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Targeting e-commerce in Azerbaijan from the perspective of resource curse

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Content table

Introduction	3
Literature review.....	5
Methodology.....	10
1. Periods of e-commerce rise	11
1.1 Realization of resource curse after the 2015 oil boom collapse	11
1.2 Effect of COVID-19 on Corona virus.....	18
2. Influence of e-commerce on financial institutions	20
2.1 Impact of acceptance of electronic commerce	21
2.2 E-commerce in small and medium-sized companies.....	23
2.3 Role of start-ups in developing e-commerce in Azerbaijan	24
2.4 Technical improvements of the enterprise activities based on factors such as time, efficiency, cost, accessibility, transparency, and accountability	26
2.5 Broader reach into the international market.....	29
3. Obstacles of e-commerce and actions for improvement	31
3.1 Main macro-barriers of the development of e-commerce in Azerbaijan, including regulations, the inertia of companies, and the underdevelopment of the IT industry.....	31
3.2 Government policy on promoting e-commerce in Azerbaijan	37
Discussion.....	40
Conclusion and recommendations.....	42

Abstract:

E-commerce is clearly expanding in tandem with the world's shift toward greater technology. Azerbaijan is among the nations that must meet the demands of the modern world in order to avoid economic lag. The aim of the study is to determine the state of e-commerce at the moment and how it is related to the oil industry's aspects, as well as propose strategies for advancing its growth in Azerbaijan. To provide valuable insights, desk research with quantitative analysis, including expert interviews, was organized. Addressing the problem of the "resource curse" it may be inferred that there is a relationship between the growth of e-commerce and the decline in attention to the oil sector. Similar deductions may be made from the fact that e-commerce in the nation began to rise following the collapse of the oil boom. Potential bottlenecks in the subsidized economy may be mitigated by diversifying investments across different industries, as they were caused by comparable factors. Following the lead, in relation to the problem, budgets for governmental spending and cash economy incentives should be reviewed. An example for investment direction for e-commerce are foreign relations, tourism, and new business structures. The nation's IT sector must be the primary emphasis in order to counter threats and vulnerabilities.

Keywords: e-commerce, Azerbaijan, resource curse, oil sector, subsidized economy, IT, online

Introduction

Azerbaijan's significant vulnerability to external shocks and reliance on imports have sparked debates on whether these nations are severely affected by resource dependency, or the so-called resource curse. Usually, the accusation against such nations is that they prioritize the development of one particular natural resource above the growth of other economic sectors. Financial and non-financial assets in such economies are primarily directed toward the exploitation and export of these natural resources and their derivatives. One of the industries affected from the impact of resource curse is e-commerce.

Throughout its existence, e-commerce has been described in various aspects and categories. Ahluwalia and Mehdi (2020) list the number of definitions that authors used in their work on the third page of their article. To begin with, e-commerce is considered "the delivery of information, products/services, or payments via telephone lines, computer networks, or any other means" by Kalakota and Whinston in customer-oriented elaboration. By taking into account the structure of business, Zwass (1996) explains it as "the sharing of business information, maintaining business relationships, and conducting business transactions by means of telecommunication networks." Nonetheless, one of the most relevant specifications of e-commerce is made by Treese and Stewart (1998), referring to it as "use of the global Internet for the purchase and sale of goods and services, including services and support after the sale."

To narrow it down, similar to other countries, the question of how e-commerce occurred in Azerbaijan, its dynamics through the years, and current progress should be covered. To begin with, in 2004, the government announced the "Law of the Republic of Azerbaijan on Electronic Signatures and Electronic Documents," while in 2005 the "Law of the Republic of Azerbaijan on Electronic Commerce" was implemented (Gulaliyev et. al., 2023, p. 1391).

The reasoning behind the adoption of laws is quite obvious if we acknowledge the fact that Azerbaijan takes the first place based on the scale of how often people use the internet in the region, getting closer to the developed countries in this particular aspect. The significant change is attributed to improvements in income and the transition toward a digitalized world.

To add to the need for e-commerce adoption, which is emerging both nationally and internationally, a new economic environment, including Azerbaijan, promotes the development of e-commerce (Aliyev, 2022). It is even more true during the coronavirus pandemic and in the post-pandemic phase. The movement toward regionalization and innovation is noticed in the current national economic trends, in combination with the continuing increase in the private sector's stake. The growth of entrepreneurship receives several forms of support from the state. Boosted economic efficiency and social welfare are the outcomes of the evolving environment's extensive application of e-commerce technology, which is a crucial innovative component in the advancement of the economy as a whole, entrepreneurship, and the private sector, as well as the creation of pertinent infrastructure for it. Concentrating on these facts, progress in the e-commerce post-coronavirus period on a national and regional scale has increased demand for in-depth investigation of the development of the coronavirus.

The purpose of the research is to identify the current situation of e-commerce and its connection to the factors of oil industry and propose courses of action in order to enhance its development in Azerbaijan. In order to reach that goal, an intensive literature review analysis of factors preventing e-commerce development in Azerbaijan would be conducted, transitioning into an overview of the contribution of e-commerce to business and transactions established by them in contrast to an attempt to detect issues of e-commerce in Azerbaijan and possible solutions.

To specify, the first body paragraph would concentrate on issues related to connection between e-commerce and success of businesses. It would, in addition, consist of sections including importance of implementation of e-commerce in the world, small and medium size business, role

of entrepreneurship, effect of e-commerce on the optimization factors such as time, efficiency, cost, accessibility, transparency and accountability. Following the lead, the second body paragraph would clarify the chances of enhancement of e-commerce in Azerbaijan and obstacles it would be facing. By elaborating on the efforts of the government to guarantee employment of e-commerce, this section would give foundation for discussion. Due to the need for summarization, discussion part would lead on all the factors listed in other sections.

Literature review

Starting the transition, a primary objective of the biggest drops in oil prices in contemporary history occurred between mid-2014 and early- 2016, which affected the world economy (Stocker et al., 2018). This seventy percent price reduction was the longest since the supply-driven collapse of 1986 along with one of the three largest following World War II. Azerbaijan, which focused on oil trade before, had to change its strategy. As the law of nature dictates when one industry declines, another escalates. Observing the consequences, non-oil industries began to escalate.

Consequences of the occurrence proved the fact that resource-rich nations create a specialized production structure and are unable to break free from the core trap, in contrast to resource-deficient nations. Furthermore, non-tradable industries are typically given preference over tradables in these economies in an unsustainable way, which is particularly evident in small open economies.

These economies' flourishing non-resource industries were heavily reliant on resource windfalls that the nations began to experience in the early 2000s (Bayramov and Orujova, 2017). Because of this, the government had additional opportunities to increase aggregate demand throughout the nation thanks to significant oil and gas earnings, particularly for non-tradable industries including commerce, building, and transportation as well as real estate services. Although the development of these sectors is typically driven by consumption, the subsequent seizure of

resource income has negatively impacted their development, and the economies have been unable to sustain the economic success that is financed by significant resource revenues. Conversely, a decrease or stagnancy was observed in the amount of highly productive and tradable industries, including manufacturing and agriculture. By encouraging an export-focused non-oil industry, economic liberalization will foster a diverse economy. Non-resource exports are anticipated to increase with the removal of obstacles to market entrance, an improvement in the business climate, and more assistance for SMEs (Bayramov & Abbas, 2017).

As an industry, e-commerce is in high need of trade development in relation to non-oil industry.

To demonstrate, Azerbaijan heavily exports crude petroleum, petroleum gas, and refined petroleum (OEC, 2023). Taking into account similar countries, Kazakhstan and Russia have more diverse goods for export. With concentration on Kazakhstan, even though the country suffers from resource curse, it also prioritizes exporting gold, refined copper, ferroalloys, radioactive chemicals in addition to oil products, whereas, Russia is involved in coal briquettes, semi-finished iron, mixed mineral or chemical fertilizers, non-fillet frozen fish. Nevertheless, success of e-commerce in those countries is not solely relied upon the export strategy. Impact of other variables could be observed by the fact that Kazakhstan and Russia take 60th and 41th place respectively in UNCTAD B2C E-commerce Index, while Azerbaijan captured 68th.

Alternatively, despite the high demand for the internet, Azerbaijan lacks communication technologies and available information, as measured by the Networked Readiness Index (NRI). To be precise, in 2021, it took 76th place among 130 countries with 47.56, even though other post-Soviet countries such as Russia, Ukraine, Armenia, Kazakhstan, Georgia, and Moldova scored more than 49 points (Gulaliyev et. al., 2023). These results point out the well-established issues in Azerbaijan with digitalization, which are also interlinked with the problems of e-commerce.

Consequently, e-commerce continued to be insufficient in 2017 for the nation. Not only a limited portion of citizens own a bank account, but also social insurance and wage cards were the main utilization reasons for 25% of the population who had a debit card. To establish background, restrictions on the frequency of transactions and other rules were answer to address the constrained use of mobile money. On a bigger scale of 24% e-commerce activity in the world, online shopping is implemented solely by 5% of residents in Azerbaijan (Ismaylova et. al., 2021). Moreover, in 2015, merely 30-50% of small and medium sized enterprises employed the Internet, Manaphov and Sadigov (2021) observed, citing their lack of understanding and engagement as well as their inclination toward conventional techniques. They also add that only 9.8% of organizations implemented a website, according to the report by the State Statistics Committee. These indicators demonstrate a shortage in the utilization of Information and Communication Technology (ICT) by companies in Azerbaijan.

The drawbacks arise because of the successful and escalating adoption of e-commerce by companies across the world after COVID-19 (Gulaliyev et. al., 2023). In accordance with the patterns of the majority of countries, the pandemic influenced the demand for online purchases and the digitization of daily life.

In order to capture economic benefits efficiently, the government undertook several actions to guarantee smoother digitalization in Azerbaijan, mainly focusing on expenditures for information and communication technology (Haciyev, 2024). These activities contradict or, at least, diminish the low NRI claimed by Gulaliyev et. al. (2023). Investing excessively in technological abilities, expanding the startup environment, and fortifying the computer network represent a few key elements boosting Azerbaijan's economic growth.

The effects of the internet-based economy are proven by the research presented in the article. Supporting the findings of Gulaliyev et. al. (2023), the author narrows down a stronger international competitive position, increased job opportunities, and economic diversity as

tangible merits, guaranteeing resilience for the Azerbaijan international market. Not limiting itself to strengthening the economy in one aspect, it would provide incentives for new types of companies that have the ability to maintain and surge labor productivity.

With the incorporation of Industry 4.0 platform technologies in firm procedures, virtual activities have developed. E-commerce transformed into one of the biggest phenomena of the contemporary age with a pandemic that drastically grew its demand (Aliyev et al., 2023). To explain, favorable outcomes stemmed from the use of contemporary e-commerce systems and technology in the management of commercial endeavors. In agreement with the finding by Hacıyev (2024), the author noticed the decline in unemployment and poverty due to e-business. Although there is a positive link between variables, leaning toward the results of the article written by Hashimova (2023), an undersupply of competent IT professionals was noticed in the Azerbaijani labor market, which could deteriorate the claim about an effective decline in unemployment proposed by Hacıyev (2024).

Matching the general narrative of the current desk research, the author aimed to analyze and comprehend the entrance of Azerbaijan toward digitalized words. Technological innovations in communication and information have revolutionized business operations while offering exciting possibilities with their governance, forming a digital economy framework. In sectors involving diversification of the economy, innovation, and competitive edge, Azerbaijan hopes to cement its strength by seizing the chances presented by the current model. To demonstrate, restructuring and integrating the financial system is one area where the digital marketplace is having an impact on the Azerbaijani economy, as Balamammadova (2023) agrees. Economic inclusion may be heightened with accessibility to financial amenities enlarged through improvements in digital finance and payment systems, contributing to Azerbaijan's economic development.

To add another example of financial benefit, nowadays tourism is explicitly and implicitly influenced by the emphasis on digitization (Gulaliyev et al., 2023). Specifically, travelers' access

to the fast Internet and the convenience of making hotel reservations with the appearance of e-commerce are therefore crucial aspects of the digital age. According to examinations, the GCC region accounts for a sizable portion of the visitors that arrive in Azerbaijan. When traveling, individuals from these nations go to places that offer better internet infrastructure.

When it comes to the obstacles, the primary finding of the research indicates that in industrialized nations, the digital economy's "production component" is more prominent than its "consumption component" (Gulaliyev et al., 2023, p. 1). For elaboration, the economic growth of the country and the well-being of the population are aided by the escalating shares of the "consumption component" and "production component." The "consumer component" of the online sector is particularly crucial to the upward trajectory of the economy and the improvement of the condition of Azerbaijani citizens. Nonetheless, there is an urgent need to raise the potential required for the "production component" of digital technologies to flourish as well as to enhance the virtual industry's portion of the national economy by means of the same component. As far as internet users per capita go, Azerbaijan is among the top nations in the world right now. Yet, the second of the two digital economy components- that is, the "producer" and "consumer" components- still dominates in Azerbaijan. Hence, it is imperative to make effective deployment of the nation's people and financial resources in the particular industry.

In developing countries, perception of simplicity of utilization, motivations, safety and security uncertainties, inadequate Internet access, and a lack of technological know-how are factors in the adoption of e-commerce. Ismaylova et al. (2021) indicate that the selection of online means of payment depends heavily on age, literacy rate, and education. Further, using e-commerce would encourage more consumers to switch to payment methods other than cash. In an attempt to foster the desire of customers to implement Internet banking services in Azerbaijan, the government and financial institutions should educate the public about the advantages, ease of usage, and reduced risk of non-cash payment services.

Beyond that, the survey organized by Hashimova (2023) showed that there is currently not enough supply of qualified workers in the job market in Azerbaijan. There is a need for IT specialists, as evinced by the following: 1) students and representatives from diverse technology-related professions and specialties choosing to work in personnel units that are remote from IT; 2) vacancies that are hard to fill due to the limitations of skills in certain IT professions and specialties; and 3) people from related fields occupying IT jobs. Linked to the problem is the fact that big data analysis must be conducted in order to take advantage of e-commerce, which is costly and complex for developing countries.

Based on the multiple authors, there are contradictory results in the aspect of e-commerce in Azerbaijan, referring to the literature review. Demand for internet usage is currently increasing, while the adoption of e-commerce in business remains relatively stable. In general, although there is detectable positive news, it should be acknowledged that e-commerce in Azerbaijan has issues matching worldwide standards, and intensive precautions should be undertaken. Going through the articles, a gap on the reasoning behind the reasons of e-commerce underdevelopment were detected. While the directions of actions are under questions, the presence of the correlation between resource curse and e-commerce would be analyzed.

Methodology

To address the problem, desk research based on secondary data such as articles, books and other sources were implemented. For specifications, resources were extracted from scientific databases such as ADA library, Taylor& Francis, ECONBIZ, Research Gate, and Google scholar.

Alternatively, the paper was approached from quantitative aspect. Several expert interviews were conducted that guided the article for deeper and more comprehensive analysis. Furthermore, suggestions proposed through interviews added valuable perspectives to the work. To conduct data-driven investigation, information from the State Statistics Committee and Central Bank of the Republic of Azerbaijan were taken in order to propose course of actions and support various

ideas. For the purpose of providing relevant data, utilized publications were ranged from 2016 to 2024. Overall, it would include more than 30 articles and links with the authors being from Azerbaijan origin. Principles from Okun's law from Mankiw and Taylor (2014) were applied to the current topics to provide clarifications. Nevertheless, in order to diversify the sources, foreign articles with relevant information were included. Furthermore, conclusions from articles are primarily taken from quantitative research with surveys ranging between 70-300 participants. Responders were Azerbaijani citizens answering about their expectations from and habits related to e-commerce. To capture majority of aspects, a wide range of probable issues were investigated and summarized in discussion section.

1. Periods of e-commerce rise

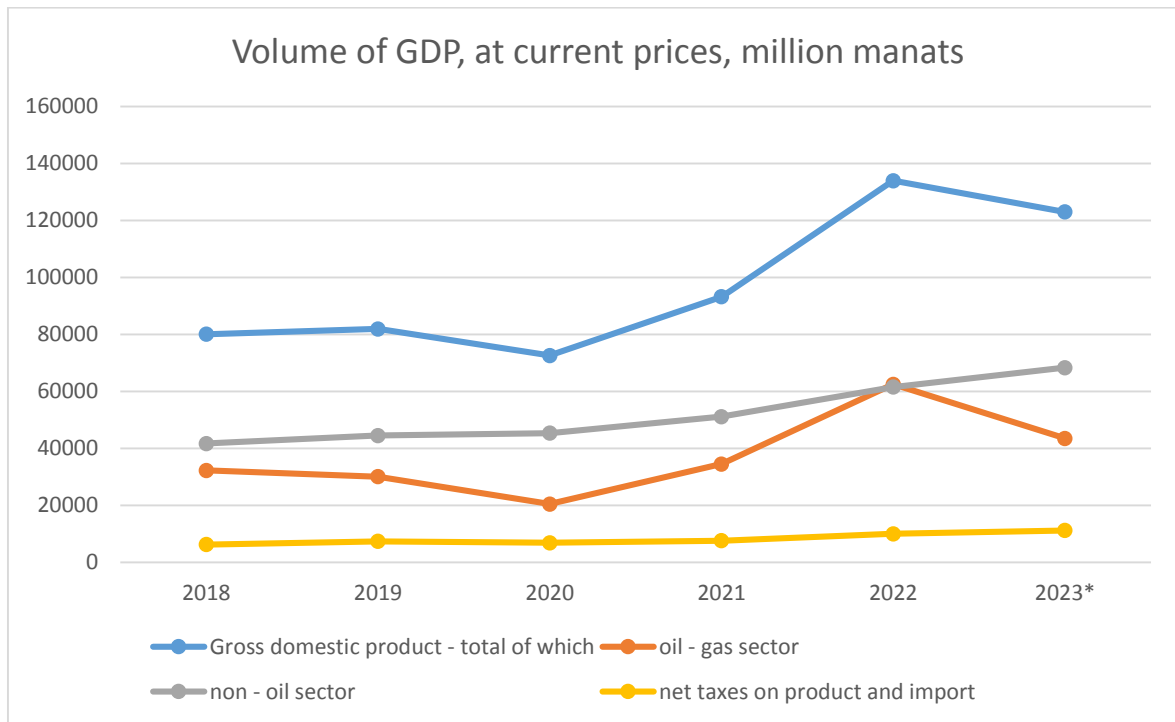
Before diving deeper into the topic, historical background and following consequences should be analyzed.

1.1 Realization of resource curse after the 2015 oil boom collapse

As mentioned above, biggest drops in oil prices in contemporary history that occurred between mid-2014 and early- 2016, affected perspectives and strategies of Azerbaijan. Policy makers realized that relying only on limited industries has inevitable risks. Therefore, actions toward improving the situation were undertaken. Aliyev et al. (2016) discovered a substantial and positive relationship between Azerbaijan's non-oil economic development and generally government expenditures. Nonetheless, they have not looked at how investment and consumer spending affect the growth of the non-oil economy independently. The findings of Aliyev and Nadirov (2016) and Aliyev et al. (2016) are comparable. Authors contended that a 1% rise in budgetary spending results in a long-term rise of 0.55% in Azerbaijan's non-oil GDP.

Contributing to the non-oil industry development, the past several years have seen an incredible expansion of e-commerce in the nation.

Figure 1:



Source: *The State Statistical Committee (2024)*

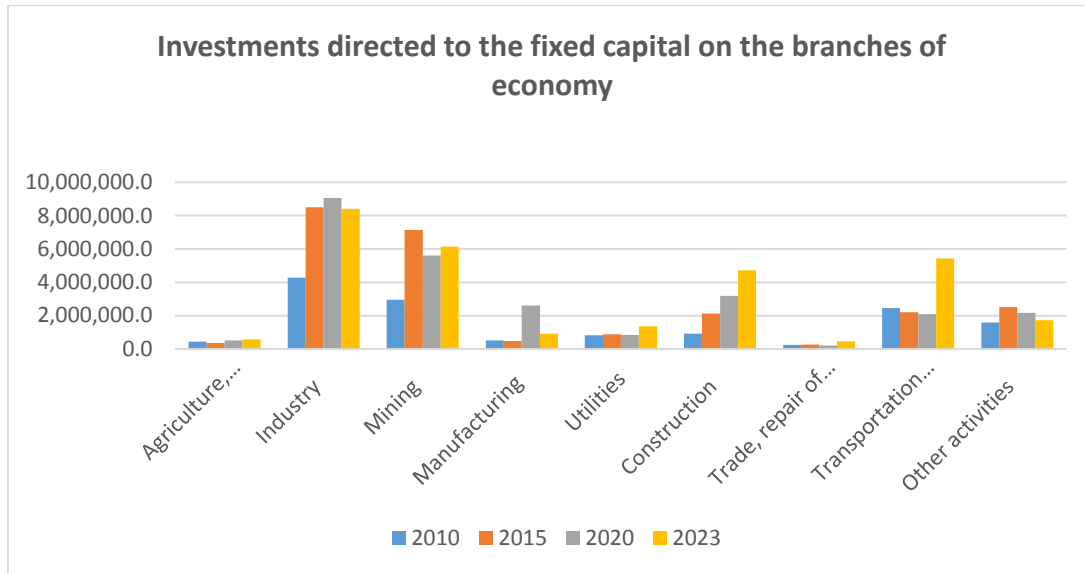
<https://www.stat.gov.az/?lang=en>

Referring to the data from the graph, in 2018 non-oil was leading oil-gas sector in volume of GDP by 9.431 million manats. The difference reached its peak in 2020, when non-oil sector was more than the double amount of oil sector, specifically being ahead by 24, 895 million manats. In 2023, the gap is not as detectable, however, oil and non-oil sector volume in GDP are 43.472,5 and 68.341,3, respectively.

Another approach the oil bloom collapse is deploying the "subsidized economies" strategy to Azerbaijan. An economy that is primarily driven by consumption is said to be in this category. In other words, a country with abundant natural resources benefits from windfalls that drive government spending and private consumption by infusing a significant amount of capital into

the economy (Bayramov and Orujeva, 2017). An economic slump is experienced by the nation and the previous success is drastically reversed when it is exposed to an overseas shock or when the income flow stops.

Figure 2:



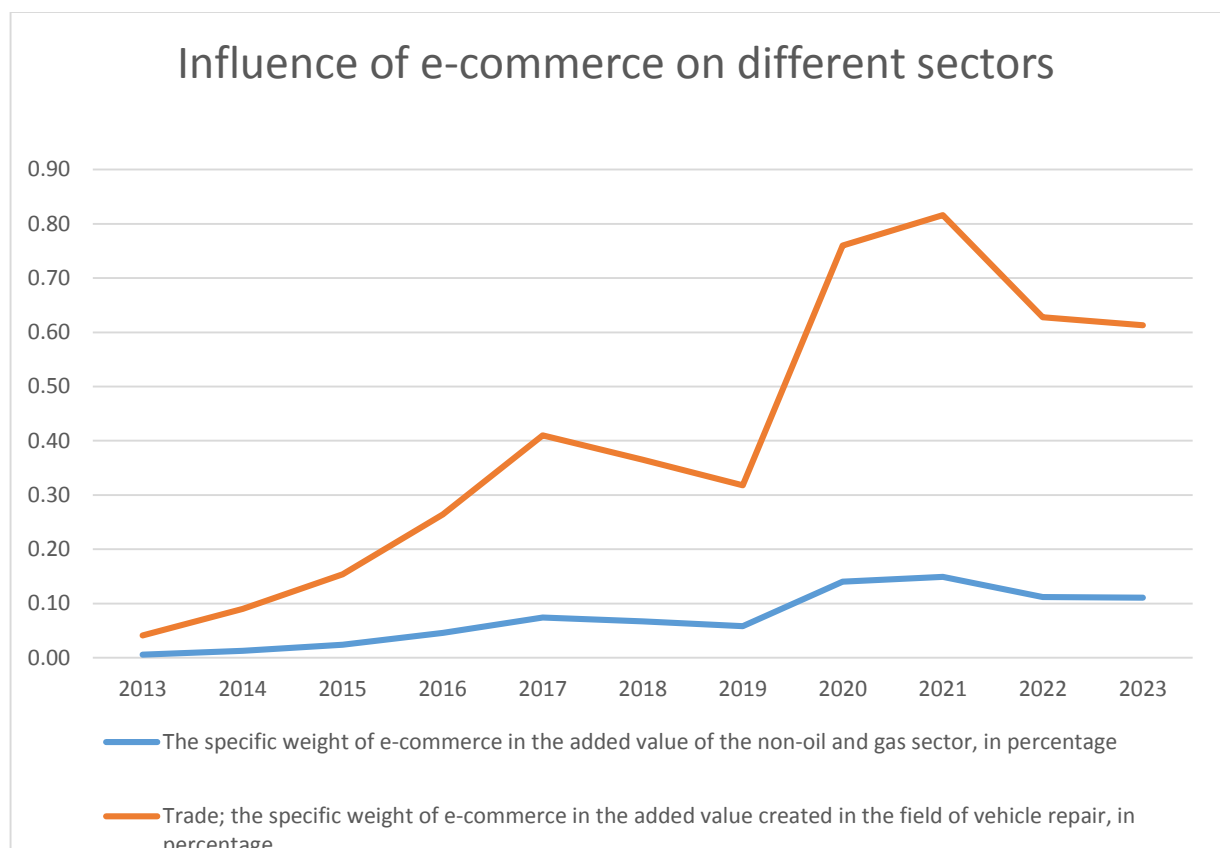
Source: *The State Statistical Committee (2024)*

<https://www.stat.gov.az/?lang=en>

Support for the claims of subsidized economy could be observed in the graph. For example, investment for mining was approximately multiplied by 2,5 from 2010 to 2015. Even though the scale of the pattern decreased, it is continued to be heavily invested with an increase by 521.735,2 thousand manats from 2020 to 2023. Notably, the least contributions were added for agriculture, forestry and fishing and trade, repair of transport means with limiting by 578278.4 and 456322.1 thousand manats in total respectively in 2023. In comparison, industry received 8405711.3 thousand manats in investment at the same time period. The factors show that while a portion of branches is subsidized to extremes, there are economies that remain unsatisfactory. For e-commerce, results observed from trade investment, could lead to serious future issues. There are, nonetheless, promising conclusions as well. To clarify, an escalation by 3.331.770,1

thousand manats in transportation and storage from 2020 to 2023 could be an advantage for development of e-commerce as the processes of online sales still require storing and detailed logistics with a number of transportation methods. Evidence of the idea could be proven by Figure 3, which shows how impact of e-commerce on trade, specifically vehicle repair grows continuously from being close to zero in 2013 to 0.1 percent in 2023. Looking from a different perspective at the graph, close relationship between e-commerce and non-oil and gas sector could be observed. After 2015, with only 0.154 percent in added value, visible escalation by almost four times to 0.613 in 2023, highlights the fact that resource curse was preventing e-commerce from developing.

Figure 3:



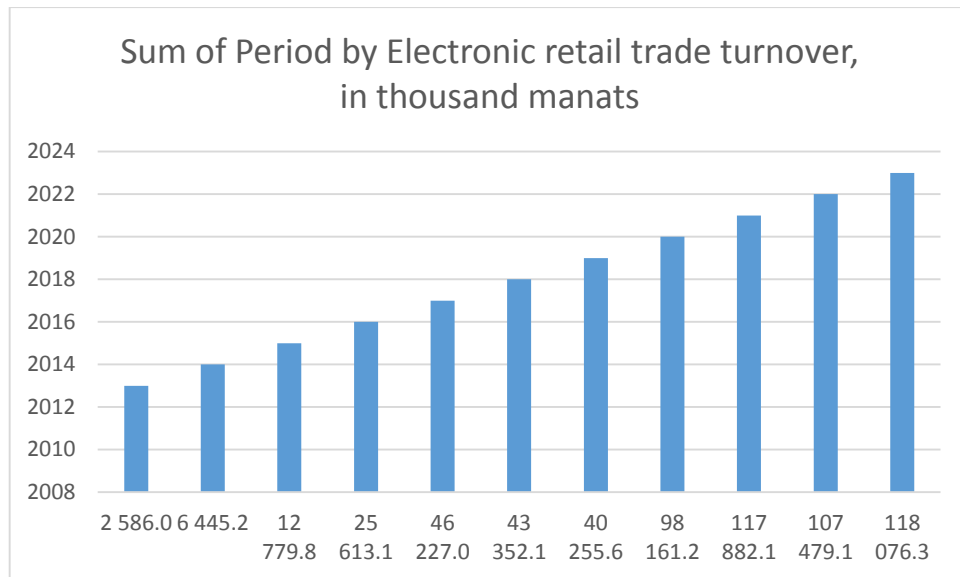
Source: *The State Statistical Committee (2024)*

<https://www.stat.gov.az/?lang=en>

Presenting more specific data to the topic, in 2016, Azerbaijan's retail e-commerce revenue reached 25,613,000 manat, climbing to 46,227,00 manat in the next year (Ministry of Digital Development and Transcript of the Republic of Azerbaijan, 2018). In the following years, Azerbaijan exported goods worth \$8 billion USD between January and May of 2021, including \$907,6 million in non-oil exports (Centre for Analysis of Economic Reforms and Communication, 2021). When contrasted with the same time in 2020, the non-oil export climbed by 184 million US dollars, or 25,4%. Rising by 4.6 percent from 2021 to 2022, Azerbaijan's GDP amounted to \$78.7 billion (International Trade Administration U.S. Department of Commerce). The nation's GDP influenced by oil fell by 2.7 percent throughout this time, whereas the GDP outside of oil rose by 9.1%. To be precise, the sectors contributing to GDP were industry (51.1%), commerce and car repair (8.2%), logistics and transportation (6%), construction (4.8%), agriculture, forestry, and fisheries (4.8%), hotel services (1.6%), information and communications (1.4%), and taxes (7.4%).

Additionally, Azerbaijan declared a 55.4% rise in international trade of \$52.7 billion in 2022. Simultaneously, the nation announced a rise in total net exports, with imports growing by 23.9% to \$14.5 billion and exports climbing by 71.6% compared to the prior year to \$38.1 billion. These factors positively affect e-commerce development as it is non-oil industry, which requires concentration on exports.

Figure 4:



Source: *The State Statistical Committee (2024)*

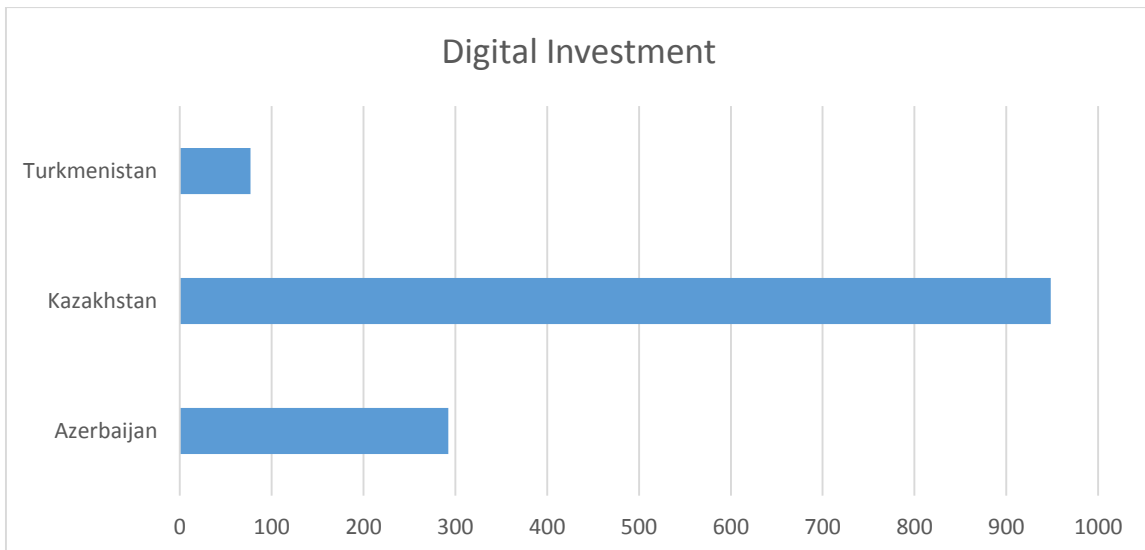
<https://www.stat.gov.az/?lang=en>

Considering effect of resource curse, e-commerce rose by 188,1 percent from 2014 to 2015.

While the speed of growth decreased as times passed, the assumption that overconcentration on oil industry was an obstacle for e-commerce could be drawn acknowledging the fact that a noticeable increase did not stop from 2015. For example in 2013 electronic retail trade turnover was only 2586 thousand manats, which became 25 613.1 thousand manats a year after oil bloom collapse. Mentioned trend continues to these days as in 2023, electronic trade retail turnover amounted to 118 076, 3 thousand manats, leading to 100,7 percent increase compared to the previous year (The State Statistical Committee, 2024).

While going through the oil bloom effect, countries with the similar patter should be mentioned.

Figure 4:



Source: statista.com

While data from Russia was not determined, it is known that the country 181 million dollars solely for AI from 2021-2023 (Daryo, 2023). From the graph, in terms of investments supporting sectoral growth, Kazakhstan leads other two nations. Therefore, the state has invested almost \$ 1 billion in the nation's digital field development, which is nearly equal to double of the total of the pertinent statistical indicators of Azerbaijan and Turkmenistan. The aspects of digital investments are mandatory to mention in order to cover development of e-commerce as it is one of the moving forces in that direction.

Talking about their efforts, when it comes to Kazakhstan, for proprietors of online businesses, income tax rates were lowered by 100% in 2018 and after three years, a single information system was developed in order to protect consumer rights (Amirbekova, 2024). Continuing with 2022, for internet retailers that are not residents, a 12 percent VAT rate was implemented. To observe Russia, the main advantage that they have is the significant implementation of credit and debit cards into their daily life. Bank cards were used by about 50% of the nation's digital payment consumers to make online purchases (Statista, 2023). Another country to look at is Turkmenistan. There are few rules or policies in the nation specifically governing the e-commerce industry, and it is not highly prevalent (International Trade Administration U.S.

Department of Commerce, 2023). Although more consumers utilize mobile devices to visit online retailers, poor internet connections are a common issue for users. Turkmenistan has restricted access to credit and debit cards that are commonly accepted abroad, as well as limited possibilities for online payments. A significant barrier to e-commerce and other foreign transactions in Turkmenistan is the inability to exchange currencies, which also makes it difficult to receive goods from outside the country.

1.2 Effect of COVID-19 on Corona virus

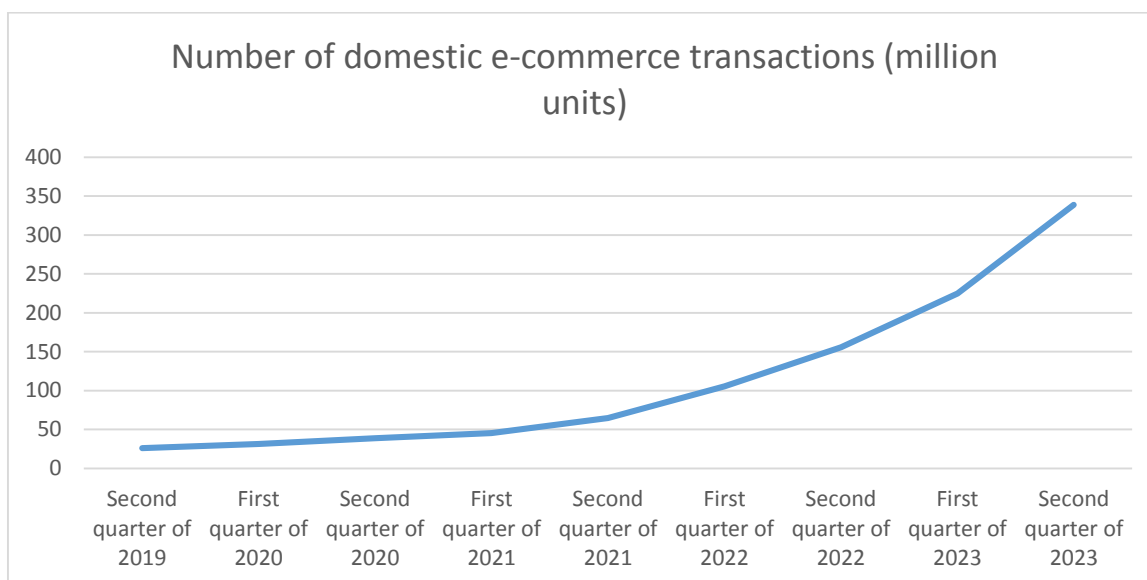
In a pattern with majority of countries, pandemic had a huge impact on Azerbaijan. As the possibility of working by means of technology from any point in the world escalated, in addition to the ability to study online, the realization of opportunities and the power behind a technology-oriented world was established. By providing an overall objective, businesses enhance their execution of targets through three strong instruments: strategy, knowledge, and e-commerce. To achieve optimal performance in a data-driven economy, it is imperative for enterprises to discern an approach that demonstrates a substantial level of information administration proficiency and electronic acceptability.

When enhancements in secure storage, speedy accumulation, extensive research, and straightforward trade of essential data required to formulate strategic choices were detected, the structure of organizations altered. Consequently, a rise in global transactions, the effectiveness of executive leadership, growth in the invention, manufacturing of novel goods, and the amount of direct foreign investment have become conceivable.

In addition to these factors, COVID-19 underscored the issues with resource curse. In 2020, industrial output climbed by 11.2% in the non-oil and gas sector while declining by 2.8% in the oil and gas sector, according to a comparison of the data from 2020 with the first half of 2019

(CESD, 2020). Optimizing the use of oil income is vital. Earnings from the oil industry increases reliance on it, which runs counter to the diversification strategy.

Figure 5:

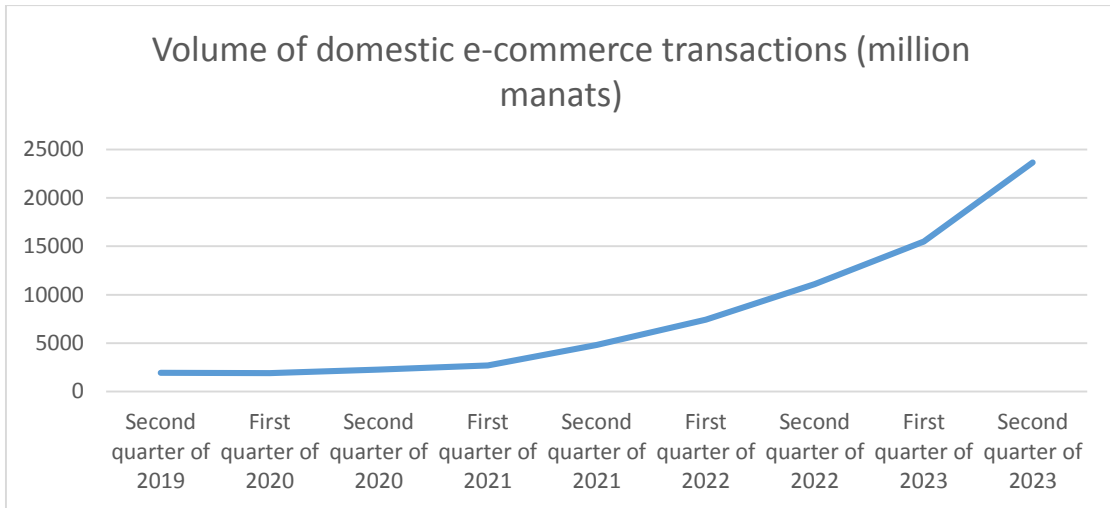


Source: *Central Bank of the Republic of Azerbaijan (2024)*

<https://www.cbar.az/pages/stats-monthly?language=en>

In accordance with the current trend, the coronavirus outbreak altered Azerbaijani consumers' buying habits. As observed from the graphs, domestically, e-commerce, in terms of both numbers and volume, had a significantly higher slope than in previous periods. Talking about electronic retail trade turnover, an escalation from 40 255,6 thousand manats to 98 161,2 thousand manats was noticed from 2019 to 2020 (The State Statistical Committee, 2024).

Figure 6:



Source: *Central Bank of the Republic of Azerbaijan (2024)*

<https://www.cbar.az/pages/stats-monthly?language=en>

Referring to the survey conducted by Hasanova et al. (2023), an elevation in the level of online purchases was affirmed by half of the participants. To elaborate, the platform titled Trendyol was prioritized by the interviewees. Overall, Turkish products were the most selected online shopping geographical segment, primarily focusing on purchasing clothing, electronics, and cosmetics due to the ease of mobile programs with the brand, social media, quality, time, and price features.

Furthermore, due to a considerable portion of regional shopping platforms' inadequate emphasis on e-commerce-related operations and incapacity to encourage digital buying habits, Umico emerged as the most popular local e-commerce website. While personal traits like gender or marital status did not affect the actions of customers, the merchandise categories that had the leading sales were clothes and accessories.

2. Influence of e-commerce on financial institutions

Currently, as companies employ e-commerce into their businesses, not only the structure, but also the profits, efficiency and optimization process alters. In the next five sections, various markets with specific aspects would be viewed.

2.1 Impact of acceptance of electronic commerce on financial performance

The formalization of the digital economy consists of several periods, such as the introduction stage from 1990 to 2005, which included the occurrence of e-business and e-commerce (Manaphov and Sadigov, 2021). The next step was growth that happened between 2005 and 2010 and concentrated on the intensive growth of offerings by the companies. Following in 2010-2019 is the maturity stage, including internet channels and digital influence being widely used by conventional organizations. In accordance with the methodical strategy, systemic modifications and profound digitalization are predicted starting in 2020.

Deep-rooted history, culture, and geography, in combination with storage facilities and energy, attract people from around the world to Azerbaijan. Due to variations in the international environment and the move toward a technology-oriented world, interest in the acceptance of digitalization as a part of new economic methods, in addition to other factors, occurred in Azerbaijan. As noted previously, not only economic but also socio-cultural fundamental changes take place during the transition.

Before analyzing specific merits in terms of digitalization, the demand by customers as the reason for the initiative of financial institutions should be mentioned. To target specific numbers, a questionnaire with 179 participants was organized by Ismaylova (2021). According to answers on how often citizens purchase online, 34.1% had not bought anything online before, 14.5% responded once or twice in a year, 31.2% claimed the same frequency but in a month, and 10.6% purchased items online at least two times in a month.

The majority of organizations are inserting elements of online shopping as the method of distribution of their products. As purchases in physical stores is decreasing due to a lack of demand, the importance of

online presence and tangible options for virtual selection is escalating. According to Snyder (2024), there would be 20.1% of online shopping in 2024, which consequently would increase to 23% in 2027. To illustrate it precisely, a rise of 8.8% is predicted for sales in e-commerce in 2024. Additionally, a value of 6.3 trillion for international e-commerce is estimated for 2024, rivaling the result of 5.8 trillion in 2023. Observing the data, the conclusion that e-commerce is rapidly growing in the global market could be drawn; therefore, staying in touch with its current trends is mandatory

The research did not stop with mere statistics and went deeper into the reasoning behind online shopping. Reported results were that 52.5% of those who took part cited the likelihood of getting products that are not accessible in Baku as the primary logic; 43.5% referred to time and money conserved by shopping via the internet; 38.5% stood up for the possibility to buy goods at any operating hours; 35.1% mentioned the pandemic and its complications; and 31.8% talked about a broader selection. While the situation is improving, only 7 years ago, retail e-commerce occupied merely 0.04% of GDP (Ismaylova et al., 2021). Even though its measure escalated from \$15 million to \$27 million in just one year, it remained comparatively small. During that period, a deficit in the development of cashless payment systems was acknowledged as one of the reasons for the low statistics. In addition, due to poor e-payments piercing, notably credit and debit card fraud, inadequate logistics, an insufficient number of local online retailers, an overall deficit of digital literacy, and a limited level of faith between customers and producers, Azerbaijan scored 68th out of 144 countries on the B2C e-Commerce Ranking.

Both the State Program for Digital Payment Expansion in 2018-2020 and the Strategic Road Map on Financial Services Development in the Republic of Azerbaijan demonstrate the administration's objective to raise the degree of financial empowerment and expand cashless payment. Furthermore, recognizing the issue, the government made the advancement of e-commerce a top priority for the State Program. In order to cut the expenses involved in cash circulation, reduce the amount of cash payments made, and enhance the foundation of the banking industry, the program was designed to deliberately elevate the amount of cashless

payments carried out throughout the economy. As required by “the State Program on Expansion of Digital Payments in the Republic of Azerbaijan in 2018-2020,” the Central Bank of Azerbaijan introduced the Instant Payment System (IPS) in pilot mode, intending to bring new digital payment technologies to the nation and build access to payment services.

When it comes to the implications of this method, transactions between businesses and consumers are currently available in a trial setting, and the cooperation of 13 banks and the State Treasury Agency on the IPS platform has been finalized. Standardized identifiers (PIN code, TIN cellphone number, email) may be used to undertake trades in cash between people, businesses, and government agencies in the regime 24/7/365 credited to IPS, and funds will be spent promptly on recipients’ checking accounts.

By the end of 2019, non-cash payments accounted for 43% of transactions made with cards in terms of quantity and 19% in terms of amount, as a result of the steps included in the Strategic Road Map and the Program. In 2010, these numbers were 2% and 3%, by contrast. The quantity of bankcards in the nation rose substantially during that period. The total demanded supply of plastic cards climbed by 26% in 2020, reaching 9.14 million. At the moment, there are 2688 ATMs and 56.9 thousand POS terminals in Azerbaijan. Furthermore, 24 banks supplied mobile banking services as a field of e-commerce, and 29 banks granted Internet banking services. During the same year, there were over 1.2 billion cashless card transactions, which is a 58% increase compared to 2018.

2.2 E-commerce in small and medium-sized companies

Although 83.30% of all businesses in Azerbaijan are small businesses, this does not imply that small businesses make up a sufficient portion of the national economy (CESD, 2017). The understanding that Azerbaijan still lags behind other established and growing countries in that aspect by examining the percentage of small and medium-sized enterprises in the GDP. Barriers for its development include the Absheron district's high degree of small and medium-sized

businesses's centralization, the absence of varied financing options, the restricted access to markets, regulatory restrictions, and a deficiency in entrepreneurial abilities. Therefore, only limited information is available about e-commerce in SMEBS (small and medium-sized businesses).

The positive features of the current global network are accessed through the internet's two-tiered structure. In particular, active participation in global trade is enabled by SMEBS. Electronic commerce is exceptionally relevant for SMBS. Expanded product selection, higher-quality items, and faster payment receipts are among the benefits made feasible by e-commerce. The manufacturers will permit sellers to reach international marketplaces after they satisfy the demands of every single customer in the global industry for the description and characteristics of the goods that are sold. Increased manufacturer rivalry resulted in a drop in the cost of all business transactions as more superb, low-priced items entered the market. Taking into account this knowledge, the advantages of adopting e-commerce are visible. The conclusions, however, could be applied to bigger corporations as well. Even by digging deeper, the lack of information about e-commerce activity in SMEBS hinders the process of picturing the full power behind it. Consequently, the hypothesis that e-commerce is underdeveloped in smaller organizations arises.

2.3 Role of start-ups in developing e-commerce in Azerbaijan

The digitalization of enterprise in Azerbaijan has already started. Nonetheless, the majority of firms do not repurpose their whole organizational structure and continue to conduct most of their operations in a fundamentally orthodox manner, utilizing a small number of digital technologies. Owners find it prohibitively costly; some of them cannot locate appropriate technology for their line of work; and others fear cybercrime. The authors argue that authorities have to invest in scientific research, digital entrepreneurship, and information security with particular interventions with the goal of boosting the contemporary economy.

Professionals are digitizing their work in every industry, area, and business around the globe. Consequently, new digital assets are produced daily, including perspectives, processes, and applications. These developments speed up their workflows, increase safety, and lead to revolutionary breakthroughs for humanity. The economy as an entity is considerably impacted by a combination of minor digital advancements. In simultaneously theoretical and practical domains, a solid partnership with global entities is vital to prevent ambiguity in the coming years. The capacity of technology to foster innovation and economic growth must be investigated across the nation and within sectors. The authors, at the same time, consider that expanding the local IT industry, encouraging the emergence of novel technologies, and joining forces to further their worldwide progress are essential for the rise of the digital economy and digital entrepreneurship. Establishing a strong foundation of core expertise and abilities is vital for providing prospective employees with exceptional training. Improving and streamlining the environment in the Republic of Azerbaijan for the growth and advancement of fresh, skilled professionals is crucial.

It is even more true during the coronavirus pandemic and in the post-pandemic phase. The movement toward regionalization and innovation is noticed in the current national economic trends, in combination with the continuing increase in the private sector's stake. The growth of entrepreneurship receives several forms of support from the state. Boosted economic efficiency and social welfare are the outcomes of the evolving environment's extensive application of e-commerce technology, which is a crucial innovative component in the advancement of the economy as a whole, entrepreneurship, and the private sector, as well as the creation of pertinent infrastructure for it.

To broaden knowledge about the COVID-19 period, the Azerbaijan Republic's banks stepped up their efforts to develop e-banking during the pandemic by utilizing more contactless technology.

The Central Bank of Azerbaijan opted to bring down the service fees charged to banks in interbank payment systems and to reduce the tariffs for card payments of entrepreneurs by half in an effort to facilitate cashless transactions in the event of a pandemic and lower the expenses incurred by economic entities for these services (Ismaylova et. al., 2021).

2.4 Technical improvements of the enterprise activities based on factors such as time, efficiency, cost, accessibility, transparency, and accountability

Witnessed from the KPIs of companies, e-commerce and digitalization have a profitable impact on the efficiency of organizations. In the following section, key contributions of e-commerce to the success indicators of enterprises in Azerbaijan will be listed.

To begin with, the emergence of e-commerce opens the door to time savings, lowers the expenses associated with multiple commercial operations, stimulates the effectiveness of local economic growth, and broadens the scope of economic development. By cutting costs and raising demand for products and services, the incorporation of contemporary e-commerce technology strengthens businesses' manufacturing procedures. Through customer convenience, e-commerce technology and systems enhance their application, allowing small and medium-sized companies to join the ranks of economic growth drivers alongside larger corporations by transitioning to e-commerce operations. The evaluation of diverse data gathered on online retailers was rendered feasible by the feasible development of information availability, knowledge accumulation, and information processing skills.

Furthermore, e-commerce influences prominent factors affecting the sales and profits of organizations in the majority of countries, including Azerbaijan. Each of them is added to the deeper analysis with relevant explanations on their impact. Firstly, taking into account speed, as time is particularly essential, and it is frequently saved by the quick interchange of business news with contemporary media. Continuing with interactivity, without the need for middlemen, consumers and sellers of commodities can engage with one another. Next is adaptation, which claims that there are distinct adaptive-coordination aspects in a digital company. In addition,

operationality is essential because corporations and entities are able to receive a variety of operational promotional data, particularly market pricing, by means of the technology implemented in online commerce. Following the lead, the accessibility measure proves that the network in question can be reached easily for all Internet users, regardless of their industry. Each company can locate an appropriate commercial and trade associate to carry out a particular joint venture program for the manufacture and online selling of items. Not stopping there, coverage means that those that operate online companies may quickly broaden the scope of their operations and reach local and allied sectors.

Fullness, however, maximizes the variety of items available by offering a broad selection of options both separately and in comparison. The buyer is therefore given access to additional, comprehensive details about the products. When it comes to efficiency, commercial agreements are effective when there is less documentation associated with the company's official activities attributable to the translation of information into digital format, which also improves interactions between e-market players. To add to self-development, operators in the e-commerce field regularly generate personalized advertisements for items by assembling a distinct and varied database. Standardization enables users to have equal access to possibilities by virtue of the technology behind the internet. Last but not least, availability refers to the fact that e-commerce enterprises do not incur any extra expenses compared to traditional businesses. Customers typically save money when purchasing goods via the Internet.

Even with the features mentioned above, one of the crucial elements of e-commerce is transparency. Commonly, the most corrupt nations in the world are considered to be in the Caspian Basin (Transparency International ,2016 as cited in Bayramov and Abbas, 2017). It is noteworthy that Russia, Kazakhstan and Azerbaijan managed to maintain strong economic development in spite of pervasive corruption and rent-seeking activities. If there were a lack of mutual honesty and openness, the quality of transactions between businesses and consumers,

however, would deteriorate or stop altogether. In order to stimulate purchases online, sellers should provide descriptions and previous reviews of customers. In Azerbaijan, the transparency indicator in 2021 improved by 7% as compared to 2019 and produced the most favorable outcomes (Aliyev et al., 2023).

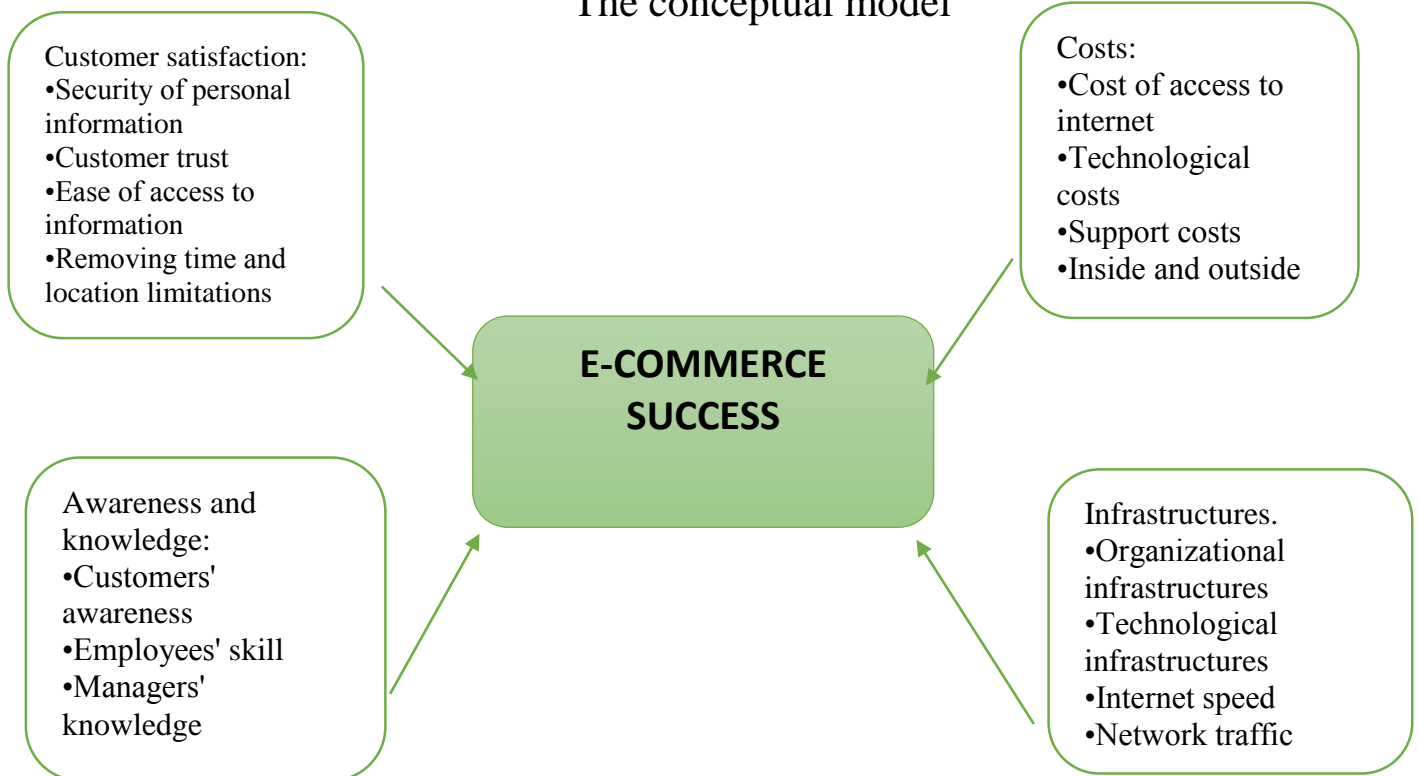
To thrive, enterprises and businesses need to draw in and keep clients. Electronic commerce is recognized as a suitable approach for promoting, vending, and incorporating virtual services that may be important in locating, acquiring, and retaining clients. The interaction and communications between the company, manufacturers, suppliers, and customers are optimized and improved through e-commerce. It should, nonetheless, be underscored that identifying the key components of efficient e-commerce is a prerequisite for success. In electronic commerce, there are a number of vital external and internal managerial aspects that must be taken into account. A model and framework for recognizing the crucial elements influencing the profitability of e-commerce were put forth in the study by Choshin and Ghafarri (2017).

According to data collected from 180 staff members in banks, the results revealed that the beneficial variables that significantly affect e-commerce are expertise and information, infrastructure, costs, and customer satisfaction. The removal of time and place restrictions, the protection of personal information, confidence in the company, and the convenience of data access were factors in the contentment of consumers. Additionally, the importance of the expenditure quantity is substantial based on the data analysis. Indices like technology, support, and internet connection fees were included in the prices. For this reason, it may be argued that expenses and achievements in e-commerce are profoundly and directly related. On top of that, the effectiveness and prosperity of e-commerce in the presence of suitable infrastructure could be improved. To elaborate, network traffic, internet speed, and technology infrastructures were recognized metrics for corporate infrastructures. Ultimately, the knowledge and abilities of management, workers, and consumers' awareness levels are heavily linked with e-commerce. As

awareness increases, so does e-commerce acceptance. Information is summarized in the graph below:

Figure 7:

The conceptual model



Source: Choshin and Ghafarri (2017) from the article

“An investigation of the impact of effective factors on the success of e-commerce in small- and medium-sized companies”

<https://www.sciencedirect.com/science/article/abs/pii/S0747563216306537>

Paraphrasing the information mentioned above, e-commerce has an impact on the technical elements of optimization of business processes in Azerbaijan, and the influence is growing as the years pass by. Therefore, the alternations and progresses of e-commerce should be intensively monitored to keep up with the innovative world.

2.5 Broader reach into the international market

As is obvious from its definition and function, e-commerce enables transactions for services and goods around the world. Simultaneously, operations that would not have been possible decades ago are now proceeding at a distance. At present, nations are more informed about their finances

and priorities by conducting data analysis of e-commerce and other factors. By merely going through the website, interest in the condition of tourism, fashion, agriculture, and various industries could be partially satisfied. Additionally, involved parties possess the ability to deal with organizational procedures around the clock, which saves time and money for companies. Therefore, the globalization of the world is strengthened by the development of e-commerce. Azerbaijan, as a country, also took advantage of the situation.

As observed from the graph, deliberate actions were taken to lay the groundwork for e-commerce development. Compared to the previous two years, in 2021, the level of e-commerce significantly increased and continues to do so (Shamxal Mammadov, 2021). To dive into details, as Azerbaijan's non-oil exports rose by 47.2% in 2021, global trade was anticipated to climb by 10.8% (Aliyev et al., 2023). Numerous times, the conceptual and functional model of economic change implemented in the nation has been praised internationally. The "Economic Reforms Management Model," carried out in Azerbaijan, has been shown by the Organization for Economic Co-operation and Development (OECD, 2024) on its formally recognized portal for a unique approach that is remarkably worldwide.

Seeing advantageous results, as highlighted previously, there are potential effects of the digital economy on the Azerbaijani economy. Competitive advantage in the international market, expansion of employment, and economic diversity are among the major consequences. By diversifying its industries and elevating its competitiveness globally, the economy of Azerbaijan could evolve into a far stronger and more flexible force via the impact of digitalization. In tandem, the digital economy is giving rise to innovative types of companies that have the likelihood of improving productivity and creating more jobs, as noted in the literature review.

In order to deepen the progress, adequate steps have been initiated to nurture overseas trade operations and promote the economic standing of the nation, as evidenced by the launch of the "Digital Trade Hub" portal in Azerbaijan (Aliyev et al., 2023). The leadership position of the

country in cross-border commerce in the Asia-Pacific region is a contributing factor to its continued upward trajectory in the world economy. Moreover, Azerbaijan is ranked first in the Southern and Eastern European, Caucasus, and Central Asian regions of the United Nations Global Report on Digital and Sustainable Trade Facilitation for 2021, with a score of 86% based on specific standards.

Although the success of Azerbaijan on the global scene in terms of e-commerce has been launched, the main criteria is continuity. If the government wants to have a competitive edge worldwide, they have to process further with their efforts in digitalization and e-commerce and be constant about it.

3. Obstacles of e-commerce and actions for improvement

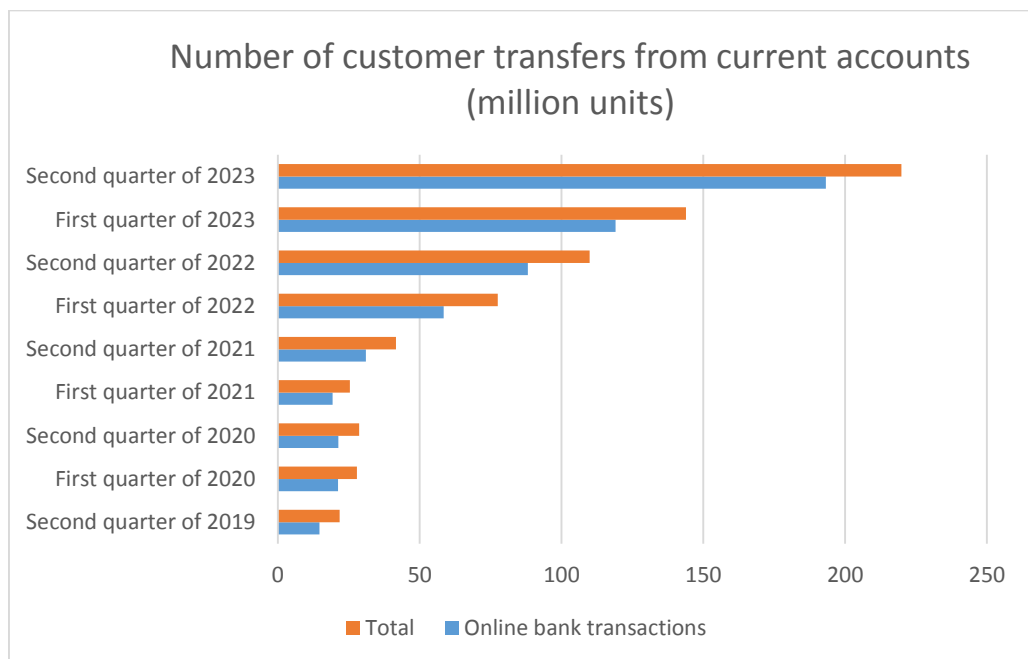
Discussing e-commerce, issues with its development in the country and how nation works on its enhancement should be noted.

3.1 Main macro-barriers of the development of e-commerce in Azerbaijan, including regulations, the inertia of companies, and the underdevelopment of the IT industry

In macro- and microeconomic environments, digitalization boosts efficiency and creates effective marketing tactics. The subsequent actions are being carried out by utilizing e-commerce technologies with greater effectiveness. 1) expanding the traditional production areas; 2) introducing fostering mechanisms; 3) fortifying the establishment of a sustainable economic system; 4) quickening the pace at which social and market infrastructure is being created; 5) forming novel, competitive production areas; 6) widening opportunities for exports; 7) building investment cooperation between local and state governments. While the list of merits is quite long, for a developing country, the smooth adoption of the mentioned factors is expensive and timely, which contradicts the nature of the benefits.

Firstly, a significant contributing factor to the sluggish progress of e-commerce in Azerbaijan is the minority of individuals that uses plastic cards (Haciyeva, 2021). About 80% of residents receive plastic cards in order to pay their salary and pensions. However, most individuals use plastic cards to get cash out of ATMs. Ignorance of the plastic card usage guidelines and a dearth of awareness-raising initiatives disturbs e-commerce. Plastic cards are seen in the current day as a means of restricting the flow of current and incorporating e-commerce. From this angle, the growth of e-commerce and its proportion of total trade turnover will be influenced by local awareness raising activities.

Figure 8:



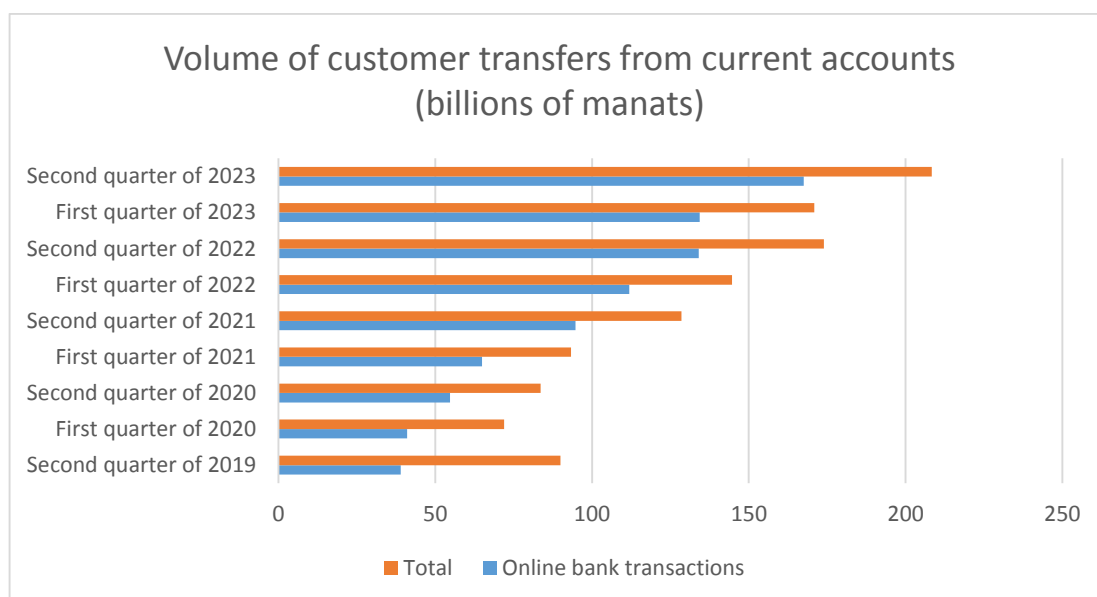
Source: *Central Bank of the Republic of Azerbaijan (2024)*

<https://www.cbar.az/pages/stats-monthly?language=en>

From Figure 8, while the amount of online bank transactions is growing, it should be acknowledged that the reason behind it could be the overall growth in number of customer transfers. Continuing with the idea, in the second quarter of 2019, the difference between two

variables was 7.1 million compared to 26.6 million in the second quarter of 2023. Despite the gap, from the second quarter of 2021, online transactions escalated rapidly from 19.3 million to 31 million, and this trend upholds to these day. Volume of customer transfers from current accounts shows opposite results. Based on Figure 9, the variations from online bank transactions and total declined as the years passed by. For example, taking into account the same time period as we did with Figure 3, in the second quarter of 2023 the difference was 40, 9 billion manats with the second quarter of 2019 being 50.9 billion. To summarize, there is a continuing improvement in online bank transactions in terms of customer number and volume of customer transfers, however, the area of number of customers transfers from current accounts in online bank transactions should be targeted in order to close the gap with total. In other words, while there are positive indicators about turning to cashless system and implementation of card payment into daily lives, there is still room for improvement.

Figure 9:



Source: *Central Bank of the Republic of Azerbaijan (2024)*

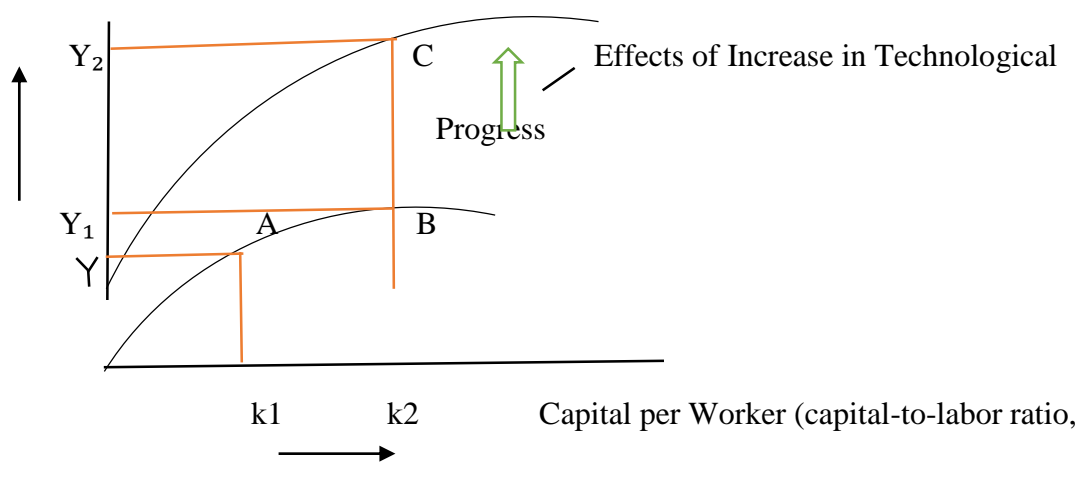
<https://www.cbar.az/pages/stats-monthly?language=en>

Next, cybersecurity is a leading obstacle to e-commerce. While there are some countries, such as Switzerland, Denmark, Australia, the USA, the UK, and Canada, the remaining portion struggles to prevent leaks, breaches of personal information, pirating, and other complications. Azerbaijan is putting forward efforts to diminish issues with websites; however, they are still present. Consequently, the traffic of online purchases is not as stable as it could be, as customers do not completely trust the system and the safety of their personal information. To contribute to the problem, the undersupply of IT specialists worsens the prevention strategies that the government could propose. This shortage, in addition, hinders the development of e-commerce, as IT specialists are one of its pillars.

Talking about the job market, the effect of digitalization on employment is debatable. GDP and unemployment move in opposite directions, according to Okun's rule, which suggests that if GDP increases as a result of e-commerce, the jobless rate falls (Mankiw & Taylor, 2014, p. 680). As observed below, labor productivity increases with technological advancements, which in turn has a positive effect on GDP.

Output per Worker (Labor Productivity)

Figure 10:



Source: Mankiw and Taylor (2014) from the book *Economics 3rd edition*

However, the online economy only benefited a small segment of the population who were able to adapt to changing circumstances and pick up novel competencies; others, on the other hand, found it difficult to find suitable employment due to their restricted skill sets. To demonstrate, in Azerbaijan, family owned or private smaller shops without a website or any social media activity prevail. As the preferences of the majority change to online shopping, the owners of those shops would have to demonstrate initiatives or lose their profits. Moreover, in the majority of cases, creating a website from scratch is not included in the budget of their companies, which further deteriorates the situation due to a lack of funds. On the other hand, businesses such as online courses, food delivery, delivery of clothes and products, and reservations are escalating and earning a huge amount of profit.

The inertia of companies should not be overlooked either. The mindset of refusing alternations and avoiding new rules and norms is extremely common in enterprises. Creating new concepts and management methods at various stages of the construction of an online shopping site is likewise fraught with challenges. The situations that exist now cannot be described by conventional methodologies and views. Decision-making is hampered as the indicators and criteria of the recently established field are produced and pertinent data is not gathered. As a result, fresh strategies had to be created to address and explain the gaps that exist in the present management domain as a consequence of complex logic assessments.

Applying to developed and developing countries, e-commerce integration with other technologies presents “digitally transformed” organizations with exciting possibilities that may lead to corporations supporting employment structures with fewer highly qualified staff members and fewer routine duties. Since barriers to job availability would occur in particular labor markets to meet demand, such changes might result in prolonged joblessness. In addition, the largest percentage of newly created professions do not pay enough to face the current economy and inflation. Therefore, people would wait for offers that satisfied their desires in order to

increase their income. As a result, frictional unemployment would also be exacerbated by this circumstance.

On the other side, big data analysis is one of the primary issues with the deployment of emerging technologies. Currently, big data is the foundation for the use of contemporary ICT tools for e-commerce. To offer clients a personalized experience, for instance, they used artificial intelligence to evaluate different customer data, creating a distinct database for the progress of each order. Implementation of e-commerce also gets increasingly complex and costly as an outcome of the daily volume of data that is required. Since the majority of this data is unstructured, gathering it becomes a challenging task, and the volume of data makes it challenging to evaluate using normal software. Highly advanced analytical techniques are thus required in order to obtain knowledge-useful information- from huge amounts of data that facilitates decision-making. To address the issues of big data processing, storage, and analysis, contemporary technologies that offer larger memory capacities and improved computational powers must be applied.

While being a small interruption, the value of duty- free products that people may import is limited by the Cabinet of Ministers' resolution on August 22, 2020, from \$1,000 to \$300 each month (Hajiyeva, 2021). If the consumer makes purchases beyond that quantity, value-added tax will apply. Naturally, those who favor internet shopping and experience financial difficulties during a pandemic will be restricted by such selections. The inadequate quality of service and exorbitant cost of Internet packages are two further issues caused by the absence of regulation of Internet providers' operations.

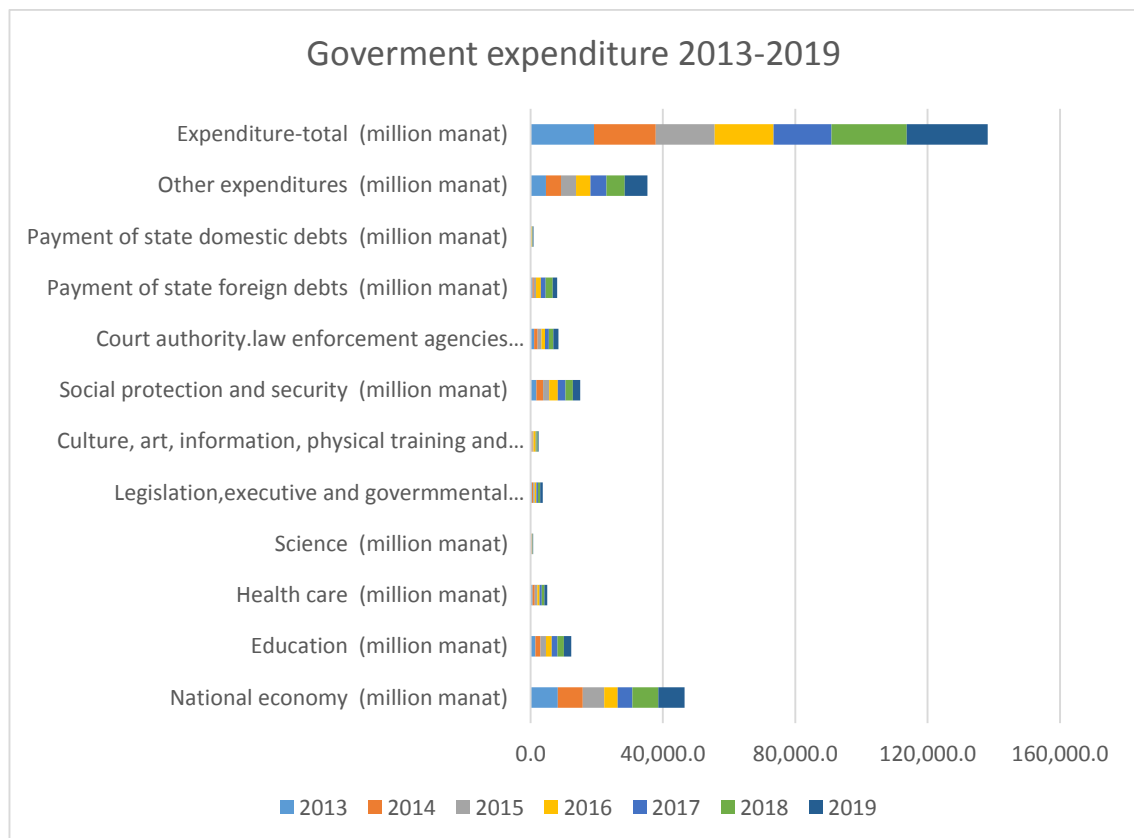
With the listed considerations, it can not be denied that the immediate interaction made possible by electronic commerce can enhance products and services. The ability to provide clients with details about goods via online electronic booklets or buying guides is one of the primary advantages of e-commerce. In a world where it is becoming increasingly difficult to differentiate

products, life cycles are transforming into shorter ones. Shortly, e-commerce offers a chance to promote trademarks and give potentially novel techniques that are restricted around the clock. Nevertheless, similar to the majority of developing countries, this process is not fully optimized, and the time that modifications require is under question.

3.2 Government policy on promoting e-commerce in Azerbaijan

Being conscious of present rise of cash economy in Azerbaijan, which prevents e-commerce transactions from running smoother, strategies of government toward budget expenditures are supplemental to the issue.

Figure 11:



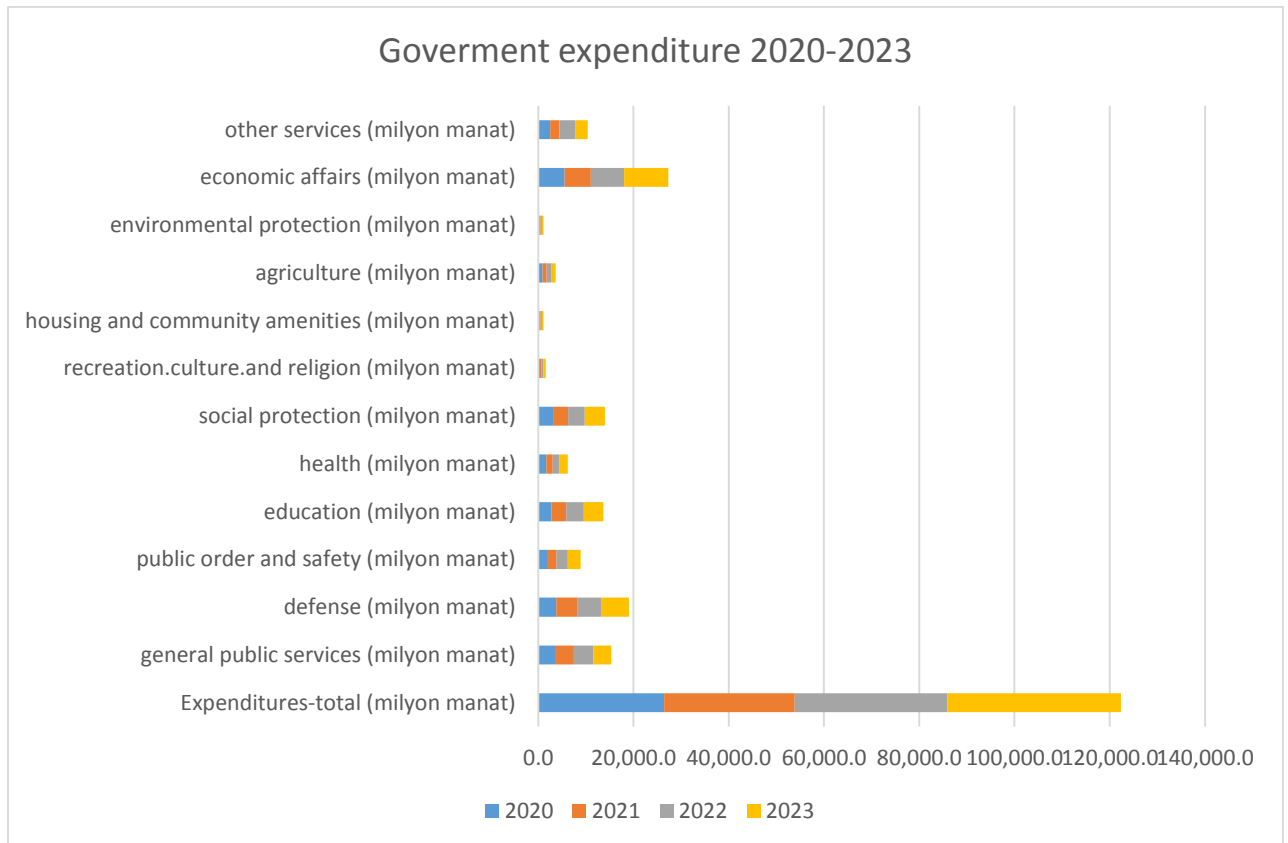
Source: *The State Statistical Committee (2024)*

<https://www.stat.gov.az/?lang=en>

Looking at the presented data from Figure 11, total governmental expenditures decreased before and after oil bloom collapse until 2017. Still, as noted previously, excessive subsidization in

Azerbaijan continued taking lead. In 2018, budget spending climbed by almost 30%. Analyzing following years, expenditures escalated further. The reason for diversion of two graphs is the difference in focus on other areas in these two periods. Nevertheless, the fact that immoderate spending barriers private sectors, including e-commerce, from potential changes and improvements remains.

Figure 12:



Source: *The State Statistical Committee (2024)*

<https://www.stat.gov.az/?lang=en>

Understanding the situation, in general, for technological improvement, the government tirelessly strives to mitigate the underlying causes of the challenges. The goal of the State Strategy for Education Development is to assist in the transition of businesses involved in colleges and universities into centers of education, research, and innovation (Ibrahimova et al., 2019). The phase was officially endorsed by the president of Azerbaijan as the “National Strategy for Information Society Development in Azerbaijan for 2014-2020” and was accepted

on April 2, 2014. In order to carry out the national plan, the ministry will serve as the directing body. Reaching the country's potential for prosperity, making the most of its current resources, and enhancing governance practices in the era of advanced technology are the objectives of the national strategy.

The International Telecommunication Union, the European Union, and UNESCO have provided insights and recommendations that are incorporated into the proposed approach. Building an information society and enabling individuals in the nation and the government to effectively utilize its resources is the primary goal of the strategy, which also aims to promote the expansion of ICT and sustainable socioeconomic, cultural, and economic growth. Cultivating and bolstering the academic and technological capacity in the field of innovative technology, raising the profile of "e-government" and ICT, bringing ICT infrastructure and services up with global requirements, and enhancing information security and human resources represent a few of the strategy's key objectives. The national policy places a high priority on boosting exports of ICT-related goods and strengthening competitiveness.

As an inclusion to the effort, Azerbaijan is part to the 2001 Budapest Convention (CAREC, 2021). Aligning with its legal framework, the nation forbids specific computer-related actions in a manner akin to those found in the majority of CAREC nations, under its penal code. It is unlawful to gain illegal usage of "law-protected computer information" in the vent that harm is done, according to the Criminal Code of the Republic of Azerbaijan. Still, it does not appear to encompass solely investigating without stealing (copying and downloading) any data. If the offense is carried out by a team, by an official acting in the course of his statutory responsibilities, or against a computer that is a vital component of the public infrastructure, a harsher punishment is applied, in addition to illegality of distributing viruses.

Moreover, due to a large balance of payments shortfall in the area of computer and information services, Azerbaijan may not have fully realized its capabilities in the advancement of applications for IT. Technology businesses in Azerbaijan receive support from several institutions that house social entrepreneurs' incubators. Startups affiliated with a few telecom companies also work on creating mobile applications for business owners.

Not limiting on institutions, the government makes large investments in technology, strengthens the computer network, and broadens the entrepreneurial setting. There are crucial factors driving Azerbaijan's economic and e-commerce development. As mentioned previously, the Central Bank of Azerbaijan started the Instant Payment System (IPS) in pilot mode, referring to the rules of "the State Program on Expansion of Digital Payments in the Republic of Azerbaijan in 2018-2020." The purpose was to promote digital payment technologies throughout the nation and strengthen the availability of payment services. Achieving the goal would contribute to e-commerce, as it functions on the basis of online payment.

To interfere with the problem of a shortage of IT specialists, the government is putting weight on technological subjects in the school curriculum. By doing so, the students would be attracted to the related fields, and in the next decade, an increasing number of technology enthusiasts would aim to be professional IT specialists.

Witnessed in the paragraphs, big and small-scale projects are directed toward enhancement of e-commerce. Even though the first seeds of these efforts could be observed, prolonged strategies and plans should be devised.

Discussion

To brainstorm on the information above, it is undeniable that e-commerce is growing with the movement toward a technology-oriented world. In order to not lag economically, countries have to match the requirements of the present, and Azerbaijan is included in that list. Secondly, based on the statistics from the literature review, it could be noted that the demand of citizens for

online purchases and Internet activities is rapidly increasing. Businesses are trying to reform their strategic plans and align with the preferences of those consumers. There are, however, complications with the complete transition to digitalization. Firstly, concentration on oil industry while neglecting others leads to issues with industries such as e-commerce. A shortage of IT specialists, the inertia of companies, an underdeveloped cybersecurity system, and the ambiguousness in influence of digitalization on the job market are obstacles to the full acceptance of e-commerce.

Targeting the issue with resources curse, as observed with the countries such as Kazakhstan and Russia and their export variety, it could be implied that deviating from or diminishing the focus on oil industry benefitted their e-commerce ranking. Similar conclusions could be drawn from the fact that after oil bloom collapse, e-commerce started to escalate in the country.

Alternatively, Azerbaijan could implement reforms such as decreasing taxes for online business owners as Kazakhstan did.

Furthermore, organizations and governments are motivated to integrate e-commerce for several reasons. To begin with, when it comes to enterprises, the structure and, overall, workflow transformed into more accommodating toward the interests of customers. Efficiency, production expenses, accessibility, and accountability, which are crucial components of success, sharpen the competitiveness of businesses. Furthermore, areas such as marketing and logistics changed with the virtual format, as previous methods did not bring enough profits. Speaking of profits, due to the improved transparency of companies with the adoption of e-commerce, brand recognition and loyalty reached new levels. Not only well-established corporations but also small and medium-sized businesses, or even start-ups, benefitted, as it was easier for them to escape company inertia and operate according to the principles of digitalization. Moving to a larger scale, the situation with the global trade of Azerbaijan can benefit from e-commerce. The nation is earning world recognition by investing in non-oil sectors and collaborating with other countries for a digitalized and sustainable economy.

Surging opportunities: e-commerce provides potential for the occurrence of novel business ideas and formats, economic diversity in various industries compared to concentrating on oil production, and the expansion of the number of countries that Azerbaijan collaborates with. Even though these possibilities require heavy investment and elaborate long-term planning, the positive effects on the economy dominate the complications. To conduct a deeper analysis, sectors such as clothing, jewelry, and home items could be purchased online. Compared to current restaurants, owners can save on the cost of renting, and waiters by focusing only on the delivery business. Moreover, tourists who were scared of issues that could arise with their visit in terms of housing, tickets, and other activities that prevented them from traveling, are encouraged by e-commerce and its availability. This could attract specialists from various fields, contributing to the economic diversity of Azerbaijan.

Conclusion and recommendations

To reach the goal of the paper, an analysis of the present condition of e-commerce was conducted. To begin with, existence of correlation between resource curse and e-commerce could be stated based on detectable increases in e-commerce after oil boom. A significant improvement in focus to non-oil industry was detected, particularly beneficial one being trade and transportation. Nevertheless, while the government puts extensive efforts into the enhancement of e-commerce in terms of education, and various projects such as “Digital Trade Hub,” “National Strategy for Information Society Development in Azerbaijan for 2014-2020,” “the State Program on Expansion of Digital Payments in the Republic of Azerbaijan in 2018-2020,” and much more, the success of e-commerce in Azerbaijan remains vague. Despite this fact, in contrast to a decade ago, significant improvements in relation to the demand and supply of e-commerce were highlighted. Consequently, the future of e-commerce in Azerbaijan depends on the continuation of those efforts and the implementation of new approaches and solutions to the problem.

As an example, referring to SWOT analysis, discovered strengths and opportunities should be underscored, and the degree of threats and weaknesses undermined.

1. Primarily, several policies in government should be scrutinized. Following the lead of Kazakhstan, feasible tax relaxations, removal of value-added taxes, creation of funds for investment of start-ups and similar operations could enhance e-commerce. Probable bottlenecks in terms of subsidized economy should be handled with diversification of investment in various industries. Reductions in governmental expenditures and cash transactions would further improve the situation. By only doing so, this process would still face complications. Strategies would run smoother if they are accompanied by transparency. In general, continuation of efforts toward non-oil industries in order to break resource curse and more rational investment policies have a chance of bringing e-commerce to new levels in Azerbaijan.
2. From the discussion part, opportunities in new company structures, tourism, and international relations are sectors in need of investment. For the purpose of redeeming weaknesses and threats, a focus on the IT industry of the country is mandatory. On a smaller scale, the government should not be stopping on providing motivation for high school students through the means of education system. Concentrating on citizens who are already practicing IT in some sense and creating different programs and scholarships in order to enhance their professional skillset could also have its merits. To be specific, free training contracts with an agreement to work in the undersupplied IT areas would bring initiatives for learning professional skills. Cybersecurity problems, which are another barrier to e-commerce, could also be diminished by acquiring that method. Informed employees would know how to strengthen the system in order to avoid breaches, leaks of information, and pirating. Alternatively, if the punishment for the anti-online security actions were severed, hackers would hesitate to disturb consumers and sellers. Changes in IT industry could also target smoother transition into cashless

systems. Next, as a solution for the inertia of companies, small funds for e-commerce enterprises could be created, offering incentives for movement away from traditional ideas.

3. Even if abovementioned problems are handled, lack of awareness in population toward these issues prevent these policies on being effective. For example, older generation focus heavily on cash transaction, overlooking card payments. Alternatively, preference of business owners leans toward physical stores without even owning a website. With students, preference of other career paths instead of IT sector hinders the process.

Overall, there is a potential for development of e-commerce in Azerbaijan, as a rising demand for these sectors could be observed. Implementing suggestions and conducting further researches on the issues is recommended.

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