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A BRIEF INTERNATIONAL ANALYSIS OF THE FINANCIAL PERFORMANCE OF LISTED E-COMMERCE COMPANIES

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There has been recently a sharp increase in concerns and research for the e-commerce sector. E-commerce is used differently around the world, depending on factors such as digital infrastructure, level of economic development, consumer behavior, local regulations and cultural preferences.The COVID-19 pandemic has had a massive impact on e-commerce, accelerating digitization and changing the behaviors of retailers and consumers. Listed e-commerce companies play a crucial role in the global digital economy and offer investors opportunities to participate in the rapid growth of the e-commerce sector. The analysis of 7 financial indicators of 71 listed e-commerce companies from North America, Europe, Asia and offshore areas demonstrated the superior performance of the Asian companies. The data were collected from the Eikon Refinitiv platform and the analysis focused on the period 2019-2022.

Keywords: *statistical analysis, digitalization, e-commerce, financial indicators, global economy, listed companies, performance.*

O SCURTĂ ANALIZĂ INTERNAȚIONALĂ A PERFORMANȚEI FINANCIARE A COMPANIILOR DE COMERȚ ELECTRONIC LISTATE

In ultima perioada se observa o crestere accentuat*ă* a preocupărilor *şi* cercetărilor pentru sectorul comerțului electronic. Comerțul electronic este utilizat diferit în întreaga lume, în funcție de factori precum infrastructura digitală, nivelul de dezvoltare economică, comportamentul consumatorilor, reglementările locale și preferințele culturale. Pandemia COVID-19 a avut un impact masiv asupra comerțului electronic, accelerând digitizarea și schimbând comportamentele retailerilor și consumatorilor. Companiile de comerț electronic cotate la bursă joacă un rol crucial în economia digitală globală și oferă investitorilor oportunități de a participa la creșterea rapidă a sectorului comerțului electronic. Analiza a 7 indicatori financiari ai 71 de companii de comerț electronic listate din America de Nord, Europa, Asia și zone offshore a demonstrat performanța superioară a companiilor asiatice. Datele au fost colectate de pe platforma Eikon Refinitiv, iar analiza s-a concentrat pe perioada 2019-2022.

Cuvinte-cheie: *analiză statistică, digitalizare, comerț electronic, indicatori financiari, economie globală, companii listate, performanță.*

Introduction

The development of digital technology and telecommunications has radically and definitively transformed the retail landscape through the emergence of e-commerce. It has become an essential tool for maintaining companies' competitive advantage in the context of trade globalization, increasing interdependence of national economies and exacerbated international competition.

Due to the growth of e-commerce, the e-commerce companies have increasingly attracted the researchers' attention. Various analytical methods, as well as economic or social theories, have been used to study these companies in order to understand performance and business model issues. Recently, many researchers have focused on analyzing the online consumer behavior (Chen et al., 2024, Zhang, 2024), the markets and the market trends (Zoroja et. al, 2020; Scutariu et al., 2022; Xue, 2023; Wasilewski et al., 2024). The financial performance of companies with e-commerce activity has also been addressed in the specialized

literature, either for SMEs or for companies operating in certain countries or areas (Khan and Motiwalla, 2002; Velickovic et al., 2023; Duguleană et al., 2024; Maswadeh, 2024 etc.).

This study aims to complete the panoply of the specialized literature with an international analysis of the financial performance of listed e-commerce companies. Since China is the largest e-commerce market in the world (Chinese e-commerce platforms such as Shein, Temu or Alibaba are among the most downloaded shopping apps), we ask ourselves whether Asian listed e-commerce companies record better performance indicators. This research analyzed 7 financial performance indicators of 71 listed companies on the Online Services industry, E-commerce & Auction Services in North America, Europe, Asia and offshore areas.

Literature review

E-commerce brings important benefits to consumers through flexibility in terms of time and place of purchase, access to a wide range of products, competitive prices and informed decision-making (Gupta et al., 2023). For companies, e-commerce contributes to reducing operational costs, stimulating international transactions, improving competition and efficiency (Tokar et al., 2021; Zou and Cheshmehzangi, 2022; Bravo et al. 2022; Wu et al., 2023; Yu et al., 2023; Costa and Rodrigue, 2024).

Therefore the e-commerce market has grown rapidly and the conditions during the COVID-19 pandemic have accentuated this trend. The consumers turned massively to online shopping when the physical stores were closed to prevent the spread of the virus. Thus, many companies were forced to quickly digitize in order to continue their operations. Cross-border purchases have increased as consumers have become more open to international brands (Phuoc et al., 2023).

A study conducted in the USA demonstrates that the COVID-19 pandemic has not significantly affected people's shopping behavior, as the habit of making daily purchases from physical stores has not changed (Genc, 2024). Recognizing the significant impact of the COVID-19 pandemic on the e-commerce market, the results of a research conducted in 4 Middle Eastern countries show that the long delivery time of the products ordered online, due to the lack of sales force, as well as the supply chain disruptions would be impediments to the development of this field (Alwan et al., 2023). The development of e-commerce has generated numerous challenges related to ecological aspects, as the warehouses are increasingly moving closer to cities to meet the buyers' fast delivery demands (which means additional pollution), the packaging industry and the number of delivery vehicles (which generate shipping emissions) have increased significantly (Sarkar, 2023; Zhang et al., 2023). However, there are empirical studies that highlight that e-commerce contributes to the reduction of CO2 emissions such as the one published by Xie et al. in 2022.

Factors such as digital infrastructure, level of economic development, consumer behavior, local regulations, and cultural preferences influence the frequency of online shopping (Ahluwalia and Merhi, 2020; Diaz-Gutierrez et al., 2023; Hendricks and Mwapwele, 2024). Several researchers (Jędrzejczak-Gas et al., 2019, Kinda, 2019; Reardon et al., 2021, Burlacioiu, 2023) have highlighted differences in the use of e-commerce in various regions of the world. Thus, in the USA, Canada, Western European countries, the United Arab Emirates, Saudi Arabia, China and India e-commerce is well developed, with an advanced technological infrastructure and a large percentage of users who prefer online shopping. In Eastern European countries, Latin America and Asia e-commerce is growing rapidly, but challenges related to logistics and payments can be identified. In Africa, e-commerce penetration is relatively low.

Since the 1990s, a number of e-commerce companies have been listed on stock exchanges, becoming increasingly valuable. Research on e-commerce companies listed on stock exchanges shows that over time they have become increasingly competitive.

Research methodology

The Eikon Refinitiv platform was accessed to collect the data necessary for this study, searching for 7 financial performance indicators for the listed companies on the Online Services industry, E-commerce &

Auction Services activity, during the period 2019-2022. The search results indicated the existence of 128 listed companies worldwide. Since some companies did not have all the data related to the performance indicators, the list was cleaned up, leaving 71 companies in the study for which complete data is available. The 71 companies come from North America (8 companies), Europe (12 companies), Asia (37 companies) and offshore areas (14 companies).

The financial performance indicators selected for the analysis were:

1. The gross margin represents the gross profit divided by the revenue.
2. The pretax ROA represents the return on assets before taxes. It is calculated as the income before tax for the fiscal period divided by the average total assets for the same period and it is expressed as percentage.
3. The pretax ROE represents the return on equity before taxes. It is calculated as the income before tax for the fiscal period divided by the total equity and it is expressed as percentage.
4. The average receivables collection period (days) represents the accounts receivable turnover down to the day.
5. The average inventory days represents the days in year (366) divided by the inventory turnover.
6. The current ratio represents the total current assets divided by the total current liabilities.
7. The long-term debt to total equity is the ratio of total debt for the most recent fiscal period divided by the total shareholder equity for the same period and it is expressed as percentage.

We used the statistical and critical analysis methods to interconnect the theoretical and empirical elements.

Results and discussions

The gross margin is a fundamental financial parameter used by companies to assess their profitability and efficiency. The evolution of the average gross margin level during the period 2019-2022 highlights the increase in profitability of the listed companies with e-commerce activities in Europe and Asia. For the similar companies in North America and offshore areas, the gross margin decreased considerably in 2022, marking the return of their customers to traditional sales methods, after the boom generated by the COVID 19 pandemic (figure 1).

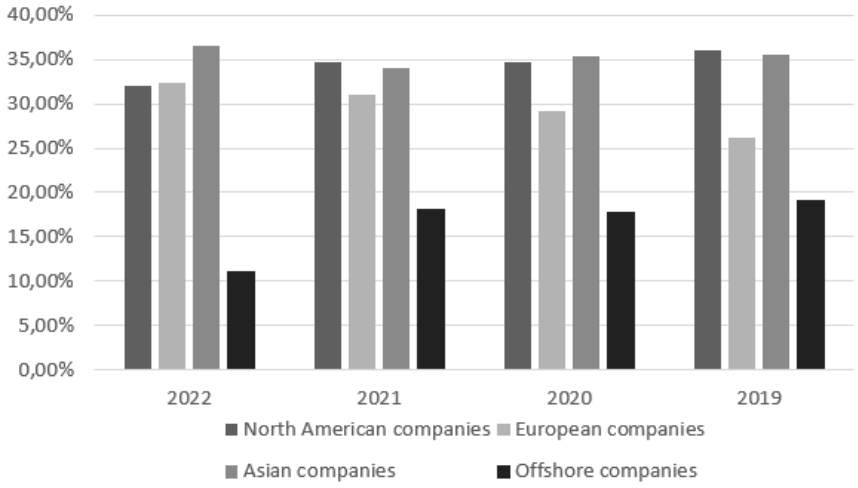


Figure 1. The gross margin evolution (average values)
Source: *own compilation* based *on data from Eikon Refinitiv*

The pretax ROA highlights the efficiency of the company's management in using its assets to generate profit. The evolution of the average level of pretax ROA during the period 2019-2022 highlights that only the listed companies with e-commerce activities in Asia managed to properly capitalize on their assets (figure 2). The analyzed companies based in North America, Europe and offshore areas failed to generate sufficient revenues to cover their cost of assets, this situation signaling possible financial difficulties or an inappropriate use of assets.

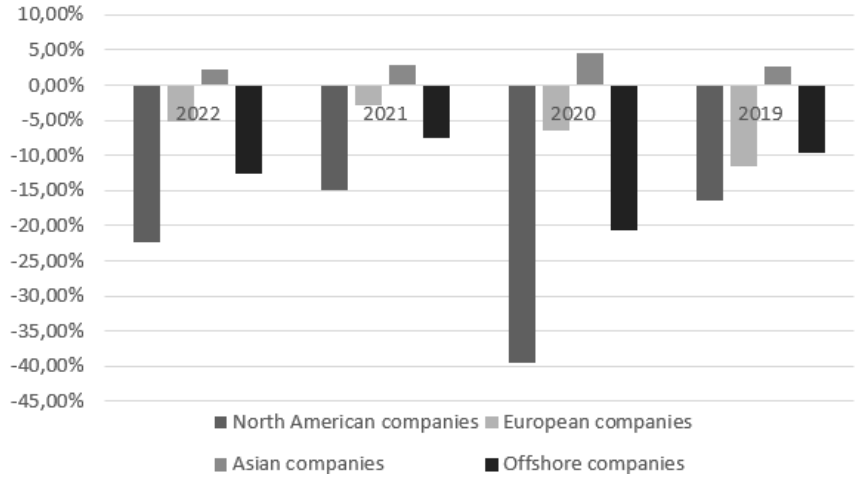


Figure 2. The pretax ROA evolution (average values)
Source: *own compilation* based *on data from Eikon Refinitiv*

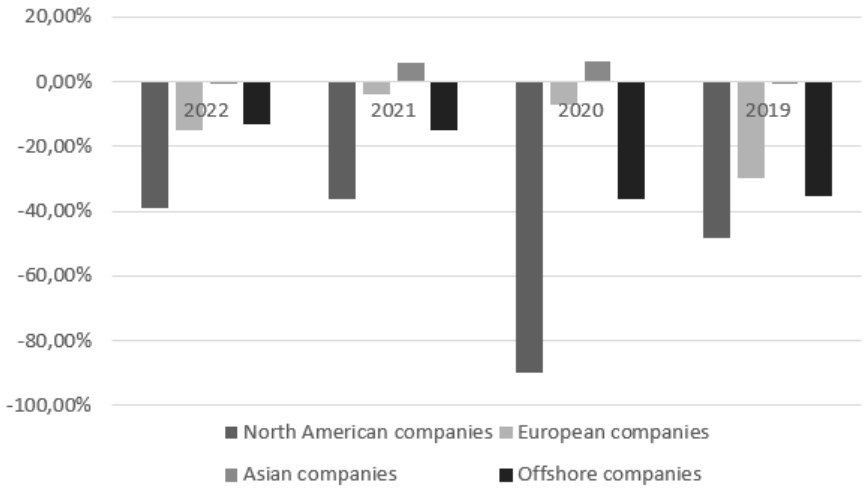


Figure 3. The pretax ROE evolution (average values)
Source: *own compilation* based *on data from Eikon Refinitiv*

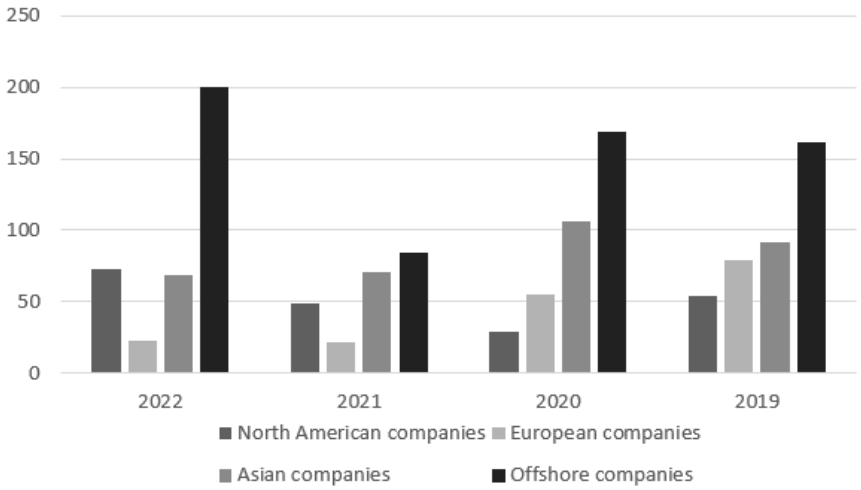


Figure 4. The evolution of the average receivables collection period (days) - average values
Source: *own compilation* based *on data from Eikon Refinitiv*

We noticed a similar situation for the pretax ROE indicator (figure 3). The situation is generated by the higher value of liabilities compared to assets, so that equity will be negative.

The average receivables collection period (days) indicates the effectiveness of the company's receivables management practices. The evolution of average receivables collection period (days) in the period 2019-2022 highlights a lower efficiency of the trade credit policies and of the collection procedures of the offshore listed companies. The best evolution of this indicator can be observed for the Asian listed companies (figure 4).

The average inventory days measures the average number of days a company holds its inventory before selling it. A low value of this indicator indicates the sales performance as well as the efficiency of inventory management of the listed companies in North America. The worst results, from this point of view, can also be observed the offshore listed companies (figure 5).

The current ratio highlights the relation between a corporation's assets and liabilities. During the period under review, a considerable increase in the current ratio can be observed for the listed companies headquartered in North America, which performed well in this respect. The listed companies headquartered in Europe recorded the lowest average current ratio values (figure 6).

Analyzing the situation of the listed e-commerce companies from the point of view of the long-term debt to total equity, we observe that the highest debts were assumed by the European companies. The Asian companies were characterized by the lowest risks in terms of long-term debt (figure 7).

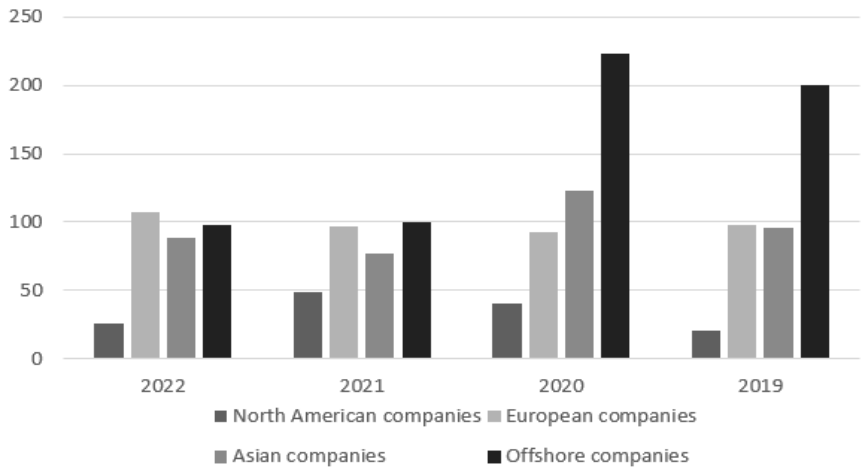


Figure 5. The evolution of the average inventory days (average values)

Source: *own compilation based on data from Eikon Refinitiv*

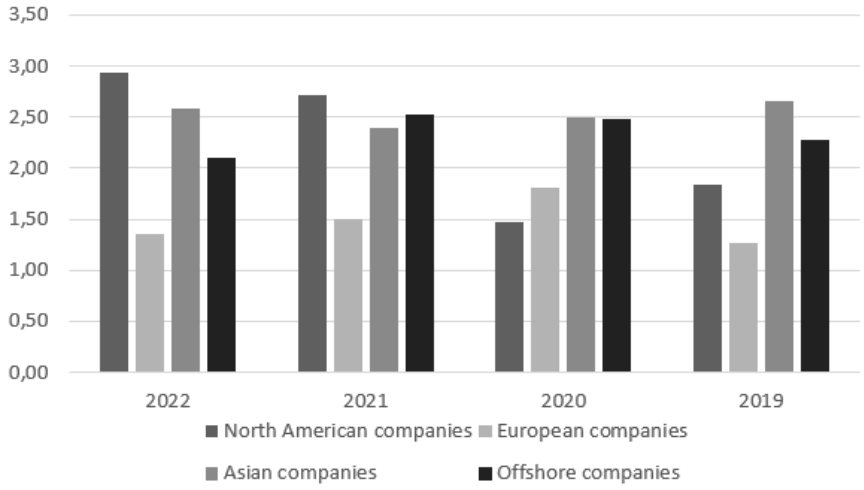


Figure 6. The current ratio evolution (average values)

Source: *own compilation based on data from Eikon Refinitiv*

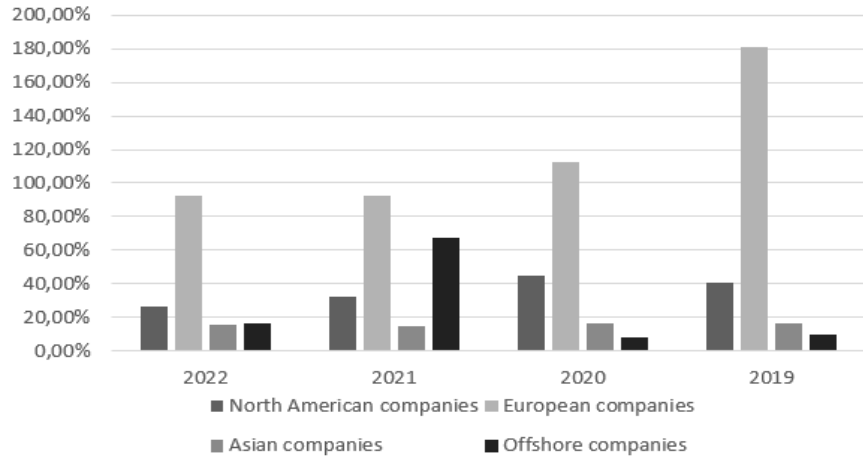


Figure 7. The evolution of the long-term debt to total equity (average values)

Source: *own compilation based on data from Eikon Refinitiv*

Analyzing 7 financial performance indicators of the listed e-commerce companies in the period 2019-2022, we notice significant international differences. The high competition in North America affects the financial performance indicators of the listed e-commerce companies, despite the sustained growth of sales. The strict regulations regarding the consumer protection and the taxation of e-commerce companies in Europe have generated slower growth of this sector compared to the USA and weaker financial performance indicators. Due to technological innovation, which led to an explosive growth of e-commerce in Asia, the listed e-commerce companies in this region have recorded the best financial performances. Despite the advantages related to flexible regulations and low tax costs, the listed e-commerce companies in offshore areas have recorded lower financial performances.

The gross profits of the listed e-commerce companies increased during the COVID-19 pandemic, a trend maintained in the following years.

Conclusions

E-commerce companies have experienced a rapid growth, especially in the last decade, driven by digitalization, the development of logistics infrastructure, and changes in consumer behavior. The COVID-19 pandemic has further accelerated this process, leading to a massive migration to online shopping.

Most e-commerce companies have seen significant revenue growth, supported by an expansion of their customer base and product ranges. This growth reflects the companies' adaptability to the growing demand for online services and digital mobility. While revenu-

es have increased, net profit has varied considerably, especially depending on investments in technology, marketing, or logistics. Some companies have reinvested a large portion of their profits in development, which has temporarily reduced profit margins but increased long-term value.

The financial performance of e-commerce companies is influenced by the business model, the digital infrastructure and the consumer behavior. In the perspective of future research, we propose to integrate these variables into a more complex analysis of the financial performance of the listed e-commerce companies.

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