17.*
14. *Georgiadis, C. K., Stiakakis, E., & Ravindran, A. R. (2013). Editorial*

for the special issue: Digital economy and e-commerce technology. Operational Research, 13(1), 1–4. https://doi.org/10.1007/s12351-011-0122-6.

15. *Gheiji, S. (2015). E-commerce and it impacts on global trend and market. International Journal of Research –Granthaalayah, 3(4), 49–55. https://doi.org/10.29121/granthaalayah.v3.i4.2015.3022*
16. *Huirong, J. (2014). The study of dynamic effect relationships between the e-commerce, the logistics and economic growth based on the VAR model. International Journal of U- and e-Service, Science and Technology, 7(3), 187–196. https://doi.org/10.14257/ijunesst.2014.7.3.16.*
17. *Khan, A. G. (2016). Electronic commerce: A study on benefits and challenges in an emerging economy. Global Journal of Management and Business Research: Economics and Commerce, 16(1). https://globaljournals.org/GJMBR_Volume16/3-Electronic-Commerce-A-Study.pdf.*
18. *Khan, M. D., Khan F., & Khan M. E. (2014). Growing importance of e-commerce in global market. International Journal of Management Sciences, Research Academy of Social Sciences, 3(3), 147–151.*
19. *Koenig, W., & Wigand, R. T. (2004). Globalization and E-Commerce: Diffusion and Impacts of the Internet and E-Commerce in Germany. Digest of Electronic Commerce Policy and Regulation, 27, 197–227.*
20. *Longo, K., & Yonah, O. Z. (2017). Requirement's for proposed frameworks for secure ecommerce transactions. Communications on Applied Electronics, 6(9), 1–15. https://doi.org/10.5120/cae2017652498.*
21. *Marginean, S. (2015). Economic globalization: From microeconomic foundation to national determinants. Procedia Economics and Finance, 27, 731–735. https://doi.org/10.1016/S2212-5671(15)01055-2.*
22. *Molla, A., & Licker, P. (2001). E-commerce systems success: An attempt to extend and respecify the Delone and McLean Model of IS success. Journal of Electronic Commerce Research, 2(4), 131–141.*
23. *Murphy, R., & Bruce, M. (2003). Strategy, accountability, e-commerce and the consumer. Managerial Auditing Journal, 18(3), 193–201. https://doi.org/10.1108/02686900310469934.*
24. *Nanehkaran, Y. A. (2013). An introduction to electronic commerce. BT Technology Journal, 2(4), 190–193. https://doi.org/10.1038/183777b0.*
25. *Niranjanamurthy, M., Kavyashree, N., Jagannath, S., & C, D. (2013). Analysis of e-commerce and m-commerce: Advantages, limitations and security issues. International Journal of Advanced Research in Computer and Communication Engineering, 2(6), 2360–2370. www.ijarcce.com.*

26. *Norkus, Z. & Morkevičius, V. (2011). Kokybinė lyginamoji analizė. Lietuvos HSM duomenų archyvas (LiDA), Kaunas.*
27. *Palacios, J. J. (2003). Globalization and E-Commerce: Diffusion and Impacts in Mexico. I-Ways, 26(4), 195–205. http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=12393956&site=ehost-live.*
28. *Paradkar, S., S. (2014). Ecommerce in the Customer Empowerment Era. https://www.bptrends.com/ecommerce-in-the-customer-empowerment-era/.*
29. *Quayle, M. (2002). Purchasing in small firms. European Journal of Purchasing and Supply Management, 8(3), 151–159. https://doi.org/10.1016/S0969-7012(02)00005-9.*
30. *Totonchi, J., & Manshady, K. (2012). Relationship between globalization and e-commerce. International Journal of e-Education, e-Business, e-Management and e-Learning, 2(1), 83–87. http://www.ijeeee.org/Papers/085-Z00068T889.pdf.*
31. *Villa, E., Ruiz, L., Valencia, A., & Picón, E. (2018). Electronic commerce: Factors involved in its adoption from a bibliometric analysis. Journal of Theoretical and Applied Electronic Commerce Research, 13(1), 39–70. https://doi.org/10.4067/S0718-18762018000100104.*
32. *Wen, H. J., Lim, B., & Huang, H. L. (2003). Measuring e-commerce efficiency: A data envelopment analysis (DEA) approach. Industrial Management and Data Systems, 103(8–9), 703–710. https://doi.org/10.1108/02635570310506124.*

Current issues of the management of socio-economic systems in terms of globalization challenges

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The authors of the scientific monograph have come to the conclusion that the management of socio-economic systems in the terms of global challenges requires the use of mechanisms to ensure security, optimise the use of resource potential, increase competitiveness, and provide state support to economic entities. Basic research focuses on assessment of economic entities in the terms of global challenges, analysis of the financial system, migration flows, logistics and product exports, territorial development. The research results have been implemented in the different decision-making models in the context of global challenges, strategic planning, financial and food security, education management, information technology and innovation. The results of the study can be used in the developing of directions, programmes and strategies for sustainable development of economic entities and regions, increasing the competitiveness of products and services, decision-making at the level of ministries and agencies that regulate the processes of managing socio-economic systems. The results can also be used by students and young scientists in the educational process and conducting scientific research on the management of socio-economic systems in the terms of global challenges.

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INTRODUCTION

The functioning of any socio-economic system requires management mechanisms. For the existence and effective functioning of an enterprise, region, country, etc. – it is necessary to maintain the system parameters, which is exactly what is done through management. Therefore, in the terms of global challenges, the problem of finding an effective model and mechanisms for managing socio-economic systems is becoming increasingly important. In the current environment, this problem is exacerbated by the preservation of socio-economic systems in the terms of security and state support. Implementation of the best practices of managing socio-economic systems in the terms of crises and pandemics around the world serves as an effective management mechanism.

Ensuring the effective management of socio-economic systems in the terms of global challenges requires the accumulation and optimal use of resources, capabilities of economic entities and state support mechanisms aimed at protecting enterprises, developing entrepreneurship and exporting products and services, sustainable development of territories using modern marketing tools, attracting domestic and foreign investment, introducing innovations and modern information technologies.

The purpose of writing this scientific monograph is to justify the theoretical and methodological foundations for the management of socio-economic systems in the terms of global challenges.

The object of the authors' research was modern global challenges and threats to security, the process of ensuring the competitiveness of economic entities, instruments of state support for sectors of the national economy, the formation of labour potential and migration processes, mechanisms for ensuring financial and food security, the efficiency of functioning of integrated territorial communities and sustainable regional development.

The subject of the study was decision-making models in the terms of global changes, tools for strategic planning, marketing and logistics, innovation and information technology, mechanisms for banking and insurance development, trade, agriculture, export capacity building, critical infrastructure development and national security regulation.