

## E-COMMERCE AS A REVENUE GENERATOR FOR SMALL AND MEDIUM COMPANIES IN DEVELOPING COUNTRIES

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### Abstract

**Research purpose.** The subject of this paper is the role of e-commerce for companies in increasing their competitive advantage in the market during and after the pandemic. The paper monitors the digital transformation and e-commerce implementations in a developing country (North Macedonia) and whether this can lead to a better position in the market.

**Design / Methodology / Approach.** The design of the research contained both a literature review from relevant secondary sources, as well as primary research through empirical analysis. The empirical analysis was performed through a survey questionnaire containing 28 questions of open and closed nature, including a five-point Likert Scale. The data was subject to quantitative and qualitative analysis and presented in the paper.

**Findings.** E-commerce has been seen as the future of shopping; however, due to the pandemic, the adoption rates increased significantly in the past two years. Primary data from the research shows that consumers in developing countries are open to online shopping, with satisfied trust and security parameters. The research implies that companies can safely implement e-commerce by following several important aspects to ensure customer interest in converting to their e-stores.

**Originality / Value / Practical implications.** The paper contributes to the e-commerce research field by providing newer data after a global situation-changer, such as the pandemic. The research data can be utilized to compare statistics and generate trends for developing countries in further research, as well as broader usage for customer preferences from other academics and the business sector.

**Keywords:** e-commerce models; developing countries; online shopping; e-store.

**JEL codes:** L81.

### Introduction

The rapid development of digital and telecommunication technologies directly affects the daily lives of people and companies. We live in a digital age where using the Internet is an everyday thing. In the global market, business operations cannot be successful without using modern information technologies. The Internet has completely changed the way business is done by breaking down geographical and language barriers. The newest data shows that there are 4.95 billion internet users in 2022 (62.5% of the population), with a year-on-year change of 4%, meaning +192 million new Internet users comparing 2022 to 2021 (Datareportal, 2022). Internet technologies enable simple and fast communication, the transfer of a large amount of data over a long distance, and direct payment via the Internet, among many others (Blank & Lutz, 2018). E-commerce appears as a consequence of the development of information

and communication technologies, so one of the oldest activities in the world gets its place in the digital world.

E-commerce is considered the most profitable form of commerce due to its simplicity and low costs (Scarpi & Riley, 2006). E-commerce has been expanded in various industries, differentiating between traditional and non-traditional applications (Boyd & Bilegan, 2003). However, thanks to new technologies, the wishes, and needs of consumers come to the fore more easily than ever, and thus their demands and expectations have increased. Digital technologies utilized in e-commerce have increased adoption during the pandemic, rising from 35% in December 2019 to 55% in July 2020 (Soava et al., 2022). E-commerce is experiencing rapid development where, in addition to large corporations, small companies recognize its advantages (UNECE, 2022). Research shows spikes in e-commerce transactions between March 2020 and August 2020 in the United States, China, Japan, and EU Member states, participating up to 25% of total sales, compared to 15-17% before the pandemic (Alfonso et al., 2021). The advantages it offers are numerous, both for companies and for consumers, which leads to a constant increase in competition in the market. Research on the topic shows increased benefits and participation of e-commerce sales in total SME sales and is viewed as a driving factor in influencing growth (Kumar & Singh, 2021; Ha, 2020; Alderete, 2019).

The main hypothesis of this paper is - If companies use E-commerce in doing business, then they will increase their competitive advantage in the market. Research questions that we will answer below in the paper are:

- Do you monitor information on promotional prices, discounts, price promotions, etc., on a daily basis through online stores?
- Does the degree of digitalization, that is, the degree of transformation of trade into digital, affect the process of production, distribution, and sale of the product and service?
- Do the disadvantages of using e-commerce make it difficult for the market to function?

The paper aims to present trends for developing countries in e-commerce adoption, focusing on North Macedonia, researching and comparing available data, as well as consumer perspectives on the status and future of e-commerce transactions. The paper shows the growing presence of e-shoppers in developing countries, along with the benefits and barriers they face when utilizing new digital technologies to make purchases.

## **Literature Review**

The terms e-business and e-commerce can often be intertwined, especially in the era of digital transformation. They are not synonyms; e-business is a more general term and refers to the use of information and communication technologies to support all business activities and transactions within the company (Galli, 2021), while an e-business model specifies how the company will utilize the technology to generate revenue (Brzozowska & Bubel, 2015; Ukaj et al., 2020). On the other hand, e-commerce is a subset of e-business. E-commerce is a concept that goes beyond just online shopping; it is a holistic strategy for redefining existing business models through technology in order to benefit consumers and companies to maximize profits (Bhat et al., 2016). Interest in the topics of e-business and e-commerce for the authors began in 1998, following a peak rise in 2011-2013 (Chen & Holsapple, 2013). E-commerce means better business communication and information exchange, which is essential for every company. The introduction of e-commerce in the company's work can offer better business solutions, facilitating decision-making, better pricing, more accurate sales forecasting, as well as other important information for the efficient execution of business activities (Jain et al., 2021). Characteristics of e-commerce technology are as follows:

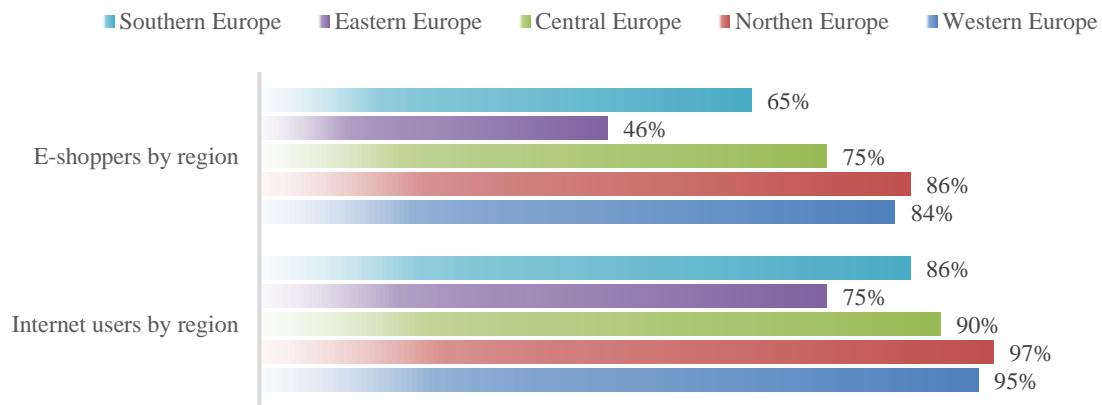
- *Ubiquity* - Internet technology is available anytime and anywhere, at work, at home, or elsewhere through mobile devices. The market has been expanded beyond traditional borders, and geographical and time barriers have been removed. The purchase can be made from anywhere and at any time (Stanford, 2000);

- *Global reach* - The scope of the technology reaches across national borders all over the world. Trade across national and cultural barriers is enabled, and the potential market is billions of consumers and millions of businesses worldwide (Lai et al., 2017);
- *Universal standards* - There is one set of technology standards or internet standards around the world. Universal standards enable compatibility and integration on a global level;
- *Wealth of information* - The quantity and quality of information in e-commerce are growing exponentially. The flow of information is increasing, and a quick and simple presentation of products to consumers is possible (UNCTAD, 2019);
- *Interactivity* - Consumers are involved in communication that dynamically changes the experience of the individual and makes the consumer complicit in the entire process;
- *Personalization* - Technology allows the delivery of personalized messages, products, and services to individuals and groups. Personalizing marketing messages and customization of products and services are based on individual characteristics, interests, and desires (Fatta et al., 2016).

The advantages of e-commerce for consumers, businesses, and society can include (Turban et al., 2015):

- E-commerce allows some products to be sold at the lowest prices, so people can buy more and increase their standard of living;
- E-commerce enables less use of means of transport for shopping, which results in less road traffic and less air pollution, as well as convenience during the recent lockdown procedures;
- Enables people in third-world countries and rural areas to use products and services not otherwise available to them;
- E-commerce facilitates the availability of public services, such as healthcare, education, and social services, with reduced costs and/or better quality;
- E-commerce helps people to download music, videos, and video games and view the latest news from all fields. They can also book tickets for theaters, cinemas, sports matches, etc., via the Internet;
- E-commerce bridges the gap between job seekers and employers in society.

Various authors have researched the benefits of the digitalization of processes (Graupner et al., 2021; Gera et al., 2021), showing that e-commerce and m-commerce are growing as additional revenue streams for companies. The accelerated growth trend of e-commerce during the pandemic is very likely to be maintained during the recovery from the consequences. The adoption rates vary by enterprise, with an average level of 12% for the whole European Union, with Montenegro being the high point with 33% accelerated adoption of e-commerce (Eurostat, 2021). It must be noted that the adoption rate is directly dependent on the level of penetration of e-commerce in the specific country (Raza & Khan, 2022; Oktora et al., 2020; Bravo et al., 2022; Hossain et al., 2021). The benefits of this trend will depend on the digital readiness and preparedness of the countries as well as the enabling conditions for e-commerce. In fact, the companies that best handled the crisis were highly prepared and supported by appropriate and sound e-commerce strategies. Economies with high levels of internet coverage, consistent e-commerce strategies, and economies that prioritize e-commerce development through coordinated activities stand to gain the most during the COVID-19 crisis. In terms of companies, those with a long-standing presence on the Internet, traditional businesses with sufficient funds to invest in upgrading their business to e-commerce, communication networks, and digital platforms, and companies that overcome the problems of transport logistics have coped best with the crisis.



**Fig. 1. E-commerce penetration** (Source: EuroCommerce, 2022)

Figure 1 demonstrates that e-commerce penetration is evident across all of Europe, with the biggest percentage of e-shoppers being in Northern Europe (86%), Western Europe (84%), and Central Europe (75%). There is also a positive correlation between Internet penetration and E-commerce penetration. The frequency of online purchases in 2021 (Statista, 2022, same link) shows that most consumers buy between 1 to 2 times per week, or 3 to 5 times per week, with 6 times or more e-commerce purchases being the rarest. The percentage of e-shoppers before the pandemic rose yearly between 1-2% (2017-2019), while between 2019 and 2020, it jumped over 8% in just 2 years (4% per annual growth). E-commerce is changing many aspects of business and social life. Companies need to adapt their strategies to the new reality after the COVID-19 pandemic if they want to stay competitive in the market. Successful introduction of e-commerce in business operations is a slow process and cannot be completed all at once but in smaller series of adoption processes in which the company moves gradually from a simple to more complex stages of e-commerce (Hassan, 2008). Any company that begins the process of introducing e-commerce will face certain problems and obstacles, but company managers should overcome them and realize the benefits of e-commerce (Abdelrhim & Adbullah, 2020). E-commerce has great prospects for further accelerated development and to be an indispensable part of the trade process in the future.

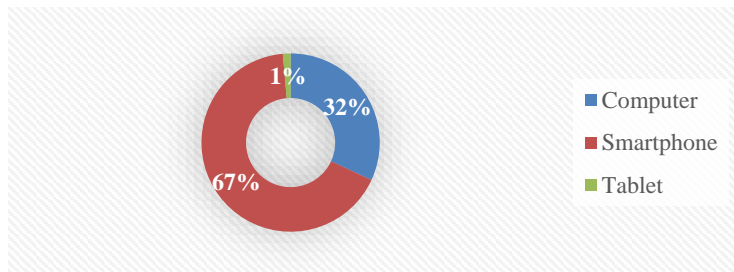
### Research methodology

To research the main hypothesis of this paper - If companies use E-commerce in doing business, then they will increase their competitive advantage in the market, three different research questions were developed, including monitoring information on prices in online stores, the influence of the degree of digitalization/digital transformation on marketing activities and disadvantages of e-commerce transactions.

To answer the research questions, primary research was done on the territory of North Macedonia via a survey questionnaire. The survey questionnaire is on a representative sample of 86 respondents, anonymous and without demographic restrictions. The questionnaire was created electronically through Google Forms and delivered to the respondents through e-mail, social networks, and mobile applications for communication. It consists of 28 questions of open and closed nature, including general demographic questions, questions with single and multiple answers, and determining the degree of agreement with certain statements according to the Likert scale for measuring and presenting relevant data. The survey was conducted June-July 2022 for 14 days. The data from the survey questionnaire will be presented below through graphic displays.

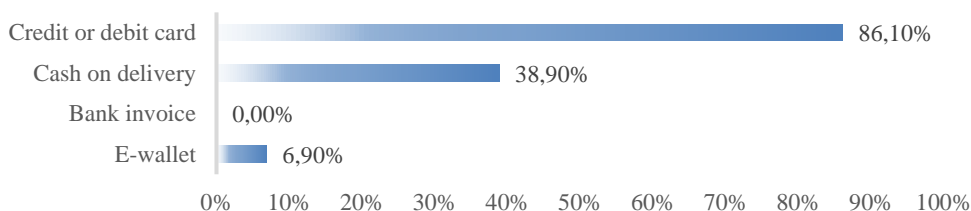
## Research results

In the survey, 65.1% of respondents are female, while 34.9% are male, with the largest age group being 36-45 year-olds (47.7%), followed by 26-35 year-olds (38.4%) and 46-55 year-olds (8.1%). Respondents use the Internet at least once a day (97.7%), and a considerable percentage shop online (91.9%). From respondents who do not do online shopping, the majority have cited that they like to view the product in a physical store (42.9%), as well as security and privacy issues (14.2%).



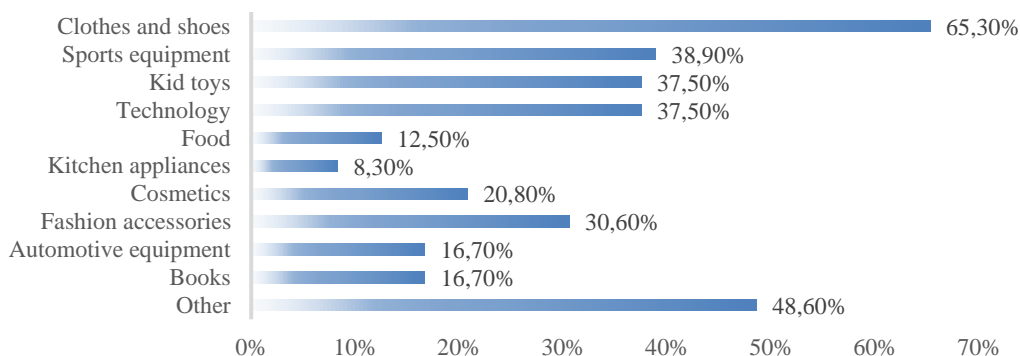
**Fig. 2. Online shopping via device** (Source: Own research, 2022)

According to Figure 2, the largest number of respondents make online purchases with a mobile phone, 66.7%. A computer is used by 31.9% and a tablet by 1.4%. It can be concluded that m-commerce is also present in large numbers among consumers in North Macedonia is in line with the global trend of increasing m-commerce. Based on the data, most respondents shop from either home or foreign companies (69%).



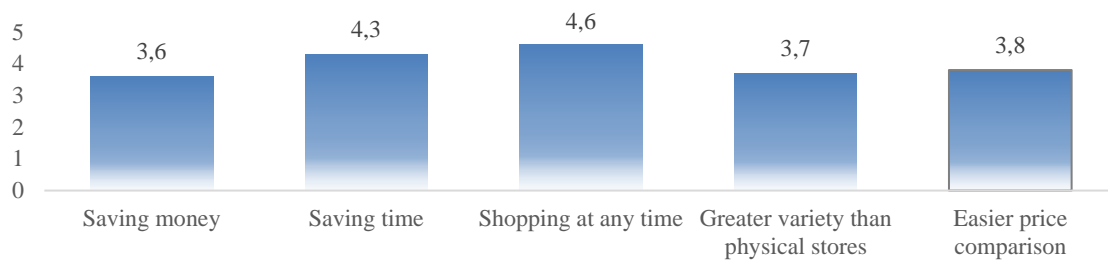
**Fig. 3. Online shopping payment methods** (Source: Own research, 2022)

Figure 3 shows that the majority of respondents make the payment with a credit or debit card, 86.1%. 38.9% use cash when placing an order, and 6.9% use an electronic wallet. Respondents generally have the trust and confidence to shop via credit/debit card (83.3%), and only a very small percentage have experienced fraud when shopping online – 13.9% in home e-commerce platforms and 20% in foreign e-commerce platforms.



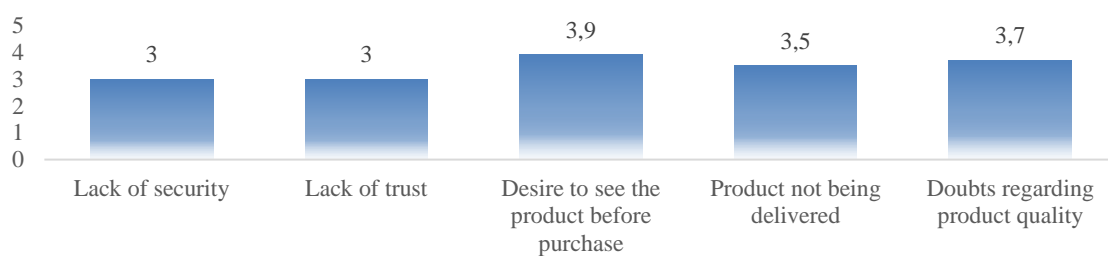
**Fig. 4. E-commerce categories** (Source: Own research, 2022)

From Figure 4, it is visible that the respondents buy a variety of products online. The obtained results say that the most frequently purchased products are clothes and shoes 65.3%. Products that are also often bought are sports equipment 38.9%, children's equipment and toys 37.5%, technology products 37.5%, and fashion accessories 30.6%. The received answers indicate that fewer Macedonian consumers buy food online 12.5% and kitchen appliances and white goods 8.3%. Respondents state that they do not follow price changes on an everyday level (59.2%), but the majority shop in e-commerce stores that offer discounts (86.1%) and utilize promotions and sales (85.7%), leading to the majority agreeing that through online shopping they can find cheaper products or services (80.6%).



**Fig. 5. Reasons for online shopping** (Source: Own research, 2022)

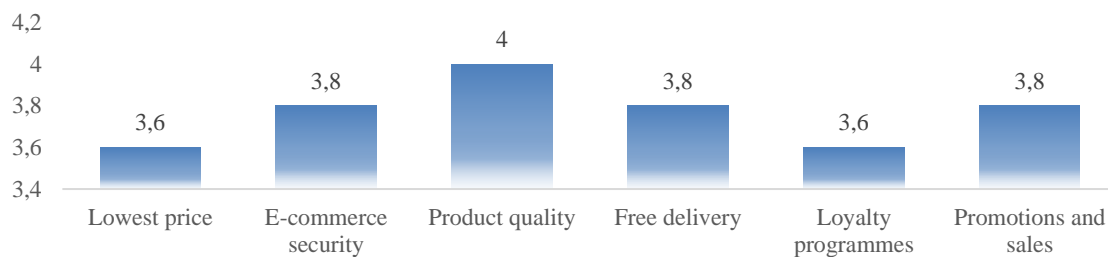
Figure 5 on the previous page analyzes the attitudes of respondents about the reasons for which they buy online. This question is formulated from five statements in the form of a Likert scale, according to which the degree of agreement with the statements can be determined with a rating from 1 to 5 (1 - I do not agree at all..... 5 - I completely agree). Through the calculation of the weighted arithmetic mean, according to the Likert scale, the average ratings for each of the stated claims were obtained. The average score for the possibility of easier price comparison than in physical stores is 3.8, which means that the respondents mostly agree with the statement; however, it is a less important reason for shopping online. The average rating for Greater selection than in physical stores of 3.7 also indicates a less important reason for shopping online. As the most important reason for shopping online, respondents cited the possibility of shopping at any time, with an average rating of 4.6. Saving time, with an average rating of 4.3, is also a very important reason for shopping online for respondents. From the stated claims about the reasons for shopping online, the least important reason for the respondents is Saving money, with an average rating of 3.6.



**Fig. 6. Potential drawbacks of online shopping** (Source: created by the author, 2022)

Figure 6 analyzes the attitudes of respondents about the reasons that dissuade them from buying online. This question, like the previous one, is formulated from five statements in the form of a Likert scale, according to which the degree of agreement with the statements can be determined with a rating from 1 to 5 (1 - I do not agree at all..... 5 - I completely agree ). From the results shown, it is obvious that the respondents, in terms of trust and security, where the average rating is 3 for both claims, have a neutral attitude; that is, trust and security do not represent reasons that distract them from online shopping. According to the average rating of 3.9 for the statement Desire to see the product before buying, it can be concluded that this lack of e-commerce is the most crucial factor that pulls the respondents to buy more online. The possibility that the product will not be delivered or that the delivery will be late is not highlighted by the respondents as a potential reason for distraction from online shopping, with an

average rating of 3.5. Doubt in the quality of the product, with an average rating of 3.7, shows that this lack has an influence on the respondents' decision to buy online, but it is not a key factor.



**Fig. 7. Reasons to choose an e-commerce store** (Source: Own research, 2022)

Figure 7 analyzes the respondents' views on the reasons why they choose to buy from a certain e-store. Through the calculation of the weighted arithmetic mean, according to the Likert scale, the average ratings for each of the stated claims were obtained. The average rating for Lowest Price and Loyalty Program of 3.6 means that these reasons are important to respondents but are not of primary importance when choosing an e-store to buy from. Promotional benefits, Free shipping, and Security of the e-store are rated with an average rating of 3.8, and Product quality with 3.9. From the results, it can be concluded that all of the stated reasons for choosing the e-store are important to the surveyed consumers; however, the Quality of the products is highlighted as the most important reason.

An increasing number of consumers decide to buy online from domestic e-stores, and more and more new e-stores appear on the market, which realizes the benefits of this type of trade and increases the choice for consumers. Fast and accessible fixed and mobile internet, the use of internet technology in everyday life, the growing trust of consumers in domestic e-commerce (which was not the case in past years), and the realization of all the benefits contribute to the growing development. Consumption of e-commerce in our country is much lower compared to developed countries; however, considering the degree of economic development and the standard of citizens, it is at a satisfactory level with the possibility of improvement in the future. The research allows us to address the main hypothesis and the relevant questions that arise.

The answer to the first research question, “Do you follow information about promotional prices, discounts, price promotions, etc., on a daily basis through online stores?” is derived from consumer survey research. The responses from the survey show that the majority of the respondents, 59.2%, do not follow the daily price policies through e-stores. The e-stores visited by 86.1% of the respondents offer promotions and price lists, and most of the respondents, 85.7%, use the promotions, discounts, and other benefits offered by the e-stores. This is higher than similar research in developing countries, where the weighted average was moving between 53-70% among respondents (Infanta & Sundharam, 2021). Compared to other developing countries in the region, data from Serbia shows similar levels of engagement within a 10% of margin difference in each area (MASIT, 2021). From the above, it can be answered that consumers through online stores do not follow the information on promotional prices, discounts, price actions, etc., on a daily basis. Consumers are informed about promotional prices, discounts, price promotions, etc., from e-stores as needed before making a purchase.

The answer to the second research question, “Does the degree of digitalization, that is, the degree of transformation of trade into digital, affect the process of production, distribution, and sale of the product and service?” provides research with a survey questionnaire for consumers and researchers in companies that have introduced e-commerce in their operations. Among the surveyed consumers who have access to the Internet and use it every day, 97.7% of them and 91.9% buy online. The largest number of respondents, 37.5%, buy online several times a year, followed by those who buy several times a month with 26.4%. Most of the time, 66.7% of respondents make online purchases through their mobile phones, while 31.9% use a computer. Modern technologies are widely available to consumers, and they use them to a great extent. E-commerce is accepted by most of the consumers; they buy much more compared to the past. Most of them use their smartphone to shop online, which is in line with modern trends where m-commerce is constantly growing. When shopping online, consumers mostly pay with a credit or debit

card 86.1%, while 38.9% use cash when receiving the order. 83.3% of consumers trust to pay by card when shopping online. These data indicate the increasing use of payment cards for online purchases and the increased confidence in the security of their use, in line with other work on factors that are limiting online shopping, where fear and trust are the top-ranking factors (Daroch et al., 2021). Of the surveyed consumers, only 13.9% faced fraud from Macedonian e-stores and 20% with fraud from foreign e-stores. The small number of consumers who have faced fraud from e-stores speaks of their safety and security. We are witnessing the evolution of the traditional supply chain, where its barriers are being broken down through digitalization. Marketing, product development, manufacturing, distribution, and delivery to the consumer are largely separate and distinct stages in the supply chain. The growing degree of digitization of these stages contributes to their greater integration in order to fulfill the demands of consumers. The development of e-commerce has an important role and dramatically influences the processes of digitization of the supply chain. Digital transformation is a cultural, organizational, and operational change in a company through the integration of digital technologies, processes, and skills in a strategic way. From the above, it can be answered that the degree of digitalization, that is, the degree of transformation of trade into digital, affects the process of production, distribution, and sale of the product and service.

The answer to the fourth research question, “Do the disadvantages of using e-commerce make it difficult for the market to function?” provides research with a survey questionnaire for consumers. The results of the survey questionnaire, in terms of the disadvantages of e-commerce, say that they do not greatly influence consumers to buy online. They trust e-commerce and feel safe and secure when shopping online. The only drawback that is highlighted by consumers and that somewhat distracts them from online shopping is the desire to see the product before buying it, which is part of the 16 drivers of behavior outlined by Zerbini et al. (2022). If the results obtained by consumers on the advantages of e-commerce and the results on the disadvantages of e-commerce are compared, it can be determined that the advantages offered by e-commerce are far greater than the disadvantages. The disadvantages of e-commerce have little influence on the decision to buy online. This is confirmed by the large percentage of respondents who use e-commerce. From the above, it can be answered that the disadvantages of using e-commerce do not hinder the functioning of the market.

## **Conclusions**

E-commerce, as the most popular form of commerce in the world, has seen a continuous growth trend in recent years at the global level. Highly developed countries with greater experience and tradition in e-commerce, where it is stimulated and promoted, record very high growth rates in revenues from this area compared to countries that lag behind in the development and support of e-commerce. The number of e-stores emerging is on a steady growth trend as companies become aware of the power of e-commerce. The introduction of e-commerce among companies is not only necessary for the purpose of raising a competitive advantage, but it is also essential for their survival in the modern business environment. The competition in the e-market is getting bigger and stronger. E-stores must implement appropriate business and marketing strategies in order to stand out from the competition and better position themselves among consumers.

The modern consumer is informed and has ever-increasing expectations and demands. E-stores do not threaten physical stores because most consumers want to see the product before buying it. The combination of physical and e-stores seems to be an ideal combination for success in the market. By managing both types of business well, the company can achieve significantly better results. Through the analysis of the responses from the survey questionnaire, it was determined that e-commerce in North Macedonia follows modern global trends. The results show that a vast number of respondents buy online. Also, the research shows that the respondents do not buy online every day, but when necessary and usually several times a year, and they mostly use their mobile phones for shopping. The research found that the modern consumer is not afraid and has the confidence to pay with a card online. The research shows that Macedonian e-stores are reliable and safe, and a large number of consumers trust and buy from them. The research showed that e-commerce in developing countries has an excellent perspective for the future and a great space for progress and improvement. Research can be expanded to follow companies that have introduced e-commerce in their activities regarding the benefits and

drawbacks it offers through interviews and case studies, as well as expand the consumer survey in other developing countries.

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