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Structural Transformation and Export Performance in Georgia: Is There a Need for the New Industrial Policy?

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Abstract: Structural transformation is a widely debated research issue because of its ties with productivity, labor distribution, incomes and other facets of economic development. It is well explored in developing country settings. There are also studies that give thorough analysis of the issues in developed economies. As for the transitional countries the focus of economic policy-making and research has mainly been on the economic and institutional reforms that aim at transition to functioning market economy. Studies that would give a clear understanding of how these reforms have contributed to productivity growth across sectors, their upgrading and shift from low to high value added activities are scarce. These countries also are missing from industrial policy debates. To fill the gap the present paper analyzes Georgia's economic transformation through the lenses of export performance and discusses the need for new industrial policy.

Georgia has been following a trade-centric approach to development (marked with reforms targeted at export-led growth, trade liberalization, trade facilitation and trade agreements as key policies). The potential to diversify exports and increase sustainable employment will be evaluated through the lenses of the new industrial policy. The data on sectoral value-added, sectoral employment shares, sectoral expenditure shares and sectoral net export shares of total GDP will be applied.

Key words: structural transformation, export, trade, trade policy, new industrial policy, Georgia

JEL: M2

Introduction

Structural transformation is a topical research issue because of its close ties with productivity, labor distribution, incomes, in/equalities and other facets of economic development. Many aspects of structural transformation are very well explored in developing country settings (Africa, Latin America and Asia). There are also studies that give thorough analysis of the issues in developed economies, such as UK, USA, the EU countries, Australia, etc. The issues of structural transformation in transition

economies are mainly studied in the context of market reforms and the process of transition of their economic structures to functioning market economies, while inter-sectoral and intra-sectoral transformations in resource allocation, productivity and the related qualitative changes in growth and development are under-explored. Transitional countries are also missing from industrial policy debates.

International trade might be a channel of structural change contributing to the common transition path. Explaining links between

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trade and structural transformation can help better understand the drivers and consequences of that process in small open economies, which normally depend heavily on trade. Additionally it will be instrumental to understanding the role of trade policies in structural transformation that can bring positive welfare outcomes in terms of growth, income and productivity.

The goal of the paper is to analyze Georgia's economic transformation through the lenses of export performance and discuss the need for new industrial policy. As a result of intensive structural, regulatory and economic reforms Georgia has moved to an upper-middle income economy rank. Despite important progress, productivity and exports remain low, while unemployment and poverty are still high. Georgia has been following a trade-centric approach to development (marked with reforms targeted at export-led growth and trade liberalization, relying on trade facilitation and trade agreements as key policies), but it continues to export raw materials and agricultural products. Obviously, free-trade agreements have not contributed to the development of new sectors of the economy, while half the labor force is self-employed in low value-added sectors. These issues make us switch attention from institutional reforms to structural transformation in order to understand the processes of industry upgrading, productivity growth and the challenges of transition from low value-added to high value-added activities.

Literature review

There are several studies that focus on structural transformation and industrial policy issues in the context of transition economies. Libman (2008) explores structural transformation in Kazakhstan and also analyzes its links to trade specialization in the case of Moldova. Cerovic et al (2014) show that the most important change in transitional countries concerns the share of industrial output in GDP, which is found to be one of the most important factors of growth after the initial phase of reforms. The authors also give suggestions on the appropriate industrial policy for those countries. Comunale & Felice (2019) assess trade related determinants of structural change covering several East

European transition economies. Lekashvili (2020) analyzes new industrial policy as a means of formation of firms by the state, their aggregation, support of innovations and competitive advantages focusing Georgia's open economy settings. Despite the availability of these sources, in transitional countries structural transformation/ industrialization/ economic development has not been the main focus of policy-making and research; The attention has been directed to comprehensive economic and institutional reforms aimed at transition to the functioning market economies and industrial policy has also been a missing element in the transition process (Cerovic, 2014).

Theoretical literature such as Tregana (2008) and Sen (2016, 2019) is much richer about how structural change can contribute to developing economies moving up the income ladder and catching up with the developed countries,. Structural transformation is essential for economic development, a process which may involve benefits from movements of factors of production across sectors, product upgrading, penetration in new markets and/or acquiring new know-how.

A solid background for the research into the topic is provided by comparative advantage based theories. Countries generally export those goods where they have a comparative advantage. Incorporation of the ideas about the endogenous nature of comparative advantage into the debates on the role of industrial policy in structural transformation and export makes it clear that there is a space for government actions to help firms to upgrade and show better performance.

A number of authors have argued that a country's comparative advantage is not static and it evolves over time. Grossman and Helpman (1991) develop the idea on endogenous comparative advantage referred to "dynamic comparative advantage" in the literature. Dynamic comparative advantage relies on the advantages that an economy can potentially achieve in the long run. It might arise from learning by doing, adoption of technologies, or, more generally, technological change. If an economy produces a good for which it does not have a static comparative advantage, with time it might eventually gain a dynamic comparative advantage because domestic firms would be able to reduce

production costs and become more competitive on global markets, thanks to technological change. Selective trade and industrial policies to induce specialization in sectors where an economy currently lacks a comparative advantage, but exhibits a large potential for productivity growth relative to its trading partner, may be welfare improving for the economy that imposes them Redding (1999).

Another type of comparative advantage related to the concept of latent comparative advantage (Lin and Monga, 2010). It refers to an industry in which the economy has low factor costs of production but the transaction costs are too high to be competitive in domestic and international markets. Firms will be viable and the sectors will be competitive once the government helps the firms overcome coordination and externality issues to reduce the risk and transaction costs. To identify latent comparative advantage, Lin and Monga (2010) propose to look at the goods produced for 20 years in growing economies with similar endowments and a per capita income that is 100 per cent higher than in the economy that is being analyzed. Among these goods, one may give priority to those with existing domestic production. Government should support structural transformation by identifying and removing the constraints limiting competitiveness in these industries. If there are no firms producing these goods in the economy, a range of interventions, such as attracting foreign direct investment and cluster development, can help trigger structural transformation.

Another strand of theoretical literature which encompasses the drivers and determinants of structural transformation is related to global value chains. Together with the increased complexity and fragmentation of production global value chains and global production networks have developed at a large scale. Countries need to master one or a few stages of production of a certain product to be part of global trade (Baldwin, 2012). Tasks in which countries specialize define the share of value that countries add, and consequently the income and employment generated through those tasks. Hence, whether a country

supplies critical high-tech components or is responsible for assembly makes a huge difference for structural transformation and development (UNCTAD, 2015).

Methods and data

Structural transformation can be studied using a broad range of measures and indicators and there are several comprehensive datasets available, such as Economic Transformation Dataset (ETD) and GGDC GVCs dataset, but Georgia is not on the list of countries covered. Therefore scattered data from various sources such as UNIDO Competitive Industrial Performance Index; ILO Employment Statistics, World Bank World Development Indicators, UNCTAD Eora Database on GVCs and Georgia's Statistics Office have been collected and indicators calculated.

The study mainly relies on desk research and statistical analysis methods. The indicators on the patterns of exports and GVC participation, sector value-added, sector employment shares, sector export shares of total GDP, etc. are applied.

Georgia's Economic Characteristics, Structure of Value added and Employment

Georgia is an important case study of the challenges faced by middle-income countries in pursuing structural transformation. During the last decades there were a number of positive shifts in Georgia's economy. Macroeconomic conditions had success manifested by a stable economic growth over the period of 2011-2021, which accounted average 4 percent annually in Georgia. The benefits of growth has been translated into the improved welfare indicators. According to the World Bank estimations the poverty rate measured by the international upper-middle-income line (US\$5.50 per capita per day, 2011 purchasing power parity) declined from 59% in 2011 to 42% in 2021¹ in Georgia. The contribution of net exports (both goods and services) to nominal GDP growth was negative, but shows an increasing trend. The average growth in exports during 2015-2017 was increasing thanks to the newly established AA/DCFTA with the EU and a boost in tourism

¹ <https://www.worldbank.org/en/country/georgia/>

revenues. Remarkably, in 2018 Georgia welcomed 8.3 million tourists and collected USD 3.2 billion from exporting tourism services.

Georgia has long been one of the most liberal and trade-open economies in the world. It has

unilaterally liberalized both its exports and imports, eliminating most tariffs and other regulations, already in the early 2000s. It accessed WTO in 2000 and further major trade liberalisation steps have been undertaken since 2006. It maintains bilateral free trade agreements (FTAs) with eight CIS

countries, it also has a FTA with Turkey and EFTA. The Georgia-China Free Trade Agreement was concluded in 2017. There are minimal export restrictions in terms of export taxes or licensing. Georgia does not provide export subsidies, and does not have any export financing instruments.

Georgia has moved to the upper-middle income group, GDP per capita (5042 USD) and the overall economic reforms and structural transformation can be assessed as growth-enhancing. These positive shifts were reflected by the structure of the economy. Looking at the GDP patterns and employment data across sectors

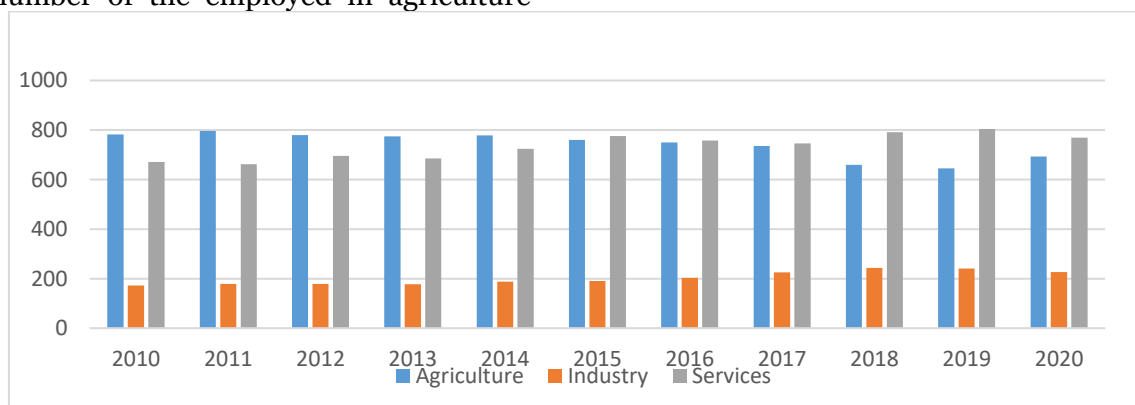
Table 1 Sectoral Employment and Value added in Georgia, 2020

Sector	Value added (% of GDP)	Employment (percent of total employed)
Agriculture, Forestry and Fishing	6.1	19.83157
Manufacturing	21.1	11.37469
Construction	11.7	6.863486
Wholesale and retail trade; Repair services	13.3	15.14
Transportation and Storage	6.7	6.369517
Real estate	6.5	9.014629
Public administration, social defence	5.0	7.608338
Human Health and social work	4.9	4.98969
Education	4.1	11.74186

Source: Author's compilation based on Georgia's Statistics Office data

Generally countries on their path to economic development are declining the shares in agriculture, have inverse U-shaped manufacturing and an increasing share of services in GDP and employment. Georgia follows the same path. Through the last decade the number of the employed in agriculture

decreased, while services employment was on the rise. In 2021, agriculture contributed around 6.12 percent to the GDP of Georgia, 21.82 percent came from the manufacturing and 59.4 percent from the services sector.



Source: ILOSTAT and World Bank data

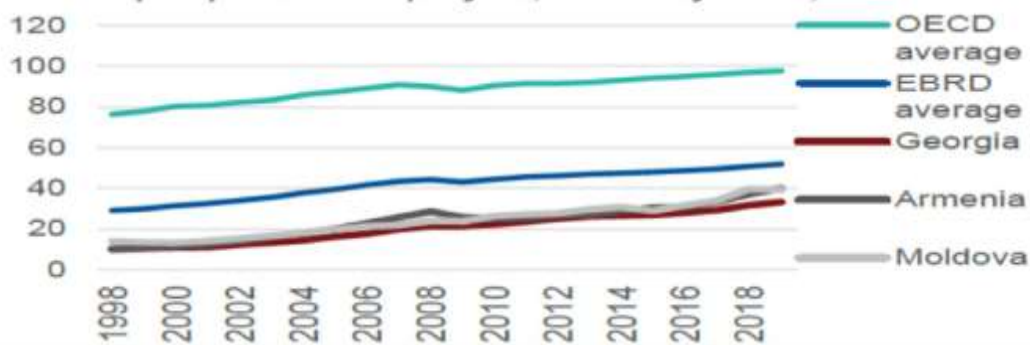
Figure 1: Changes in Employment by sector, 2010-2020

Comparing the shares of employment with the value added across sectors it is evident that services sub-sectors with the highest shares in employment create less value added than industry and manufacturing sub-sectors. The

data indicate to the structural and productivity related problems. There is a sharp contrast between salaries by the types of economic activity, which demonstrates low productivity in some sub-sectors. Highly paid sectors are:

financial intermediation, transport and communications, construction, electricity, gas and water supply. There are low salaries, and accordingly low productivity in the following sectors: education, hotels and restaurants, agriculture, hunting and forestry. The sectors of transport and communications, financial intermediation, construction, energy, real estate and manufacturing were distinguished as targets of direct investment flows. It should be noted that these sectors are also

distinguished by high level of productivity per employee. In parallel with productivity growth, these sectors also have high wages. Despite this international comparisons indicate that the ongoing path of structural change does not guarantee labor allocation from low to high productivity activities. In Georgia labor productivity measured as GDP per person employed is not only below the OECD average, but also is less than in Moldova and Armenia.



Source: The Conference Board Total Economy Database

Figure 2: GDP per person employed, PPP adjusted, Thousand US dollars

Labor allocation from agriculture directly to services, where productivity gains are lower than in manufacturing is a characteristic of structurally under-developed economies (Sen, 2019);

The phenomenon is studied in developing country context and needs further analysis in Georgia as a possible threat for future development and growth. In services there has not been a sustained trend towards upgrading and towards stronger integration with other sectors. Overall there has been growth in relatively lower-value added services, including travel and transport services. Although financial services and telecommunication and information services

have also grown in value added, they have only recorded modest increases in employment, and have not played a sufficiently supportive role in growth of high productivity industries.

Economic structure and Export Performance

The features of the economic structure are reflected by the export patterns and performance. In absolute terms export has been increasing through the last decades and due to liberal trade regimes and active participation in regional trade agreement export markets have been diversified.



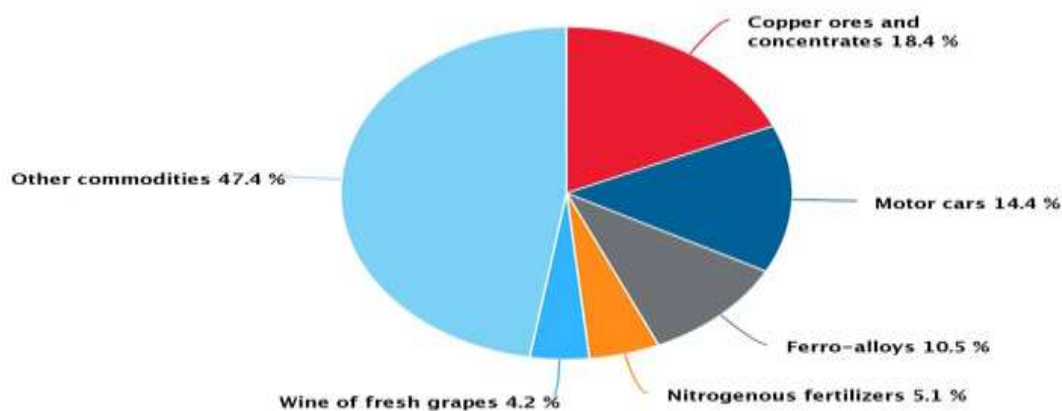
Source: Georgia's Statistics Office Foreign Trade Portal

Figure 3: Georgia's Export Dynamics

However despite positive shifts in geographic patterns, product diversification

remained low and it has not improved over time.

Share of major commodity positions by exports in January–September 2022*

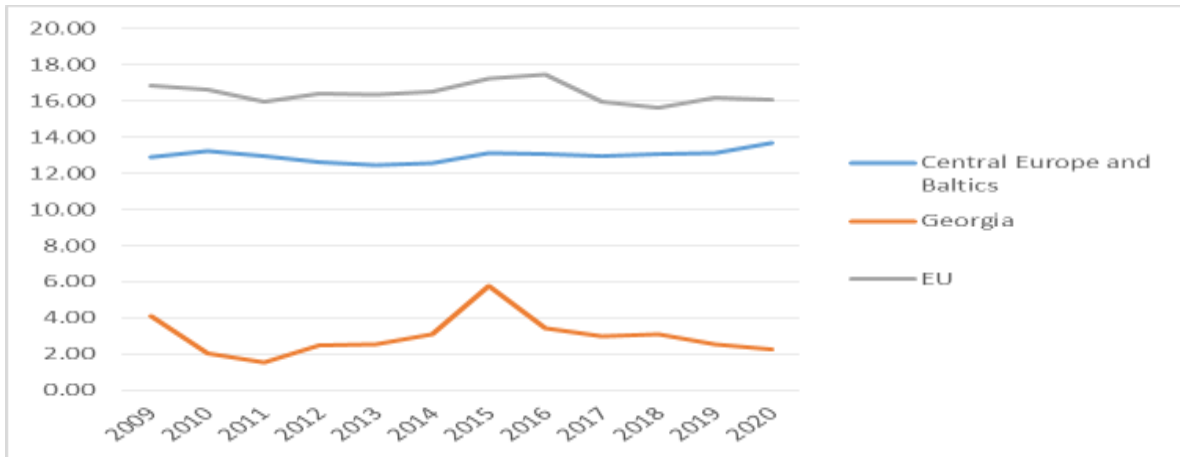


Source: Georgia's Statistics Office Foreign Trade Portal

Figure 4: Major Export Commodities

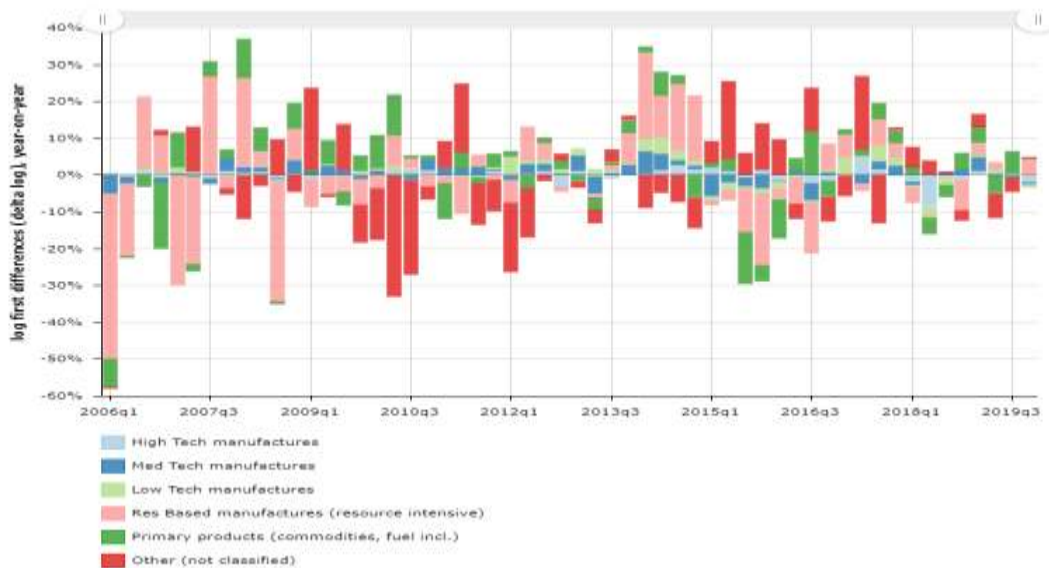
In 2020, Georgia exported a total of \$3.92 billion, making it the number 124 exporter in the world. During the last five years the exports of Georgia have changed by \$1.15 billion (from \$2.77 billion in 2015 to \$3.92 billion in 2020). In 2022 copper ores and concentrates reclaimed the first place in the list of top export items, equaling 18.4% of total exports. The share of motor cars (re-export) in the total exports amounted to 14.4 %. The Ferro-alloys exports occupied the third place standing constituting 10.5% of the total exports. These commodity groups followed by nitrogenous fertilizers by 5.1% and wine of fresh grapes by 4.2%.

Georgia's export performance, including its low economic diversification is a result of weak manufacturing performance and low productivity in agriculture. Manufacturing export structure is concentrated on food and drinks. Minerals, along with basic metals and basic chemicals, remain almost as important in the country's goods exports today as they did two decades earlier. A deeper analysis of the export complexity reveals some positive shifts in diversification into new products (according to the Atlas of Economic Complexity data 31 new products have been added since 2005). However skill and technology intensity of manufacturing production remain extremely low.



Source: World Bank data

Figure 5: High Technology Exports (% of total manufactured exports)

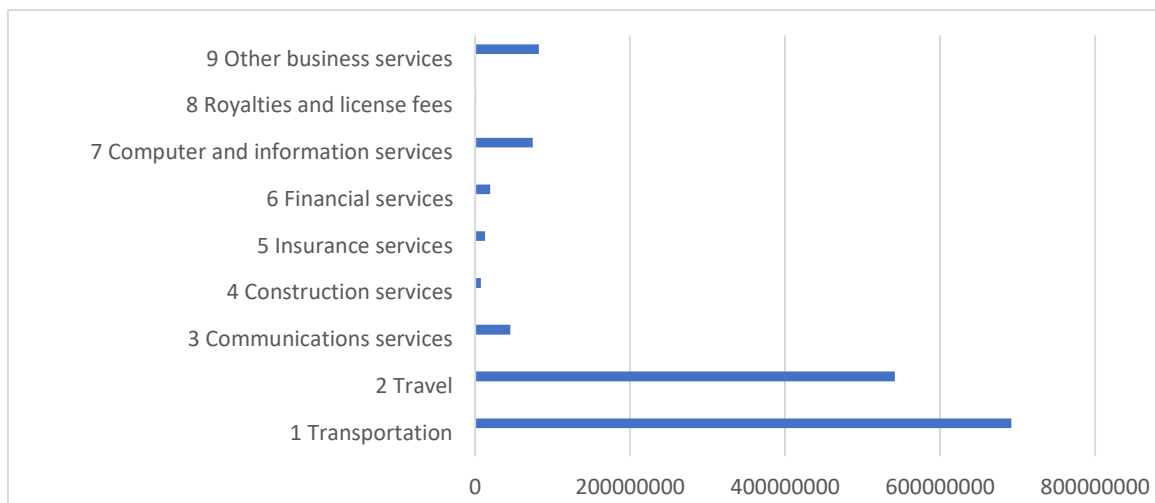


Source: World Bank Export Competitiveness Database, <https://mec.worldbank.org/builderpush>

Figure 6: Adjusted market share decomposition of exports by tech, Georgia

As shown by figures 5 and 6 export is dominated by primary products and low skill manufacturing. Technologically export reveals dependence on resource based manufacturing.

Comparison with peers in Europe Georgia shows one of the lowest share of high-tech exports in total manufacturing exports. The indicator has even fallen since 2015.



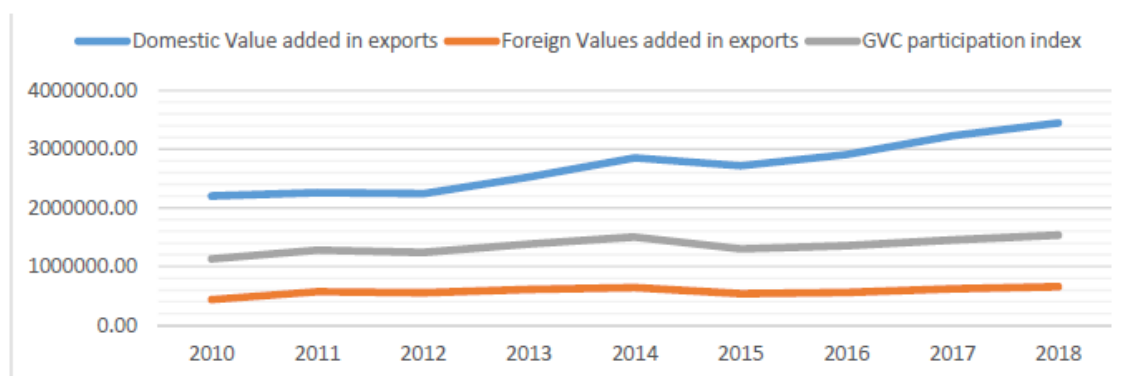
Source: UN COMTRADE <https://comtrade.un.org/data>

Figure 7 Export of services by major types (US \$), 2020

The major category of services exports are travel and transportation. These two categories are followed by other business services. After the sharp fall caused by the COVID pandemic, services exports increased again in 2021. It amounted to USD 2.5 billion, which is 61.2% higher than in 2020. Imports amounted to USD 1.8 billion, which is 25.2% higher than the previous year. The positive trade balance meanwhile was USD 724 million. In 2021 travel reclaimed first place in the list of top export types of services in Georgia, amounting to USD 1.2 billion (48.9% of total exports). Travel is followed by transport services, totaling USD 822.6 million (32.3%); and telecommunications which totaled USD 215.9 million (8.5%). Although services play a major role in positive export dynamics and contribute to positive revenues,

under the crises and uncertainties travel and tourism flows are highly volatile and the dependence on these category of export does not ensure resilience and reliability of growth.

Movement of an economy to more profitable and/or technologically sophisticated capital and skill-intensive economic niches can be assessed by means of its participation in global value chains. It involves a selective form of specialization in tasks rather than in the entire production process. Global value chains (GVC) enable companies and economies to access international markets, new technology sources and improve productivity. However those economies which lag behind technologically face the risks to remain locked in in lower value-added activities along the value chains.



Source: Casella, B. , R. Bolwijn, D. Moran and K. Kanemoto. [Improving the analysis of global value chains: the UNCTAD-Eora Database](#). 2019. [Transnational Corporations 26\(3\)](#). New York and Geneva: United Nations

Figure 8: Georgia GVC participation

GVC participation of Georgia decomposed by domestic value added and foreign value added in export reveals low integration into the international production processes. Both the amount and the growth rate of domestic value added in export are well above foreign value added while the overall GVC participation index does not show any significant improvements during the last decade. Many middle-income countries and Georgia too face the difficulty of moving into more technologically sophisticated segments of GVCs. When they join GVCs focusing on the production of low-value added parts and components there are risks of weakening productivity growth. Integration into GVCs is beneficial if it improves export sophistication known as “product upgrading”. The basic channels of these improvements are process, product, functional and inter-sectoral upgrading (Andreoni & Tregana, 2020).

Georgia needs greater GVC participation in order to have more gains for local labor and capital and get better access to international knowledge spillovers and technology transfers.

Industrial Policies for Structural transformation and Better Export Performance

As we can see from the above analysis Georgia’s largest goods exports are in low complexity products, agriculture and minerals. Also, Georgia’s export growth in the past five years has been driven by services. Structural transformation from low to high productivity sectors, industrial policy and future diversification will be key sources of economic growth. Although the overall path of structural transformation has moved in the right direction, the speed of structural changes has been notably low. The fastest change was observed in the agricultural sector, where the share of employment dropped and the share of employment in services increased, but Georgia is still very far away from the structural composition of successful nations. To catch up with developed countries, Georgia should speed up structural transformation by diversifying industrial exports (moving away from raw materials export); creating a comparative advantage in tradable sectors, such as manufacturing and services sectors.

It is noteworthy that the definition of "industrial policy" has changed since the 1980s: if before it considered direct intervention of government into the economy, the new industrial policy means promoting the business environment for formation of firms, their agglomeration, innovation and competitive advantage in the open economy. Traditional industrial policy has deliberately used such "rigid" means of management and control as money (financial incentives) and law (regulations). Over time, "soft" tools have been added to NIP approach, such as: Public-Private Dialogue (PPD), Public-Private Partnership (PPP), although the limitations of these approaches have been revealed and the requirements for governmental interventions are changing. It is necessary to find and use innovative forms of intervention.

Since the 1990s, industrial policy has focused on enhancing competitiveness, and in recent years there has been an open focus on environmental (sustainable, green) industrial policy. The United Nations Industrial Development Organization (UNIDO) coined the term - Inclusive and Sustainable Industrial Development (ISID). Today, industrial policy is considered the set of policies aimed at structural changes and are grouped as: 1. Competition policy (antitrust regulation, protection of property rights, compliance with international trade rules, etc.) and 2. Policies that help to improve the ability of "firms" and "individuals" to win a competitive battle (research and technology policy, education and training, linkages with firms and universities, etc.). Education and science must be coordinated with the governmental bodies and entrepreneurs for the purpose of success of industrial policy.

Industrial policy should be coordinated with fiscal, monetary, environmental and natural resources, agrarian, competition, public procurement and education, research and technology, defense and health policies.

Conclusion

Georgia and other middle-income transitional countries need to focus on structural transformation issues in order to identify weaknesses of structural change and possible threats to economic development (such as middle income trap). Such risks can

become the discussion issues for further research. Our analysis shows that Georgia faces the issues of dependence on low-productivity and low-tech intensive manufacturing and also relatively low-value added services. Lack of export diversification and limited participation in global value chains are also serious concerns for the country. The gap between Georgia's average productivity level and that of the Europe and other advanced economies is still significant.

Considering the above industrial policies should address the weaknesses of structural changes in Georgia and its tools should be focused on comparative advantage enhancement through production, technological and organizational capabilities building and innovation and technological change. In addition, Georgia needs policies for improved GVC integration, local production system development and industrial restructuring.

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Strategic Planning and Decision Making as Key Components of Economic Digital Gamification

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DOI: <https://doi.org/10.37075/SPM.2022.2>

Abstract: The article examines two forms of gamification with elements of digitalization in the preparation of students of economic specialties and proposes a third form of game learning in 3D-virtual reality. The components of strategic planning and the decision-making process, which can be effectively used in the process of teaching/learning economic disciplines on IT-platforms and in 3D-simulators in the conditions of university business incubators, are analyzed. Attention is drawn to the redistribution of the role of the human factor/capital as a result of the rapid development of smart-robots and artificial intelligence.

Key words: strategy, planning, decision making, economic, digitalization, gamification, virtual reality

JEL: A20, O34,C88

Introduction

A strategy can be considered a master plan of action to fulfill the company's goals. A good strategy always depends on tasks and resources. When tasks are clear, they are prioritized sequentially for execution. Only after that is it possible to calculate the resources that are necessary to perform tasks in order to achieve the best result.

In this context, planning as a management function is actually figuring out what the company will do next. It is like an attempt to look into the future development of the company. The future is an image in the human mind, consisting of a field of certainty, knowledge, and ideas about the company. For example, how many products can be produced and sold at what price?

Planning is a combination of the fields of certainty and uncertainty that forms an image of the company's future.

The situation in the world changes every day, so the field of uncertainty and risks basically increases under such conditions. There are only two options for the company:

- Continue as before and hope for better times;
- Take risks and look for growth opportunities.

This is an evolutionary process. However, market conditions do not forgive naive optimism. Therefore, in order to predict any change, you need to create its concept, then set tasks, find solutions for each of them and implement them. Such an algorithm. Then you need to consider the result.

Strategic management doesn't work when it is inconsistent. It is necessary to constantly analyze the results of the implementation of changes for timely adjustment of the strategy. Modern entrepreneurs must have both the imagination to invent alternative courses of

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action and the logic to analyze their consequences.

The continuous strategic process and strategic thinking of the manager is the compass and map in the hands of the leader.

Literature review

Many interesting publications on the topic of digitization in the form of simulation processes in education in business centers and business incubators are devoted to modern Ukrainian scientists and researchers, such as V. Pazdriy, O. Trubey, O. Ferchuk, E. Malyshko, O. Hrybinenko, A. Notarina etc. Simultaneously, student training on simulators using IT platforms and computer programs takes the form of educational and competitive dialogues with the goal of progress and victory. At the same time, without training in strategic planning/forecasting/thinking and the ability to make effective management decisions, it is impossible to acquire practical competencies qualitatively. Under the condition of digital gamification, in 3D-virtual reality with imitation of live (and not just text-readable) dialogues, and the passage of risky and problematic situations, the authors of this scientific study guarantee to achieve a high level of success. It is time to pay as much attention as possible to these aspects/concepts of modernization/transformation of higher education.

Methodology

A complex of formal and informal modeling and forecasting methods in strategic planning, as well as operational and applied analytical and prognostic methods (systemic ones), comparative analysis, and theoretical generalizations, were used in the development of this scientific article.

Results and discussion

Effective strategic planning is the foresight and adaptability of a leader combined with consistency and discipline, which are the keys to success. The components are purpose, planning as a function of management, and strategizing.

The goal in the context of this study is the expected future result and a benchmark for the entire company. When the goal is clearly defined, the team experiences not only uncertainty but also anxiety.

Setting a goal is quite a difficult task that requires strategic thinking. To make everything clear and specific, you can't do something that raises the question "why?". Only by understanding the desired result can you bring it into order. At the same time, it is critical to control the situation expertly. Planning in the context of this study is forecasting the future.

The SMART (Specific, Measurable, Achievable, Relevant, Time) technology works well for digitization strategy. It is a very powerful tool for planning the future, because the meaning/heart of it is intelligence.

Specific – very exact goal that immediately indicates the result ("rye is sold, not apples").

Measurable – the goal should lead to a measurable result ("sell 5 tons of rye").

Achievable – the goal should be achievable, not fantastic ("we sell rye because we have its remainder").

Relevant – relevance of the goal ("right now there is a demand for rye").

Time – the goal should be limited in time ("sell rye in 3 days").

According to the logic of SMART, in order to achieve the result in the specified time, you need to formulate a goal, describe the way to achieve it and determine the necessary tools and resources. Each SMART criteria specifies and clarifies a goal.

Goal setting algorithm:

- specify the expected results (S);
- determine target indicators and select evaluation criteria (M);
- estimate and predict the achievement of the result (A);
- justify the necessity and relevance of the goal (R);
- determine the terms of achieving a fully formed goal (T).

SMART strategy is a universal language for guaranteed coordinated teamwork of the company.

Under the conditions of digital gamification, students are trained in the successful use of this tool. It is impossible not to say that digital gamification is an emotionally engaging cognitive action/event. The difficult and routine become very quickly easy and accessible under any conditions of a busy life.

The best business goal is the answer to the question: "What exactly is it that we all do not

like so much that we need to change something?". The effectiveness of tactical planning and strategic vision in problem solving depends on the clarity and specification of the answer.

Fig. 1 shows the components of the digital economy, which are simultaneously involved in the transformation processes of any country for the better.



Source: [1]

Figure 1: Modern components of an effective digital economy

When we talk about new technologies, we are actually talking about new, more effective ways of solving problems, which in turn are directly proportional to correctly made

decisions. Modern components of planning and successful decision-making are clearly demonstrated in fig. 2.



Source: [2]

Figure 2: Cyclicity and interdependence of planning processes and decision-making in conditions of digitalization

Digitalization received a rapid development leap during the Covid-19 pandemic, but not thanks to the coronavirus, but in spite of it.

Fig. 3 shows the key components of a digital strategy.



Source: [3]

Figure 3: Key components of digital strategy

In 3D-VR, split-second decision-making scenarios are possible. At the same time, there are no ready-made template answers, but there is an interaction with virtual characters/surround/environment that creates and is felt as a real world.

In terms of 3D-VR features, it's impossible to stop at the passage of extraordinary and exciting situations without taking risks. This concerns functional obligations at work in dangerous conditions and in the realities of life (including during military operations). At the same time, competencies for achieving positive outcomes and job satisfaction are developed because the brain adjusts to setting priorities differently in the face of threats and unpredictable situations.

It is proposed to consider the application of these economic categories in the training of entrepreneurs – in a game form – with the help of interactive digitization tools.

Computer (i.e. digital) gamification is used with great utility to develop teamwork competencies, in which strategic planning and the ability to make effective decisions should manifest themselves. In this context, "gamification" is about engaging students in the thinking process while they think they are having fun.

Let's consider 2 games. The first one – economic experiment "Business for social

good". It's conducted on a computer simulator using Excel formulas and spreadsheets.

A student group was involved, for example, of twenty-eight people, which is divided into seven teams. All of them are businessmen from four different cities. The main condition is to spend no more than twenty dollars on various public goods in each round. Each round has its own requirements. Bonuses are received in one round, fines in the other. Each round is independent of the other and in each round they are given twenty dollars (whether they won or lost previously isn't important).

Public goods are created conditionally in four cities: A, B, C, D. For example, in A – Amsterdam, B – Berlin, C – Copenhagen and D – Dublin.

Another principle of this experiment: each community lives individually and they don't overlap.

A product that is a public good is distributed evenly solely within its city. Not between the cities! The public good is distributed equally among all businessmen of their city.

Fig. 4 demonstrates 3 stages of this game. A contribution to a public need is profit, added value – that's why we multiply by a factor of one point six. Then we distribute it among all residents. At the end of the round, we count the results.

3 Principles of a Social Good Business



Source: [3]

Figure 4: The main principles of the experimental game "Business for social good"

For example, there are four influential businessmen in Amsterdam who contributed a total of thirty dollars. We multiply by one point six, and then divide equally by four and get twelve dollars of social profit. They contribute differently, but receive the same.

Everything is graphically described here. This is a very easy example, but we can see the great interest of students to it.

Another principle: every businessman doesn't know where other entrepreneurs are located and doesn't have the opportunity to choose a common strategy. In the second part, entrepreneurs get to know each other and can communicate in order to raise the standard of living in their city together.

The goal is to make more money in five to ten rounds.

In the first round, it is announced that the city is experiencing criminal deterioration and that voluntary contributions are needed to restore order. Each entrepreneur decides for himself: how much money he can provide to save the situation, from zero to twenty dollars.

Then everything is added up, multiplied by one point six, divided by four and returned to entrepreneurs in a larger amount, but equally.

It has been announced that in order to establish a powerful fire brigade in the city, contributions ranging from zero to twenty dollars are required. But! At the same time, a check is made and, when less than six dollars have been deposited, there will be a fine in the

amount of the amount that he didn't pay up to six, multiplied by four.

We provide the reward conditions. One player is chosen randomly and his contribution is multiplied by four. He gets a bonus.

The next round is similar to the third one, but now we are talking about the hospital, which is a public good.

The next round is similar to the one before it. However, we are talking about the construction of a theatre, which is a public good.

During the conclusion, the consequences of the game are discussed. The goal was to show the role of the public sector in the life of an entrepreneur. This is inherent in every highly developed city and country.

Specific situations involving different types of entrepreneurs are also being discussed. For example, socialists, rightists, realists, and neutrals.

The next day successes are calculated and it is visually shown how much was given to the public good. It also discusses the effectiveness of each round when helping the community was successful. This game allows you to conduct thorough analysis and develop important team competencies. These are their high contributions and their interaction. This game helps to understand an important life truth: when the more you give – more is

returned. That is, a lot of questions are being worked out.

As a result, you can clearly see the results of students' teamwork (Fig. 5-8).

The second game. Sometimes these games are played outdoors – according to different rules, but with the use of digital tools.

According to the rules, you need to divide into four to six people groups and choose roles in order to develop certain competencies.

Navigator – is responsible for the skillful movement of the group and has a detailed online map of the city. His phone must have a common location with the teacher and his task is to optimize the route between points.

0	6	6	4	5	20	20	20	20	20	297
10	6	6	19	10	20	20	20	20	20	267
10	6	6	12	10	20	20	20	20	20	290
0	8	6	5	10	20	20	20	20	20	289
9	11	14	7	7	1	6	26	13	20	
12	8	16	8	8	1	5	15	8	10	216
5	7	7	10	10	0	6	15	8	10	246
4	6	6	0	0	1	0	20	8	20	218
1	6	6	0	0	0	5	15	8	10	263
10	14	14	15	10	32	18	32	32	32	
12	10	16	10	8	20	10	20	20	20	253
3	6	6	3	6	20	10	20	20	20	295
10	10	7	9	10	20	15	20	20	20	277
1	8	6	15	2	20	10	20	20	20	287

Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 5: The table of team results

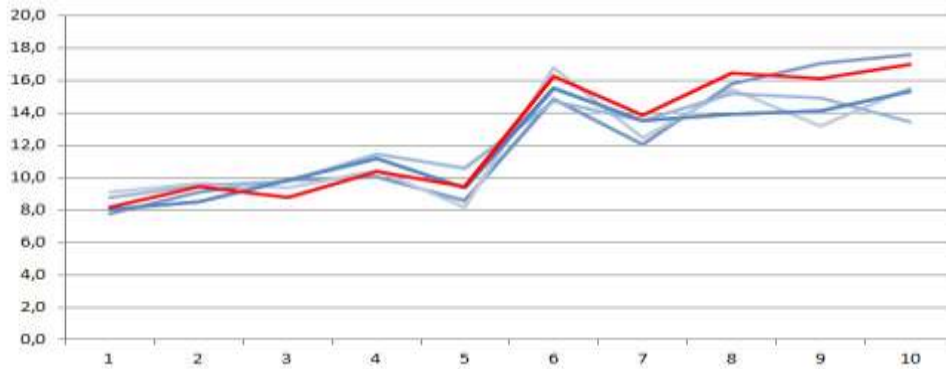
28	24	24	32	29	32	32	32	32	32	297	297	0
18	24	24	17	24	32	32	32	32	32	267	267	0
18	24	24	24	24	32	32	32	32	32	274	290	-16
28	22	24	31	24	32	32	32	32	32	289	289	0
17	23	18	19	19	20	21	31	25	30	223	216	7
24	24	27	17	17	21	20	31	25	30	236	246	-10
25	25	28	27	27	20	26	26	25	20	249	218	31
28	25	28	27	27	21	21	31	25	30	263	263	0
18	24	18	25	22	32	28	32	32	32	263	253	10
27	28	28	32	24	32	28	32	32	32	295	295	0
20	24	27	26	20	32	23	32	32	32	268	277	-9
29	26	28	20	28	32	28	32	32	32	287	287	0
20	20	20	20	20	20	20	20	20	20	200	0	200
20	20	20	20	20	20	20	20	20	20	200	0	200
20	20	20	20	20	20	20	20	20	20	200	0	200
20	20	20	20	20	20	20	20	20	20	200	0	200

Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 6: The table of team results

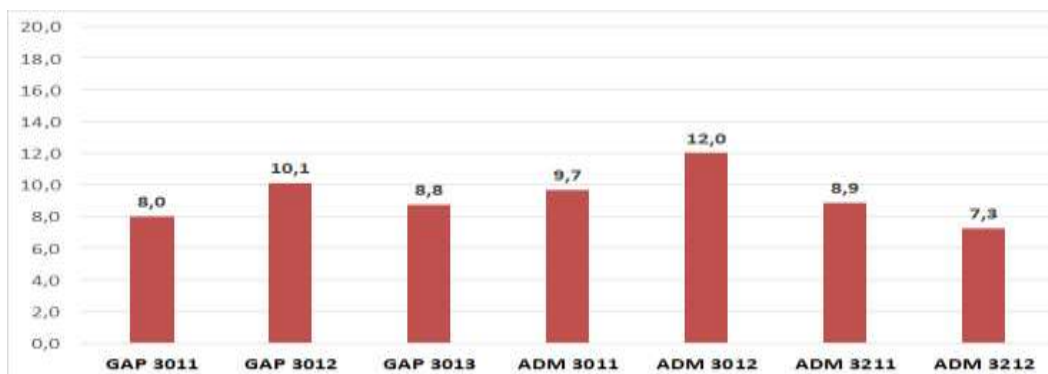
Archivizer – takes care of documenting all events, mainly in the form of photos and file uploads to the cloud on Google Drive. His task is to document the performance of group exercises using photos, videos, etc.

Accountant – manages the group's cash flow; the group has a set number of coins; records all expenses; and looks for cost-effective ways to save money.



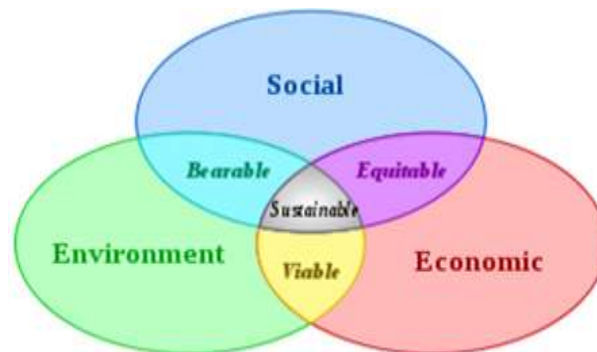
Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 7: The graph of team results



Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 8: The chart of team results



Source: [2]

Figure 9: Key components of economic gamification

The central/key role is the Leader – coordinates all the work of the team, is responsible for decision-making and has a decisive voice in conflict situations, and also discusses difficult points with the teacher.

According to the rules of fair play:

- Game participants don't interfere or help other groups.

- Participants move around the city on foot or by public transport. They don't use cars, bicycles, scooters, horses, etc. They have up to two coins with which they can buy additional time to complete tasks.



Source: [1]

Figure 10: Types of control during digital gamification

When everyone returns – the results are summed up. Here it is shown that the results are also processed in the form of Excel tables, charts and graphs. The computer program itself counts the winners.

This slide shows a variant of the group's movement route as an example. Not long one. One kilometre two hundred meters. It's laid out with certain points to solve certain problems.

Concerning the necessary equipment:

- each participant of the game must have several A-4 format cards and a (functional) pen or pencil;
- The "Archivizer" of the group uses a Google Drive account (<https://drive.google.com>). The results of teamwork are collected in the corresponding catalog on the website.
- "Navigator" must have Google-Maps app installed on his phone. The phone must be charged and the «Navigator» must have a phone charger and/or power-bank.

- The guide/leader must have a QR code reader installed on his/her phone.

The placement of QR codes on poles, on trees, at bus stops, under bridges, which must first be found. Students map out a route and run – looking for QR codes to get tasks from the sites and think about their solutions. Coins are obtained for correct decisions, which are also used to buy additional time. It's very important.

Each student has a smartphone that can be used to locate the web page with the QR code where the task with the challenges is posted.

It's necessary to realize that the purpose of this game isn't only learning to navigate the terrain, but also learning to use non-traditional ways to overcome problems. The main principle is to cooperate as a team, so each individual has neither points nor money. Everyone has what the whole team has. One for all and all for one.

At the end of the game, the program also processes all results entered using digital tools. Examples of what it looks like are fig. 11-16.

2	6	2	6	10	20	10	10	12	20	284
10	15	6	20	10	20	20	10	10	20	232
20	20	7	8	13	20	12	10	0	20	260
4	6	20	9	1	2	11	12	0	20	298
12	11	10	13	13	32	32	24	31	27	
18	9	6	11	2	19	20	19	18	18	265
5	6	6	10	15	20	20	10	20	10	282
1	6	6	2	5	20	20	11	20	20	296
5	6	6	10	10	20	20	20	20	20	268
5	10	12	18	11	32	24	32	32	32	
0	6	7	9	6	20	15	20	20	20	283
0	6	6	15	10	20	15	20	20	20	276
8	6	11	10	1	20	15	20	20	20	287
5	6	6	10	10	20	15	20	20	20	265
16	18	18	14	21	13	20	19	25	18	
15	17	18	20	7	5	10	12	8	11	259
5	6	6	6	15	6	10	12	18	10	288
2	6	6	8	15	6	10	12	18	10	297
17	15	15	0	15	15	20	12	18	15	240
7,3	8,9	8,4	9,6	9,1	15,8	15,2	14,4	15,1	17,1	

Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 11: The table of team results

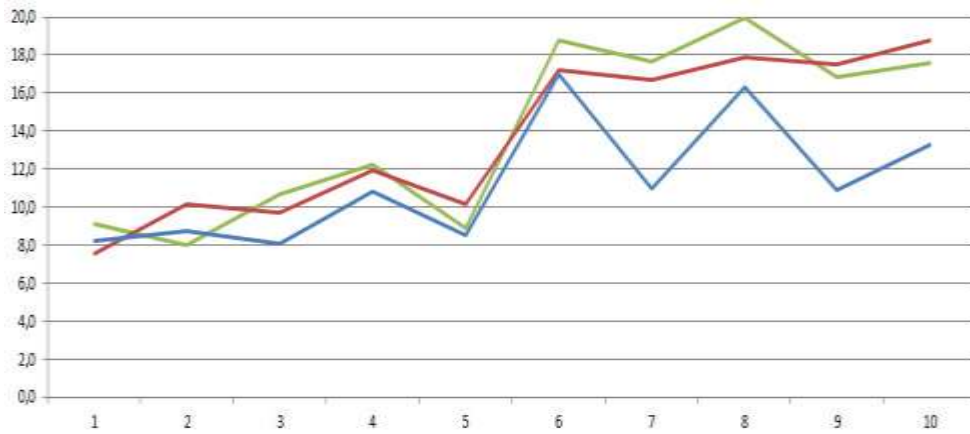
At the same time, team spirit and readiness for high competitiveness are well developed. Students must have certain competencies in order to effectively face challenges and have stable success in all spheres of life in the conditions of high globalization, when there is a constant fierce struggle for labor markets, raw material and capital markets. In these

economic games, the understanding of necessity, strategy, planning, human will and professional like-minded people comes into practice. Under the conditions of the digital economy, that is, when it not only consumes resources, but also creates them, development, competitiveness and innovation are transformed.

32	33	32	31	24	25	31	27	17	32	284	284	0
24	24	28	17	24	25	21	27	19	32	241	232	9
14	19	27	37	21	25	29	27	29	32	260	260	0
30	33	14	28	33	43	30	25	29	32	297	298	1
14	22	24	22	31	33	32	25	33	29	264	265	1
27	25	24	23	18	32	32	34	31	37	282	282	0
31	25	24	33	28	32	32	33	31	27	295	296	1
27	25	24	23	23	32	32	24	31	27	267	268	1
25	24	25	29	25	32	29	32	32	32	284	283	1
25	24	26	23	21	32	29	32	32	32	275	276	1
17	24	21	38	30	32	29	32	32	32	286	287	1
20	24	26	28	21	32	29	32	32	32	275	265	10
21	21	20	14	34	28	30	27	37	27	258	259	1
31	32	32	28	26	27	30	27	27	28	287	288	1
34	32	32	34	26	27	30	27	27	28	296	297	1
19	23	23	34	26	18	20	27	27	23	239	240	1

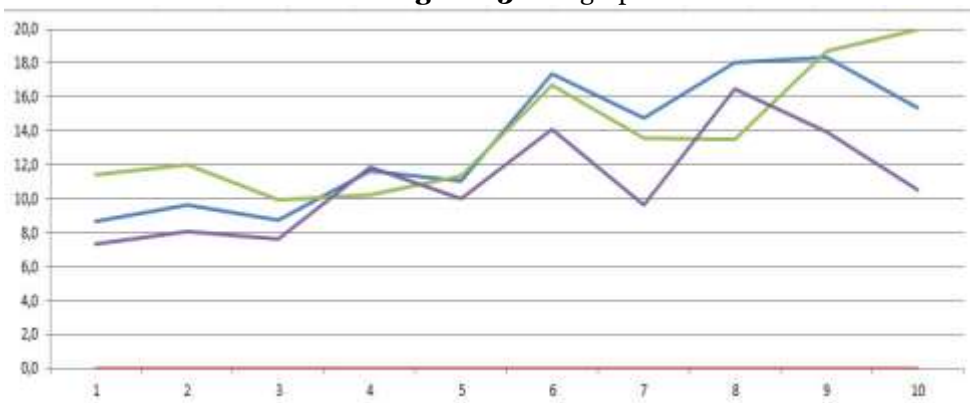
Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 12: The table of team results



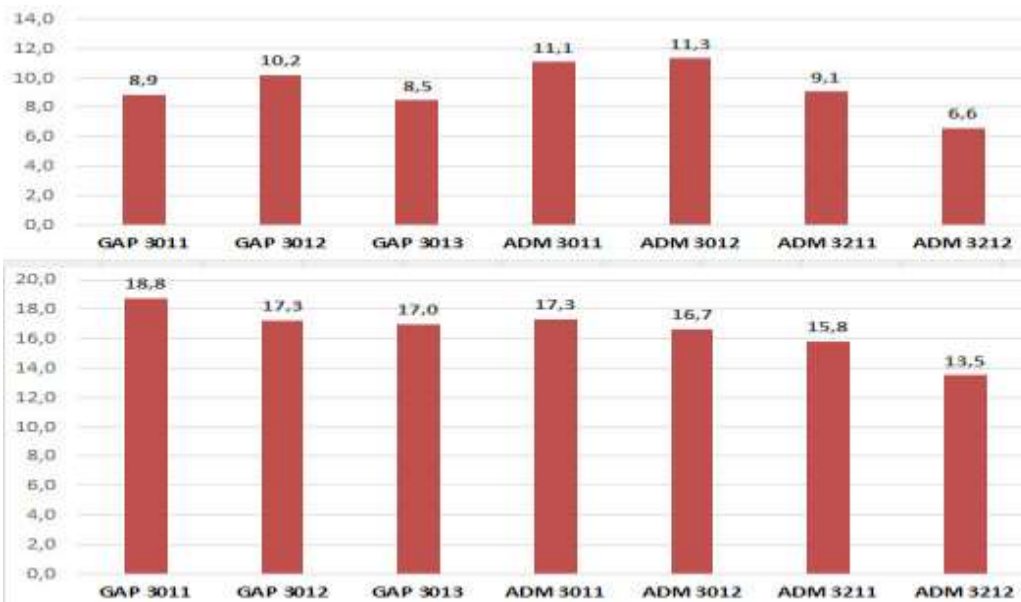
Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 13: The graph of team results



Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 14: The graph of team results



Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

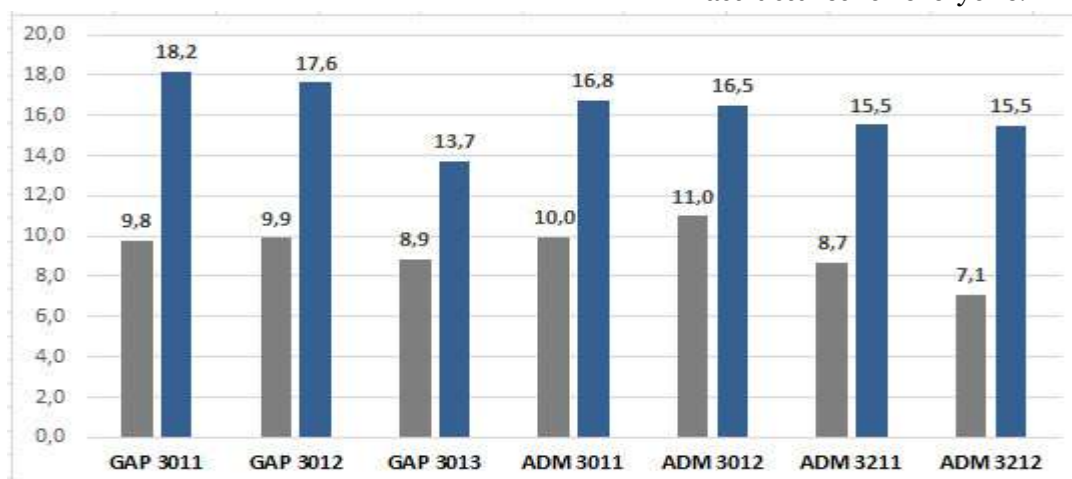
Figure 15: The graph of team results

In such games, students experience 3 key areas of digitization of economic processes:

- to motivate and stimulate business towards digitization;

- to encourage citizens to form a demand for digitization, to inculcate in them the vital need to use digital tools to improve the good;

- to create new powerful digital infrastructures for everyone.



Source: Jakub Glowatsky, the international postgraduate practical internship, September 19 – October 28, 2022

Figure 16: The chart of team results

Looking ahead, it is important to take into account the speed of digital technologies updates, because in fact it is this that opens up new opportunities in the new technological landscape.

In this study it is proposed to combine the two analyzed games into one using 3D-VR technology. This is the same computer simulation as in the first game, only using 3D. All running around and communication with team members take place in virtual reality. Thus, with the help of digital gamification, the competencies of a real virtual business are practiced. If students are taught today not according to Soviet methods and techniques, but with the help of modern digital technologies, then in the near future higher education will be transformed. And practical skills and abilities will no longer be developed during industrial internship, but during the last course of the university – in the form of a startup. Very quickly, the era of smart robots will supplant the teaching profession altogether, and all economic higher education will be transformed into the acquisition of practical-theoretical competencies by students

in business incubators, when instead of higher education diplomas there will be a bunch of various certificates at graduation. And we – scientists – should contribute to this and be open to changes.

An example of a SMART-exercise is offered as a practical component of this article.

Game «TRIP TO THE MOON». Time to complete the task: 25 minutes. You are a member of a group of astronauts sent on a research mission to the Moon. Your crew was supposed to land near a previously established stationary base located in the center of the illuminated side of the Moon. Because of the damage your space vehicle had to land in an emergency at a distance of about 190 miles from the base. During the landing, most of your equipment was completely destroyed, except for the 15 items listed below. Since the possibility of your experience depends on reaching the base, only the most necessary items have to be chosen on the way to the base. In order to do so, a hierarchy of usefulness of the items listed below in lunar conditions has to be established. The task is to determine the hierarchy of all items based on their usefulness

in the subsequent journey. The most important object should be placed to the first position, the second one should be placed to the second one, etc. up to the least useful object, which will be given the number 15. During making a hierarchy, no object can be omitted. No number can be assigned to two

different objects. You have 10 minutes to complete the task yourself. Fill in the column 2. Then solve the same task in a team. To do this, fill in the column 3 (in 5 minutes). Then solve the same task again on your own, having another 5 minutes for it. To do this, fill in the column 4.

Table 1: SMART-exercise «TRIP TO THE MOON»

Items	Individual decision	Group decisio	Individual decision	According to NASA	Difference between columns 4 and 5
Box of matches					
Food concentrate					
50 feet of nylon rope					
Parachute silk					
Portable heating unit					
Two 0,45 caliber pistols					
One case of dehydrated milk					
Two 100 lb. tanks of oxygen					
Stellar map					
Self-inflating life raft					
Magnetic compass					
20 liters of water					
Signal flares					
First aid kit, including injection needle					
Solar-powered FM receiver-transmitter					
				Sum	

Source: [2]

To fill in the column 5, you need to scan the QR code and find out the solution according to NASA.



Source: NASA web-site

Figure 17: NASA QR-code

You need to summarize the values of all the differences between NASA and human solutions and fill in the column 6.

Conclusion

- 1) Strategic planning and decision-making in the digital economy are highly interconnected and synergistically reinforcing processes.
- 2) The digital industry, like digital business, requires new approaches and new

thinking, which digital gamification helps to acquire easily, interestingly and fruitfully.

- 3) Various types of economic games, from performing tasks in open space with the help of digital tools to 3D virtual reality in business incubators, contribute to the deep learning of theoretical material in interactive and creative forms, and also develop all competencies for the successful advancement of university graduates in all areas of human life activities.
- 4) Team and role-playing games form not only leadership, but also humane qualities of character in young people, which are then necessarily reflected in their adequately socialized work in the team.
- 5) The speed of updating of digital technologies changes/modernizes approaches to student learning and forces higher education to be transformed in the form of abandoning Soviet methods and

methods of conducting lectures and seminar classes by transitioning to teaching on IT platforms, including not only in classrooms, but in business incubators on simulators.

- 6) The implementation of elements of cosmonautics/cosmography should be mandatory for progressive practices of the modern educational process, because it contributes to the formation of human consciousness of the new digital generation.
- 7) The era of smart robots is slowly but surely displacing many traditional professions, and higher education should be ready for this today, in case of stopping preparing students for specialties that are losing their meaning.

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Strategic Aspects in German-Bulgarian Business Relations in the Context of the Contemporary Economic, Pandemic and Geopolitical Challenges in Central and Eastern Europe

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Abstract: The article examines key economic dimensions of German-Bulgarian business relations in the context of contemporary economic, pandemic and geopolitical challenges in Central and Eastern Europe – macroeconomic parameters, assessment of the environment, state of companies, problems and risks, planned initiatives and the focus in the future investment intentions of Bulgarian companies in commercial and economic relations with Germany and of investors from Germany with business operations in Bulgaria. Based on the research, potential successful areas for the development of the German-Bulgarian trade and economic relations have been outlined and the strategic business opportunities of the companies in the conditions of a dynamic and highly risky environment have been formulated.

Key words: German-Bulgarian business relations, Central and Eastern Europe, strategic business opportunities

JEL: E3, O12, F18

Introduction

The success of international business ventures and the ability to achieve sustainability depend to a significant extent on the timely reactions of countries and companies in response to changes in the environment and intensive transformational processes to overcome emerging problems and challenges. In 2020, the world faced a new, unusual, first-of-its-kind challenge that

affected economies, populations and markets worldwide – Covid-19, which led to the declaration of a pandemic situation and caused an unprecedented intervention by states to deal with the situation. Businesses were seriously affected, logistics chains were disrupted, the free movement of people and goods was restricted, and in certain periods – even blocked, the health status of a huge percentage of workers deteriorated. Geopolitical changes,

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in turn, created problems that further worsened the situation, putting countries and economies at risk of being unable to do business in systems, environments and conditions known for decades. There is currently a turbulent restructuring of relations and reallocation of capital, a total breakdown in supply chains and an inability to carry out business operations at the familiar pace and scale, inflation and the cost of resources are rising, labour productivity is showing fluctuating indications in countries and industries, etc. In such an environment, the preservation and subsequent development of business relations among countries, especially with traditionally good parameters of economic operations, and taking advantage of players from different countries, acquire a significant role in bringing and benefiting from good practices, new knowledge and technologies, accumulated experience, the constructed tools to keep the companies on the market in a strategic plan, the use of the opportunities for the transfer/movement of capital between individual countries, the generation of benefits for the host country and of reverse positive flows for the country of origin or the foreign partner, etc.

Bulgarian-German economic relations have a long history, with its ups and downs, limitations and opportunities. Regardless of the fact that personal, business and cultural contacts between business representatives from the two countries have existed for a long time, the beginning of the political and economic relations between Bulgaria and Germany is considered to be the period from the accession to the throne of Alexander Battenberg. Subsequently, after the election of Ferdinand I von Saxe-Coburg and Gotha as Bulgarian prince, these relations were confirmed and further developed. After the 1990s, a new beginning of Bulgarian-German economic relations was set, and after the admission of Bulgaria to the European Union in 2007, new opportunities were added to maintain and develop the business partnership

between countries and companies, including facilitating the flow of information, administrative support and logistical provision for the establishment of contacts, the launch of new ventures and the transfer of capital, especially from Germany to Bulgaria. German-Bulgarian Chamber of Industry and Commerce (GBITK), established in 2004, fulfils a multi-directional intermediary role in the process of communication, provision of consulting/informational support, etc. of the German companies that have invested in Bulgaria, as well as of the Bulgarian companies that are in logistical and commercial relations with the German investors in the country.

The purpose of the paper is to present key economic dimensions of German-Bulgarian business relations in the context of the contemporary economic, pandemic and geopolitical challenges in Central and Eastern Europe – to outline the main macroeconomic parameters of Bulgaria and Germany for doing/overflowing business, to make a synthesised assessment of the environment, as well as a self-assessment of the companies about their condition, to identify the important problems and risks and, on this basis, to outline the current/future initiatives and investment intentions of investors from Germany with business activities in Bulgaria. Based on the research, potentially successful areas for the development of German-Bulgarian trade and economic relations are outlined and an attempt is made to formulate the strategic business opportunities of the companies in the conditions of a dynamic and high-risk environment.

Literature review

International relations are an attractive field for researchers. The authors focus on different aspects of them, defend different theses or launch specific projections based on case studies for individual countries or interstate relations. The influence of political and cultural factors has been studied as important dimensions stimulating or hindering the development of economic and trade relations between

countries; the effects of the action of these factors on foreign investments, etc. For instance, Damoliabc and Gregoria (2022) examine the degree of connectivity between political/diplomatic relations and cross-border mergers and acquisitions (M&A) activities in the European Union for the period 2001-2019, finding that private foreign investors concentrate mainly on high-tech firms, buying larger stakes in respective target companies. According to them, in most cases, political and cultural proximity enhances trade and foreign direct investment (FDI) flows (Damoliabc & Gregoria, 2022). Busse and Hefeker (2007) examined the effect of political risk and institutions on FDI flows to developing countries. According to them, the stability of government, law and order, democratic accountability positively influence the attraction and realisation of FDI. And vice versa – political risk reduces the inflow of mergers and acquisitions, as instability in the government of the host country is a prerequisite for potential risks of changes in the regulatory framework and business rules, and for lowering the expected return on FDI, etc. (Gassebner & all, 2020; Demir & Im, 2020; Nigh, 1985; Desbordes & Vicard, 2009; Desbordes, 2010, etc.). However, Demir and Im (2020) argued that good political connections and the functioning of multiple cultural institutions have a positive effect on bilateral trade and investment flows (Damoliabc & Gregoria, 2022).

Examining the effects of foreign investment and aid, their contribution to economic growth and their impact on inequality, Bornschie, Chase-Dunn and Rubinson (November, 1978) concluded that FDI leads to a deepening of inequality within the host countries, has a short-term positive effect on the relative rate of their economic growth, and in the long term the stocks of them cumulate a reduction of this rate. According to them, regardless of the geographical area, level of development and wealth of a country, there is a negative effect, much stronger in richer than in poorer

countries. Examining the effects of inward FDI on per capita income and the growth of US states since the mid-1970s, Nunnenkamp and Bode (June 2011) found that both quantitative and qualitative characteristics of FDI affect income and growth per capita, with higher employment resulting from inward FDI favouring income growth in richer states, while similar findings cannot be made for poorer states from capital-intensive FDI. According to them, the industry does not influence the established facts, and it can be argued that there is a weak relationship with and a small contribution of FDI in the convergence of incomes (Nunnenkamp & Bode, June 2011). Kokko and Gustavsson (2004) examined FDI in Sweden as a regional policy tool aimed at offsetting centripetal forces resulting from the liberalisation of international trade and investment, finding that FDI did not lead to a reduction in interprovincial disparities in income and development. There are other views of researchers. According to Ghauri, Strange and Cooke (April 2021, p. 1), for the dominant part of host countries, inward FDI brings positives in terms of output, employment and technology transfer. Potential host countries compete in their desire to be selected as a suitable destination, potential investors in the process of this competition seek to offer the most attractive projects, presenting themselves in the best possible light and launching expected subsequent mutual benefits.

Other authors study horizontal FDI as a part of multinational enterprise (MNE) activity. Krugman (1983) and Markusen (1984) developed the first theoretical models of horizontally integrated MNEs, and subsequently these models were supplemented and extended by a number of authors (Horstmann & Markusen, 1987; Markusen & Venables, 1998; Helpman et al., 2004; Sinha, 2010; Collie, 2011; Cieslik & Ryan, 2012; Becker & Cieslik, 2020; etc.). The first models of vertically integrated multinational enterprises were proposed by Helpman (1984) and Helpman and Krugman (1985). According to

them, FDI arose as a result of differences in the physical capital of workers between the country of origin and the host country. Later Zhang and Markusen (1999), and Markusen and Venables (2000) enriched these models.

Swain and Sadler (1994) explored state-market interactions in post-1989 Eastern Europe. They defined strategic directions in the context of the global market, highlighting inward investment in the automotive industry in Hungary and key investors. Becker and Cieslik (2020) studied the determinants of German direct investment in the countries of Central and Eastern Europe during the period 1996-2016. The results of their research show increasing activity of multinational enterprise (MNE) as the size of the country and the similarities between the countries increase. The difference in the share of the skilled labour force has no effect and no effect is reported. According to Becker and Cieslik, the distance between source and host countries has no effect, and trade costs for the foreign market are negligible. Rodríguez-Pose and Crescenzi (07 Oct 2010) examined the impact of innovation on regional economic performance in Europe. Based on a study of 25 EU countries, they concluded that the complex interaction between local and external research, on the one hand, with local and external socio-economic and institutional conditions, on the other, shapes the innovation capacity of each region, with proximity being essential for the transmission of economically productive knowledge, as diffusion is influenced by strong distance-reducing effects.

Methodology

Depending on the set goals and the accumulated empirical knowledge, the researchers outline an empirical framework of their studies and choose the specific methodological approach, the set of tools, etc., that they will apply. Using a Markov chain approach, Nunnenkamp and Bode (June 2011) examined the effects of inward FDI on per capita income and growth. Bornschier, Chase-Dunn

and Rubinson (November, 1978) based their studies on dependency theories of national development. Becker and Cieslik (2020) used the extended knowledge-capital model to identify the main reasons for foreign direct investment (FDI). Rodríguez-Pose, A. and Crescenzi, R. (07 Oct 2010) used multiple regression analysis for all regions of 25 European Union countries to establish the innovation capacity of individual regions.

When studying the development of the economy and trade, the choice of destination, etc., the authors examine the set of factors that have an impact, taking into account their specificity for the country of origin and the host country. Some researchers apply the gravity model of international trade, taking the economic size of the two countries as a positive factor and the geographical distance between the two countries – as a negative factor. This basic model is applied in various advanced variants that additionally include factors such as availability of resources, amount of costs, level of risk, level of the market, etc. The study of the factors can be systematized in different ways, distinguishing mostly the factors of political, economic, social aspects, etc. (Huang, 2007; Knill, Lee & Mauck, 2009; Bu-Qammaz, Dikmen & Birgonul, 2009; Yan & Li, 2015; Ly, Esperança, & Davcik, 2018; Kang, 2018). The specificity of institutional management, the established political contacts, the peculiarities of the connections, the implemented interactions, etc. are essential political factors affecting bilateral relations between countries. The gravity model of international trade is perceived as appropriate in the search for explanations for changes in the development of various foreign economic transactions (Fu, Yan & Hua, 2022, p. 2).

Chen and Li (2016) examined the influence of geographical, institutional, economic and cultural distance on location choice in international cooperation. Shi, Li and Chen (2016) analysed the influence of distance on MNE host selection decisions and create a national distance model. Blanc-Brude,

Cookson, Piesse and Strange (2014) confirmed empirically that economic distance can explain the location of FDI better than geographic and administrative distance. To study international relations, Li (2002) used the method of "event data analysis" and introduced a "conflict and cooperation model". Ma, Wei and Zhang (2014) adopted the key factor accumulation method (including eight key factors), which improves the comparability between different types of events and the consistency of results.

Within the framework of the present study, the emphasis is placed on the combined use of the set of scientific research approaches: historical, descriptive, systemic, structural, target, functional, cluster, etc. approaches. Based on them, the methodological and thematic framework of the empirical study is constructed. The following research methods were used: analysis and synthesis of information, documentary analysis, content analysis, secondary data analysis, comparison, expert evaluations, etc. to identify the main dimensions of German-Bulgarian business relations in the context of contemporary economic, pandemic and geopolitical challenges in Central and Eastern Europe. The main macroeconomic parameters of Bulgaria and Germany, the leading factors of the environment for doing business in Bulgaria from the positions of German investors and their self-assessment of the current state of their business are presented; summarised on the basis of the data, some problems and risks, current initiatives and investment intentions with destination Bulgaria, the potential areas for strategic development of the German-Bulgarian trade and economic relations in the conditions of a dynamic and high-risk environment are outlined.

Official data from institutions, organisations and structures related to the provision of official information and aggregated data based on nationally authorised units are used (the Council of Ministers of the Republic of Bulgaria, BNB, NSI, Eurostat, the Association of Industrial Capital in Bulgaria, the Federal Ministry for

Economic Affairs and Energy of Germany, the Federal Statistical Office of Germany, the Federal Employment Agency), Trading Economics, COMTRADE database on international trade to the United Nations, results of studies of the German-Bulgarian Chamber of Industry and Commerce, etc.

Results and discussion

Bulgaria is a member state of the EU with a population of 6 838 937 people (NSI, as of 31 December 2021), living on a territory of 110 994 km² (Council of Ministers, 2019). The population creates GDP in the amount of EUR 67 871 million (BNB, 2021), which on an annual basis shows a decrease of 4.2% (NSI, 2021). Government debt represents 25% of GDP (NSI, 2020) with 7.8% inflation (BNB, 2021) and a 21.5% share of the grey economy (Association of Industrial Capital in Bulgaria, 2021). The unemployment rate in the country is 4.5% (NSI, 2021), the average wage is 857 euros (NSI, 2021), and labour productivity is 51.4% of the EU average (Eurostat, 2021). According to data from the Federal Statistical Office of Germany (2021), the population of Germany is 84 079 811 people (as of 30 June 2022) and lives on a territory of 357 581 km². The German economy creates 3 570.6 billion euros with a growth of 2.9% on an annual basis. Inflation in 2021 is 3.1%, with a 9.5% share of the grey economy. The reported unemployment rate is 5.7% (Federal Employment Agency, 2021), with a labour productivity level of 103.2% compared to the EU average (Eurostat, 2021) and an average salary of 3975 euros (Federal Employment Agency, 2021). In the conditions of free movement of people, goods and capital, especially within the EU, part of the existing relations and dependencies between Bulgaria and Germany are due to the transfer of capital and realisation of FDI in Bulgaria by German investors. According to data from the Federal Ministry for Economic Affairs and Energy of Germany, the trade exchange between Bulgaria and Germany for 2021 is EUR 9.8 billion, 19.43% more than the previous year (The

German-Bulgarian Chamber of Commerce and Industry, 2022, p. 11).

Table 1 presents some main indicators shaping the economic macro-framework for

Bulgaria and Germany, and Table 2 – Bulgaria Exports to Germany and Bulgaria Imports from Germany by category and country.

Table 1: Bulgaria and Germany Indicators

Indicator	Last		Previous		Measure unit	Reference
	Bulgaria	Germany	Bulgaria	Germany		
Currency	1,97	1.01	1,95	1		Nov/22
Stock Market	591	13683	597	13666	points	Nov/22
GDP Growth Rate	0,8	0.3	0.84	0.1	percent	Jun/22
GDP Annual Growth Rate	3,96	1.2	4,23	1.7	percent	Jun/22
Unemployment Rate	4,2	5.5	4,3	5.5	percent	Sep/22
Inflation Rate	18,7	10.4	17.7	10	percent	Sep/22
Inflation Rate MoM	1,2	0.9	1,2	1.9	percent	Sep/22
Interest Rate	0	2	0	1.25	percent	Oct/22
Balance of Trade	-1849	8978	-673	300	BGN Million	Sep/22
Current Account	560	616	152	5404	EUR Million	Aug/22
Current Account to GDP	-0,4	7.4	-0,1	7.1	percent of GDP	Dec/21
Government Debt to GDP	22,2	69.3	20,7	68.7	percent of GDP	Sep/22
Government Budget	-4,1	-3.7	-4	-4.3	percent of GDP	Dec/21
Business Confidence	17,7	84.3	19	84.4	points	Oct/22
Consumer Confidence	-39	-41.9	-38,4	-42.8	points	Dec/22
Retail Sales MoM	0,3	0.9	1	-1.4	percent	Sep/22
Corporate Tax Rate	10	30	10	30	percent	Dec/22
Personal Income Tax Rate	10	45	10	45	percent	Dec/22

Source: Trading Economics, according to the United Nations COMTRADE database on international trade.

Table 2: Bulgaria Exports to Germany and Bulgaria Imports from Germany by category and country

By category				By country			
Exports		Imports		Exports		Imports	
Category	Value	Category	Value	Country	Value	Country	Value
Electrical, electronic equipment	\$1.09B	<u>Machinery, nuclear reactors, boilers</u>	\$970.72M	<u>Germany</u>	\$6.29B	<u>Germany</u>	\$5.82B
Ores slag and ash	\$837.09M	<u>Electrical, electronic equipment</u>	\$869.02M	<u>Romania</u>	\$4.26B	<u>Turkey</u>	\$3.66B
Machinery, nuclear reactors, boilers	\$634.30M	<u>Vehicles other than railway, tramway</u>	\$755.19M	<u>Italy</u>	\$3.18B	<u>Russia</u>	\$3.62B
Vehicles other than railway, tramway	\$594.54M	<u>Pharmaceutical products</u>	\$436.21M	<u>Greece</u>	\$2.79B	<u>Romania</u>	\$3.59B
Copper	\$489.78M	<u>Plastics</u>	\$399.95M	<u>Turkey</u>	\$2.59B	<u>Italy</u>	\$3.14B

Note: Last update on November of 2022.

Source: Trading Economics, according to the United Nations COMTRADE database on international trade.

As of September 2022, Bulgaria's trade balance is negative – BGN 1848.70 million (BGN 9712.60 million imports and BGN 7863.90 million exports) (Trading Economics). Bulgaria Exports to Germany amounted to US\$6.29 billion during 2021 (United Nations COMTRADE database on international trade),

and Exports decreased to BGN 7863.90 million in September from BGN 7866.80 million in August of 2022 (Source: National Statistical Institute, Bulgaria). Bulgaria Imports from Germany was US\$5.82 billion during 2021 (Trading Economics).



Note: Last updated on November of 2022.

Source: Trading Economics, according to the United Nations COMTRADE database on international trade.

Figure 1: Bulgaria Exports to Germany Bulgaria Imports from Germany

For the period 1996 to 2022, the average amount of FDI in Bulgaria was EUR 174.78 million, with a peak value of EUR 1018.40 million in December 2007 and the lowest value of

EUR 414 million in September 2010 (*Bulgarian National Bank*). Additional data for Bulgaria FDI are shown on Table 3.

Table 3: Bulgaria Foreign Direct Investment

Related	Last	Previous	Unit	Reference
Current Account	560.00	151.60	EUR Million	Aug 2022
Current Account to GDP	-0.40	-0.10	percent of GDP	Dec 2021
External Debt	41497.20	42071.00	EUR Million	Aug 2022
Capital Flows	640.60	1452.70	EUR Million	Aug 2022
Remittances	98.60	116.30	EUR Million	Aug 2022
Foreign Direct Investment	138.60	158.50	EUR Million	Aug 2022

Source: Trading Economics, according to the United Nations COMTRADE database on international trade.

According to Bulgarian Investment Agency (BAI) (2021) during the period 2004-2021, 51 projects with German participation (class A, class B and Priority class investments) were certified (total value of BGN 4 436.45 million) and 12 336 new jobs were opened. During the period 2015-2020, the number of German companies in Bulgaria increased from 141 to

152 (Federal Bank of Germany), and the number of employed persons working in these companies increased by more than 25% for the period 2015-2022 (from 43,000 to 54,000 people) (Federal Bank of Germany). About 30% of the 100 largest investors in Bulgaria are German or with German participation (GBCIC, 2022, p. 7).

In the survey carried out during the period March 31 – April 22, 2022 by GBCIC, from 16 German foreign trade chambers in Central and Eastern Europe, 756 respondents take part, 38 of which are companies (26% of them large companies) members of GBCIC (GBCIC, p. 13). 59.46% of the respondents assess the current economic situation in Bulgaria as satisfactory, and 24% as good. At the same time, 47.37% of them define the current situation in the industry as good, and another 39.47% as satisfactory (GBCIC, 2022, p. 14). 34.21% are satisfied and 44.74% moderately satisfied with labour costs. 5% are also reported to be very satisfied. Among the percentages in the other countries of Central and Eastern Europe, the data for satisfied and very satisfied are among the highest. Among the 16 countries covered, in 9 of them a zero percentage of those who consider that the country has a specialised labour is reported, one of which is Bulgaria. On the other hand, the share of German investors satisfied with the specialised labour in Bulgaria is the highest – 24% (GBCIC, 2022, p. 15).

The assessment of the environment shows a 57.89% share of those very satisfied with the country's membership in the EU and only 8% satisfied with the fight against corruption in Bulgaria (in second-to-last place in terms of percentages), 36.84% are rather dissatisfied, and 39.47% very dissatisfied (GBCIC, 2022, p. 16). Only 11% are satisfied and very satisfied with legal certainty in the country. On the other hand, 55.27% are satisfied and very satisfied with the tax burden, and 34.21% are moderately satisfied (GBCIC, 2022, p. 17).

Among the biggest risks for a company's economic development in the next one year, respondents identify electricity prices (68.42%), the shortage of skilled labour (65.79%), labour costs (52.63%) and raw material prices (50.00%). The lowest percentage shares are reported for the factors: exchange rate (5.26%), financing (15.79%) and trade barriers (18.42%). As a result of the geopolitical turmoil in the last year, 89.47%

expect higher costs for energy, raw materials and preliminary works; 86.84% – predict disruptions in the supply chain and logistics, and 57.89% will feel the lack of raw materials and materials, and 36.84% expect loss of business partners, termination of business relations. However, there are also respondents for whom orders (18.42%) and the volume of production will increase (5.26%) (GBCIC, 2022, p. 19).

In March 2021, GBCIC held a meeting-discussion to exchange information on the possibilities of supporting the regional community in the context of COVID-19, with an emphasis on communication channels and experience sharing (GBCIC, 2022, p. 51). The Chamber organised two key events – on 26 May 2021 – Virtual delegation in Berlin in the field of health care on the topic: “Quality management in conditions of the COVID-crisis”, and on 9 December 2021 – “On vaccines against the coronavirus” (GBCIC, 2022, p. 82). In 2022, the main emphasis is placed on the issue of introducing changes in the legislation and achieving compliance with the manifested problems of “Covid-19” and the legislation related to the relevant effects on employers and the way of work (GBCIC, 2022, p. 73). GBCIC introduced the “Office in the Office” service, with the aim of promoting cooperation and the exchange of important information between members in the conditions of a dynamic and risky economic and geopolitical environment. To facilitate direct contacts, chamber staff are provided with premises, infrastructure and support. There are 11 specialised committees in which the members of the Board of Directors of GBCIC actively participate. In these committees, current issues are discussed, business is given publicity, and the framework economic conditions are formed (GBCIC, 2022, p. 24). Intensive and close contacts are maintained with the German Embassy in Sofia, and the economic department of the German Embassy is regularly invited to the meetings of the Board of Directors of the Chamber. The

promotion of Bulgaria on the German tourist market as a year-round tourist destination is purposefully encouraged (GBCIC, 2022, p. 25)

Regardless of poor evaluations or dissatisfaction with the parameters of some factors of the environment, 100% of the respondents answer that they would invest in Bulgaria again (GBCIC, 2022, p. 18), and 53% of the respondents would not change their investment costs, compared to their size for 2021, although 42% expect a deterioration in the development of the Bulgarian economy in 2022 (GBCIC, 2022, p. 9).

Empirical data show a complex and contradictory picture, against the background of which participants at different levels and from different subsystems of the economic system manage to find their niche, including with the help of the GBCIC, as an intermediary between the individual players in the field of German-Bulgarian business relations. The strong bilateral dependence of imports from exports to Germany poses certain risks, but the specifics of the sectoral affiliation of inward FDI and the focus of Bulgaria's export specialisation can balance and neutralise to a significant extent some of the problems and help to overcome some challenges. The established permanent business relations and the confidence gained by the German investors who have been operating long enough on the Bulgarian market will be in favour of such a development of the processes in a strategic plan. There are a huge number of examples of investments in various sectors of the economy, and intentions not to change the business location for doing business outside Germany can be seen as a certain guarantee to follow the established direction of business interactions. The steady growth trend of Bulgarian exports to Germany is additional proof of the good positioning of the Bulgarian business on the German market. Transfer processes and mutually beneficial opportunities for using resources, on the one hand, and technologies and knowledge, on the other hand, can multiply the positives used so far.

Conclusion

In the conditions of dynamic changes worldwide, which affect all aspects of the socio-political and socio-economic life of countries, maintaining and developing business relations between countries and individual companies is essential for reducing various risks, overcoming a number of challenges, taking advantage of the potential benefits, etc. Scientific knowledge is characterised by numerous research ideas and tools for their development, verification and subsequent upgrading. International business relations are outstanding example of a research area, of great interest from both theory and practice. Their multi-layered composition and broad component base allow for multiple interpretations and empirical projections. The authors often reach similar conclusions, but at the same time contradictory data are also reported, as a result of the very large differences between the countries, the parameters of the economic sectors that make up their economies, the accumulated experience and the capacity for adequate reactions to the environment.

Bilateral relations between individual countries find expression in specific interactions and suffer the impact of specific factors. Regardless of the generally accepted set of significant ones, they have a different impact on interest, initiative, practical actions and achieved results. An example of long established, maintained and continuing to develop are the business relations between Bulgaria and Germany. Their logic is mainly based on the attraction of foreign investors from Germany, whose presence and permanent positioning on the economic map of the country can bring a number of positives, with the right structuring of the opportunities by priority, the good targeting of the advantages that Bulgaria provides and the multiplication of the positive influences on an increasingly wide spectrum of political-economic and social life in the country. At the

same time, the identified positives, in favour of the evaluations for Bulgaria as an attractive business destination, not only in economic terms, can provoke future intensive processes of strengthening and expanding relations between the two countries. The strategic dimensions of these relations acquire an increasingly significant character, given the new opportunities that the environment provokes. Dynamic processes, technological developments, resource constraints and changes in supply chains, in their complexity, represent an interesting field for further research. With the accumulation of sufficient empirical material in historical terms, the trends in the field of international and especially – bilateral relations, and in

particular – between Bulgaria and Germany, will be a fertile field for new research. From the foresight, managerial experience and will of the political factors, on the one hand, and managerial talent and the ability to take reasonable risk at the right time, on the other hand, it depends on how well the opportunities can be transformed into workable business solutions, with the potential to generate strategic advantages for both parties.

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Structural Changes in the Bulgarian Economy and Their Impact on the Economic Growth

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Abstract: The aim of this piece of research is to carry out an assessment of the impact that the structural changes in Bulgaria's economy have on the economic growth achieved in the period before and after the country's accession to the European Union (EU). In order to assess the impact, what is first examined is the structural vector's role as both a criterion for the assessment of an economy's level of development and as a strategic factor for reaching specific economic growth rates.

To examine the correlation between structural changes in the economy and economic growth, the input-output model (The World Input-Output Database) has been utilized. The assessment of the impact of structural changes in the economy on the achieved economic growth is conducted on the basis of the multiplier factor analysis of the changes in the following variables: volume of gross output (ΔX_j), structure of gross output (S_{X_j}), the Leontief matrix ($I - A$), the Leontief inverse matrix $(I - A)^{-1}$, volume of final output (ΔY_j), and structure of final output (S_{Y_j}).

Key words: economic development, growth, output

JEL: E1, O1, O4

Introduction

For 15 years now Bulgaria has been member of the most developed integrational community in the world – the European Union. Yet the issue of integration has preserved its topicality above all because of the formation of a qualitative assessment of the achieved results. In most studies of the integrational process, attention is directed at the assessment of the impact of one or another factor on a specific aspect of the social and economic development or at the implications of specific decisions, rules and procedures for some concrete economic sector (Ivanov, 2019). Little attention is paid to the issue pertaining to the changes in the economic structure that occurred as a result of the economy's integration into the EU.

It is well known and generally assumed that the structure of a national economy reflects its content and the changes in this content occurring over the course of time. The structure of a national economy by period in turn reflects the reached level of development of man, knowledge, the economy and society. The comparative analysis of the structure of the national economy through different periods of time outlines the most important qualitative changes in its development. For instance, every economic period is characterized by a specific structure of the national economy. The economy of the agrarian age is characterized by a specific structure, the economy of the Industrial Revolution is characterized by another structure, whereas the economy of the post-industrial age and the knowledge-driven

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economy of sustainable development are characterized by absolutely different structures (Manov, V., 2011).

The increased standard of living in a society depends on both the type of implemented economic activities and on the effectiveness with which they are carried out. For instance, if in the structure of an economy the predominant economic activities are of a simpler nature in technical and technological terms, that is to say that their performance does not require a high level of education and qualification, nor a complicated and complex technology, then the opportunities to achieve a growth of the added value are far more limited compared to another economic system in which the production is characterized by a high share of complex production and technological processes that form a long chain of direct and indirect links and presumably require a high level of education and qualification. From this perspective, the structure of an economy is also related to the way in which the useful result achieved in the economy is distributed. As research shows, the distribution of the created added value is significantly fairer in an economy, in the structure of which high-technological productions dominate, compared to an economy in which simpler in technical and technological terms productions have a high relative share.

In the structure of an economy, the results achieved from the interaction of the different factors of economic growth take shape in an integral form. Furthermore, the structure of an economy appears to be the most relevant factor determining its future development and growth. In this context, increasing importance with regard to full-fledged EU membership is acquiring the issue of how the integration process contributes to the formation of an effective and sustainable economic structure that is in line with the contemporary trends and standards in the social, economic, technological and ecological progress.

Literature review

The examination of the empirical studies of economic growth conducted during the last 60 years shows that the studies largely reflected the approach to economic development adopted during the respective period (neo-Keynesian, neo-classical, monetary, etc.). This is the reason why the focus in the utilized econometric models for the study of growth is placed on the impact of one factor or another (mainly labour force and capital). Originally the focus was the examination of the quantitative parameters of growth, i.e. the opportunities to achieve high economic growth rates. Gradually the focus was redirected towards the qualitative characteristics of growth – the investigation of the different variants of growth interpreted as expedient from a social, economic and ecological perspective.

There was a significant change in the utilized tools. Originally research was targeted at the examination of a single (autonomous) factor based on regression and correlation dependencies, whereas gradually research encompassed an increasing number of factors (economic and non-economic) and a transition was made towards the use of combined approaches of econometric models and surveys. Next, an increasingly important role in the study of growth was placed on globalization and regional economic integration, and government's growing role in the social and economic development.

In post-1990 Bulgaria, the topic of economic growth was actively examined mainly by utilizing regression and correlation dependencies in the development of various scenarios of expected economic growth. After 2000, the research focus was directed at the impact of the separate factors and phenomena on economic growth – investments; human capital; domestic economic ties; competitiveness; finance sector; convergence, corruption; natural resources, total factor productivity. In most cases the research results were unsatisfactory and controversial.

One of the major reasons for the unsatisfactory results achieved in utilizing econometric models based on the output function lies in the original assumption about the strict independence of all included variables. Obtaining reliable information from a specific econometric model depends largely on the validity of the basic assumptions made in the model's construction. The more adequately the included variables reflect the logic behind and the laws regulating the system's development, the more useful will the information obtained from the model's application in the examination of a specific process be.

The contemporary interpretations of economic growth are based on the assumption that in essence economic growth is the result of the interaction of a number complex phenomena (economic, social, natural, cultural, political, etc.). Hence economic growth cannot possibly be embraced and represented by a single factor. On the other hand, as a result of the increased number of factors, the links between them are seriously complicated, hence the opportunities to examine their interaction are restricted. This complication stems mainly from the fact that the research object is the **interactions of different qualitative states of the factors**.

The understanding is increasingly gaining ground that the action of one factor or another depends on both the specific conditions and the specific characteristics of the environment within which the respective factor operates and on the stage of the life cycle at which the respective factor finds itself in. A significant drawback of the studies on this topic is that attention is drawn only to the achievement of the possible growth. In research, little attention is paid to identifying the favorable changes that should presumably take place in the state of the separate factors and conditions so that the desired growth is reached. Nor is the due attention given to the follow-up development that can be expected in the

respective factor under one or another scenario of economic growth.

In recent years, the process of structural changes in the Bulgarian economy has been studied actively by Kalinkova (2019) and Raleva (2020). But their research is primarily aimed at establishing convergence in economic structures in the process of integration. The question of the role of the economic structure in achieving one or another type of economic growth is less affected.

Methodology

The focus of this piece of research is the assessment of the impact of the structural changes in Bulgaria's economy that occurred before and after the country's EU accession on the achieved economic growth. In the selection of the appropriate research tools for the issues under investigation, first the major theoretical and methodological approaches to the study of economic growth were examined and their applicability in the assessment of the impact of the integration process on economic development and growth.

A basic research tool used to study the link between structural changes in the economy and their impact on economic growth is the **input-output model**. The major advantages of this model are connected with the fact that it allows for an in-depth analysis of the various aspects of the economic structure, and of the link and interaction between the different structures and aspects of the structures. Next, this model encompasses the national economic system in its integrity, which in turn opens up the opportunity to simultaneously examine the way of creating the useful result (in this case the GDP), as well as the way in which this useful result is utilized in the economic and demographic systems. In the third place, this model provides for encompassing the various types of links and dependencies within the national economic system (direct and indirect, straight and reverse, horizontal and vertical). Thus it

provides for the examination in terms of content of both the changes in the economic structure and their impact on economic growth.

For the construction of the symmetric input-output tables (SIOT), the World Input-Output Database (WIOD) has been used. The data is presented in 56 industry aggregation for the period 2000-2014, which allows for the establishment under a uniform methodology of the dynamic order in the periods both prior to Bulgaria's EU accession and during the first seven post-accession years.

In order to establish the structural changes that occurred in Bulgaria's economy before and after the country's EU accession, the following parameters were sequentially calculated by year:

- The volume, structure and dynamics of the gross output;
- The volume, structure and dynamics of the gross added value;
- The volume, structure and dynamics of the output for final consumption;
- The volume, structure and dynamics of the intermediate consumption;
- The volume, structure and dynamics of the production expenditures;
- The volume, structure and dynamics of the output intended for consumption by households;
- The volume, structure and dynamics of export;
- The volume, structure and dynamics of import;
- The volume, structure and dynamics of the gross capital formation;
- The Leontief matrix (I-A);
- The Leontief inverse matrix (I-A)⁻¹;
- The determinant of the Leontief matrix (I-A).

The examination and assessment of the impact of the occurred structural changes on economic growth during the two periods (before and after Bulgaria's EU accession) are implemented on the basis of the multiplier analysis in two aspects:

- 1) In terms of an assessment of the impact of the extensive (volume of gross output) and intensive factors (direct tangible expenditures and the structure of gross output) on the growth of the final output (i.e. GDP) based on the following functional link:

$$(1) \quad \Delta(I-A) * \Delta S_x * \Delta X = \Delta Y,$$

where

I – unit matrix;

A – matrix of input coefficients for intermediates

(I-A) – Leontief matrix,

X – volume of gross output,

S_x – structure of gross output,

Y – final demand, i.e. GDP.

- 2) In terms of an assessment of the impact of the extensive (volume of final output) and the intensive factors (complete tangible expenditures and the structure of final output) on the increase of the gross output based on the following functional link:

$$(2) \quad \Delta(I-A)^{-1} * \Delta S_y * \Delta Y = \Delta X,$$

where

I – unit matrix;

(I-A)⁻¹ – Leontief inverse matrix,

Y – volume of final demand, i.e. GDP,

S_y – structure of final demand

X – gross output.

Results

The results of the investigation into the dynamics and structure Bulgaria's economy in the period 2000-2014 fully reaffirm the hypothesis that it is far easier for an economy to grow, rather than develop in a balanced manner. The comparison of the dynamics with which the gross output grows, the final output, the gross added value and the interim output with the changes that took place in their industrial structures shows that the Bulgarian economy achieved relatively high growth rates, yet its structure remains relatively constant. This trend was strongly manifested during the pre-accession period. With all four examined macroeconomic characteristics, the

growth during this seven-year pre-accession period was more than two and a half times. After 2007, that is after Bulgaria's admission to the EU, the first signs appeared of the exhaustion of these growth prospects as well as the need to define the clear direction of the future restructuring of the economy.

The conducted multiplier analysis revealed that, for the period 2000-2014, the GDP grew approximately five times. The changes that occurred in the economy's structure throughout the period had a very poor impact on economic growth. Among the three

examined factors – direct expenditures, volume and structure of the gross output – the extensive factor was the most relevant one with regard to economic growth. More than 93% of the GDP increase was due to the increased volume of the gross output. The impact of the intensive factors (direct tangible expenditures and the economy's structure) on economic growth was below 0.5%. The reached economic growth depended mainly on the changes in the price levels in the separate markets, not on the economy's effective restructuring.

Table 1 The impact of structural changes on the economic growth in the period 2000-2014

The Impact of:	In millions USD	in %
The Direct Expenditures (I-A)	1 076,29	1,8%
The Structure of Gross Output (S _{xj})	-240,97	-0,4%
The Volume of the Gross Output	56 082,33	93,3%
The Direct Expenditures (I-A) and The Structure of Gross Output (S _{xj})	41,30	0,1%
The Direct Expenditures (I-A) and The Volume of the Gross Output	3 895,61	6,5%
The Structure of Gross Output (S _{xj}) and The Volume of the Gross Output	-872,17	-1,5%
The Direct Expenditures (I-A), The Structure of Gross Output (S _{xj}) and The Volume of the Gross Output	149,47	0,2%
Total	60 131,87	100,00%

Source: Own calculations from the World Input-Output Database.

The impact of the extensive factor was more marked (gross output) on the GDP growth in the period of Bulgaria's accession to the EU (2000-2007). More than 96% the GDP growth in this period was due to the increased gross

output, whereas the impact of the extensive factors (direct tangible expenditures and the structure gross output) was 0.1%.

Table 2 The impact of structural changes on the economic growth in the period 2000-2007

The Impact of:	In millions USD	in %
The Direct Expenditures (I-A)	754,97	1,7%
The Structure of Gross Output (S _{xj})	-273,25	-0,6%
The Volume of the Gross Output	43 266,47	96,3%
The Direct Expenditures (I-A) and The Structure of Gross Output (S _{xj})	-43,82	-0,1%
The Direct Expenditures (I-A) and The Volume of the Gross Output	2 108,14	4,7%
The Structure of Gross Output (S _{xj}) and The Volume of the Gross Output	-763,01	-1,7%
The Direct Expenditures (I-A), The Structure of Gross Output (S _{xj}) and The Volume of the Gross Output	-122,36	-0,3%
Total	44 927,15	100,00%

Source: Own calculations from the World Input-Output Database.

After Bulgaria's accession to the EU in 2007, the results show a considerable growth in the share of structural changes on the GDP growth. For the examined seven-year period, nearly 4% of the GDP growth was due to the

structural changes that took place in the structure of the generated gross output. In other words, the impact of the integrational process, albeit poor, started manifesting itself with regard to the growth of the Bulgarian economy.

Table 3 The impact of structural changes on the economic growth in the period 2007-2014

The Impact of:	In millions USD	in %
The Direct Expenditures (I-A)	1 078,03	7,1%
The Structure of Gross Output (S _{xj})	564,13	3,7%
The Volume of the Gross Output	13 178,06	86,7%
The Direct Expenditures (I-A) and The Structure of Gross Output (S _{xj})	21,62	0,1%
The Direct Expenditures (I-A) and The Volume of the Gross Output	235,12	1,5%
The Structure of Gross Output (S _{xj}) and The Volume of the Gross Output	123,04	0,8%
The Direct Expenditures (I-A), The Structure of Gross Output (S _{xj}) and The Volume of the Gross Output	4,72	0,0%
Total	15 204,71	100,00%

Source: Own calculations from the World Input-Output Database.

The research on the structural changes in the output for final consumption revealed a significant decrease in the share of household consumption and an increase in the share of exports in the post-2007 period. The share of the remaining two elements of final output – investments and government spending – retained a relatively constant level. The conducted multiplier factor analysis showed

that the changes in the structure of the final output had not resulted in an effective restructuring of the economy. The impact of the output for final consumption on the increase of the gross output was below 1%, and that of the other intensive factor – direct and indirect expenditures – was below 2%. The impact became even weaker of the structure of the final output on the growth of the gross output after 2007.

Table 4 Impact of the volume and structure of final output on the increase of the gross output for the period 2000-2014.

The Impact of:	In millions USD	in %
The Direct and Indirect expenditures, or Inverse Matrix (I-A) ⁻¹	-1 612,39	-1,7%
The Structure of Final Demand (S _{yi})	488,70	0,5%
The Volume of the Final Demand	103 225,28	107,2%
The Inverse Matrix (I-A) ⁻¹ and The Structure of Final Demand (S _{yi})	-300,59	-0,3%
The Inverse Matrix (I-A) ⁻¹ and The Volume of the Final Demand	-6 257,39	-6,5%
The Structure of Final Demand (S _{yi}) and The Volume of the Final Demand	1 896,57	2,0%
The Inverse Matrix (I-A) ⁻¹ , The Structure of Final Demand (S _{yi}) and The Volume of the Final Demand	-1 166,52	-1,2%
Total	96 273,66	100,00%

Source: Own calculations from the World Input-Output Database.

Table 5 Impact of the volume and structure of final output on the increase of the gross output for the period 2000-2007

The Impact of:	In millions USD	in %
The Direct and Indirect expenditures, or Inverse Matrix $(I-A)^{-1}$	-1 108,97	-1,5%
The Structure of Final Demand (Sy_i)	493,99	0,7%
The Volume of the Final Demand	77 124,13	103,8%
The Inverse Matrix $(I-A)^{-1}$ and The Structure of Final Demand (Sy_i)	-116,08	-0,2%
The Inverse Matrix $(I-A)^{-1}$ and The Volume of the Final Demand	-3 215,50	-4,3%
The Structure of Final Demand (Sy_i) and The Volume of the Final Demand	1 432,33	1,9%
The Inverse Matrix $(I-A)^{-1}$, The Structure of Final Demand (Sy_i) and The Volume of the Final Demand	-336,57	-0,5%
Total	74 273,32	100,00%

Source: Own calculations from the World Input-Output Database.

Table 6 Impact of the volume and structure of final output on the increase of the gross output for the period 2007-2014

The Impact of:	In millions USD	in %
The Direct and Indirect expenditures, or Inverse Matrix $(I-A)^{-1}$	-1 984,40	-9,0%
The Structure of Final Demand (Sy_i)	-662,92	-3,0%
The Volume of the Final Demand	25 383,76	115,4%
The Inverse Matrix $(I-A)^{-1}$ and The Structure of Final Demand (Sy_i)	-55,86	-0,3%
The Inverse Matrix $(I-A)^{-1}$ and The Volume of the Final Demand	-499,36	-2,3%
The Structure of Final Demand (Sy_i) and The Volume of the Final Demand	-166,82	-0,8%
The Inverse Matrix $(I-A)^{-1}$, The Structure of Final Demand (Sy_i) and The Volume of the Final Demand	-14,06	-0,1%
Total	22 000,34	100,00%

Source: Own calculations from the World Input-Output Database.

Conclusion

The research on the influence of the structural changes in the Bulgarian economy on the achieved economic growth showed that neither during the pre-accession period, nor during the first seven years as a member of European Union, Bulgaria made not full use of the opportunities of the integration process for the effective restructuring of its economy. The higher dynamics of growth of foreign trade exchange compared to the dynamics of GDP growth does not create the necessary conditions for the growth of the value added in the economy. The foreign trade data show that the increase in exports is mainly due to the raw materials industries (basic metals), which, however, occupy a very small share in the structure of the gross value added created (about 1%). The share of high- and medium-tech industries (medicines, computer technology, chemistry, electronics, mechanical engineering) both in the structure of value added and in the structure of exports remains

too small during the entire period studied. The value added in the economy is mainly formed by the activities related to real estate, trade, finance, transport. Relatively constant and high (about 20%) in the structure of the created value added remains the share of the so-called public sector industries such as education, health, energy, government.

These structural changes do not lead to an increase in the efficiency with which the useful result in the economy is created. The data on the integral efficiency, calculated through the value of the determinant of the Leontief matrix $(I-A)$, show that in both studied periods (before and after the accession to the European Union), the value of the determinant of the Leontief matrix $(I-A)$ kept relatively constant. In other words, the changes in the structure of Bulgaria's economy and the achieved economic growth do not lead to a tangible increase in the efficiency with which the national economic system functioning as a whole.

In my opinion the main reason lies in the underestimation of the role and importance of the structural factor in the implementation of the various reforms. The structural changes that occurred in the economy during the studied period are rather an expression of the spontaneous and inertial nature of the implemented structural policy than of purposefully pursued results. The big challenge here is how to mobilize the scientific potential to outline the architecture of the future economy and find the ways and means for its practical realization. It is primarily about changing the approach in determining the direction of future development of the economy and its effective restructuring, about a transition from a management philosophy based on deriving possible results (goals) from the inherited prerequisites, to a management philosophy oriented towards deriving the necessary and desired results and outline the necessary structural changes and growth rates to achieve them.

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BI Big Data Analytics In Marketing

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Abstract: Information is an important business resource just like money, materials, and goods. Over the years, the company was collected thousands of pieces of data for many processes. But this does not mean that automatically these data can be easily converted into information that could be analysed and that company managers, marketing staff, customers, suppliers could use. Transforming the multitude of collected big data into useful information, is a complex process that requires additional skills and knowledge. Using the right tools, marketing analysts in the company could use the collected data to develop effective and competitive strategies. The purpose of this paper is to explore the use of big data in marketing, the sources for its collection, and to present some BI technologies for the practical use of big data by the company's marketers.

Key words: BI, Big Data in marketing, tools for analytics, BI Analytics Technologies in Marketing. Impala tool

JEL: M31, O00

Business Intelligence (BI) in Marketing

Information and related knowledge are a powerful decision-making tool for company development. Information only makes sense to accumulate if it can be processed with appropriate tools and provided to those who request it in a form that can best serve them. The accumulation of huge amounts of data must be accompanied by an increase in the company's ability to process this data. This is where business intelligence (BI) comes in. Business intelligence is a term that refers to extracting data from a database, text documents, the Internet, using special software and then analyzing this data and converting it into information that can be used to make informed business decisions and acting. The company's business analyst can get a complete picture of the business, see broader trends based on aggregated data, and get dependencies that he did not expect. The

following sample questions are answered: How do the current year's total sales of all products compare to the previous year's total sales? In which country, in the last five years, have the company's profits been the greatest? How many products were sold in two regions of the country/countries this month compared to the same month last year? For each customer age group, what is the yield distribution by product category? Who are the best sellers, distributors, suppliers, customers, partners?

Answers to these kinds of questions are not easy, nor can they be derived solely from the operational information that finance and accounting offer. For this purpose, something qualitatively new is needed, which only business intelligence can provide. Business intelligence systems (BI systems) can do a huge job: They extract information from various sources - internal company sources and external sources; they centralize, organize,

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and standardize information while cleaning and supplementing data as needed; provide analytical tools that enable a wide range of business and technical professionals to search for the information they need, discover patterns, and solve problems. Accumulation of big data in the company is the first step that will lead to the need for a BI system.

Big Data in Marketing

According to some expert evaluation more than 2 exabytes (2,000,000,000,000,000 bytes) of data are generated in the world every day. The volume of data is growing at about 40% per year and is expected to reach 175 zettabytes (175,000,000,000,000,000,000 bytes) in 2025 (Reinsel D.; Gantz J.; Rydning J. (2018)). Big data is characterized by a volume exceeding the capabilities of traditionally used software tools for recording, storing, and processing data in an acceptable time. While traditional tools are evolving and incorporating functionalities that attempt to handle big data, at the same time the scope of big data is also expanding. Big data now includes structured, semi-structured and unstructured data, with the main emphasis increasingly placed on the processing of unstructured data. Big data requires a set of new techniques and technologies capable of processing and analysing in real time hundreds of terabytes of data. Business Intelligence systems allow companies to deal with one of the main challenges of today - the huge amount of data (Мурджева, А.; Цанева, М.; Радоев, М.; Михова, В. (2010)). The term "big data" refers to data that is so large in volume, so complex, or requires such rapid processing that it is difficult or impossible to process using traditional methods (Йорданова, С.; Стефанова, К. (2019)).

The sources of big data in marketing are many and can be grouped into three main categories:

- Data generated by information systems and various transactional systems and websites.
- Data generated by machines and sensor devices.
- Social data from the population through social networks and other media.

Another qualifying feature is the orderliness of big data. According to this feature, big data is divided into:

- Structured - created by a computer with human intervention or automatically, by machines and sensor devices, data from web logs, from websites.
- Semi-structured – data stored in XML or JSON format
- Unstructured - data from social networks, mobile phones, tablets, photos, text messages, etc.

A major source of big data in marketing is databases that contain operational information. This is structured information. This information if is stored, is archived, is updated and is maintained continuously in the database the company will be sure that all the information going back over the years will be available in a timely manner. Transactions are entered into the database and processed usually as soon as they occur, preferably in real time. Example - a software system in a large warehouse where data about goods is loaded as their labels pass through a barcode reader. Data is automatically entered and processed directly by the server. The computer immediately updates the stock information in the warehouse. This allows immediately after processing to be able to generate and issue electronic documents (orders, inquiries, receipts, etc.) with all the details of a given item. Other such systems are, for example, for data processing of customer orders, reservations, etc. – this is real-time transaction data that needs to be processed and analysed appropriately so that it can be used to its best advantage.

Machine-generated data is defined as information that is generated by industrial equipment, sensors that are installed in machines, and even logs that track user behaviour. This type of data is growing exponentially as the Internet of Things (IoT) becomes more prevalent in a variety of fields. Sensors embedded in medical devices, smart meters, traffic cameras, satellites, household appliances and all sorts of other devices are delivering an ever-increasing volume and variety of data.

Social data includes likes, tweets, comments, photos, video, etc. that are uploaded and shared through the world's major social media platforms. This kind of data provides valuable information about consumer behaviour and sentiment and could have a huge impact on marketing analytics. The Internet is a massive source of social data, which greatly improves the volume of big data.

Structured data is data that has a clear, predefined structure that does not change or rarely changes. Structured data usually has a specific length and format. They follow schemas. These schemas outline where each data item is located and what it means. Structured data can be easily organized in tabular form. Most often, structured data is stored in relational databases and is accessed through standardized tools, such as the SQL language. Until recently, structured data was the only data used by businesses. As a result of rapid technological development, structured data has new sources that arise in real time and in large volumes. Structured data in marketing is collected by:

- Smart meters, medical devices, Global Positioning System data. This data is used for supply chain management and inventory control.
- Sales data with Barcode, QR code, RFID, NFC. This data is used for sales monitoring, supply management and inventory optimization.

Semi-structured data does not have as rigid a structure as structured data in a relational

database. They do, however, have some defining and constant characteristics that allow for some form of data organization. In addition to these constant characteristics, each of the objects about which data is stored can have many other properties that distinguish it from other objects. Semi-structured data is often represented as documents stored in Java Script Object Notation (JSON) or XML format. An example would be sending an email - date and time of sending, email addresses to and from, IP address from the device, sender, and other pieces of information are related to the actual content of the email. In this case, the characters that make up the email are not structured, but there are components that allow the data to be grouped based on certain characteristics and to be processed.

Unstructured data is that data that has no fixed structure and cannot be applied to any data model. The lack of structure makes this data much more difficult to store, search, process and analyze, which is why until recently it was rarely used by businesses (Йорданова, Ст.; Стефанова, К. (2017)). The wealth of information in unstructured data is already available and today it can be processed with various algorithms and technologies. These technologies have elevated unstructured data to an extremely valuable resource for organizations. Most data stored on computer and other digital systems is unstructured. As unstructured, data from social networks, mobile phones, tablets, photos, text messages, etc. can be considered mostly. But, as stated above, characteristics can still be found that make this data processable, although their content is not structured.

The availability of big data implies the availability of technologies with which it can be processed and analysed to contribute real business benefit.

Big Data BI Analytics Technologies in Marketing

There are various technologies for analysing big data in marketing, the commonly used of which are:

- Queries and Reports
- Online Analytical Processing (OLAP)
- Data Mining
- Text Mining
- Computer simulations, etc.

The usage of these technologies depends on the data type and subject area (Mihova, Veska. (2015), Stefanov, G. (2015), Marzovanova, M. (2015)). We will consider only the first of the technologies, with the emphasis on the analysis of the accumulated structured big data.

Queries and Reports

A query returns processed data retrieved from a database or data warehouse, while a report returns a representation of that data, based on a query. The query returns a set of data that usually looks like a spreadsheet - rows and columns of data, and the report returns the data prepared for the end user - with sums, averages, in a form suitable for viewing on a screen or for printing. Based on the queries, reports are created and made available to the end user in a readable, useful

form. Queries should be generated in a manner to match the specific needs of users. There are many tools for querying big data stores – e.g., Google BigQuery, Amazon Redshift... An example of such a query mining technology tool is Apache IMPALA - interactive SQL for queries on big data. The tool is paid, but UNSS has free access so that marketing students could use the latest technologies.

We will look at an example using Apache IMPALA. A company has collected data on sales of goods, in different years, in different countries and regions. The data is accumulated in a flat csv file. Flat files are most often columns and rows written in a table. Flat files are widely used for data exchange between heterogeneous systems, between different operating systems and different database systems, as well as data source in data storage applications. The data collected by the company is approximately 50 million records, and each record contains a lot of data, the most important of which are: region, country, item, date of sale, unit price, quantity, sale price of the product. Fig. 1 shows part of the data - over 1 million records. They cannot be fully visualized due to the limited capabilities of the computer, but this does not mean that they cannot be processed.

Item ID	Region	Item Type	Order ID	Date	Total Cost	Total Qty
1048554	Europe	Finland Beverages	Offline	L	7/21/2013	814078605
1048555	Middle East	Qatar Beverages	Online	H	10/27/2013	558969628
1048556	Middle East	Somalia Vegetables	Online	C	8/30/2016	525303828
1048557	Asia	Myanmar Household	Online	L	4/7/2015	892817533
1048558	Sub-Saharan	Swaziland Beverages	Offline	H	3/27/2015	113559569
1048559	Central Am	Panama Meat	Offline	H	9/3/2015	751891267
1048560	Sub-Saharan	Democratic Republic of Congo Baby Food	Offline	M	12/16/2012	95486453
1048561	Europe	Malta Beverages	Online	C	2/12/2012	280331456
1048562	Europe	Luxembourg Household	Online	H	6/9/2015	160725104
1048563	Middle East	Syria Office Sup	Offline	M	2/18/2011	747278726
1048564	Sub-Saharan	Sudan Meat	Offline	L	12/30/2014	461916148
1048565	Middle East	Azerbaijan Cereal	Offline	H	8/1/2013	946873700
1048566	Europe	Bulgaria Fruits	Offline	L	6/13/2013	314700210
1048567	Europe	Portugal Snacks	Offline	H	8/24/2014	798257005
1048568	Asia	Tajikistan Baby Food	Online	H	6/29/2014	200717914
1048569	Sub-Saharan	Chad Office Sup	Online	M	5/21/2011	445569264
1048570	Australia & Vanuatu	Beverages	Offline	L	2/21/2016	826698885
1048571	Sub-Saharan	Cameroon Cereal	Online	H	5/6/2010	257951104
1048572	Sub-Saharan	Senegal Clothes	Online	M	9/25/2010	424016749
1048573	Europe	Portugal Cosmetics	Offline	M	5/10/2012	829543149
1048574	Sub-Saharan	South Africa Beverages	Online	M	3/24/2015	149579131
1048575	Europe	Denmark Office Sup	Online	C	9/4/2012	279486024
1048576	Europe	San Marino Beverages	Online	H	8/3/2010	484937655

Figure 1: Flat data file - 1,048,567 records.

Based on these data, a variety of queries can be made:

- how much are the sales amount of a given product in a given country, in a given region for the entire period or for year;
- how sales change over the years in different regions;
- which are the best-selling items in different countries/regions, etc.

Using interactive SQL for queries on big data query can be made, for example, for Japan, in which to display all goods by sales amount.

```
SELECT item_type,
count(DISTINCT order_id),
round(SUM(total_cost),0) AS total_cost
FROM sales_1000000
WHERE (country = 'Japan')
GROUP BY item_type
ORDER BY total_cost DESC;
```

The illustration (Fig. 2) shows an example of all goods by sales amount and by product in Japan for the entire period.



Figure 2: Using Apache IMPALA technology tool to extract data

According to the needs of the end user, various reports can be displayed by making sections and illustrating them with suitable diagrams. Charts can be presented through different views. Summary graphic reports are best perceived by end user.

Conclusion

Analysing data in marketing uses huge amount of collected information - internal company data and data from external sources. There are many tools for analysing and processing marketing information. The company must select the most suitable technological tool, considering the analysis needs, the necessary reports, and the preparedness of the staff. BI software should become an essential part of the company's software, and of course there must be trained specialists who can perform analytical analysis. Only then it can be said that the purchase and use of technological tools for BI analysis of big data in marketing is justified and contributes to the implementation of the company strategy.

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Citizens' Attitudes towards Electronic Administrative Services in Bulgaria

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Abstract: The development of the processes of provision and consumption of electronic administrative services (EAS) in Bulgaria is an essential part of the digital transformation of the public sector as a whole. The aim of the publication is to examine the attitudes of part of the society in the country regarding the paperless application and receipt of services from the municipal administrations. The methods used to achieve it are GAP analysis, induction, deduction, study of secondary sources and data from conducted empirical research. As a result, by means of a comparison of the generated array of information and the synthesized analytical units, essential aspects of the relationship territorial affiliation-attitudes towards the consumption of EAS in Bulgaria are deduced.

Key words: digitization, electronic administrative services, public sector, citizens' attitudes

JEL: H7, O2

Introduction

The needs of modern society, the dynamics and constant technological development internationally, inevitably shape the digital transformation of society in the various aspects of its activity. After the prolonged physical distancing imposed in connection with the pandemic situation of 2020, these processes have significantly accelerated. While some business organizations relatively quickly took actions to increase the level of digitization of their processes, the public sector is lagging behind. The provision of electronic administrative services, as one of the main manifestations of e-government, occupy a significant place in this aspect.

Local administrations are closest to the people in terms of providing services and implementing public policies. One of the main requirements for the services they provide is that citizens have equal access to them. It is for this reason that it is extremely important that society is widely informed and strongly

involved in the processes accompanying the digital transformation of governments, especially at the municipal level. While in other countries at the level of public administration, analyzing large databases of information is on, in Bulgaria there are still problems with the implementation of electronic administrative services. The global trend is for EAS to be increasingly integrated, modern and complex compared to their predecessors (Layne & Lee, 2001). The approach that puts the citizens and their needs in the center is increasingly launched. In view of the abandonment of Bulgaria in these processes, it is of research interest to analyze the attitudes of civil society and its awareness regarding the electronic administrative services provided by the municipalities in the country.

Literature review

A retrospective look specifically at the development of e-government is given by

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some researchers as this provides an opportunity for a deeper analysis and identification of the current state and future prospects (Charalabidis, et al., 2019) (Chen, et al., 2006) (Baumgarten & Chui, 2009). They generally divide evolution into two main waves. The first is related to automation of processes and basic penetration of ICT in the complex internal and external processes of public structures. The second wave, for its part, already binds in closer and more interconnected way Internet resources, social networks and personal engagement of users. There is also a strengthening of the transparency and accountability of the institutions to the citizens. Other authors examine the evolution of e-government in separate generations (Komati, et al., n.d.). The

common between the various views is the conclusion that the provision of electronic administrative services alone is no longer sufficient. Internationally, there is a trend towards personalization of the service according to the needs and expectations of the users. Some countries are significantly ahead of others in this regard, such as Denmark, Estonia, Sweden, which are among the leaders in the development of digital services provided to their citizens according to indices such as Digital Economy and Society Index (DESI) and Digital Government Index (DGI) (OECD, 2020) (European Commission, 2022). Synthesized key characteristics of variants of e-government generations found in the literature are presented in the table. 1.

Table 1: E-government Generations Evolution

E-government Generations	Key Characteristics
Analogue government	Face to face services
1.0 e-government	Individual service delivery
2.0 e-government	Scaling service delivery
3.0 e-government	Efficient services delivery
Digital government	Whole-of-government service delivery
Personalised digital government	Whole-of-life service delivery

Source: Author`s interpretation

Regarding the evolution of e-government, the issue of conducting a two-way relationship between institutions and service users is increasingly relevant. Inequalities are not only between the developments of various countries, in terms of the digital transformation of the public sector, but also significant differences between individuals in a society (Atkinson , 2018). This fact became particularly noticeable during the pandemic period, when some groups were marginalized due to a lack of technology or digital skills (Zheng & Walsham, 2021). Some authors consider the main problems facing the development of EAS in two directions - accessibility gaps and user gaps, with the first affecting the level of services offered by public institutions, and the second the possibility and desire of citizens to use electronic services

(Negreiro, 2015). The research in this article is directed precisely to the second category in an attempt to establish the attitudes of users towards the use of electronic services. At the same time, this also provides an opportunity to identify some key user gaps of civil society in Bulgaria in the context of their skills in using EAS.

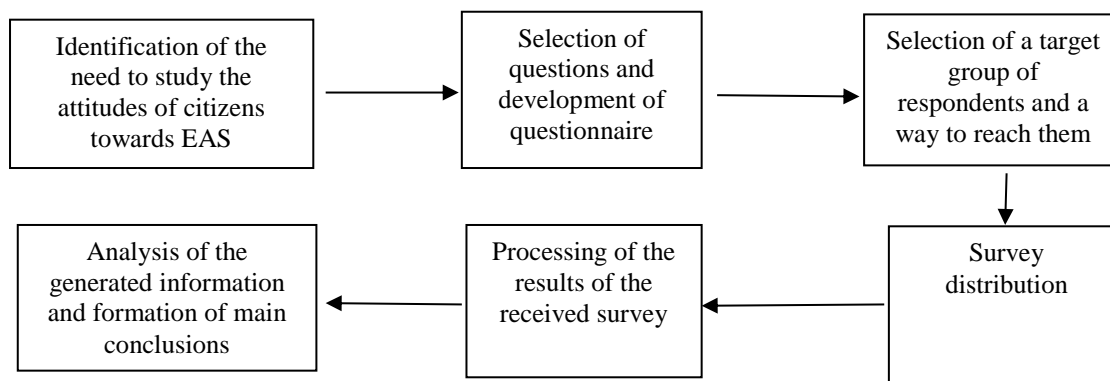
At the EU level, similar studies have been conducted in recent years, but on a wider scale and scope, both of the sample and of the questions asked, referring to citizens' attitudes towards digitalization in general (European Commission, 2020) (European Commission., 2017). Their results are also reflected in the E-Government Benchmark, which compares the countries in the Community based on the electronic public services provided by them by evaluating so-called life events based on

specific indicators (European Commission, 2021). Taking into account the tendency to raise the level of the general use of digital solutions, some authors reasonably emphasize the urgent need to ensure that all citizens have the skills and the opportunity to use ICT technologies to continue to be an indispensable part of the social and economic state (McDonnell, et al., 2022).

Methodology

For the needs of the research, a survey method was used to collect primary data, as the questionnaire was distributed electronically, randomly to 250 adults residing in the territory of the Republic of Bulgaria. The

questions are of a closed type and are grouped into three main categories: Contact information, Digital skills, competencies, technologies, and Electronic administrative services provided by municipalities in Bulgaria. Using the respondent method, 36 completed surveys were received. The study was conducted in the period October-November 2022. The purpose of the study is to accumulate data on the opinion and expectations of citizens regarding the provision of electronic administrative services by municipal administrations. The methodology of the empirical study is standard and is graphically presented in fig. 1



Source: Adapted from Ruskova, S. (2011). Metodika za izsledvane na potrebitelskite reakcii v usloviqta na stagniran pazar. Nauchni trudove na rusenskiya universitet, 50, 142. <http://conf.uniruse.bg/bg/docs/cp11/5.1/5.1-25.pdf>

Figure 1: Methodology of an empirical study of citizens' attitudes towards the consumption of EAS in Bulgaria

In the first preparatory stage of the research, the need to conduct it is identified based on a thorough literature review on the subject and expert observation of data from secondary sources. After applying GAP analysis, induction, deduction and translation, the conclusion was reached that the research of the expectations and opinions of citizens, as one of the main groups of users of EAU, is of key importance for tracking the processes of digitization of public services. The preparatory phase of the study also refers to the selection of appropriate questions, the answers of which will be used for both quantitative and qualitative analysis. With the selection of a

target group of respondents and the way to reach them, the first preparatory stage ends.

The second stage of the empirical research begins with the process of distributing the survey electronically, for which purpose a link to the ArcGis platform was used, in which the received responses were accumulated. After processing the results, which were formed from 36 individually generated survey cards, the information was analyzed using a standard scientific approach. As a result, key aspects forming basic knowledge about the expectations and attitudes of citizens towards the provision of electronic public services by municipal structures were identified.

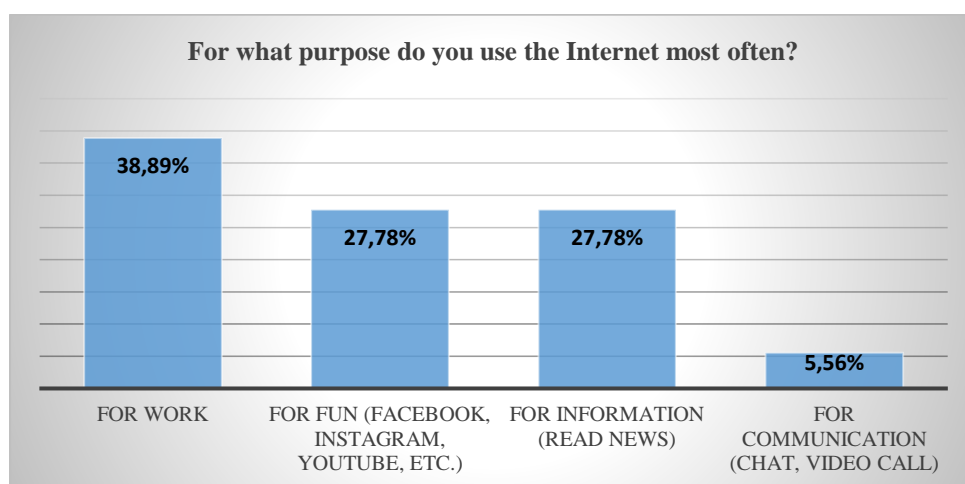
Results and discussion

The results of the conducted empirical research, for the purposes of this article, were generated based on a survey distributed to 250 adults in the territory of the Republic of Bulgaria, of which 36 declared their commitment. The low level of the number of respondents creates a prerequisite to assume that the topic of electronic administrative services is still not sufficiently recognizable in the country. Accelerated digitization processes in other areas such as online sales, social networks, remote work mode, communication, etc. create a higher engagement among citizens compared to the consumption of EAS.

The profile of the respondents is about 58% female and about 52% in the age range of 31 to 40 years old. The level of education obtained is mostly secondary and master's, with 41% and 38%, respectively. The majority of

respondents (78%) reside in Northern Bulgaria.

Figure 2 shows the results of the question "For what purpose do you use the Internet most often?" with about 38% of respondents stating that they use the Internet mainly for work, and the smallest group - about 5% for communication. There is a preference among users to use a mobile phone as a device to access the Internet (70%), which clearly shows the need to direct the government's efforts to the development of mobile applications for the provision of electronic administrative services. At the moment, the main part of the proposed EAUs are accessible through web-based platforms, but not through applications. Examples in this regard of countries like Denmark can be useful to include and engage precisely the citizens who prefer to work through mobile applications (Ministry of Foreign Affairs of Denmark, 2022)

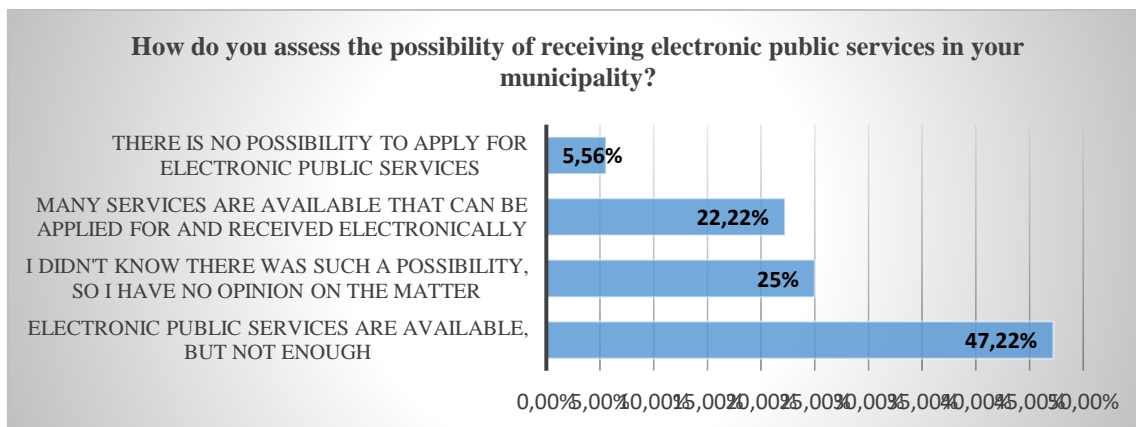


Source: Author`s research

Figure 2: Results of question „For what purpose do you use the Internet most often?“

Despite the stated more professionally oriented nature of the respondents in the research, in response to the question "How do you assess the possibility of receiving electronic public services in your municipality?" (see fig. 3) 25% of the respondents said that they are not enough informed about the possibility of using EAS

and have no opinion. The results of the question indicate a very significant problem related to communication between municipal administrations and citizens. The lack of sufficiently effective channels and ways to reach adequate and timely information to the public largely hinders the use of EAS.



Source: Author`s research

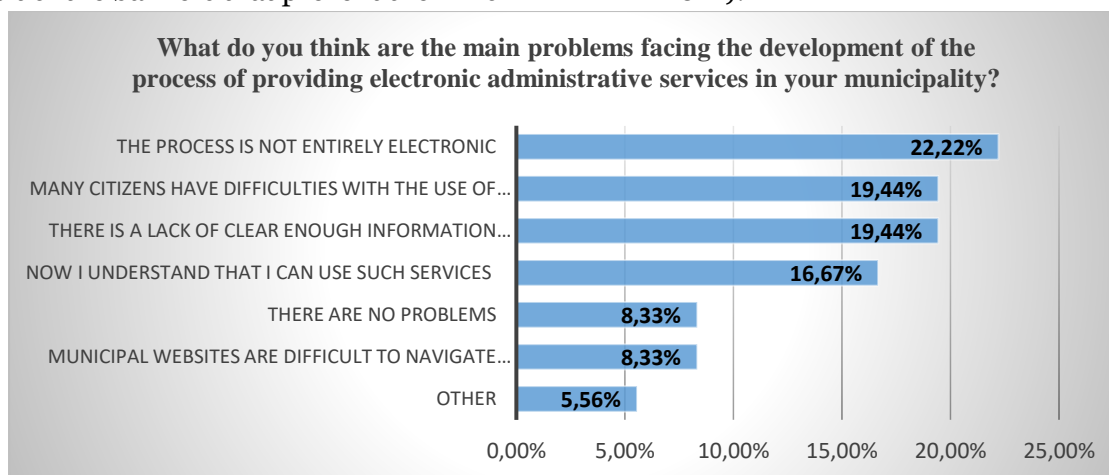
Figure 3: Results of question „How do you assess the possibility of receiving electronic public services in your municipality?”

Fig. 4 shows that respondents point out as one of the main problems facing the development of the process of providing electronic administrative services namely the lack of sufficiently clear information, about 19% of the respondents. The lack of a fully digital process, on the other hand, was indicated by about 22% of respondents. The question "Do you think there is a need to be informed in more detail about the possibilities and ways through which the municipality provides electronic services?" received a categorical answer, with about 91% of the respondents saying that they need more information about these processes.

In this regard, the respondents shared that part of the barriers that prevent them from

actively using EAS are related to the lack of a unified mechanism for their provision, the low level of trust in the security of their personal data on the network and the presence of some additional requirements for certain services such as the presence of an electronic signature. The latter is connected, apart from more specific knowledge, and with a certain financial burden, which is at the user's expense.

The international good practices examined during the research clearly emphasize the key importance of a single electronic ID to be provided free of charge to all citizens, as is the case in Estonia and Denmark for example (European Commission, 2021) (Pappel, et al., 2021).

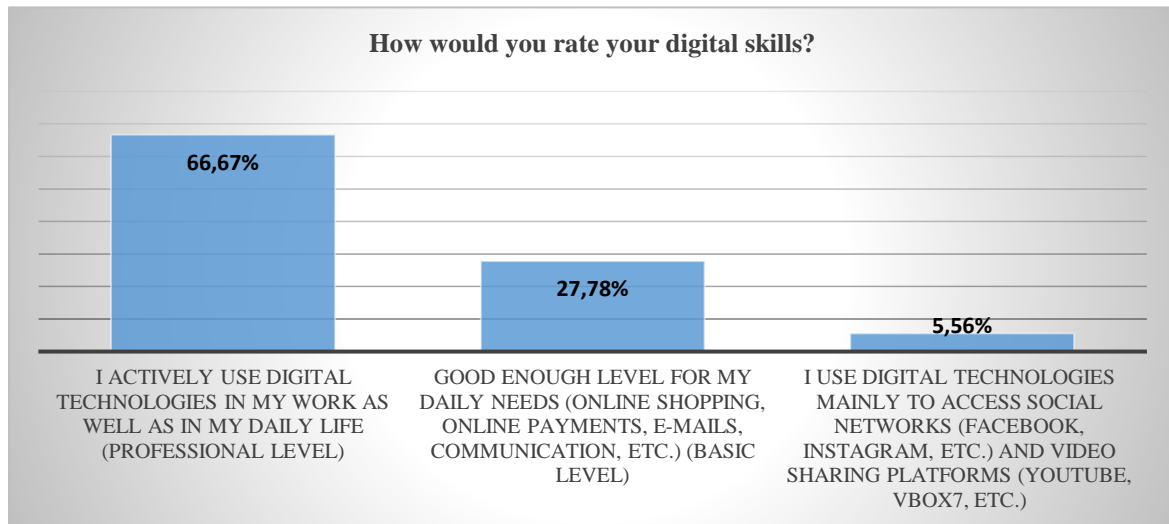


Source: Author`s research

Figure 4: Results of question „What do you think are the main problems facing the development of the process of providing electronic administrative services in your municipality?”

The questions asked in the questionnaire, in addition to establishing what the citizens expect from the administration regarding the EAS, also aim to identify to what extent they are prepared for active participation in these processes. It was in this connection that their opinion and self-assessment was asked for the

question "How do you rate your digital skills?". About 67% answer that they have very good skills and use them actively on a daily basis, about 28% say that they do it satisfactorily, but not at a professional level, and only about 5% say that they use technology mainly for entertainment.



Source: Author`s research

Figure 5: Results of respondents' self-assessment of digital skills

Despite the advantages that the respondents outline in using EAS, such as speed and saving time, not a small part of them state that they prefer counter services - about 68%. The main reasons for this are the need for personal assistance and consultation when filling out documents and the insufficiently well-developed electronic services that are offered.

Conclusion

The development of e-government in Bulgaria, in the provision and consumption of electronic administrative services, still faces serious challenges that prevent the more intensive development of these processes. On the one hand, the need for a more active policy for the development and enrichment of EAS and ways of providing them to users can be considered. On the other hand, there are identified deficits on the part of citizens, both in terms of their trust in the protection of their personal data in the Internet space, and their

uncertainty related to taking actions that are not so recognizable to them. The aspects in which it is key to make more efforts are related to improving communication between institutions and citizens, developing a unified mechanism for access to electronic services and guaranteeing the inviolability of the flow of information. Today's dynamic conditions and the development of technology, as well as the progress of some countries in their processes of digitization of the public sector, inevitably build an ecosystem in which adaptation to these circumstances is key to the development of each country.

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Strategic Aspects of Development of the Bulgarian Metallurgical Industry

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Abstract: Over the last few years, the world economy has faced a number of problems and challenges that adversely affect its development. The Bulgarian economy and in particular the Bulgarian metallurgical industry, as open systems, are also subject to the negative impact of external and internal factors. The research is aimed at identifying and analysing the main issues and challenges faced by the Bulgarian metallurgical industry. The results of the study show a persistent adverse influence of some factors, both from the external and internal environment, which necessitates the need for metallurgical companies to develop and implement new strategies.

Key words: Bulgarian metallurgical industry, development, factors, challenges, strategy

JEL: L61, L71, O11, O14

Introduction

Metallurgy is one of the main structure-determining sectors of the Bulgarian economy. There has been evidence of its existence on the Bulgarian lands since the Stone-Copper Age. Until the beginning of the 1950s however, "neither the Bulgarian state nor private capital was able to build at least one large-scale, contemporary metallurgical enterprise" (Аврамов и др., 1996, с. 37), and in Bulgaria "there is limited extraction of mineral and energy raw materials and small metallurgical enterprises" (Бутов и др., 2015, с. 24). Later, the discovery and exploration of ore deposits economically justified the

construction of metallurgical companies, modern for their time and relatively large for the scale of the country, whose production, in addition to fully satisfying the needs of the Bulgarian economy for copper, lead and zinc and stimulating its development, is also export oriented. Since the mid-1990s, on the basis of the already built capacities, the construction of modern metallurgical enterprises with both local and foreign capital began. At the same time, unprofitable metallurgical companies were closed. Gold mining also started in one of the richest gold deposits in Europe – Chelopech.

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Metals, alloys and their products are important resources along the added-value chain in almost all sectors of the economy and in the household. Copper is the main raw material of the global transition to low carbon energy. The World Bank report, "Minerals for Climate Action: "The Mineral Intensity of the Clean Energy Transition", states that long-term demand for metals will increase dramatically – global demand for aluminium and silver is expected to grow by more than 300%, and zinc, steel, lead and especially copper – by over 200% by 2050 (World Bank). The restructuring economy and the need for business digitalisation strengthen their role even more and place ever higher demands on their quality characteristics. Given the high rate of recycling with a low carbon footprint and the long life cycle of metals, the circular economy and efficient use of resources is a priority in the "green" policies of the European Union (EU) and the European Green Deal (EGD).

Although well developed, relatively modern, competitive on international markets, especially in the non-ferrous metallurgy sector, and with good achievements to date, the Bulgarian metallurgical industry faces a number of problems and challenges, some of which are of a long-term nature. The improvement of technologies and the transfer of innovations in metallurgical production and its digitalisation impose increasingly higher requirements on the qualifications of employees working in the industry. As a strategic industry, metallurgy is associated with significant risks due to high production intensity, strong dependence on raw material suppliers, energy prices, import of cheap raw materials, high environmental protection costs, strict rules on occupational safety, requirements for digitalisation of business etc.

The main objective of this study is to assess the state and to identify and evaluate the main problems and challenges faced by the Bulgarian metallurgical industry. The thesis

being defended is that the problems and challenges faced by Bulgarian metallurgy require the development of new strategies at all levels – company, branch/sector, as well as state level, since this industry is one of the drivers of growth of the Bulgarian economy. This research fills a thematic gap in the Bulgarian specialised scientific periodicals and can serve in conducting future studies in the field of the development of metallurgical industry.

Literature review

In the book "Металургията на България" Аврамов и др. (1996) traced the origin and development of Bulgarian metallurgy from antiquity to the mid-1990s. Its continuation is the monograph "Минало, настояще, бъдеще", which examined the metallurgical industry and its development until 2015 (Вутов и др., 2015). The review and subsequent analysis of periodicals in Bulgaria show that the number of publications on the current topic is very limited. Even in Bulgaria's only magazine specialised in the field of metallurgy (Journal of Chemical Technology and Metallurgy), in which dozens of papers are published annually, those dealing with economic, organisational or management problems, and not only of the metallurgical industry, are very few. Their subject matter is more or less close to the topic of the metallurgical industry and its development. Kondev, Tenchev and Vasileva (2014) examined the competitiveness of the chemical and metallurgical industry, paying special attention to the open innovation model. Karev (2020) made an economically justified proposal for optimising the production costs of enterprises producing concentrate for the metallurgical industry. Borisov, Stefanov and Stoyanov (2014) presented an algorithm for minimising metallurgical production waste.

The metallurgical industry, regardless of the sector (ferrous or non-ferrous metallurgy), is a highly concentrated industry of the Bulgarian economy, with an oligopolistic

structure. Some of the leading companies in ferrous and especially non-ferrous metallurgy can largely represent the sector or sub-sector itself. Such, for example, are "Aurubis Bulgaria" (one of the largest companies for the production of copper in South-Eastern Europe), KCM (the largest company for the production of lead and zinc in South-Eastern Europe), "Dundee Precious Metals" (gold mining). Милушева (2018) directed her research interest to one of the giants in non-ferrous metallurgy and in the Bulgarian economy as a whole – "Aurubis Bulgaria". She conducted an empirical study related to the growth of this company, and the results of the study allowed her to draw a number of conclusions and generalisations.

Foreign publications on the current topic are quite diverse. Various problems (general and particular) of the development of both the world metallurgical industry and national industries are treated. Considering the increasing challenges for managers in the condition of recession, Bakalarczyk and Gradzki (2012) made an attempt to diagnose the business risk of the Polish steel industry in the conditions of an economic downturn.

The growing attention to environmental pollution and the harmful impact on human health, as well as the role of metallurgical enterprises in this process, has been considered in a number of papers. Ilutiu-Varvara and Aciu (2022) investigate the chemical and mineralogical composition of metallurgical waste deposited at the Padiga slag dump (Alba County, Romania), and Cîrţină and Traistă (2014) considered the technological problems of Romanian metallurgy and noted that on a global scale about 80% of waste steel is recovered, and in Romania – a maximum of 48%. The authors note that the proper management of metallurgical waste will lead to environmental protection, saving of natural resources and sustainability of the steel industry. The metallurgical industry, according to Lis and Nowacki (2022), is responsible for a large

amount of waste that has a negative impact on the environment and human health, and therefore any research into waste management, including by metallurgical companies, is justified. The main aim of the study by Ferreira et al. (2010) was to determine whether noise in the metallurgical industry in Agueda (Portugal) poses a health risk to workers. Since in the workplaces in the metallurgical industry the activities are carried out under conditions harmful to health, Spilka (2021) assesses professional risk and indicates corrective actions to increase occupational safety. Carrying out an economic and ecological analysis, Di Maria et al. (2022) evaluate the energy and resource efficiency for recovery of metallurgical residues.

People, especially decision makers, are one of the most important success factors in all areas of human activity. The empirical study by Sikhimbayev et al. (2019) aimed to establish readiness for change among managers from the mining and metallurgical industries of Kazakhstan. The study of Kostalova, Bednarikova and Patak (2018) was also in the field of human resources in metallurgical companies. By interviewing HR managers of metallurgical companies in the Czech Republic, the authors aim to identify ways of training project managers, project team members and senior management members.

The topics of sustainable development and corporate social responsibility of metallurgical enterprises have been considered in a number of studies. Lenort et al. (2020) examine opportunities for the metallurgical and mining industries to create value for both their business and society through the prism of the Sustainable Development Goals (SDGs). In their study, Lenort et al. (2017) identified and categorised the most frequently used sustainable key performance indicators (KPIs) and analysed the methods for their evaluation in the metallurgical industry. Similar was the study by Stas et al. (2017), in which

sustainability was considered as an approach to achieve long-term success of the steel industry. Sun, Pan and Zhi (2015) analysed the existing corporate social responsibility (CSR) problems of Chinese metallurgical enterprises and proposed their solutions. The results of Orekhova's (2017) study revealed the unsustainability of the economic growth of the Russian metallurgical complex. According to Bakalarczyk, Pomykalski and Samolejova (2014), modernly managed metallurgical companies in Poland turned to innovation management in search of vital components of effective strategies. Necsulescu, Necsulescu and Marcu (2009) examined the difficulties of the Romanian metallurgical industry, the source of which were the economic crisis and unfair competition coming from the unregulated markets of Turkey and Ukraine.

Methodology

The research is based on a review of the available (Bulgarian and foreign) literature on the subject (books, monographs, articles, proceedings of held scientific forums, etc.). A number of documents were studied, incl. strategic, relevant to the research (National Development Programme BULGARIA 2030, Action Plan Adopted for Implementation of BULGARIA 2030 National Development Programme for 2022-2024 Period, the World Bank report "Minerals for Climate Action: "The Mineral Intensity of the Clean Energy Transition", European Green Deal, etc.). The membership of almost all metallurgical companies in our country in the Bulgarian Association of the Metallurgical Industry (BAMI) allowed to study production, products, investments, policies, markets, etc. of the leading metallurgical companies. The statistical data necessary for the purpose of the research were obtained from Eurostat, World Bank, the National Statistical Institute (NSI), The observatory of economic complexity, the Yearbooks of BAMI and the German-

Bulgarian Chamber of Industry and Commerce (GBCIC), etc. In the course of the study, research approaches and methods were applied, such as historical approach, content analysis, comparative analysis, method of induction and deduction, analysis and synthesis, etc.

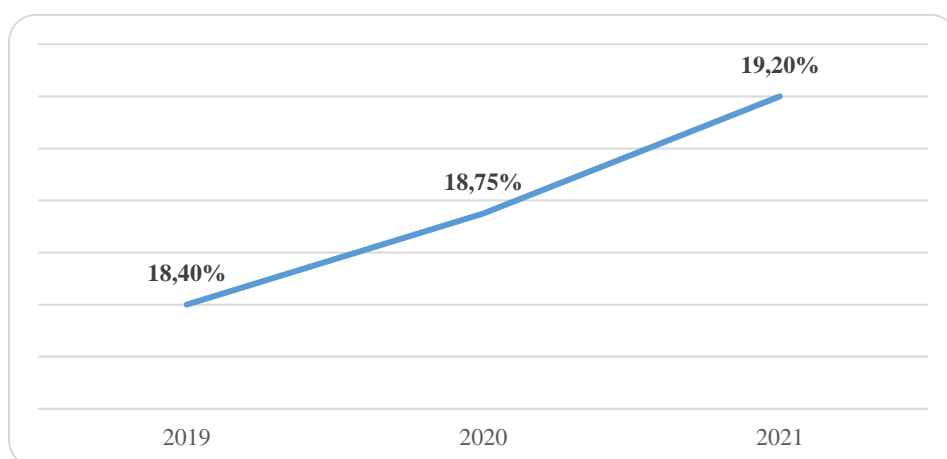
Results and discussion

Bulgarian Metallurgical Industry Nowadays

State and achievements

Since the beginning of 2021, the economies in the EU have marked growth and resumption of production in key sectors. This has an impact not only on the Bulgarian economy, but also on our export-oriented industry, which is primarily intended for the EU markets. The overall growth of both industrial output and GDP is higher than other EU countries. After the National Statistical Institute (NSI) reported a GDP decline of 4.4% in 2020, for 2021 our country recorded a growth of 4.2% – one of the highest in Europe. According to the preliminary data of the NSI for 2021, Bulgaria's GDP at current prices is BGN 139 012 million, compared to BGN 129 553 million in 2020. GDP per person employed is BGN 31 022 – a growth of 103.4% compared to 2020. The increase in the overall productivity of the Bulgarian economy is mainly due to the growth in industrial production. Its share in the annual GDP is growing – from 18.4% in 2019 and 18.75% in 2020, in 2021 it reaches 19.20% (Figure 1).

The value added per employee in metallurgy remains high – more than twice the average for the manufacturing industry, and for non-ferrous metallurgy this indicator is four times higher than the industry average (Yearbook of BAMI, 2022). This is as a result of investments made in new technologies and products with high added value, achieving high productivity and efficiency.



Source: NSI

Figure 1: Share of the industry in GDP for the period 2019 – 2021 in %

The Bulgarian economy has an open nature and a large part of the goods produced in the country are intended for export. As a member of the EU, Bulgarian exports are mainly realised on the European markets, as well as on those of the countries of the region. According to data of the National Statistical Institute, goods worth BGN 68.2 billion are exported in 2021, of which 66% are intended for EU markets. In recent years, metals have made a high contribution to export indicators, with their relative share reaching 15% (Table 1). In 2020, Bulgaria was the 16th largest exporter of refined copper in the world with exports worth \$1.2 billion, with refined copper being Bulgaria's most exported product (OECa). In the same year, Bulgaria was the largest exporter of iron pyrites in the world (OECb), and in terms

of exports of raw copper the country was in fourth place (OECc). According to the data of the companies producing metallurgical products and the official statistics of NSI, the export to the EU markets and to third countries is from 70% to over 90% of the annual production of the companies in the branch (NSI). This is the result of the companies' good competitiveness, based on the large-scale investments made in technologies and new productions. Non-ferrous metallurgy, which has a high contribution to the indicators of the Bulgarian processing industry, has been developing particularly successfully and sustainably in the last few years. It is also an important factor in the production of non-ferrous metals within the EU.

Table 1: Foreign trade – exports by product groups “raw materials and materials”, million euros

Groups of goods	2019	2020	2021
Raw materials and materials, incl.	11668.6	11644.0	15030.7
• <i>Cast iron, iron and steel</i>	<i>608.1</i>	<i>534.0</i>	<i>976.2</i>
• <i>Non-ferrous metals</i>	<i>2323.1</i>	<i>2555.2</i>	<i>3202.9</i>
Total exports of the country	29856	27969	34866.9

Source: NSI

According to data available to Eurostat, in economic activity 24 “Production of basic metals” in 2020, production worth 290 billion euros was produced in Europe. For comparison, in 2019, the output was 50 billion

more (a decrease of 15% in 2020). Eurostat data show that, with the exception of Bulgaria, all other countries in 2020 reported a decline in the metallurgical industry. Only the Bulgarian non-ferrous metallurgy enterprises

increased their production output by 271 million euros and recorded a growth of 5%. In the steel sector, the situation is similar to that in other countries – the liquid steel produced in our country was 82 thousand tons less (a decrease of 14%). In 2020, Bulgaria produced metallurgical output worth EUR 5 243 million (a growth of 5% and a share of 1.8%, compared to a 1.5% share for 2019). With this production

volume, our country occupies 12th place in the annual ranking of the EU member states. After the closure of the largest steel plant in Bulgaria, the ratio between the ferrous and non-ferrous metallurgy sectors has changed. Now non-ferrous metallurgy has a higher relative share and this difference is gradually increasing (Table 2).

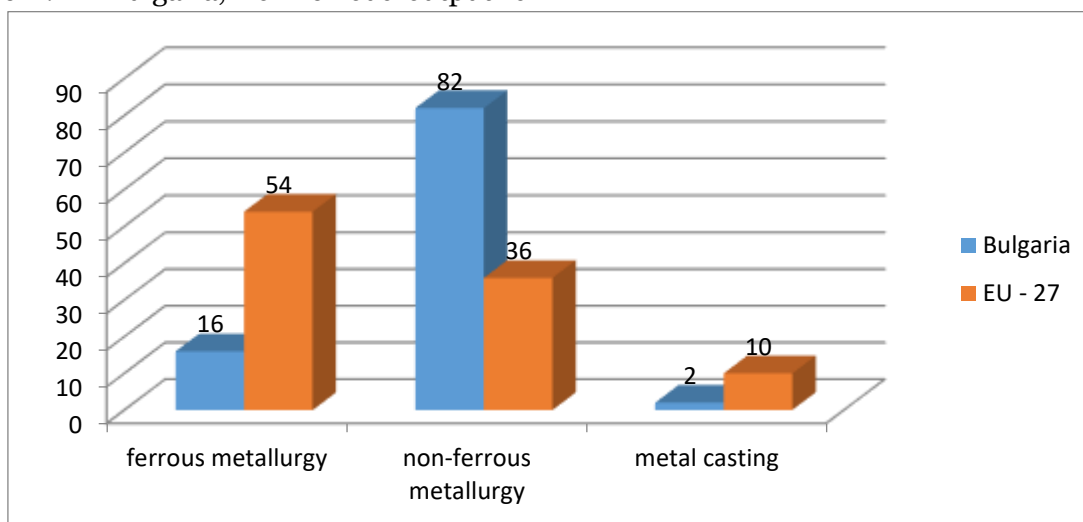
Table 2: Output values and shares of separate industries in 2020.

Production	Produced output, million euros	Share, %
Ferrous metallurgy	840	16 %
Non-ferrous metallurgy	4 311	82 %
Casting of metals	92	2 %

Source: BAMl

The share of separate productions in the EU-27 and Bulgaria for 2020 according to Eurostat data from 18 May 2022 is shown in Figure 2. In Bulgaria, non-ferrous output is

dominant with a share of 82%, while within the EU, ferrous metallurgy is dominant with 54%.



Source: Eurostat

Figure 2: Share of production in metallurgy in EU-27 and Bulgaria for 2020 in %

In 2021, the steel production of the EU and of Bulgaria showed a growth of 15% and 13.3%, respectively, but the share of separate productions was preserved. The metallurgical industry in the country is characterised by a high degree of specialisation in the production of basic non-ferrous metals – lead, zinc and copper and of rolled products and products from aluminium, copper and their alloys. While in terms of the total volume of produced metals (ferrous and non-ferrous) Bulgaria occupies 12th place among the EU countries,

in the ranking for non-ferrous metals our country is in the 6th place, with production for 4 311 million euros and a share of 4.2%.

Issues and challenges

In 2021, the Bulgarian economy gradually recovered after the negative impact of external factors, such as the Covid 19 pandemic, disruptions in supply chains, etc. The GDP growth and the resumption of various industries cannot compensate for the deterioration of the country's demographic indicators in recent decades. An aging population and labour

migration are the main reasons for the shortage of personnel – from workers to highly qualified specialists. Companies in the steel industry are also having trouble finding qualified employees. Young people in our country associate the profession of metallurgist with hard work that is harmful to their health and do not see good opportunities for career development, despite the high salaries in the industry. For 2021, the average monthly salary in non-ferrous metallurgy is over 53% higher than the average monthly salary for the country and nearly 90% higher than that in the manufacturing industry (NSI, BAMI). The difficulties that employers face in providing qualified specialists, the insufficient quality of academic and especially professional education, the shortage of qualified labour, leading to increasing labour costs, are also evident from the survey conducted by the GBCIC (Yearbook of GBCIC, 2021).

The metallurgical industry is characterised by high environmental protection costs and strict occupational safety and health rules. Metallurgical production is the second most important (after energy) source of environmental pollution and all its components (soil, air and water). Most of the metallurgical enterprises are located in or in close proximity to inhabited areas, and some of them even on fertile agricultural lands. The pressure of non-governmental environmental protection organisations and the observance of increasingly strict environmental standards are a serious challenge for metallurgical enterprises and require serious investments in environmentally and human health-friendly production technologies. In view of the increased demand for metals worldwide, an increase in production in Bulgarian metallurgical enterprises is expected, which will further exacerbate the problem of high environmental protection expenditure.

The higher energy intensity than the EU average is characteristic of the Bulgarian economy and industry. The metallurgical industry, in addition to energy intensity, is

also characterised by extremely high material intensity, which determines its strong dependence on the prices of energy carriers, the quality and prices of raw materials, water for technological needs, the offered transport services. This problem directly corresponds to sub-priority 4.1 of the National Development Programme BULGARIA 2030, the aim of which is to reduce resource intensity and increase the efficiency of the materials used. The clearly emerging global trend of decreasing the average content of metals in mined ores and the high material intensity of the metallurgical industry require the utilisation of production residues and an increase in their share in the raw material balance and a wider application of circular models in order to increase the resource and environmental efficiency. The repeated increase in electricity prices for non-household consumers, as well as the jump in natural gas prices, have an extremely negative impact on the industry and make them unaffordable for companies with high energy consumption. Rising energy prices since the second half of 2021 have led to declines in steel, lead and zinc production and financial losses, and metal casting plants operate at low capacity utilisation. Mechanisms for long-term supplies of energy carriers at affordable prices are being activated in a number of European countries. Despite government intervention and support for business, Bulgarian companies continue to suffer financial losses and increased production costs result in their competitiveness. An additional issue that reflects on the competitiveness of the metallurgical industry on international markets is the unfair competition coming from countries where EU legislation is not applied.

The implementation of sub-priority 3.1 of the National Development Programme BULGARIA 2030, the main objective of which is to overcome the lag in the digitisation of business, is also a challenge for metallurgical companies. This requires increasing the

digital competence of the personnel of metallurgical companies and the possibilities of using digital technologies, which in turn will further increase their costs.

Undoubtedly, global demand for metals will increase. Green government policies, as well as the digitalisation of the business and the public sector, will accelerate this process and will create new opportunities for the development of our reformed metallurgical industry. However, this requires new strategic approaches and more investments to build production facilities, to innovate, to increase the qualifications of personnel, etc. Some of the companies are already looking for opportunities for alternative fuels and building their own power generation facilities. For instance, "Aurubis Bulgaria" launched a project worth 2.8 million euros to build a photovoltaic park with a capacity of 10 megawatts, which would satisfy part of the company's electricity consumption.

In recent years, companies from the sector have invested hundreds of millions of euros in various projects, not only for increasing the volume of production, renewal and modernisation of capacities and technologies, maintenance of facilities, infrastructure projects, projects for energy efficiency and protection of the negative impact on the environment, but also in projects for training and qualification of employees, improving the working environment and creating safe and healthy working conditions. The activity of all companies from this sector is also associated with large investments in the field of digitisation in response to the restructuring economy and significant funds for CSR activities.

Conclusion

Despite the significant place and role of the metallurgical industry in the Bulgarian economy, as well as its indisputable achievements nowadays, the companies in the sector face a number of problems – the high prices of energy carriers, the shortage of

qualified labour, disruption of supply chains, the low degree of digitisation of business, the high cost of compliance with environmental standards, protests by environmental organisations, etc. A large part of these problems have a long-term nature, which requires, both at the industry/sector level and at the micro level, to work on strategies through which the metallurgical industry can adapt to the new realities and respond adequately to the challenges. The aims of the circular economy must become a national priority, and the state, through its instruments, must create a favourable environment and support the industry if necessary.

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Visual Marketing Elements in Digital Media: A Tool for Planning

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Abstract: This paper aims at identifying and classifying the visual marketing elements most frequently used in digital media. State of the art scientific articles and blog posts serve as an information base for analysis and synthesis in order to identify different types of digital design elements such as images, infographics, data visualizations, visual quotes, memes, and Gifs, emojis, etc., and further to classify them into logical groups according to their format and function. As a result, a classification tool is developed which can be used by both researchers and practitioners to plan further investigations of business practices and customer preferences, as well as to plan visual communications avoiding clutter and inconsistency.

Key words: visual marketing, design elements, types of visual content in digital media

JEL: M31, M37

Introduction

Digital media creates a complex environment in which electronic devices are used to deliver content to various audiences. Each piece of content competes with hundreds and thousands of others for the attention, engagement, and conversion of targeted customers. In this context, visual marketing is a content marketing strategy which is gaining growing popularity in the recent years. A search by the key word “visual marketing” in the Scopus database reveals 71 articles, published from the year 2003 up to now, 71% of which are published after the year 2017. The combination of the key words “digital marketing” and “visual” results in 80 articles and 93% of them are published after the year 2017.

In an early article on the topic, published in the Journal of Marketing, Gerald Stahl (Stahl, 1964) argues that, because of lack of planned identification and visual communications, many companies suffer from inconsistent, inappropriate and indistinctive presence on

the market. This leads to confusing and even negative corporate reputation, instead of favourable recognition of the company’s brands and offers. In a recent study (Bashirzadeh, Mai and Faure, 2022), it was proved that although different visual design elements can create perceptions of enrichment with additional layers of meaning when used separately, they can evoke perceptions of clutter when used in a combination. This is explained by the fact that different types of visual design elements require different cognitive and emotional resources to be processed.

A key challenge for a marketing and branding specialist is to maintain consistency (Melewar, Saunders and Balmer, 2001) when communicating the brand and its offers across all the different marketing channels with the whole variety of the content formats. The decision about what type of visual marketing elements to be used and how to be aligned to the textual narrative, to one another, and to the media context requires extensive

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knowledge about all types of such elements and their functions.

Taking into consideration the above mentioned, this paper aims at answering the question: How can visual marketing elements in digital media be classified according to their format and functions? This question was provoked by a knowledge gap in the literature on visual marketing about the typology of visual design elements that are normally used in digital environment.

Literature review

Visual marketing includes all the visual design elements in the marketing and branding strategy of an organization, or all visual identifiers of a brand that the audience can see with their eyes (Wedel and Pieters, 2008; Langton and Campbell, 2011; Diamond, 2013). The continuously growing volume of digital content, delivered through electronic devices leads to shortening attention span and shift from text-based to visually-oriented experiences (Schroeder, 2002, 2004; Li and Xie, 2020; Liu, Dzyabura and Mizik, 2020), because visuals can turn complex and ambiguous concepts into messages that are easy to understand, to believe and remember (Pavel, 2014).

Adding visual design elements to a textual content is believed to enrich it (Wedel and Pieters, 2008; Pavel, 2014), providing more value for the targeted audience. The added value can be both cognitive and emotional (Yun Yoo and Kim, 2005). First, visual marketing elements are meant to simplify complex concepts, making them clear and easier to understand, to guide the viewer throughout the content, to clarify the context, to augment the meaning, and to improve readability as the human brain processes visual data much faster than text. Second, some visual elements deliver humor, excitement, and joy, contributing to better emotional experience and evoking feelings that words alone cannot do. As the saying goes: “A picture tells a thousand words” -

people have natural psychological predisposition to viscerally perceive visual information, especially when it resonates with them.

From a company perspective, adding visual elements to a text-only content can help it stand out and appeal to more viewers, resulting in higher values of customer journey success metrics, as well as to higher awareness, recognition, recall and reputation of the sponsoring brand (Stahl, 1964; Wedel and Pieters, 2008; Ladeira et al., 2019). As to the short-term results, it has been proved that a piece of content with visual elements provides better results compared to a piece of content without visual elements (Muñoz-Leiva, Liébana-Cabanillas and Hernández-Méndez, 2018; Yousaf et al., 2021; Bashirzadeh, Mai and Faure, 2022). Also, if visuals are processed much faster than words by the human brain, then visual elements have the power to exert high influence on the first impressions in the minds of the viewers.

Although visual marketing elements can be beneficial for both customers and companies, they can cause harm if they are badly designed and chaotically delivered to the target audience without proper integration (Stahl, 1964; Im, Ju and Johnson, 2021; Bashirzadeh, Mai and Faure, 2022). This means, when planning the visual marketing communications, to consider three main types of visual design elements: brand identity design elements, visual marketing elements for analogue (traditional) media, and visual design elements for digital (new) media. *Brand identity design elements* include brand logo, colors, typography (fonts), lines, shapes, textures, brand characters (if any), style of images (photographs and illustrations/icons), brand tone (of voice), brand story (Stahl, 1964; Melewar, Saunders and Balmer, 2001; Melewar and Karaosmanoglu, 2006; Phillips, McQuarrie and Griffin, 2014). These elements ensure unity of the brand and make it possible for all visual elements, that are in line with them, to contribute to the synergic effect of

better visibility, awareness and recall of the brand. They make the brand narrative cohesive and memorable. Among the *visual marketing design elements for analogue (traditional) media* are business collateral, buildings, vehicles, print, outdoor, and TV ads, uniforms, signs, brochures, flyers, product packages and labels, catalogues, etc. (Stahl, 1964; Wedel and Pieters, 2008). *Visual marketing design elements for digital (new) media* comprise of multimedia design elements, used to enrich text-based content distributed through electronic devices and include images, animations, videos, virtual tours, interactive elements, presentations, websites, landing pages, and ultimately augmented reality and virtual reality (Liu *et al.*, 2021; Bashirzadeh, Mai and Faure, 2022; Sripathi and Bhuvanewari, 2022).

The existing literature on visual marketing addresses topics such as tracking of eye movements (Wedel and Pieters, 2008; Ladeira *et al.*, 2019; Im, Ju and Johnson, 2021; Yin, Jia and Zheng, 2021), effects caused by different visual stimuli (Liu *et al.*, 2021; Yin, Jia and Zheng, 2021; Yousaf *et al.*, 2021; Bashirzadeh, Mai and Faure, 2022), research on separate visual design elements (Shomova, 2020; Kadry, 2021), visual perception (Sample, Hagtvedt and Brasel, 2020), and visual consumption (Schroeder, 2002, 2004). One typology is identified (Saura, 2020), but it classifies different types of fakers or users who publish fake content on the Internet. A literature gap is identified related to the existence of a comprehensive classification of the different types of visual marketing elements in digital media. Such classification is needed to help marketers and brand

managers avoid the negative effects of visual clutter by carefully planning and executing coordinated visual marketing strategies. The decision about what type of visual marketing elements to be used for each stage of the customer journey and for each digital media platform, requires extensive knowledge about all types of such elements and their functions.

Methodology

In order to identify as many as possible visual marketing elements used in digital media and to classify them according to their format and functions, the following procedure was followed:

With Google search of the key word “types of visual marketing” 10 blog posts, written by marketing professionals, were selected, considering the google ranking, the reputation of the publisher and the relevance of the content.

Through content analysis of the above-mentioned articles the main types of visual marketing elements were identified and explained in terms of formats and functions.

The approach, explained it step 1, was applied for every visual design element identified. For example, “types of infographics”, “types of videos”, “types of data visualizations”, “types of display ads”, etc. This was repeated until individual design elements were identified within categories and subcategories. The final selection included 227 blog post articles.

The content of the first 10 articles was used to create the classification of the visual marketing elements, and the rest - to identify the variety of visual elements in digital media.

Table 1. Data sources, based on Google search of “types of visual marketing”

Keyword "types of visual	Autor	Author profile	Publisher	Publisher profile	Company city	Company country	Article	Aticle URL
	Alexander Santo	Writer	Brafton	Content marketing services and technology solutions.	Washington	USA	14 Types of Visual Content To Use in Your Content Marketing Strategy [Infographic + SlideShare]	https://bit.ly/3WokVoV

	Lucien Joyce	Lead Copywriter	Nail Patel	Advertising & Marketing	London	UK	6 Types of Visual Content You Need to Use in Your Marketing Campaigns	https://bit.ly/2RB5Gkg
	Molly McGuane	Digital content specialist	Terakeet	Marketing agency	Syracuse, NY	USA	15 Ways to Use Visual Content Marketing to Capture More Traffic	https://bit.ly/3uYed5u
	Sergey Aliokhin	Marketing Specialist	Visme	Platform for creating visual content	Rockville, Maryland	USA	A Comprehensive Guide on Visual Marketing	https://bit.ly/3BMrgea
			Simplilearn	Provider of online training for Digital Marketing	San Francisco, CA	USA	The Ultimate Visual Marketing Strategy 2022	https://bit.ly/3FZZQ76
			Canva	Design and publishing tool	Surry Hills, NSW	Australia	Your ultimate guide to visual marketing strategy	https://bit.ly/3G313dV
	Robert Katai	Content marketing strategist and product marketer	Content Marketing Institute	Content marketing	NY City, NY	USA	12 Types of Awesome Visual Content You Can Use in Your Blog Posts	https://bit.ly/3Gc9945
	Ishaan Dua	Content specialist	Surfly	Web technology for online interactions	Amsterdam	Netherlands	4 types of visual engagement to enhance visual marketing campaigns	https://bit.ly/3BG3v3d
	Tricia Lim	Digital marketing specialist	Medianetic	Digital solutions	Petaling Jaya, Selangor	Malaysia	Visual Marketing Content Types You Need To Use in 2022	https://bit.ly/3HI3GmF
			CloudApp	Screen recording, screenshots, and GIF creation	San Francisco, CA	USA	Visual Content Marketing: 8 Types to Grow Your Business	https://bit.ly/3hz968R

Results and discussion

Following the methodological procedure 874 different visual marketing elements are identified, classified into 14 categories (types of visual elements). The categories of user

generated content (UGC), animation, website, landing page, virtual tour, augmented and virtual reality (AR and VR) are not included in this classification as they are not discussed in the studied articles.

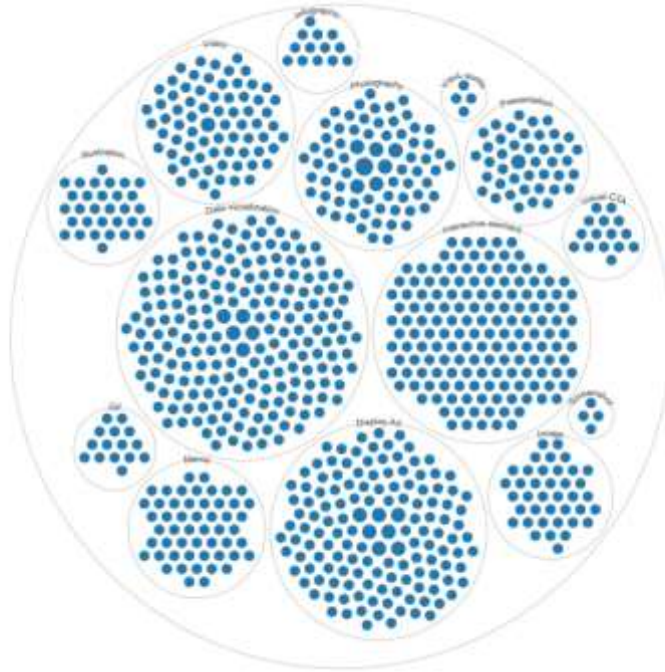


Figure 1. Types of visual marketing elements in digital media

As it can be seen from Figure 1., data visualizations (23%), interactive elements (18%), display advertisements (17%) dominate in terms of variety of visual elements. Photography (9%) and video visuals (8%) are

the next largest group, followed by memes, presentations, images, illustrations, GIFs, visual CTAs, infographics, screen shots, and visual quotes.

Table 2. Typology of visual design elements in digital media based on their format and function

Type	Description	Function
Text-based		
Visual quote	The focus is on the text, which conveys powerful meaning. It can be placed as annotations on white or colored background or over photos, screenshots, and videos. Also, a visual quote can be pulled out of a block of text to highlight important thought or concept.	Provides motivation and inspiration Highlights customer testimonials Attracts attention to an important message Lightens up a text-heavy article
Image-based		
Data visualization	The focus is on the visual representation of complex data, gathered through surveys or other types of research. It takes the form of a graph, chart, diagram, table, timeline, histogram, flow chart, plot, map, calendar, correlation matrices, etc. The visualization serves well, if it does not obscure the information, providing some context for different meaning.	Turns complex data into intuitive and easy to understand piece of content Visualizes relationships and trends Improves brand credibility Influences consumer trust Adds visual interest

Infographic	It represents complex data and concepts in a compact, easy to read and understand visual format. This element can add excitement and other emotional states to otherwise boring information. Infographics include design elements such as minimal texts (for headlines, subheads, enlarged callouts, and body copy), shapes, lines or arrows, colors, illustrations (icons, charts, graphs), and in some cases, motion and interactive features are added. Depending on the available space, the infographic may appear in a horizontal or vertical layout. The infographics grab the viewer's attention by one central topic, around which the whole content is organized. This main topic determines the infographic type.	It is used to attract attention and increase engagement It can be considered a tool for strategically positioning a company as more creative and versatile Visualizes research results, processes, comparisons, complex information, timelines Provide instructions how to do something Visualizes trends Breaks up large blocks of texts Makes complex concepts and statistics-heavy content easy to read, understand, and remember
Screenshot	It takes the form of a screenshot, screen capture, animated GIF or screencast, and reveals certain characteristics and functions of complicated products or processes. It also can capture customer/influencer reviews and/or testimonials. Arrows, shapes, and texts are used to annotate important things	Explains how something is constructed Explains how something works Provides proof and increases credibility Displays digital products Supports backing up claims Builds trust
Illustration	It takes the form of an icon, cartoon, comics or illustrated picture, giving more control of the marketer over the "look and feel" of the image. Illustrations also simplify information, but can be more emotional than data visualizations, infographics, and screenshots. Custom illustrations are used as brand identifiers or brand identity visuals.	Simplifies excessive information Gives more control over the content Emphasizes the uniqueness of a brand Adds emotional meaning
Photograph	Digital marketers use stock photos or original images that add realism, authenticity to the narrative. There are many types of photography – product, people, nature, sports, corporate, still life, art, drone, commercial, documentary, travel, portrait, etc. High-quality images that match the theme and the style of the brand are used.	Adds authenticity to the brand Evokes emotions Conveys mood and feelings Provokes thoughts
Display ad	Display ads are distributed through the display networks of Google, Tweeter, Instagram, LinkedIn, Tik Tok. They can take the form of event ads, carousel ads, collections, display banner ads, native ads, pop-up ads, skyscrapers, stories, branded emojis, etc.	Extends the reach of the brand to new customer segments Retargets prospects that have already been exposed to a brand message Builds desired image
Visual CTA	Visual call to action (CTA) can appear in the form of a button alone, or accompanied by other visual elements.	Drives customers along the buyer's journey Directs the customer to different pages on the website
Meme	It includes an image from daily life or popular culture, overlaid with humorous captions.	Evokes positive emotions/humor Helps spread brand awareness
GIF	It is an animated image by which inside jokes and fun topics are delivered to their target audience	Evokes positive emotions/humor Helps spread brand awareness
Multimedia-based		

Presentation	A presentation includes multimedia objects, such as text, images, videos, and interactive elements. It is easier to scan than video and provides more detailed and extensive information than an infographic. It can be shared through SlideShare and downloaded for future use. There are different types of presentations - storytelling, problem-solving, elevator pitch, report, research, persuasive, training session, etc	Tells a story Solves a problem Sells a product Simplifies and explains complex data Persuades Improves brand image Evokes positive emotions
Video	It is a short form to deliver information that otherwise will take longer to digest. It can appear in various formats – how-to video, behind-the-scenes, case study video, comedy show, onboarding video, product demonstration, unboxing video, live streaming video, customer testimonials, etc. It can include different types of visual elements such as texts, photos, motion graphics, music, movement, etc.	Saves time Teaches how to solve a problem Tells a story Entertains Explains complex topics
Interactive element	The interactive element can take to form of a quiz, survey, poll, interactive e-book, calculator, planner, game, checklist, interactive life streaming, contest, etc. – any visual that “invites” the viewer to do different things.	Evokes deeper thinking and decision making Stimulates customers to share knowledge and participate in the exchange process

Source: Author

The results from this initial research show that digital marketers are handed with a great diversity of visual design elements that can be used when planning their visual communications. The variety of information-based visuals prevails the variety of emotion-based visuals. This can be explained with the communication overload in the digital environment, in which clarity and simplicity are valuable and the market provides more and more tools to achieve them. The image-based elements dominate the digital landscape. By adding movement or interactive elements to them, they can be transformed into animated or interactive elements.

Further similar research is need about the typology of every visual element identified so far. It can explore the similarities and differences of the elements from one category and explain how they can “work” in combination with other text-based or visually-oriented content.

Conclusion

The aim of this paper was to answer the question “How can visual marketing elements in digital media be classified according to their

format and functions?” by providing a comprehensive classification tool that can guide marketers when they prepare visual marketing plans to build reputable brand and avoid visual clutter. A broad typology of elements is created and an approximate number (874) of individual units is identified. This signals for visual density of the digital environment where probably the next competitive edge will come with simplicity and minimalism. Further research needs to dig into the details of each of the groups of visual elements and find out the approaches and techniques that are considered best for companies, clients, and stakeholders.

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Digital Transformation of SMEs in Albania: The Case for the Value Creation Model

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Abstract: Adopting digital technologies has become necessary for SMEs if they are to succeed in the competitive and integrated global market, and that is true for the SMEs in Albania, too. However, investing in digital technologies would be a burden to them since they are very small in size and resources. Albania has almost 119 000 active enterprises and roughly 110 000 of them have less than 10 employees. Identifying the right model for the SMEs in Albania – the value creation model – is the purpose of this paper towards finding the incentives for businesses to invest in digital technologies.

Key words: digital technologies, value creation model, SMEs in Albania

JEL: M15, M21

Introduction

The value creation model is the right model for the small and medium enterprises (SMEs) in Albania to feel incentivized and adopt digital technologies. In fact, adopting digital technologies has now become necessary for all types of businesses all over the world, and this is very much true for Albanian enterprises, too. However, the so-called digital transformation is a costly undertaking, especially for the SMEs in Albania because their financial resources for investment purposes and their human resources are very limited.

However, despite the difficulties, the costs of the SMEs in Albania for being left behind in this age of digital transformations are far greater. This is the main reason for this paper to dwell on the various models being applied today for the digital transformation of SMEs

and which one of them suits best the Albanian SMEs.

Definitions of terms used

In order to clearly understand the topic discussed and to avoid any misunderstandings regarding the concepts involved, the following section offers the definition of the SMEs in the Albanian context, as well as the definition of the digital technologies enabling the digital transformation of SMEs.

At the end of 2021, Albania had a total of 181 549 business entities, where 118 627 enterprises conduct their activity in the areas of trade, services, manufacturing and other industrial sectors, and 62 922 are agricultural enterprises (Institute of Statistics, 2022, p. 9). By virtue of Article 4(6) of the Law 43/2002 “On the development of micro, small and medium enterprises”, micro enterprises are those business entities employing up to nine

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persons, small enterprises are those that employ from 10 to 49 persons, and medium enterprises are those business entities employing from 50 to 249 persons.

According to the data collected in Albania, 109 806 enterprises employ up to nine persons, thus being categorized as micro enterprises, whereas the number of small enterprises that employ from 10 to 49 persons stands at 6 862 (Institute of Statistics, 2022, p. 25). In so far as the number of medium enterprises is concerned, the data is still unclear, because the Institute of Statistics of Albania does not yet differentiate among the enterprises employing more than 50 persons. The Assembly of Albania approved the Law 43/2002 “On the development of micro, small and medium enterprises” in 21 April 2022 and its implications on the data collected and published by the Institute of Statistics of Albanian will appear only during the next year.

However, for the sake of statistics, Albania has 1 959 business entities that employ 50 or more persons.

The Law 43/2002 “On the development of micro, small and medium enterprises” was approved in order to harmonize the definition of SMEs that Albania uses with that used by the European Union (EU), which now are almost the same (European Commission, 2005). The definitions are the same in so far as the number of employees is concerned, but differ as to the annual turnover. In the EU, the annual turnover of SMEs must not exceed 50 million euros, whereas in Albania that limit stand at almost 2.1 million euros.

Competitive positioning is the process of conveying the company in an already crowded field of competitors, and the strategy for this is the guide to how to do it. With digital marketing, all this can be done efficiently and cost-effectively, using different tools. The development and implementation of this strategy is a process of several steps that begins with an understanding of this, which is unique in a company and ends with telling the world how this uniqueness will benefit potential customers. **(Frederiksen, L. 2017)**

Table 1: Comparison between the definitions of SMEs in Albania and the European Union

Enterprises	Albania		European Union	
	Number of employees	Annual turnover not exceeding	Number of employees	Annual turnover not exceeding
Micro enterprises	up to 9	0.09 million euros	up to 9	2 million euros
Small enterprises	from 10 to 49	0.42 million euros	from 10 to 49	10 million euros
Medium enterprises	from 50 to 249	2.10 million euros	from 50 to 249	50 million euros

Source: Institute of Statistics, 2022; European Commission, 2005.

The impact of digital technologies on the ways business is conducted is so great that it has been compared to a full-fledged industrial revolution (The Economist, 2012). Many studies agree that the adoption of digital technologies has started some time in 2000 or even earlier, but the real transformation has been happening during the last 10 years. The COVID-19 pandemic only served to spread digitalization even faster and further.

The digital transformation of the way business is conducted is felt in many levels. Digitalization involves (i) the use of different

applications in order to better connect to the markets and clients, and to better integrate all business operations and processes, (ii) the use of software-based tools for enterprise resource planning in order to better integrate the flow of information and enhance the efficiency of planning and coordination processes, (iii) the use of radio frequency identification technologies in order to improve the efficiency of the production, communication and control processes, (iv) the use of software-based tools in order to achieve better and more efficient customer relationship management and

supply chain management, (v) the adoption of cloud computing in order to fully utilize all the capacities offered by various information technologies at hand, (vi) the use of different social media platforms in order to increase visibility and enhance customer base, for marketing and image management purposes, and to communicate and receive feedback regarding new products or services, (vii) the application of e-commerce practices in order to reach to greater customer or supplier base (OECD, 2021, p. 22).

The scope of application and the types of digital technologies are defined along the same lines by many other studies (Andrews, Nicoletti and Timiliotis, 2018; Haller and Lyons, 2015; OECD, 2019).

Literature review

Digital transformation of the ways business is managed and conducted in the context of Albanian SMEs is a late starter, therefore the studies carried out regarding this matter are very few and mainly confined to e-commerce. On the other hand, the studies conducted at world level are numerous and touch on all aspect of the digital transformation of SMEs.

However, SMEs in Albania are at the very beginning of the digital transformation process and the very first thing they need to do is to manage this process. Earley (2014, p. 58) is cristal clear on the importance of managing the digital transformation process: ‘The challenge isn’t just to recognize innovative technology but also to apply it to your existing business model. In some cases, this requires breaking the business model and coming up with an entirely new way of doing business.’

This is where the Albanian SMEs face the greater challenge, regarding the approach to implement the digital technologies. The world experience has produced many models to be followed.

Poon and Swatman (1999), Martin and Matlay (2001) and Willcocks and Sauer (2000) propose the *integration-based model*, which focuses mainly on adopting the digital

technologies with the aim of integrating the internal and external systems of a business entity. This model aims to drive SMEs to use the Internet in order to integrate their internal and external operations and processes.

On the other hand, Chaston et al (2001) and Burgess, Sellitto and Wenn (2005) propose the *customer-based model*. Through this model, SMEs may adopt the e-commerce practices only. In other words, this model focuses only on communicating with the customers and building an interactive website for the customers to use for viewing products or services, selecting them and even purchasing them.

Rao, Metts and Mora Monge (2003) and Daniel and Wilson (2002) have come up with the *interaction-based model*. In this model, the digital technologies supports the interaction of various internal and external actors having an interest in the particular SME.

The three models briefly discussed above are the main models covering almost everything in so far the adoption of digital technologies by SMEs is concerned. The integration-based model connects the internal and external systems of a business, while leaving the systems themselves unchanged, whereas the customer-based model is focused on adopting and using the digital technologies only to exploit the benefits of online sales or e-commerce. The third model calls for a more thorough and broader adoption of digital technologies since it assists the interaction of all actors, internal and external. If this model is applied, an SME would have digitalized almost all its operations, from communication and production to management and strategic planning.

However, compared to the above three models, which are rather fixed in so far as their scope of application is concerned, this paper proposed a more loose and needs-based model, which we have called the *value creation model*. As per this model, SMEs may adopt and apply digital technologies only in

those sectors where they see the greater benefit. Van Alstyne and Parker (2021), Ryan (2020) and Wertz (2020) do not see digital transformation as an objective per se, but as a means to create more value by either lowering the costs or increasing sales.

Discussion: The cost of digitalization and value creation model

It has been proven that digital transformation leads to lower operating costs and increased profits, and there is no denying that SMEs would want join this revolution. This is very much true for the Albanian SMEs also. However, the investments needed for the digital transformation are sometimes steep for the Albanian SMEs.

The SMEs in Albania are very small compared to their counterparts in the European Union countries or other developed countries of the world. Looking at the definitions of SMEs that Albanian and the European Union use, they are categorized by the same number of employees. For instance, a medium enterprise in Albania and in the European Union have from 10 to 49 employees, but their resources are very much different. A medium enterprise in the European Union has an annual turnover of up to 10 million euros, where a medium enterprise in Albanian has an annual turnover of up to 0.42 million euros.

As much as it is needed to cope with the challenges of doing business in the 21st century, digital transformation is costly. The worldwide investments toward digital transformation of companies are expected to reach 2.3 trillion US dollars in 2023 (Shirer and Smith, 2019). This amount will represent almost half of all investments made in technological renovations.

Albanian SMEs clearly lack all the financial and human resources needed to undertake the revolutionizing drive toward digitalization. Studies conducted in Albania show that 56 percent of all Albanian enterprises still compile their management reports manually,

whereas 81 percent of them do not use digital technologies at all (Curraj, 2017). On the other hand, almost all SMEs in Albania are managed by their owners and, as Fuller-Love (2006) has pointed out, owner-managers have this tendency to favorably deal with digitalization only if there is a clear profit involved.

The value creation model of digitalization

The value creation model of adopting digital technologies is the best possible approach for the Albanian SMEs. They have very limited financial resources and therefore cannot undertake a full-scale digitalization of all their operations. On top of that, the major part of Albanian SMEs lack also the human expertise to deal with digitalization. Furthermore, taking into consideration the fact that Albanian SMEs are rather small compared their European Union counterparts, their general view is that they do not need many of the digital technologies (Curraj, 2017).

At the very foundation of the value creation model stands the value created by the digital technologies adopted. In other words, the SMEs would adopt only those digital technologies that give the best return on investment result. Therefore, Albanian SMEs would choose what they need most or what works best for them: social media platforms, e-commerce technologies, book-keeping software-based tools, etc.

By approaching digitalization this way, the Albanian SMEs would invest where they need it the most and where they stand to gain the most.

Conclusion

The purpose of this paper was not to discuss digital transformation or to highlight the benefits of SMEs in Albania for adopting digital technologies. This is why this paper did not elaborate in details what digitalization means for the way SMEs operate or to what extent digitalization lowers costs or increases

profits. The purpose of this paper was to focus on the Albanian SMEs and identify the appropriate model for them to use in order to safely approach digitalization.

Looking at their size, financial resources and human expertise available, Albanian SMEs would be better if they choose to adopt only some parts or one particular part of the whole digitalization drive. The value created by the digitalization should serve as the measuring unit for the investments made to this end.

All in all, this is the best option. Albania has 118 627 active enterprises and 109 806 of them are micro enterprises. Not only 99 percent of Albanian enterprises fall into the category of SMEs, but most of them are very small. It is therefore the conclusion of this paper that they would not be able to embark on a full-scale digitalization process. Subsequently, apart from promoting a very opportunistic approach by choosing only those digital technologies that bring the best positive impact on revenues, this paper intends to serve also as the starting point of a wider debate in Albania pertaining further research on what digital technologies fit best to every type of business.

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Personalization effects in online retail: Case of the Russian market

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Abstract: The research aims to classify the personalization techniques as optional and those that are taken for granted, define the influence of consumer-related characteristics and purchase channel on the perception of personalization effects. The results are both practical and theoretical in nature. The classification of personalization techniques is conducted, and optional and critically important techniques are identified. The influence of digital literacy, hedonic shopping behavior and purchase channel on the perception of personalization effects is examined and a multifactor model is constructed. It has been identified that these factors do not play the deciding role in the perception of personalization effects.

Key words: personalization, personalization techniques, personalization effects, digital literacy, purchase channels

JEL: M31

Introduction

E-commerce has already become an indispensable part of every consumer's day-to-day life. It has changed the buying patterns and expectations of consumers, with Covid-19 accelerating the shift to online platforms. Brick-and-mortar retailers cannot keep pace with the competition without new technologies applications, which is illustrated by the closure of offline retail stores (Green & Harney, 2017). Nevertheless, online shopping gaining popularity quickly is also accompanied by the 'revitalization' of offline channels through new technologies implementation such as VR, AR, data analytics, and robots. McKinsey (2021) shares the insights into the future of retailing, emphasizing the importance of personalization in omnichannel retail. More than that, customers expect a personalized approach in most touchpoints with companies, which puts additional pressure on the company's marketing strategies. These factors underline the importance of the

research in the area and allow to receive practically beneficial results.

As it can be seen, retailers are presented with the task to provide a personalized experience to the customers throughout the omnichannel customer journey. There is a complication with the provision of seamless customer experience, but the issue is complicated even more by the personalization-related problems. Though it might sound as if the more personalized the offer, the better for the company and consumers, it is not always the case. On the one hand, personalization enables retailers to provide an experience tailored to the needs of customers, which is the desired outcome as Martin & Palmatier (2020) highlight that 70% of consumers are dissatisfied with impersonalized customer experience. On the other hand, more than 70% of consumers are concerned about how companies use the data they collect (Auxier et al. 2019). This is one of the most popular paradoxes that complicates the personalization process, but it is the only

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one out of many. As more and more retailers switch to the omnichannel model, it has become an important issue to understand how personalization methods and customer experience differ depending on the channel and the stage of the customer journey. Since a company's resources are limited and should be utilized efficiently, it is crucial to understand which personalization techniques are valued the most by the customers and at which stages. This will potentially allow retailers to concentrate their efforts and resources where customers expect them to provide personalization and know what personalization techniques are taken for granted by the customers.

Speaking about the research gap, it is necessary to stress that two areas of research intersect in this study: personalization and customer experience. The author touches upon the problem of personalization throughout the customer journey in online retail. In the field of research on retail channels such areas as the impact of going multichannel, operational problems and customer experience with little regard to personalization are covered by the existing research. Large amount of research is focused on cannibalization and complementarity effects when adding retail channels. An example of such research is the article by Luo, Zhang, et al. (2020). Though there are some articles that consider customer experience in omnichannel retail, they are mainly focused on customer preference in terms of channels and categories of goods. Other articles such as Bilgihan, et al. (2016) investigate the unified customer experience based on literature investigation. As for the research in personalization field, there are articles that study personalization paradoxes and how to overcome them (Kaaniche, Laurent and Belguith, 2020), customer attitude towards personalized ads depending on different variables (Bleier, Eisenbeiss M, 2015), trust-building strategies (Aguirre, Mahr, et al., 2015) and the use of recommendations

(Dellaert, Häubl, 2012). The article that is closely connected with this research is the work by Riegger, Klein, et al. (2021), which focuses on technology-enabled personalization in retail stores. Their research relies on 25 qualitative interviews and the authors point out, 'Subsequent quantitative studies could offer more objective assessments of the effects of different drivers and barriers on TEP success' (p.152).

There are two main research questions that addressed in this study. The first one is to define which types of personalization are taken for granted and which are considered optional in the customer journey in the context of online retail. Secondly, the research strives to identify the interconnection between the mitigating effects such as purchase channel and the value from personalization and privacy concern. Thus, the aim of the research is to investigate the influence of customer characteristics and purchase channels on the perception of personalization effects and to classify the personalization techniques. To achieve the aim several tasks are proposed:

1. To investigate the role of personalization in the omnichannel retail through the literature analysis.
2. To define the customer journey in online retail and identify the touchpoints that can be personalized.
3. To identify the factors that influence the perception of personalization effects by consumers.
4. To analyze the influence of identified factors on the perception of personalization effects.
5. To define the basic types of personalization and optional ones.

Literature review

Conceptualizing personalization

To start with, there is no definition of personalization that is accepted by the whole research community (Vesänen, 2007). Though usually it is referred to as a targeted,

individual-level marketing action or strategy (Tam & Ho, 2006), which implies that a consumer is passive, while all personalization efforts are done by the company. It is also highlighted that one of the key characteristics of personalization is the delivery of the right content to the right person, which maximizes value both for a company and a client. According to Lee and Cranage (2011) 'in e-business, personalization refers to tailoring and recommending products and services according to specific consumer characteristics before a customer begins a search'. Personalization provides such benefits for the consumer as efficiency, convenience, individualization, and hospitality (Chellappa & Sin, 2005). Historically, personalization was attributed to the services due to interpersonal character in contrast to goods. Nevertheless, with the advent of technology, personalization has become a feature embedded in the websites that is no longer for services only (Gogua & Smirnova, 2020). In its current form personalization can be described as embedded communications points, instant communication with an e-store (Song, Zinkhan, 2008).

There are several classifications of personalization techniques. To begin with, personalization can be characterized based on a consumer engagement in communication, which allows to define several personalization types: pull personalization (when a customer explicitly requests personalization), passive personalization (still requires customer's action, but is more reliant on the company), push personalization (company provides personalization service directly to a customer without request from him/her) (Wedel, Kannan, 2016). Apart from that, authors suggest that personalization techniques can be divided into those establishing the feeling of personal communication (achieved through anthropomorphization) and those creating the sense of belongingness to the group and awareness of a customer preferences (achieved through recommendation systems) (Gogua &

Smirnova, 2020). Anthropomorphization refers to such tools as chatbots, intelligent agents and conversation agents, while recommendation systems involve displaying the offers to a customer based on his previous searching history, actions of similar customers or the average preferences of a similar group (Gogua & Smirnova, 2020).

Despite helping customers to gain value from companies faster and improving customer experience, personalization requires the use of personal data, which might lead to misunderstanding and rejection of ads, for example, by the consumers. The additional value delivered by personalization and the constraints related to it are the two factors that underline the necessity of research in the field. Personalization is one of the key instruments to provide value to the customer in the fastest manner. That is why the research also relies on the concept of the value and experiential value, which according to Mathwick et al. (2001, p. 41) is manifested in 4 dimensions: playfulness, aesthetics, service excellence and consumer return on investment (CROI).

Personalization can be implemented with the help of different tools and in various contexts. Examples of personalization may vary from a primitive name addition in marketing materials to customer-specific recommendations with the application of AI. Some of these techniques are already regarded by the consumers as 'must-haves' and those which help to distinguish a retailer from the others. Though 'must-haves' do not add value to the consumers, if those methods are not in place, the retailer is sure to lose points in the eyes of customers. As for the personalization techniques that are considered in this study, the list is formulated through literature analysis and the 16 most common and relevant techniques are chosen for the prioritization in accordance with the prior research (8th International GSOM Emerging Markets Conference..., 2021). Among the considered personalization techniques are recommendations based on search history,

similar products recommendations, chatbots, purchase basket, mobile app and personalization based on geolocation. As for the mobile apps, it is important to consider them due to the fast development of m-commerce. For example, in the USA m-commerce is expected to grow by 13% CAGR, reaching \$ 710 billion by 2025 (Mobile retail e-commerce sales..., 2022).

Previous and current research in the field of personalization can be divided into several broad directions: the effect of personalization on customer experience, privacy-related dilemmas, technologies used in personalization and the ways to mediate negative personalization-related impact. The proposed study will mainly focus on customer experience with the integration of privacy-related problems to understand what factors impact the perception of personalization throughout different touchpoints on the customer journey. Martin, & Palmatier (2020) suggest that future research is concentrated on how data privacy issues arise on the entire journey. This is an important aspect since several articles state that the way personalization is perceived varies depending on the channel (Tyrväinen, et al. 2020). Furthermore, research into how personalization effects differ between online channels can help to fill a knowledge gap since previously many papers focused on the personalization in the context of a specific channel. For example, the social media channel is a distinctive touchpoint, and one of the future research questions may investigate whether people are more relaxed with data privacy there. As for instore personalization, there is an interesting study about how people react to the personalization in public, which is sure to add different variables to the resulting perception of personalization (Hess, et al., 2020). In the omnichannel context the concept of technology-enabled personalization is important. It is defined as 'the integration of physical and digital personalization dimensions at the point of sale to provide

individual customers with relevant, context-specific information, according to historic and real-time data in combination' (Riegger, et al., 2021, p.142). The concept emphasizes an ability to provide personalization in omnichannel retail based on the available data on the customer. Though it might sound as a desired result, there are some factors that complicate the personalization process.

There are several personalization paradoxes that show how complicated the issue is. The most studied in the literature are personalization-privacy and humanization-dehumanization paradoxes, but the authors (Riegger, et al., 2021) pointed out that there are some other issues that require analysis. Those issues include staff presence – absence, personal – retailer device and exploitation – limitation, which implies the desire to explore on the one hand and the fear of being restricted in choice on the other. The digital literacy is also a complicating factor since without understanding of technology application any personalization techniques make no sense. In the current research the problem of personalization vs privacy is more explicitly reflected in the literature on targeted advertisements and recommendations.

Speaking about the privacy concern, in the literature there are several definitions and the factors that it arises from. Concern about privacy is conceptualized in the work by Smith, Milberg and Burke (1996). The authors initially identify several dimensions of the concern about privacy, including collection, unauthorized secondary use of data, improper access, errors, reduced judgement and combining data (Smith, et al., 1996). Featherman and Pavlou (2003) highlight that 'privacy concerns refer to the potential loss of control over personal information when released to a firm'. Inman (2017) points out that consumers' privacy concerns usually result from the 'three distinct dimensions: collection of personal data, control over the use of personal information by firms, and awareness of privacy practices and how

personal data are used'. For this research the variables as privacy concern, which represents collection of personal data and concern about its safety, and vulnerability as fear of loss of control over the personal data are used, while the third dimension, awareness of privacy practices is out of the scope of the research due to resource limitations and different focus. As for the vulnerability, authors state that it arises when there is lack of a sense of control over personal data, which might result in a consumer feeling exposed and powerless (Aguirre, et al., 2015).

On the other hand, a consumer is likely to receive value from personalization. The value is constructed of utilitarian and hedonic components. Two main utilitarian components include decrease in time and effort, better product fit. Authors also point out that "the value of online personalization to a user primarily stems from the fit that a product or service provides, and the convenience of having it delivered in a proactive fashion" (Chellappa & Sin, 2005, p.4), which confirms the constructed dimensions of the value from personalization. As for the hedonic value, it is related to the positive emotional value from personalization, which can be presented in the form of inspiration, intrinsic satisfaction, pleasure at getting discounts, or the shopping experience (Riegger, et al., 2021, p.144), which is comprised of the feeling of uniqueness and better communications. Whether the customers will receive the value from the personalization will depend heavily on how the data on the customers was collected, whether customers were notified about the use of their personal data and where and when the advertisement was shown. It is highlighted that being unaware of data collection and receiving personalized offers and advertising a customer is likely to be exposed to a higher degree of vulnerability (Aguirre, et al., 2015). That is why inefficient management of these aspects may result in a customer being taking

advantage of because of the inappropriate use of personal data.

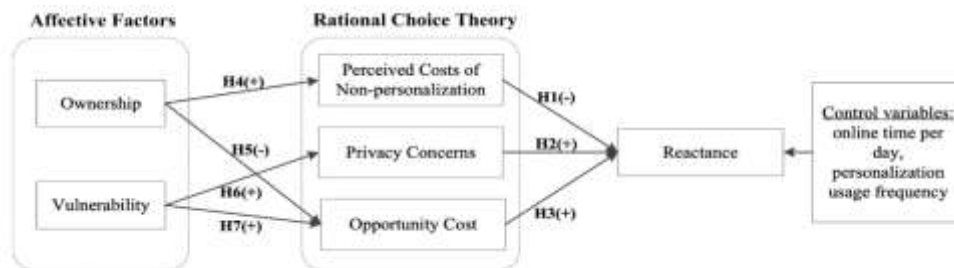
There are certain techniques that allow to manage negative consequences of personalization. Most of them are related with establishing trustworthy relationships between a company and a consumer. For example, trust-commitment model (Ameen, et al., 2020) and technology acceptance model (Davis, 1989) are useful when it is necessary to understand how to build trust with the consumers and how technology can be accepted by the users. Before mitigating the negative sides of personalization, it is necessary to understand whether customers are even aware of the use of personal data.

Hypotheses derivation

To begin with, it is necessary to operationalize such variables as negative effects of personalization and value from it. The theory on negative effects of personalization is studied and two main factors such as privacy concern and vulnerability are derived. The analysis of the hypotheses is based on the theory provided by Chen, et al. (2019), who designed the model according to which a consumer perceives reactance to the online personalized ads. The authors highlight rational factors such as perceived costs of non-personalization, privacy concerns, and opportunity costs in line with affective factors such as ownership and vulnerability. Speaking about the rational factors, it is important to emphasize that perceived costs of non-personalization are referred to the situation when non-personalization will result in increased effort and time costs for the consumers, which means that the negative reactance to personalization will decrease in this case. On the other hand, privacy concerns and opportunity costs positively influence negative reactance to personalization since privacy concern implies that a consumer loses control of personal information. For the research such constructs as vulnerability and privacy

concern will be utilized since other factors are out of scope of the research due to the focus on privacy-personalization paradox. Based on the literature analysis, the privacy concern is in its turn divided into personal data security issues,

possibility of data misuse by the company and the possibility of personal data transfer to the 3rd parties. The model proposed by the authors looks as follows.



Source: Chen, Q., Feng, Y., Liu, L., & Tian, X. (2019). Understanding consumers' reactance of online personalized advertising: A new scheme of rational choice from a perspective of negative effects. *International Journal of Information Management*, 44, 53-64.

Figure 1: The conceptual model of reactance to the personalization

After looking at how the negative effects of personalization are operationalized, it is worth exploring how the value from personalization can be operationalized. The main values from the personalization are providing products and services that fit a consumer and the convenience of product delivery in the proactive form (Chellappa & Sin, 2005). Another interesting and relevant concept is 'searching in choice mode', which implies that personalized recommendations help to compare the utility of similar products and make a stopping decision even with the increased product variability (Dellaert, Häubl, 2012). Vesanen J. (2007) highlights that the benefits from the personalization for a customer include better preference match, better products and services, better communication, and experience. From the analysis of the literature, it can be seen that the value from personalization is formed by the decrease in time and efforts needed for the consumer to find the desired product, better product match, improved customer experience, and communication. This classification reflects both utilitarian and hedonic benefits as it is noted in the literature (Chen, et al., 2019).

Having operationalized the key variables for the research, it is possible to switch to the hypothesis's description. The first assumption on which the first hypothesis is based is the suggestions that the perception of personalization varies depending on different circumstances. Personalization is sure to bring benefits for the company and customers, and most customers are expecting personalized experiences from firms. Despite being widely accepted as a prominent technique, personalization is a complicated issue, which can negatively influence customer experience due to data privacy issues. This means that what outcome personalization brings is highly dependent on the circumstances and how it is implemented. That is why it is interesting to look at how the perception of personalization differs with respect to the platform, on which a customer is interacting with a company.

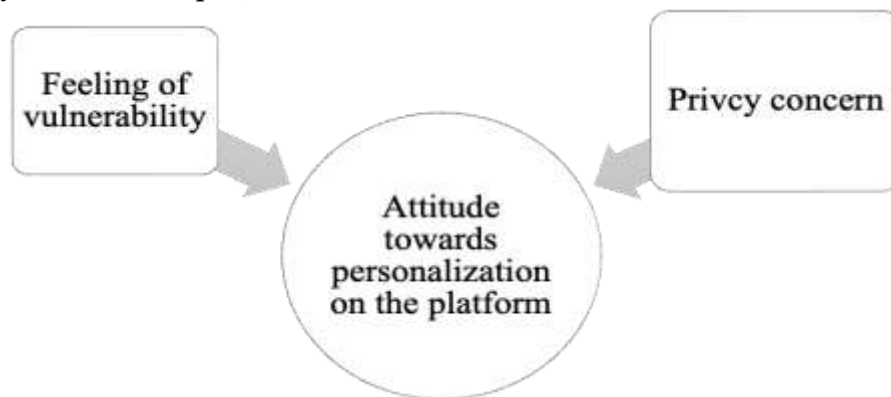
H1: A consumer experiences fewer negative effects from personalization when encountering personalization on social media than on other retailers' websites.

H1.1: Purchase on the social media decreases vulnerability experienced by a consumer.

H1.2: Purchase on the social media decreases privacy concern experienced by a consumer.

To operationalize the hypothesis the concept of negative effects from the personalization will be used. In case of purchases on different platforms the concept of trust is relevant. Furthermore, in this case, the authors usually consider the multidimensional issue of trust when buying through social platforms. It includes the trust to a social platform itself and a selling company (Martínez-López, et al., 2021). Some

people do not see a social platform as a selling platform, which requires specific technology and regulations. Nevertheless, to simplify the research and data gathering procedures the trust to the platform will be omitted in this case, while the author will focus on privacy concern and vulnerability. Summing the operationalization part up, it is necessary to point out that to analyze the hypothesis, the concepts of privacy concern and vulnerability will be used with regard to the platform.



Source: created by the author

Figure 2: Factors influencing personalization on the social platforms

Apart from that, digital literacy is analyzed as a positive factor that decreases the influence of vulnerability and privacy concerns. Digital illiteracy prevents a consumer from utilizing the benefits of personalization since he/she experiences increasing discomfort when confronted with digital solutions. Consumers are unlikely to use the functions or settings that are perceived complicated even if they improve customer experience (Burke, 2002). In the context of the study the impact of the level of digital literacy on the vulnerability and privacy concerns experienced by a consumer when encountering personalization techniques. EY (2021) reported that an increasing number of people are willing to share personal data amid the Covid pandemic. It has been found out that when a consumer feels that he/she is in control of the data, he/she is more likely to share personal data. It is then hypothesized that when a certain

person has a higher level of digital literacy, one is more likely to be better equipped for understanding how the data is protected and which data can be shared. This means that a person has control over data and is less likely to experience vulnerability. That is why it is supposed that there is a negative correlation between the level of digital literacy and the level of stress and vulnerability experienced when encountering personalization.

H2: There is a negative correlation between the level of digital literacy and negative effects from personalization experienced by a consumer when faced with personalization.

H2.1: Digital literacy is negatively correlated with vulnerability experienced by a consumer.

H2.2: Digital literacy is negatively correlated with privacy concern experienced by a consumer.

To test the hypothesis, it is necessary to operationalize the concept of digital literacy, while the concept of negative effects from personalization has been described earlier. Speaking about the ways to measure digital literacy, it is worth stating that there are several ways to do that. UNESCO, as an example, measures seven areas of competencies: devices and software operations, information and data literacy, communication and collaboration, digital content creation, safety, problem-solving and career-related opportunities (UNESCO, 2018).

Nevertheless, in case of this research due to certain constraints it is more appropriate to measure digital literacy based on the skills proficiency of the respondents on the 7-point Likert scales. The skills set that is going to be measured is taken from the work of Labazanov R.S. (2020), who developed the Digital Competence Research (DCR) model. The model resembles the Digital Literacy Global Framework (DLGF), developed by UNESCO's Institute for Statistics and Digital Competence Framework for Citizens (Dig Comp), developed by European Commission's Joint Research Centre. The author combined two models by adding the "Devices and software operations" competences from the DLGF framework to the Dig Comp model.

Thirdly, in the literature there is an understanding that the level of trust to a retailer can moderate negative effects from personalization. The authors (Bleier, et al., 2015) studied how click-through rate differs between ads with various depth and width of personalization in case of two different retailers with different levels of trust. It has been found out that although the trust is a strong mitigating factor, it is not the only requirements for successful personalization. Thus, the authors point out the necessity to research more thoroughly the mitigating role of trust in the perception of personalization in broader context and the situational characteristics of consumers such as shopping habits. In this study the influence of trust to

online retailers on the negative and positive effects of personalization is studied.

H3: Trust to online retailers decreases the negative effects from personalization.

H3.1: Trust to online retailers decreases vulnerability experienced by a consumer.

H3.2: Trust to online retailers decreases privacy concern experienced by a consumer.

The negative effects from personalization have been previously operationalized, while it is necessary to describe how the variables 'Trust to online retailers' is constructed. Based on the previous research, the trust variable is constructed as the ability to trust a retailer and the perception of the online retailers as trustworthy and reliable.

Moreover, the authors highlight the importance of shopping behavior in defining how personalization techniques are perceived as in the example of personalized ads perception (Bleier, et al., 2015). Hedonic and utilitarian values of shopping have been discussed in the literature as the driving motives of shopping behavior (Childers, et al., 2001). That is why such concepts are introduced in the study to check how these motives influence the perception of personalization and positive effects from personalization in particular. This allows to see which shopping motives are more consistent with the benefits from personalization and what type of consumer is more likely to feel the benefits.

Apart from that, the researchers study the interrelation of emotions and personalization techniques (Pappas, et al, 2014), highlighting that personalization tends to invoke positive emotions, while positive emotions encourage the shopping intention. Thus, one of the further directions of research is to analyze whether hedonic shoppers experience more value from personalization.

H4: Hedonic shopping influences the value from personalization.

Based on the previous studies the hedonic shopping variables is constructed. The ‘hedonic shopping’ is conceptualized using the following dimensions: joy during shopping, ability to enjoy shopping for its own sake, experiential element of escaping from problems. The value from personalization is conceptualized in the paragraphs above.

Classification of the personalization techniques

To achieve another aim of the research, which is to identify which personalization techniques are taken by customers for granted and which are seen as value-added ones, the classification of the possible techniques will be made. It is believed that such a classification exists in the eyes of the consumers and companies do need to understand which methods are attributed to which group. As an example of such a classification, it is possible to look at such a widely used personalization technique as addressing a customer by name. It has become such a standard approach that most consumers take it for granted and do not

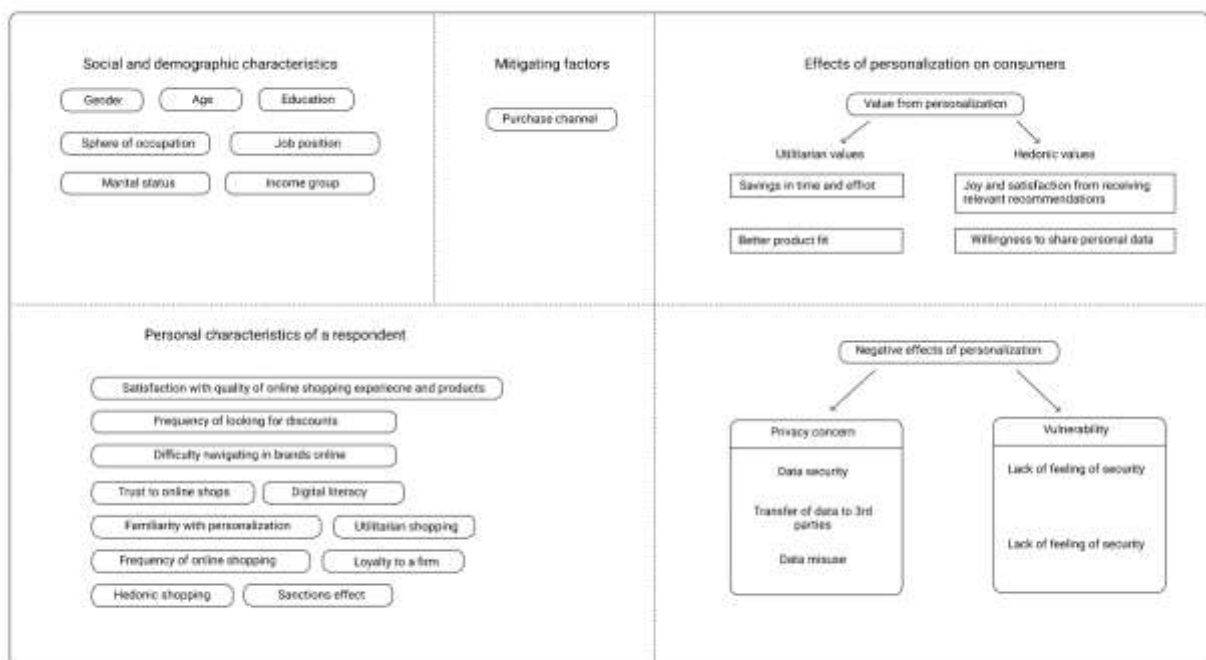
see it as something unusual. However, it is supposed that if this technique is not in place, it will negatively affect a consumer’s customer experience.

Taking the abovementioned argument into consideration, it is hypothesized that some personalization techniques are seen by customers as the “threshold” ones, which means that in case of their absences, a customer is highly likely to be unsatisfied with the company’s approach. Other in their turn are seen as “nice to haves”.

Methodology

Variables

To start with, it is necessary to define the variables used in the research. The variables are measured on an interval scale. There are several groups of variables used in the research, including such groups as effects from personalization, social and demographic characteristics, other personal characteristics related either to digital literacy or shopping patterns and mitigating factors. The variables are presented on the Figure 3.



Source: created by the author

Figure 3: Variables used in the research

Questionnaire development and sample description

The data is gathered through the questionnaire. For most of the questions five-point Likert scales are applied, which is a common methodology in personalization-related studies (e.g. Aguirre, et al., 2015, Chellappa & Sin, 2005). The questionnaire consists of five parts: general information about the buying patterns, the awareness of personalization techniques, personalization in the purchase process, individual characteristics of a respondent, and social and demographic profile of a respondent.

As for the sampling methods and representativeness, it is vital to point out that the general population of the research are

Russian citizens aged above 18 since this category is likely to be able to make purchases online, which is the most important factor for the survey. The quotas are set for the gender and age groups with the size of quotas of min. 30 respondents for age groups 18-29, 30-39, 40-49 and of min. 10 respondents for the age group 50 and above. This means that quotas are not equal, and the sample is not aimed at replication of the demographic structure since the most frequent users of online shopping are identified above. The quotas for the age groups in the range between 18-49 are higher since they are prioritized in the research due to the prevalence in the statistics on the frequency of online shopping.

Table 1: Minimal quotas for the respondents' groups

Age	Gender		Total
	Male	Female	
18-29	30	30	60
30-39	30	30	60
40-49	30	30	60
50 and above	10	10	20
Total	100	100	200

Source: created by the author

Consequently, the expected size of the sample is at least 200 respondents. More than that, since there are two scenarios embedded into the questionnaire it is necessary to ensure that each scenario receives at least 100 responses. The respondents are divided between the scenarios randomly by selecting the number they like in the questionnaire. The respondents are expected to be recruited through convenience and snowball methods.

Methods of analysis

First of all, the factor analysis is used to decrease the dimensionality of the variables and construct the needed factors. In order to analyze the 1st hypothesis independent t-test is applied. In the study regarding the effectiveness of the advertisement depending on the personalization effects mean comparisons are also applied, which indicates the appropriateness of the methods for the research in personalization field (Aguirre, et al., 2015). To test the 2nd hypothesis regression analysis is applied. The regression analysis helps to identify the causality between

variables and is widely applied in studies on personalization (Stevenson and Pasek, 2015). To test the 3rd hypothesis regression analysis is also applied. To test the 4th hypothesis independent t-test is applied. The respondents are divided into two groups based on the value of the 'Hedonic shopping' variable. The first group is the respondents who have negative attitude towards hedonic shopping (102 respondents), while the second group is positively or neutrally attuned to hedonic shopping or shopping for its own sake (98 respondents). The difference in purchase platform scenarios is not made in this case to obtain the large enough sample. It is possible to do so since the statistical tests does not show significant difference between the scenarios. As for the classification of personalization methods, frequency analysis of the answers is used to conduct the classification

Results and discussion

To start with, the classification of the personalization techniques is produced based on the answers and further the comparison

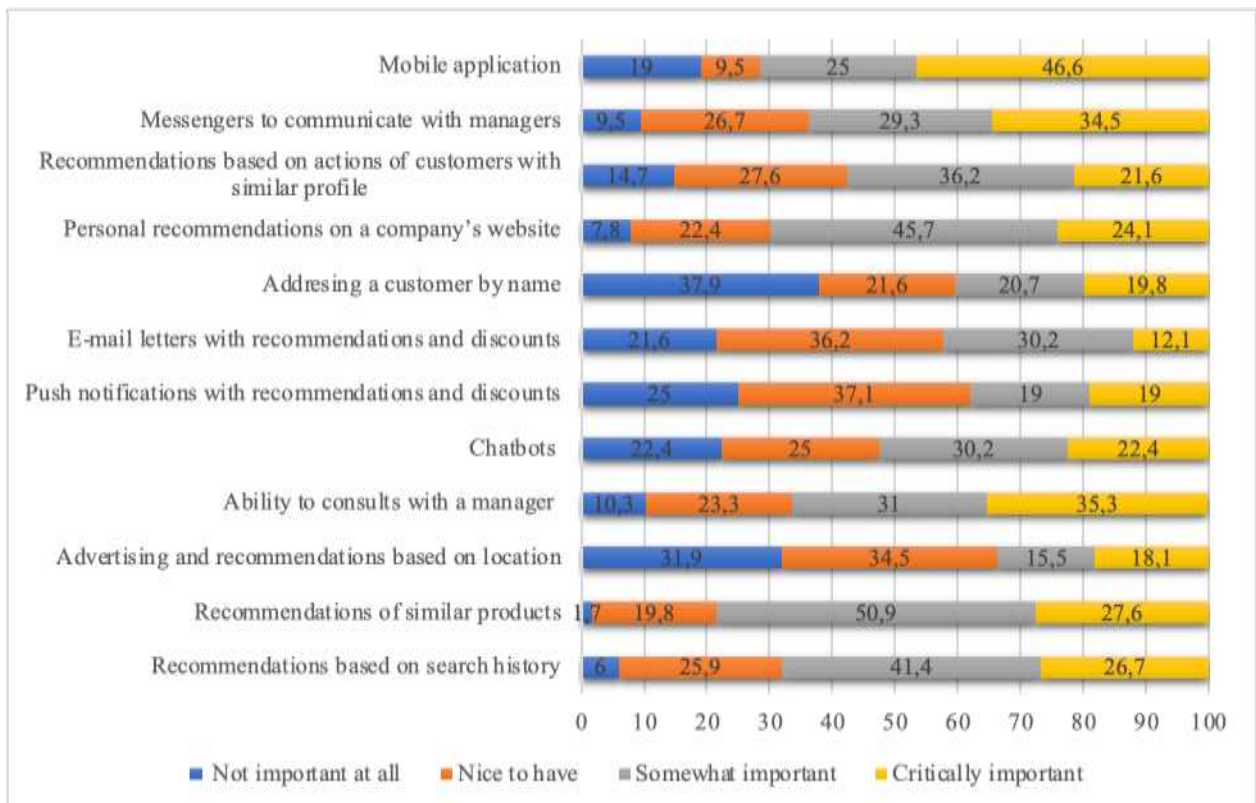
between two scenarios is run. The frequency analysis of answers is conducted to classify the techniques at different stages of the CJM both in purchases on websites and at social media. Firstly, the classification of personalization techniques is provided for each CJM stage at website purchase, then the personalization techniques during the purchase at social media is discussed and after that the results for two platforms are compared.

In the questionnaire the respondents were asked to assess the importance of the personalization methods at each stage of the CJM. There are 4 categories in which they can place the considered personalization methods: not important at all, nice to have, somewhat important and critically important. In this classification critically important personalization techniques are believed to be the threshold ones, while nice to have techniques are not required by consumers but

are appreciated if they are in place. The classification for the purchase both at website and social media is provided below.

The purchase at website.

As for the pre-purchase stage, it can be seen that the technique required by many respondents is mobile application, followed by the ability to consult with a manager and messengers to communicate with managers and recommendations based on search history, while the fact that company’s employees address customers by name is not considered to be an important aspect as well as chatbots. This can be explained by the fact that m-commerce is gaining popularity in online shopping, while the ability to consult with managers allows to get the information as soon as possible. As for the value-adding, optional techniques it is necessary to point out push notification and advertising based on location.



Source: created by the author

Figure 4: Personalization techniques at pre-purchase stage in website purchase

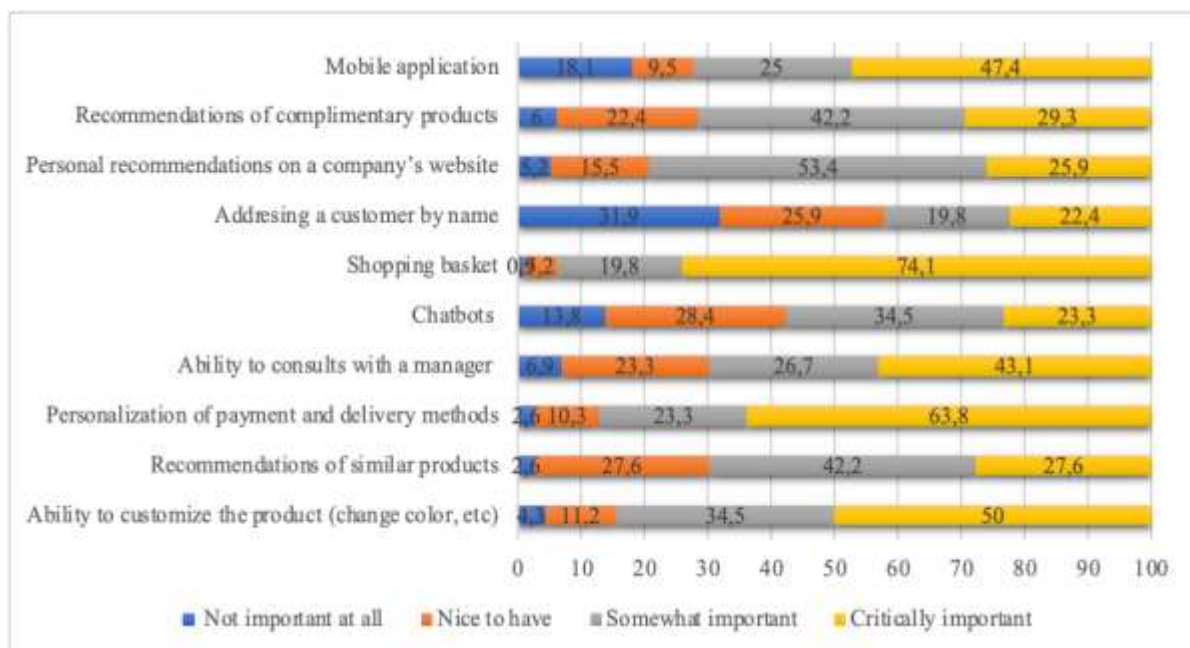
Table 2: Classification at pre-purchase stage in website purchase

Category	Personalization techniques
Not important at all	<ul style="list-style-type: none"> Addressing a customer by name
Nice to have	<ul style="list-style-type: none"> Advertising based on location Push notifications E-mails
Somewhat important	<ul style="list-style-type: none"> Recommendations of similar products Recommendations based on search history Chatbots Personal recommendations on a website Recommendations based on actions of customers with similar profile
Critically important	<ul style="list-style-type: none"> Ability to consults with a manager Messengers to communicate with managers Mobile application

Source: created by the author

Moving to the purchase stage, it is necessary to emphasize that overall, the importance of personalization techniques increases at this stage, which might be explained by the importance of the smoothness of the process to the customer. It can be seen that the shopping basket and personalization of payment and delivery methods are an absolute ‘must’, followed by an ability to customize product and mobile

application. It is possible to say that at the purchase stage the requirement from the customers increases with particular attention to personal approach. Another conclusion that can be made from this data is that consumers value functional techniques that are sure to make the purchase process easier (shopping basket, personalization of payment and delivery methods) or to customize the product.



Source: created by the author

Figure 5: Personalization techniques at purchase stage in website purchase

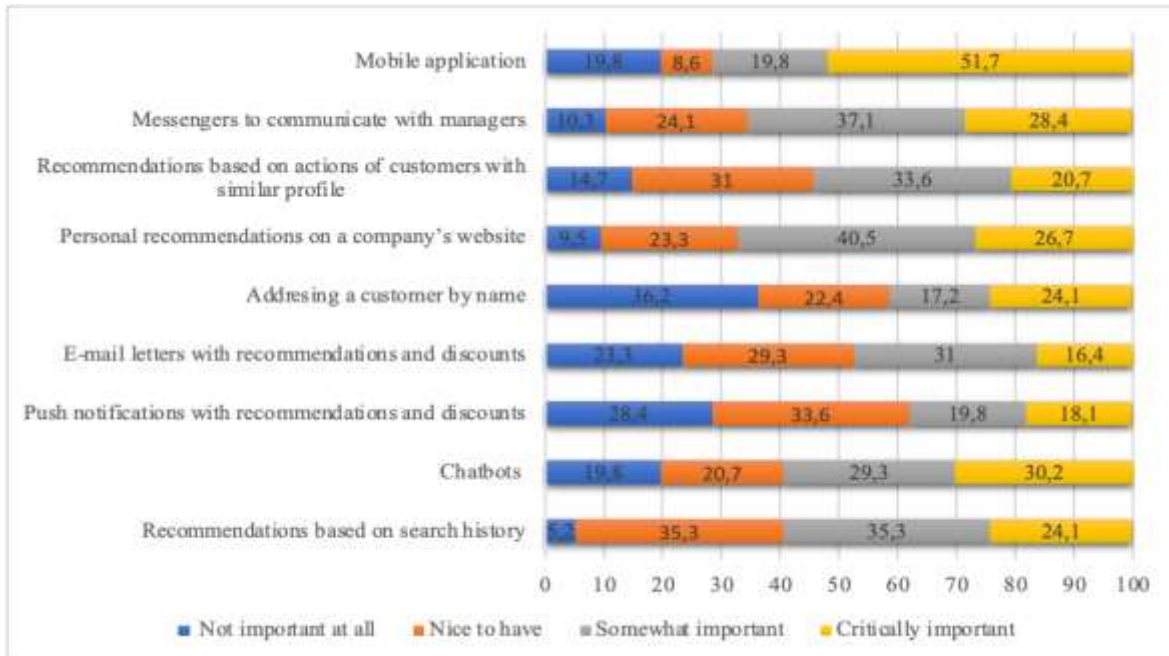
Table 3: Classification at purchase stage in website purchase

Category	Personalization techniques
Not important at all	<ul style="list-style-type: none"> Addressing a customer by name
Nice to have	
Somewhat important	<ul style="list-style-type: none"> Recommendations of similar products Chatbots Personal recommendations on a website Recommendations of complimentary products
Critically important	<ul style="list-style-type: none"> Ability to consults with a manager Mobile application Ability to customize the product (change color, etc) Personalization of payment and delivery methods Shopping basket

Source: created by the author

Speaking of the post-purchase stage, it is evident that mobile application is again the feature that customers are waiting for the most, followed by messengers to communicate with managers and recommendations based on search history. Compared to the pre-purchase stage the importance of e-mail

letters, messengers to communicate with managers and even addressing a customer by name increase, which can be explained by the fact that after the purchase the client might have questions about the products and requires more personalized approach.



Source: created by the author

Figure 6: Personalization techniques at post-purchase stage in website purchase

Table 4: Classification at post-purchase stage in website purchase

Category	Personalization techniques
Not important at all	<ul style="list-style-type: none">• Addressing a customer by name
Nice to have	<ul style="list-style-type: none">• Push notifications
Somewhat important	<ul style="list-style-type: none">• Recommendations of similar products• Recommendations based on search history• Personal recommendations on a website• Recommendations based on actions of customers with similar profile• E-mails• Messengers to communicate with managers
Critically important	<ul style="list-style-type: none">• Mobile application• Chatbots

Source: created by the author

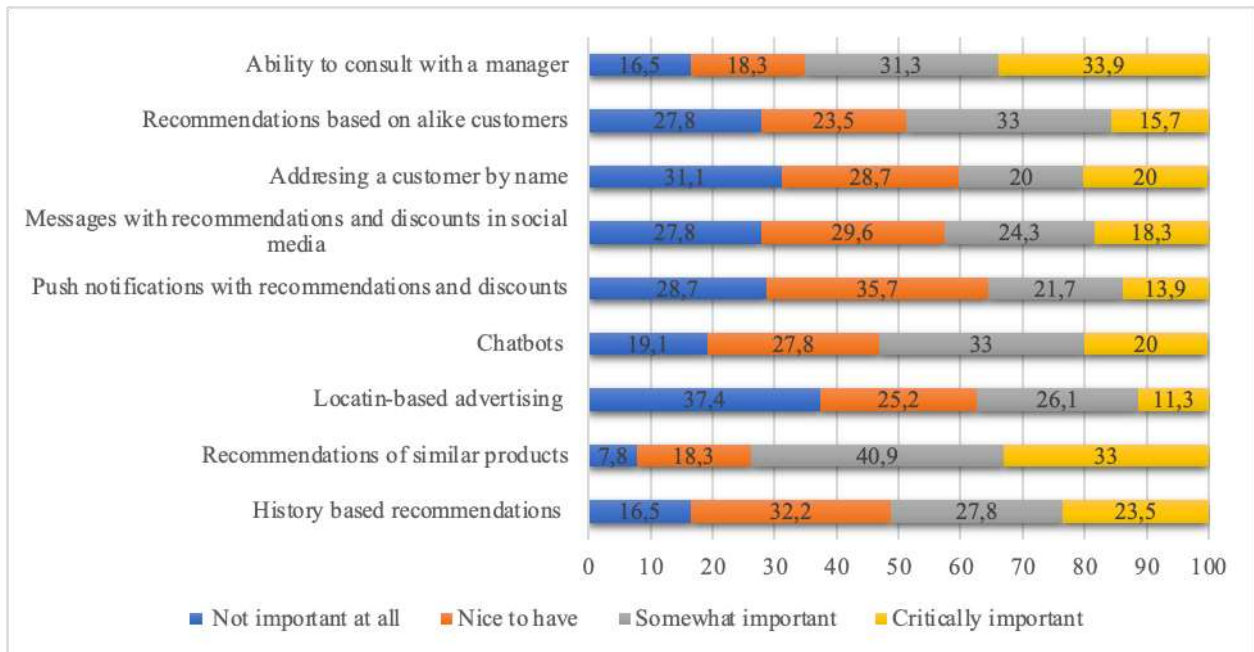
Concluding the paragraph about the personalization techniques classification at website purchase channel, it can be highlighted that the most importance in terms of personalization techniques is attributed to the purchase stage. The methods that are highly important and taken for granted are mobile app, recommendations based on search history, shopping basket, personalization of delivery and payment methods, ability to customize the product and the ability to consult with a manger. The value-adding, optional methods include push-notifications, e-mails, chatbots and location-based ads. It is also crucial to point out that in some cases there is a relatively large proportion of people, who see the methods as not important at all in case of addressing a customer by name, e-mails, push-notifications, chatbots and location-based ads.

The purchase in social media

To start with, it is necessary to point out that in case of purchase via a shop at social

media, the number of respondents, who consider the described personalization techniques important decreases. Probably, it can be the cause of lower trust to the social media or the inability to see a social media as a selling platform or the perceived ability of a respondent to navigate in social media without any additional help.

The personalization techniques at pre-purchase stage are considered at the social media purchase channel. In this case the most important personalization technique is an ability to consult with managers, followed by recommendations of similar products and chatbots. The value-adding, optional techniques in this case are push notifications, messages with recommendations and discounts. Apart from that, large percentages of the respondents see addressing a customer by name, location-based ads and recommendations based on actions in social media as unimportant.



Source: created by the author

Figure 7: Personalization techniques at pre-purchase stage in social media purchase

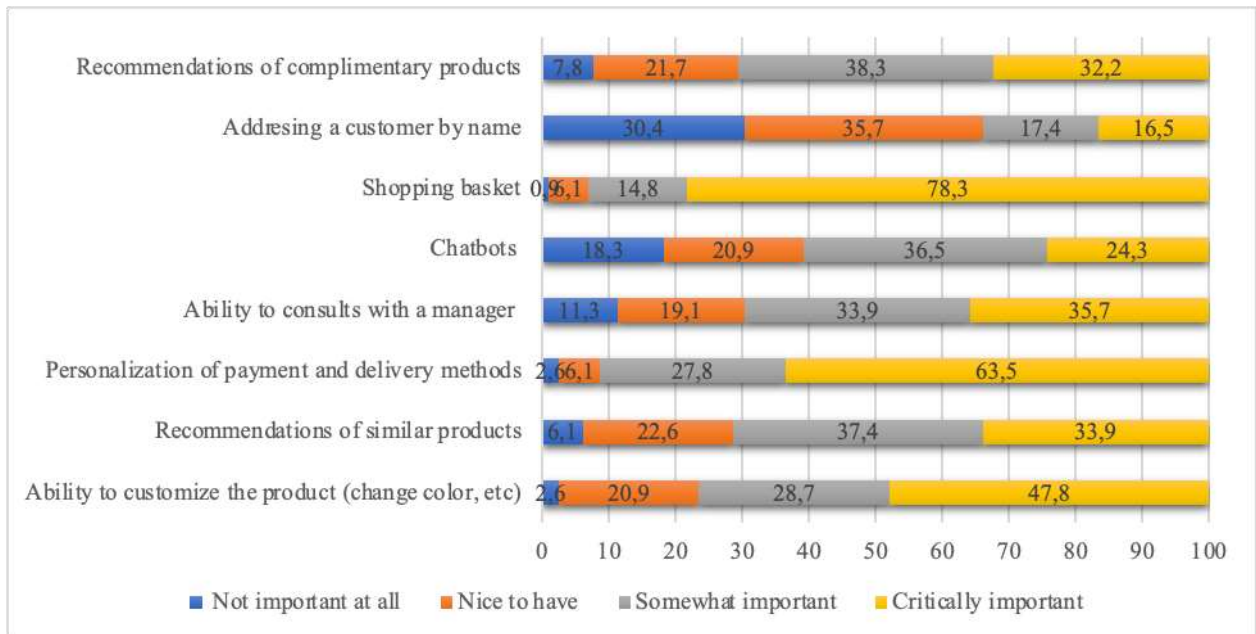
Table 5: Classification at pre-purchase stage in social media purchase

Category	Personalization techniques
Not important at all	<ul style="list-style-type: none"> Addressing a customer by name Advertising based on location
Nice to have	<ul style="list-style-type: none"> Push notifications Recommendations based on actions in social media Messages with recommendations and discounts in social media
Somewhat important	<ul style="list-style-type: none"> Recommendations of similar products Recommendations based on actions of customers with similar profile Chatbots
Critically important	<ul style="list-style-type: none"> Ability to consult with a manager

Source: created by the author

Moving to the purchase stage, it is vital to emphasize that the importance of personalization techniques increases at this stage as well as at purchase stage in website purchase. The tendency is almost similar to the purchase in website channel as the shopping basket, personalization of payment and delivery methods and an ability to customize the product are the most important

personalization techniques. These methods are followed by recommendations of similar products, an ability to consult with a manager and recommendations of complimentary products. At this point it is difficult to tell which techniques are not essentials with the exception of chatbots. Addressing a customer by name is considered not important at all again.



Source: created by the author

Figure 8: Personalization techniques at purchase stage in social media purchase

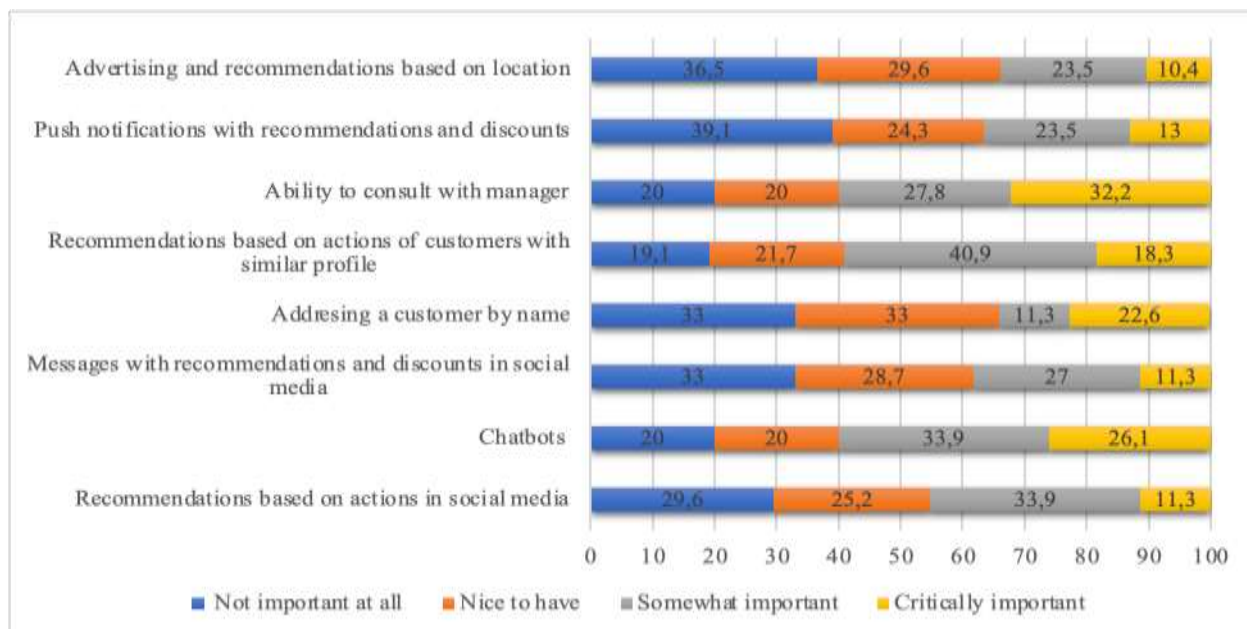
Table 6: Classification at purchase stage in social media purchase

Category	Personalization techniques
Not important at all	
Nice to have	<ul style="list-style-type: none"> Addressing a customer by name
Somewhat important	<ul style="list-style-type: none"> Recommendations of similar products Chatbots Recommendations of complimentary products
Critically important	<ul style="list-style-type: none"> Ability to consult with a manager Ability to customize the product (change color, etc) Personalization of payment and delivery methods Shopping basket

Source: created by the author

Lastly, the personalization techniques at post-purchase stage are considered. It can be seen that the importance of personalization techniques decreases even more compared to the pre-purchase stage. It might indicate that consumers at social media are not willing to communicate with shops out of the purchase stage. After making a purchase consumers are even less likely than at the pre-purchase stage to see personalization techniques as important, which also might be explained by the fact that social pages are private places to communicate with friend, relatives, etc., but not with brands. The most important

techniques in this case are an ability to consult with a manager and recommendations based on actions of customers with similar profiles, one of which is the method which is in line with the main function of social media, communication, and which allow to solve the issues after the purchase. In this case it is interesting that four methods (location-based ads, push notifications, addressing a customer by name, messages with recommendations) can be left aside since large percentages of the respondents consider them not important at all.



Source: created by the author

Figure 9: Personalization techniques at post-purchase stage in social media purchase

Table 7: Classification at post-purchase stage in social media purchase

Category	Personalization techniques
Not important at all	<ul style="list-style-type: none"> Addressing a customer by name Advertising based on location Messages with recommendations and discounts in social media Push notifications
Nice to have	
Somewhat important	<ul style="list-style-type: none"> Recommendations based on actions of customers with similar profile Chatbots Recommendations based on actions in social media
Critically important	<ul style="list-style-type: none"> Ability to consult with a manager

Source: created by the author

Factor analysis

Moving to the analysis of the hypothesis, it is necessary to emphasize that the factor analysis is conducted to reduce dimensionality

of the set and create the variables for further testing. The resulting factors are presented below.

Table 8: Factor analysis results

Nº	Factor name	% of variance explained after rotation	Cronbach's alpha
1	Hedonic shopping	10,759	0,921
2	Digital literacy	7,791	0,858
3	Value from personalization	5,920	0,857
4	Trust to online shops	5,024	0,822
5	Quality of products and online shopping experience	4,708	0,811
6	Privacy concern	4,082	0,812
7	Sanctions effect	3,634	0,765
8	Utilitarian shopping	3,588	0,684
9	Loyalty to a shop	3,385	0,734
10	Vulnerability	3,082	0,851
11	Difficulty navigating in brands online	2,941	0,672

Source: created by the author

By examining the Cronbach's alpha, it can be seen that all scales are reliable.

Hypotheses testing

H1: A consumer experiences fewer negative effects from personalization when encountering personalization on social media than on other retailers' websites. – **Rejected**

Having conducted the factor analysis, it is possible to switch to the hypotheses testing.

Table 9: The results of independent t-test – H1.1 privacy concern

Privacy concern	Scenario	Mean	T	P value	F statistics
	Website purchase	0,075240	1,176	0,241	0,139
	Social media purchase	-0,073750	1,177		

Source: created by the author

Table 10: The results of independent t-test – H1.2 vulnerability

Vulnerability	Scenario	Mean	T	P value	F statistics
	Website purchase	0,0830784	1,308	0,193	0,736
	Social media purchase	-0,081433	1,308		

Source: created by the author

Judging by the statistics, it is possible to conclude that although the means are different, the difference cannot be considered statistically significant.

H2: There is a negative correlation between the level of digital literacy and negative effects from personalization experienced by a consumer when faced with personalization. - **Rejected**

As for the testing of the second hypothesis, the regression analysis is applied to test the causality between the variables 'negative effects of personalization' and 'digital literacy'.

Table 11: The results of regression analysis - H2.1 – privacy concern

Dependent variable – Privacy concern Independent variable - Digital literacy	R	R ²	P value	F statistics
	0,009	0,000	0,901	0,015

Source: created by the author

Table 12: The results of regression analysis - H2.2 – vulnerability

Dependent variable – Vulnerability Independent variable - Digital literacy	R	R ²	P value	F statistics
	0,004	0,000	0,958	0,003

Source: created by the author

For the testing of the first hypothesis independent t-test is applied. The test is applied to the variable 'negative effects of personalization' that is generated as the result of factor analysis. The central limit theorem allows to assume the normality of the sample. As for the equality of variances, the Levene's test shows that the variances are /equal.

First of all, the variables are checked for normality once again, which results in 'negative effects of personalization' and 'digital literacy' being normally distributed. There are no missing values and outliers for all observations. The standardized residuals and predicted values do not exceed the threshold values of -3/+3 and Cook's distance is not larger than 1. The residuals are normally distributed since the result of Kolmogorov – Smirnov test is higher than 0,05. The homoscedasticity of residuals is followed.

The linear regression model with negative effects of personalization as a dependent variable and digital literacy as an independent one does not produce any statistically significant results. This shows that the digital literacy variable is not the most important one in determination of privacy concern and vulnerability, which leaves the room for potential exploration of determining factors.

The digital literacy is likely to be an important factor in combination with other variables or can act as the mitigating factor.

H3: Trust to online retailers decreases the negative effects from personalization. - **Rejected**

As for the test of the third hypothesis, regression analysis is ran again. Before running the regression analysis, all requirements are checked and satisfied. The data is normally distributed according to Kolmogorov-Smirnov test, there are no missing values or outliers. The homoscedasticity of residuals is followed.

Table 13: The results of regression analysis – H3.1 – privacy concern

Dependent variable – Privacy concern Independent variable – Trust to online shops	R	R ²	P value	F statistics
	0,013	0,000	0,857	0,033

Source: created by the author

Table 14: The results of regression analysis – H3.2 – vulnerability

Dependent variable - Vulnerability Independent variable - Trust to online shops	R	R ²	P value	F statistics
	0,006	0,000	0,934	0,007

Source: created by the author

The linear regression model with negative effects of personalization as a dependent variable and trust to online shops as an independent one does not produce any statistically significant results. This shows that the trust to online shops variable is not the most important one in determination of privacy concern and vulnerability, which leaves the room for potential exploration of determining factors. The trust to online shops is likely to play an important role in mitigating

effects with other factors being the main determinators.

H4: Hedonic shopping influences the value from personalization. – **Rejected**

For the 4th hypothesis the independent t-test has been run, which indicates that there is no statistically significant difference in value from personalization between people who love shopping for its own sake and those who do shopping only to buy products.

Table 15: The results of independent t-test – H4

Value from personalization	Scenario	Mean	T	P value	F statistics
	Rational shoppers	-0,009259	-0,144	0,886	0,518
	Hedonic shoppers	0,009637	-0,144		

Source: created by the author

It can be seen that the shopping behavior in this case does not affect the value received from personalization. It means that consumers

value personalization techniques in the same way. This fact might be further used in marketing studies and campaigns when

segmenting the shoppers bases on their shopping patterns.

Since all the hypotheses have been rejected, which means that these factors on their own do not influence the privacy concern or vulnerability significantly, it has been decided to conduct further exploratory analysis and construct a model with several factors based on previous research. In this model the dependent variable is vulnerability since it is the emotional state of a consumer and privacy concern, which is a more rational

characteristic, is likely to influence the emotional state. The independent variables in this model include utilitarian shopping, hedonic shopping, the scenario (website purchase or purchase in social media), digital literacy, trust to online shops, privacy concern and value from personalization. The value from personalization is included due to the previous conclusions about the fact that value from personalization can decrease the vulnerability because value will outweigh potential risks at some point.

Table 16: The alternative model

Dependent variable - Vulnerability Independent variables - Utilitarian shopping, Hedonic shopping, Scenario, Digital literacy, Trust to online shops, Privacy concern, Value from personalization	R	R²	P value	F statistics
	0,511	0,261	0,001	9,636

Source: created by the author

It can be seen that the model has a relatively good descriptive power. As for the significance of the predictors, trust, digital literacy and hedonic shopping and scenario are not significant ones, while utilitarian shopping, value from personalization and privacy concern are significant. It can be seen that the model confirms previous conclusions about the influence of privacy concern on vulnerability. Apart from that, utilitarian shopping, when a person wants to complete a purchase faster without enjoying shopping for its own sake, decreases the vulnerability. Moreover, the more value from personalization a customer receives, the less vulnerability he/she will experience. It can be explained by the fact that at some point the value outweighs all the potential risks and a person stops worrying about negative effects of personalization. At the same time, the purchase channel and digital literacy do not influence vulnerability.

The study has contributed both in practical and theoretical ways. The largest contribution lies within the prioritization of personalization techniques at different CJM stages in two

different purchase channels, though the study also highlighted how several factors such as purchase channel, shopping behavior and trust influence the perception of personalization effects.

Conclusion

Theoretical contributions

As for the theoretical contribution, the study analyzes the yet not very research field of intersection of customer experience, customer journey and personalization. After the research, it is possible to tell whether CJM stage influences the perception of importance of personalization techniques. Furthermore, the interrelation of digital literacy and personalization is tested, and it has been found out that digital literacy is not the deciding factor when it comes to the perception of personalization effects. More than that, the influence of the shopping behavior, rational vs hedonic shopping in particular, and overall trust to online shops on personalization perception has been tested. The situation is similar to the influence of the digital literacy in both cases, which means that although these

factors can be mitigating ones in a larger model, they are not the deciding ones. The findings allow to look at other factors that are more important for the perception of value and negative effects of personalization. Thirdly, the study contributes to the theoretical field by prioritizing personalization techniques at different CJM stages. Apart from that, the study sheds the light on the issues of the personalization perception in different purchase channels, which also contributes to the literature on the multichannel retail. The findings show that consumers perceive personalization effects equally on website and social media, which makes it possible to make no distinction for strategies in these platforms.

Practical contributions

The practical implications are also important for the business since they allow to decide which personalization techniques to use at all costs and which one can be omitted. This makes it possible to economize the needed resources without disappointing the consumers, which is important especially amid such turbulent times. More than that, the study indicates that consumers are less likely to perceive personalization techniques important in social media, which shows the importance to increase trust between shop and customers in social media. There is also a practical implication for social media platforms, which should provide such techniques as shopping basket or equivalent, which is already implemented in VK. It might be suggested that popularization of this technique can be beneficial.

As for the testing of the factors that influence the perception of personalization effects, it is necessary to say that there are several practical implications. First of all, the fact that consumers perceive negative effects from personalization similarly in purchases on the websites and in social media indicates that the companies can adapt marketing strategies related to personalization when changing purchase channels. Secondly, it has been

found out that rational and hedonic shopping behavior do not influence the value from personalization, which highlights that when segmenting the market to conduct personalized campaigns it is possible to overlook such characteristics of the respondents. Thirdly, the overall trust to the online shops does not influence the perception of negative effects from personalization, which means that the perception depends on the particular retailer and not the group on the whole. This fact implies that consumers typically do not have biases when it comes to trust to online retailers and, apart from that, each retailer should conduct campaigns to increase trust to it. Moreover, vulnerability is decreased by providing more value from personalization, which means that if companies provide high-quality personalization mechanisms and consumers appreciate them, then there should be less issues with privacy and vulnerability. This fact in its turn will result in better customer experience, which is a desired outcome for a company.

Limitations and further research

There are several limitations and, thus, areas for further research. The first limitation is related to the characteristics of a sample. Although the research aimed to decrease the biases related to a sample, the respondents were collected via convenience and snowball methods and mostly include people with higher education. Apart from that, due to the resource limitations of the research it was impossible to conduct the study and classification of personalization techniques in the experimental, which can be a potential area to develop the research. Thirdly, the research is narrowed down to such online purchase channel as social media and traditional online retail, while it is possible to consider other channels and not only the online ones.

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The Impact of Covid-19 on Electronic Trade (E-Commerce) and the Resulting Problems in Albanian Taxation

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Abstract: Covid-19 radically changed the way of living and working, significantly slowed down the development of economic activity, but on the other hand it caused an increase in e-commerce and the acceleration of the digital transformation. At a time when isolation and quarantine were in effect, businesses and consumers as a form of survival switched to the digital network, offering and buying more goods and services online and thus also increasing the e-commerce activity.

Based on statistical data, over 20% of businesses in Albania managed to market their products electronically, thus changing the concept of traditional buyers to online buyers. It is worth noting that all this change in consumer behavior seems to be permanent and not temporary. All this change in the economic life of the country, in the way of doing business, needs fiscal intervention, since in the Albanian market the electronic commerce is being seen as an opportunity to avoid taxes. At the same time, there have been interventions in the fiscal package by setting a settled price range for online purchases coming from abroad. This has been justified as an intervention to protect local business.

This paper aims to analyze how Covid-19 accelerated the increase in the convenience of online shopping in Albania, making possible the rapid development of e-commerce activity. The research methodology will be based on a market study in the form of a questionnaire addressed to consumers and aims to identify the factors influencing their online purchases, online payments, digital connectivity, changes to physical purchases, etc. Also, the paper will identify the difficulties and obstacles of the implementation of electronic commerce in Albania in the aspect of the individual and the business, focusing on the problems of today's market.

Key words: e-commerce, digital transformation, fiscal intervention, online shopper, traditional shopper

JEL: O, K

Introduction

E-commerce refers to the activity of buying or selling products and services over the Internet and has been introduced to the global market for almost half a century. Unlike traditional trade where the seller meets the buyer physically, in e-commerce all communications between the parties (buyer-seller) are carried out only through virtual

communications. E-commerce facilitates businesses to reach their customers and in turn, facilitates buyers to choose what they want in the variety of products and services offered.

Technological developments, increased access to the Internet and the recognition of the benefits of this field, made every day more and more people want to make the online

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world a part of their daily life. According to Statista¹, in 2022 there will be around 5.03 billion internet users anywhere in the world. Although there is such a high number of Internet usage everywhere in the world, it should be noted that there are quite significant differences according to different countries. Internet penetration rate is very high in developed countries compared to developing countries. For this reason, the development of e-commerce has historically been more advanced in developed countries,

The presence of the Covid-19 pandemic at the end of 2019 brought radical changes to the way of living, acting and thinking. In this time of panic, many businesses that were not yet part of e-commerce, appreciated it as a new way of survival and adoption to adapt not only to customer demands but also to ensure their longevity in the market even from the pandemic wave. But from a form of survival, e-commerce is now considered a necessary alternative to doing business, based on the quick adaptation that customers had during the period of isolation². Also, World Bank economists Christoph Ungerer and Alberto Portugal strongly emphasize the importance of government and stakeholder intervention in developing e-commerce and increasing their security.

E-commerce in Albania during Covid-19 and after

For years, e-commerce has been considered by Albanian businesses as an impossible investment alternative. Low number of Internet users, low Internet speed, the existence of a weak digital system, lack of trust and above all the costs of businesses to adapt to e-commerce, were some of the reasons that have influenced the underdevelopment of online trade for products and services, compared to other developed and developing countries.

According to the Findex global survey in 2017³, only 7% of Albanians were found to buy products online, which compared to other countries of the Western Balkans⁴, at nearly 14%, Albania was positioned at the lowest level. Also, Albania was behind compared to other countries that have almost the same level of income as Moldova. But on the other hand, WB countries did not have a preferential position compared to the American market in which almost 70% of the population were online shoppers.

But Covid-19 and the awareness of businesses to develop their activity online, repositioned Albania higher than Montenegro, BiH and North Macedonia, with nearly 34% of online users, a position which reflected a rapid change in the development of e-commerce in Albania but still leaves room for improvement compared to other countries in the region and beyond.

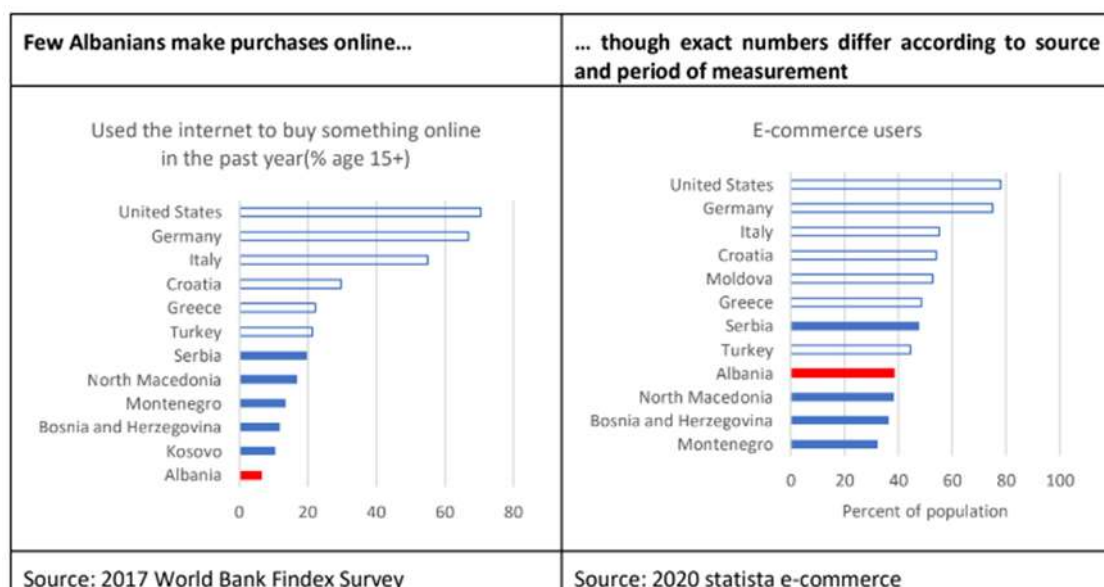
¹ <https://www.statista.com/statistics/617136/digital-population-worldwide/>

² Coibion, O., Y. Gorodnichenko, and M. Weber, Labor markets during the covid-19 crisis: A preliminary view.

2020, National Bureau of Economic Research

³ World Bank Global Findex Survey, 2017.

⁴ Westerns Balkan Countries include: Albania, Bosnia and Herzegovina, Kosovo, North Macedonia, and Serbia



Source: World Bank Findex Survey, 2017 & Statista 2020

Figure 1: E-commerce Users (in different years)

Mainly, online markets in Albania are characterized by:

- Online product sales (mainly imported) via social media and local stores rather than an official business website
- In general, few Albanian businesses sell their domestic products online, which is a consequence of the lack of liquidity and the information that entrepreneurs have regarding online sales.
- Product payments are usually made in cash (cash on delivery), and a small number of businesses also offer the possibility of online payments through various applications.
- Online purchases at international businesses that develop their activity outside Albania, are made through payments with bank cards (credit/debit) or PayPal.

Before 2017, in the absence of the development of a real online market in Albania, many young Albanians headed to foreign countries, placing online orders for the products they requested, making the payment via credit card, debit card or PayPal. The most common sites they were directed to were

mainly for clothing, accessories, electronics, books in websites such as Amazon, Asos, Ebay, Aliexpress, etc. But even these purchases were limited after the approval of the new fiscal package, which implemented some restrictions to online shoppers in the foreign market. According to this package¹, products worth more than 22 euros would be charged with customs tax, so over 22 euros, Albanian buyers would pay 22.4% of the value of the goods as tax (20% VAT and 2.4% customs tax). The purpose of reducing this amount for online purchases outside Albania was mainly decided by the government to promote the local product and encourage Albanian consumers to buy only within their territory. But in fact, this has only increased informality and increased the difficulty of controlling the introduction of foreign products into Albania, because in one form or another, all Albanian consumers continue to make purchases online outside of Albania, but they simply do not use the direct method (through the post office and customs) of receiving the product, but use other indirect ways (through relatives, etc.).

¹ [udhezim-nr02-date-15012018-si-dhe-manuali-per-vendosjen-ne-qarkullim-te-lire-te-dergesave-postare-dhe-](#)

[blerjeve-online-nga-individet \(dogana.gov.al\)](#)

But on the other hand, it was the new living conditions during the physical isolation as a result of the Covid-19, which further encouraged the acceleration of digitization in Albania. This is because, above all, electronic commerce was also evaluated as a key element in the fight against the virus, reducing the risk of increasing new infections, saving jobs even though working virtually, and businesses managed to meet the needs and wishes of customers. with their products without the need to meet physically. Most of the businesses that became part of e-commerce during Covid-19 managed to appreciate the benefits of e-commerce, and in a very short time, they were encouraged to make among the first strategic investments they would make for the business, it was that of a genuine online system that no longer included only the sale of online products but also offered different payment methods and the treatment of problems and disputes according to European standards.

An update of the World Bank Enterprise Survey 2020² claims that almost 20% of Albanian firms surveyed have started or increased online business activity during COVID-19 . Also, according to the survey of the Albanian-Swiss Chamber of Commerce, we see that during 2020, 67% of Albanians made online purchases, surpassing those of the physical stores. Demands for issuing cards in second level banks (credit/debit cards) increased and many businesses are looking at it every day more and more as an ideal way of investing for the future.

The development of e-commerce in Albania has also changed the way online businesses work. In general, it has influenced the increase of their productivity, the reduction of costs, the rapid update of the digital transformations and continuous improvements. According to INSTAT's Enterprise Information and

Communication Technologies Survey, in 2022, about 13.8% of businesses have sold products/services online through special applications, social networks, or e-commerce websites. The highest percentage in online product sales is by businesses in the field of information and communication at around 31.6%, as well as businesses offering accommodation and food products at around 29.7%³.

Questionnaire analysis on the online shopping during and after the Covid-19

In addition to the various studies and reports published regarding the development of e-commerce in Albania, a questionnaire addressed to various individuals was carried out with the main purpose of studying their online shopping behavior during the covid-19 period. The focus of the questionnaire was to study the online purchases that different consumers have made, the steps they have followed in choosing the product, the payment methods as well as the problems or difficulties they see in relation to online commerce. The questionnaire was created and distributed electronically, and since it was addressed to Albanian consumers, it was prepared in the Albanian language so that it could be understood by all and was completed by 339 individuals⁴. The analysis of the questionnaire will show not only some conclusions for the respondents but at the same time it can serve as a comparative case with all other previous studies that have been done in relation to e-commerce.

Depending on the questions of the questionnaire aimed at online shopping during covid-19, its analysis is as follows:

- Out of 339 completed questionnaires, 70.3% belonged to the female gender and 29.7% to the male gender. Although over the years, everywhere in

² World Bank Document: Albania E-Commerce Diagnostic
Leveraging the Digital Trade Opportunity

³ INSTAT, 2022

⁴ The survey link:
https://docs.google.com/forms/d/e/1FAIpQLSe6oZQwKxVaZKj18hzFWIy777lQyrQgB-N08bTYVQf30I2zJw/viewform?usp=sf_link

the world, online shopping has been seen with a greater interest by the female gender, the participation of the male gender in this survey, makes it possible for us to look at it in a more general and balanced perspective. Of the total number of respondents, 85.4% stated that they had made online purchases during Covid-19. While around 14.6% of them had not made online purchases as they had a low level of confidence regarding the quality of the advertised products, the mode of transport, data security, etc.

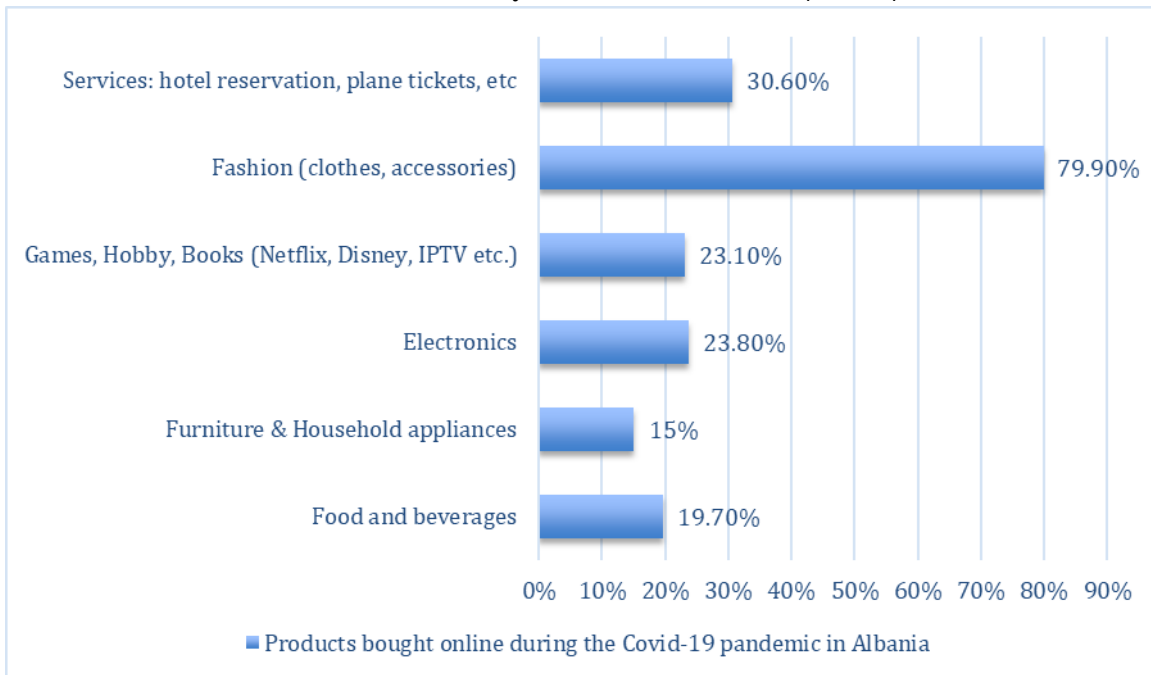
- Regarding the age groups of the respondents, almost 86.4% belonged to the age group of 18-35 years, 12.8% to the age group of 35-50 years and only 8% to the age group over 50 years. With such a large gap between age groups, it is not surprising that young people have a great interest in buying products online. First of all, they are more up-to-date with technological advancements compared to other age groups, they want to be always coherent with new innovations in the market, they are all good internet users, they tend to be more confident about trading online and are often evaluated as impulsive buyers, which affects the level of online purchases. Meanwhile, other age groups and mainly those over 50 years old, have a low percentage as online buyers and this is due to the lack of trust in electronic commerce in terms of achieving their expectations regarding the quality of the products, their access to the internet etc.
- In relation to the level of education, a very important question, it turned out that 91.7% of the respondents had a university diploma and the rest had a high school diploma. Intellectual and professional training also affects personal education in understanding

e-commerce. All individuals who have university diploma are not only better Internet users, but at the same time, they tend to believe more about the operation of online commerce, becoming online shoppers with the main goal of saving time and easy adaptation to market conditions.

- The monetary side is another important aspect that affects the purchase of various products both in physical stores and online. 50.6% of respondents stated that they received up to 50,000 ALL/month as personal income, 35.1% received between 50,000-100,000 ALL/month and 14.3% received over 100,000 ALL/month. Although the income level of the respondents was not relatively high, and considering the unpredictable expenses they would have during the time of Covid-19, they still claimed to have made online purchases, and often they were "impulsive" purchases" as a form of consolation to face the demoralizing situation in which they were.
- Interesting results were related to the most frequent products that respondents purchased during covid-19. From the chart below, it is clear the difference between fashion products such as clothes, accessories, etc. that almost 79.9% of the respondents had bought more in this industry compared to food products, furniture, electronic equipment, games or services. What remains interesting is that at the time of isolation, in an unforeseen situation regarding its duration, doubts about the continuity of life, or the return to normality, the main orientation of the respondents was towards clothes. One can clearly analyze the point of view they had regarding the situation they were experiencing. They considered online shopping as a comfort and with

the prediction that very soon it would be back to normal and the clothes bought would be worn. The same result is almost also from the survey

conducted by INSTAT, where almost 84.8% of individuals in 2020 had made online purchases for clothes/shoes/accessories⁵.



Source: Results of the survey calculated by the author

Figure 2: Products bought online during the Covid-19 pandemic in Albania

- The main reasons why respondents made online purchases during Covid-19 were mainly to avoid physical contact, saving physical time, for the variety of online products compared to physical ones, etc.
- Regarding the payment methods, almost 84% of them made cash payment when receiving the product, while 33.2% of them used e-banking.
- The channel most used by respondents to order products online was Instagram at nearly 75.4%. But they also used the official website of the store (mainly for registered online businesses which offered a more formalized and standardized online sale).

Different Barriers of e-commerce in Albania

Covid-19 gave a rapid development to e-commerce in Albania, but it still remains in the early stages and with many barriers or difficulties that must be overcome, before a full standardization and formalization as in developed countries.

- There is a law on electronic commerce which claims to theoretically regulate every issue of e-commerce, but in fact it does not regulate the minimum mandatory elements that an online business site must contain. The service provider must provide relevant authorities and customers with some general information, including business name, company headquarters, website, email address and company registration details.

⁵ INSTAT, 2020

- Theoretically, there is a law for the protection of the consumer, but unfortunately there is still no clear control and assessment system for the consumer, online businesses and the problems that may be between the parties.
- There is a lack of trust from consumers in ordering a product that does not meet expectations regarding the declared qualities, as well as the risk of identification and theft of personal and monetary data.
- Most of the businesses that operate online, invest in a "scary" marketing of products through social networks encouraging the customer to make impulse purchases, but without the interest of returning them for other purchases. Usually the product marketed with the physical product has a lot of difference, which affects the disappointment of the customer and at the same time the loss of his trust from other businesses that offer online products. In this path, e-commerce is seen as a strong disincentive for formal businesses to consider an online sales channel.
- Lack of initiative from private businesses. The pandemic had to come, for many businesses to become aware of the necessity of operating in e-commerce. Although most of the businesses, mostly small, started to sell their products online through social networks, there are many other shortcomings that demotivate them towards the development of formalized online activity. This is because: lack of liquidity, untrained staff to quickly adapt to new technological changes, lack of government support, lack of connection with the banking system on making payments, etc.
- There is no specific law that regulates the tax declarations of a business that operates online. Although in recent years in Albania, online taxation is being applied to every business, there are many online businesses, especially of small sizes, which do not register their electronic invoices, thus increasing even more the level of informality and the inaccuracy of online sales data. Unclear tax treatment keeps existing businesses away from e-commerce. The government should implement a complete regulatory system. (fiscal and accounting aspect). The existence of a strong regulatory framework helps increase confidence in the digital economy. To clarify the rights and responsibilities that online businesses must face.
- Poor digital infrastructure, which prevents online payments. The development of e-commerce in Albania is not realized only with the great desire of entrepreneurs to operate their online activity. A very fruitful cooperation is needed between the most important economic agents of a country: 1) the government and the legal framework that it designs, 2) financial intermediaries, in the standardization of the provision of online payments, 3) existing entrepreneurs in undertaking their initiative and investment towards the digital economy, as well as 4) consumers, to embrace this digital transformation as soon as possible
- One of the payment methods offered anywhere in the world, Paypal has a limited function in Albania, because it is not registered with the Bank of Albania to offer the opportunity of various transactions.
- There is no authorization, license, permit or similar requirement provided by Albanian law as a

prerequisite to conduct e-commerce business.

- A large part of Albanian businesses is small and have low liquidity, which makes it difficult for them to invest in e-commerce.
- Logistics and customs. Postal services, logistics companies, and customs administrations must develop appropriate solutions to support e-commerce businesses.
- The Common Regional Action Plan 2021-24 has recently been drawn up, which consists of a group of representatives of EU state institutions and has as its own goal the unification and regulation of the operation of e-commerce in the region, focusing on several areas such as: digital activities, logistics and customs issues, the private sector, e-commerce legislation and consumer protection as well as electronic payments.

Conclusions and recommendations

Regardless on the number of businesses operating online in Albania increases, what is urgent for a controlled digital economy is the support of all online businesses from the government. Close cooperation between all economic agents is needed so that e-commerce works according to European standards, simultaneously protecting the business, the consumer, as well as the economy in the fight against informality.

Numerous recommendations have been published by the World Bank report on the regulation of e-commerce in relation to this point, but what I think is most important is the increase of customer confidence in online businesses, which can be achieved through their officialization by the government declaring that they are coherent in relation to e-commerce regulations. Also, a special law for consumer protection in e-commerce should be drafted, approved and distributed, including all mechanisms for resolving agreements or

various penalties against online businesses in case this law is not respected. Undertaking e-commerce promotion and incentive campaigns by the government with the aim of not only increasing the number of businesses that will operate online, but also to make consumers aware of the new digital age. So far, the Joint Regional Action Plan 2021-2024 has been drafted, which reflects a joint reform of e-commerce in the countries of the Western Balkans. This plan can also serve as an orientation compass for the government in drafting the special law for online commerce.

The digital economy should be a priority of the government's strategy. The government through the legal framework can facilitate the adaptation of businesses and consumers to the digital economy. Also, it can help increase the security of e-commerce and should promote the further development of e-commerce.

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Enduring Changes and Digitalization in Consumption after 2020 – Evidence from Bulgaria

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Abstract: Starting from the beginning of 2020, numerous changes in the consumer behavior have been observed by researchers and practitioners in the marketing sphere. There is an essential need in marketing and communications to distinguish short-term trends in consumption and digitalization from those that have the potential to endure and evolve. This paper presents the results from an empirical study on the changes in the behaviour of Bulgarian consumers and aims to provide a broader initial view of the emerging patterns in consumption in Bulgaria as a result of the pandemic.

Key words: consumer spending, consumer behavior, digitalization, pandemic crisis

JEL: M31

Introduction

The unprecedented COVID-19 pandemic has influenced and continues to influence various aspects of consumers' everyday life. The pandemic has undoubtedly boosted vast changes in the ICT infrastructure and thus presented consumers with numerous opportunities to quickly adopt necessary behavioral changes, predetermined by the outburst of the COVID-19 pandemic. Another aspect of the change is also the company's perspective. In order to react to the rapidly changing environments companies have to tailor new communication approaches so as to

reach new and existing customers. This calls for a deeper understating of the shifting consumption patterns in the new reality.

In this article we attempt to outline enduring changes in consumer behavior of Bulgarian consumers and to shed light on the relation between those changes and the accelerated digitization processes resulting from the pandemic. The current research study is also motivated by the insufficient information about the nature of the changes the Bulgarian market went through as a result of the pandemic. Limitations of the research are its geographical coverage, the number of

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respondents in the field research and the available data in the area.

Literature review

The COVID-19 pandemic has had a significant impact on consumer behaviour and different consumption patterns over the last few years. Scholars and scientists from diverse fields have studied and analysed the current effect and estimated the future changes in behaviour resulting from this global crisis. However still dynamic, some after-effects of the pandemic and its implications are already visible and thus, analysed.

The crisis of COVID-19 can be divided in a few stages which relate to different behavioural responses by consumers. At the beginning of the pandemic, consumers were focused on self-protective health actions (Rayburn et al. 2021; Vally, 2020; Timpka et al., 2014) and were putting great emphasis on hygiene, disinfection of products and social distancing measures (Rayburn et al. 2021; Vally, 2020; Timpka et al., 2014; Seale et al., 2009). Researchers found that people bought less frequently, thus lowering the number of their physical visits to stores, and many consumers started buying from smaller retail shops to avoid crowds in bigger stores (Cruz-Cardenas et al., 2021). Driven by fear of scarcity (Islam et al., 2021) and personal well-being consumers tend to turn towards reactions such as hoarding behaviours and panic purchasing (Rayburn et al. 2021).

Furthermore, consumers became more conscious when it comes to their spending behaviour. Different research studies show that during financial crises people tend to be more frugal and more fiscally responsible as consumers focus more on their needs, rather than wants (Rayburn et al. 2021; Sarmiento et al., 2019; Alonso et al., 2017), which also applied to the current pandemic. However, consumers are searching for a sense of normalcy and continue to buy even during the crisis (Rayburn et al. 2021). In the more recent stage of the crisis, as measures are lighter and

restrictions are being lifted, researchers recognize two different groups of consumers – the ones that have accepted and continued to live and buy by the "new normal" standards and the ones that have already returned to their old habits and purchasing behaviours from before the pandemic (Rayburn et al. 2021).

Furthermore, other researchers have found that the COVID-19 pandemic had an enormous effect when it comes to the technological development and consumer usage of devices, online services, and social media platforms (Cruz-Cardenas et al., 2021). Consumers were searching for all types of information more and more via the Internet and were influenced a lot by social media platforms as the latter had a double effect. On one hand, social media to some extent fuelled panic behaviour and stockpiling, however on the other hand, it stimulated the usage of online transactions, apps, etc., and thus, limited the spread of the virus and presented safe non-physical purchasing possibilities. (Cruz-Cardenas et al., 2021; Liu et al., 2021; Troise et al., 2021; Koch et al., 2020). Moreover, the digitalization of processes and online buying possibilities became essential as consumers experienced significant shifts in their ways of interacting, living and buying. Digital means of purchase were extended to product categories that were not typically bought online before, such as food, beverages, and cleaning/disinfection supplies (Cruz-Cardenas et al., 2021). In addition, as consumers were spending less on industries like more expensive entertainment such as travel and physical events (Ellison et al., 2021; Skare et al., 2021; Antonides and van Leeuwen, 2020; Seiler, 2020;), they were spending more on digital analogues like streaming and entertainment services (Madnani et al., 2020).

The COVID-19 pandemic also had a two-fold effect when it comes to environmental impact. On one side, there was less food waste and heightened environmental consciousness.

On the other side, higher health concerns increased the usage of disposable protective items and packaging materials used for the distribution of online purchasing. (Cruz-Cardenas et al., 2021; Vanapalli et al., 2021).

Methodology

The research goal of the study was to gain initial understanding of the enduring changes that took place in the behavior of Bulgarian consumers and to outline behavioral patterns emerging as a result of the COVID-19 pandemic. A quota sampling approach was adopted for its low cost and its ability to effectively represent the population of interest. The quotas were based on gender and age and were weighted according to data from the recently published National Census in order to achieve accurate representation of the population of interest. Data was collected through an online survey. In order to overcome potential self-selection bias to prevent unauthentic participants from being recruited (IM & CHEE, 2011), we appointed 20 research collaborators who had to contact 20 respondents each, to complete the estimated quotas. Respondents were contacted via phone first and were asked to complete the online survey. The gender and age composition of the sample was monitored during the recruitment phase. The final sample consisted of 407 respondents between the ages of 18 and 70 years. The questionnaire comprised 20 statements measured on 5-point Agree-Disagree Likert scales which addressed various behaviors that are known from previous research to be most likely influenced by the pandemic such as shopping online, cooking at home, spending less on clothing and footwear, etc. Another set of nine variables aimed to establish the consumption of which product and service categories are most affected by the pandemic.

Results and discussion

Key behaviours that have been affected by the pandemic

The three key consumer behaviours that have been identified as most affected because of the pandemic are 1) those related to spending time at home; 2) those related to the adoption of digital technologies; 3) those related to spending and saving money.

Spending more time at home

The results from the study show that the behaviours people practice at home have been significantly altered by the pandemic. 63.2% of the respondents report that they have started cooking more and 54.8% of the respondents are throwing away less food and these behaviours have persisted. The two variables related to these behaviours were found to be also moderately and significantly related ($p < 0.0001$). Naturally, the pandemic has affected the way homes are being maintained as 53.7% of the respondents have started cleaning and sanitizing their homes more often. Resorting to cheap entertainment is also common as 47.6% of the respondents have started watching more television. 44.4% practice hobbies at home more frequently since the beginning of the pandemic and more than a third (35.2%) started exercising more at home. It seems that respondents have found new meaning and ways to enjoy the time spent at home as practicing new hobbies is moderately and significantly related other variables ($p < 0.0001$) such as those related to cooking at home, exercising at home and performing more tasks from a distance.

Digitalization and adopting digital technologies

One of the most pronounced changes regarding the adoption of digital technologies is the increased usage of debit/credit cards as a payment method. Almost two thirds of the respondents (61.9%) report that they started using credit/debit cards more. The adoption of cashless payment methods has been sluggish

in Bulgaria compared to other European countries. However, the pandemic has permanently changed Bulgarians' payment habits and preferences as established by another recent survey by Sapio Research (2022) which found that 52% of the Bulgarians now pay less in cash compared to two years before and now Bulgarians use their debit cards considerably more often than respondents in other western European countries such as Britain, Germany, Italy and Austria (Sapio Research, 2022). The majority of the respondents (55%) in our study also have started performing more tasks from a distance (by phone or by computer) and became heavier social media users in the course of the pandemic, in order to maintain contact with friends and relatives. Almost half of respondents (47,9%) started shopping online more as compared to the period before the pandemic which is one of the most salient ways in which the pandemic has affected consumers worldwide. There is a defined group of respondents who employed digitalization as a response to the pandemic. Significant and moderate relationships are observed between the variables addressing the adoption of digital technologies such as "I started using debit/credit card more", "I perform more tasks from a distance" and "I shop online more frequently" ($p < 0.0001$). These behaviours also seem to be significantly and moderately related to trying out new products and services ($p < 0.0001$).

Reducing consumption

The results from the study show that the shopping and spending behaviours of respondents have been changed in a myriad of ways in the course of the pandemic. It seems that the main shift in the consumption habits of respondents relates more to reducing consumption than to downshifting. Almost half of the respondents (46.8%) are now spending less money on clothing and footwear than before the pandemic which is a natural consequence of the transition towards remote

work. 44.4% of the participants now travel less than before and 40.2% have decreased their use of in-person services such as hairdressers, cosmeticians, technicians, etc. 46.3% report they now attend cinemas, theatres, concerts and the like, less often. Therefore, it is no surprise that 43.9% declare that they are saving more money now. Disruptive events are known to trigger changes in consumer behaviour as a result of the changing lifestyles of consumers (Chiu et al., 2020). However, it is not clear whether these behavioural changes are related to frugality adopted during the pandemic, to newly established social distancing habits or are also influenced by the currently worsening economic conditions and respondents' negative expectations about the future. The results from our study show that large proportions of respondents have adopted new behaviours too – 41.8% started using brands and products that they have not used before the pandemic and 46.8% started using new services as a result. A third of the respondents (33.1%) share that they have enrolled in a new educational course or a program. Another interesting theme that emerged was related to charitable giving and environmental concern – 54.8% of all respondents report that they feel more concerned about the environment now and more than a third (35.2%) started donating more than before the pandemic. We found moderate and significant relationship between the variables addressing charitable giving and environmental concern ($p < 0.0001$).

Product categories where consumers have increased their consumption

The product category where respondents report the largest increase in consumption is mobile application with 41.8% saying they now use various mobile applications more often and more than a fifth (20.6%) of the respondents have subscribed to more paid online services. Becoming more health-conscious is a logical consequence of surviving a pandemic as a significant proportion of the

respondents (37.3%) are now taking more food supplements such as vitamins and nutrients compared to the period before the pandemic and almost a third (32.3%) are consuming more healthy foods than before. 25.4% of respondents increased their purchases of laundry detergents and cleaning products which is expected considering the fact that the majority of respondents stated that they are sanitizing their homes more often than before and these variables are significantly and moderately related too ($p < 0.0001$). In other product categories, respondents report less changes – only 13.8% of them have increased their alcohol consumption and only 9.5% report that they are now buying more products for kids.

Discussion and conclusions

Focusing on the interpretation of the results achieved, it could be stated that there different types of changes in the behaviour of Bulgarian consumers took place, and they could hardly be structured into groups based on types of goods or activities. On one hand, there are products and services, which had peaks in consumption during the pandemic crisis, but in terms of influence on the consumer behaviour in general – they do not have significance.

On the other hand, we identify that some categories and behaviours have the potential to last longer, or in other words, to be enduring. Presumably, they may be the ones with the highest numbers of people who adopted them – increasing consumption of digital services and mobile applications, cashless payments, reducing consumption of products and services related to the old dynamics of life, including clothes and travel services. But more importantly, it could be stated, that the changes in the behaviour that have a potential to be persistent, are related to the conveniences discovered by customers and benefits of the new ways of life, which, unfortunately, were found out the hard way.

Moreover, the results of our study identified two main coping strategies which consumers have adopted and which are likely to persist in view of the worsening economic crisis.

Reducing consumption emerges as an overarching motive in the results from our study. Consumers are spending less on groceries, clothes and accessories, they are saving more and switching from expensive to cheaper entertainment, including at home. This could also be a result of changes in the lifestyle of consumers, but new behaviours related to those product categories, may evolve into habits and new lifestyles.

Trying out new products and services appears as another important response to the crisis. This could be due to consumers no longer being able to afford their usual repertoire of brands it might be due to the disruptive nature of the pandemic which has triggered significant changes in both consumers' behaviour and companies' communication strategies. The large number of respondents reporting that they are trying new products and services might be a call to marketers to re-evaluate their loyalty strategies.

The results from the study provided an initial view of the important changes in consumer behaviour of Bulgarian consumers a result of the pandemic. The evidence presented in this paper might serve as a reference for the development and adaptation of marketing strategies for products and services such as FMCG, travel services, durable goods and digital products. It is evident that some of the behaviours will never go return to their pre-pandemic levels and others would evolve to form new norms in consumer behaviour, both of which trends marketers must take into account.

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The Effect of Social Media Marketing on Consumer Behavior of Tourism Destinations

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Abstract: The article shows the role of social media marketing in developing tourist destinations. It is emphasized that using social media marketing tools helps tourist destinations manage relations with customers. The paper focuses on the use of social media marketing in tourist destinations. Here listed the reasons that prevent the development of social media marketing activities in Georgian tourist destinations. Considering this, marketing research was conducted, through which the attitude of tourists towards social media marketing activities provided by Georgian tourist destinations was studied. Here, customer interest, Engagement and satisfaction with such activities are also established. Statistically significant values have been obtained, which reflect the impact of social media marketing on the consumer behaviour of tourist destinations.

Key words: social media marketing, tourism destinations, consumer behavior, marketing research

JEL: M31

Introduction

The global network, the Internet, is socializing at a rapid pace, which is one of the main trends of the modern online system. According to the data of analytical agency We Are Social and social media management platform Hootsuite, by 2022, the number of Internet users in the world increased by 4% compared to the previous year and amounted to 4.95 billion, and the social media audience approached 4.62 billion people, which It is 10.1% higher than the corresponding indicator of last year (DataReportal, 2022a). Such growth is due to the fact that today social media has gone beyond the sphere of youth entertainment and it is a platform of communication, learning and activity in which

people of different ages of the society are actively involved.

Social media is actively used in various marketing activities, such as sales promotion, customer relationship development, and more (Ashley & Tuten, 2015). This tool helps companies actively communicate with customers through social media and build close relationships with them (Kelly et al., 2010). That's why social media marketing has become an important component of digital marketing and has proven to be quite effective for targeting the target audience by companies (Atshaya & Rungta, 2016). Social media marketing applications and platforms facilitate user interaction, collaboration, and content sharing (Richter & Koch, 2007). In

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addition, social media, compared to traditional media, allows integrated marketing activities to be implemented with less effort and expense (Kim & Ko, 2012). Consequently, social media creates two-way connections that help organizations better understand their customers' demands and respond to them effectively (Parveen et al., 2016). However, the rapidly growing digital environment and the effectiveness of social media have a colossal impact on marketing, purchasing behavior and e-business practices (Shin et al., 2015).

In recent times, researchers have paid much attention to social media technologies used for communication between tourist destinations and their customers. This is why social media activities are becoming an essential component of modern destination marketing. The main element of touristic system is the territory attracting the tourists for travel, where they spend certain time (Pike, 2008). World Tourism Organization regards touristic destination as the main component of touristic products formation and delivery process (WTO, 2007). Touristic destination, as a complex phenomenon, basically includes touristic attractions, tourist infrastructure and accompanying services (Pike and Page, 2014). Researchers regard touristic destination conception as part of wider, destination marketing conception. In this respect, destination, as a geographic unit, visited by the tourist is regarded as a touristic product (Alhroot, 2014). Hence, place or destination could be conceptualized as a product that is consumed (Hausteinova, 2013; Nguyen, 2014). In this context it requires marketing approaches to package it in such a manner that could match the consumers' requirements (Benckendorff and Black, 2005).

The concept of social media marketing is actively used by successful Georgian companies. This is due to the fact that the number of Internet users in Georgia has increased significantly in recent years. In particular, in Georgia in 2022, the number of Internet users reached 2.88 million (72.5% of

the total population), and the number of social media users amounted to 3.35 million (84.3% of the total population), which compared to the corresponding indicators of 2021 it is 8.1% more (DataReportal, 2022b). It should also be noted that tourism, which is one of the fastest growing industries in the country, plays a major role in the development of Georgia's economy. In the pre-pandemic period, the number of international tourists in Georgia and the income received from them increased every year. The year 2019 was the most impressive in the tourism industry of Georgia, when the number of visits by international travelers was about 9.3 million, including the number of tourists - about 5 million. In 2019, Georgia received 3.2 billion USD from tourism, and the tourism sector accounted for 8.4% of GDP (Geostat, 2022). Due to the pandemic, the tourism sector has been significantly affected, especially in 2020, when severe restrictions related to the pandemic resulted in the virtual paralysis of international tourism, and a sharp decrease in domestic tourism. By 2021, the number of international travelers' visits to Georgia amounted to approximately 1.9 million (a 5-fold decrease compared to 2019), and the number of tourist visits - 1.6 million (a 3.2-fold decrease). By 2022, the situation will improve. The number of international tourist visits in 8 months of 2022 amounted to 1.7 million, which is +162% more compared to the same period last year. In the month of January-August 2022, Georgia received 2.1 billion dollars in income from international travel (tourism), which is a 94.6% recovery of the 2019 figure and, considering the pandemic, is an encouraging statistic (National Tourism Administration of Georgia, 2022).

Unfortunately, it should also be said that many Georgian tourism companies implement the wrong policy of social media marketing, which hinders their development. There are many factors that prevent the development of social media marketing in Georgian destinations. These are: high prices for

tourism products, low professionalism of employees in the field of tourism and lack of monitoring to determine the level of customer satisfaction in social media. In addition, it should be emphasized that the lack of understanding of the social media platform in Georgia and its connection with the tourism industry is particularly significant. One of the reasons for this is that proper marketing research in Georgia's tourism industry is at a low level. Based on the above, studying the role of social media marketing is one of the current problems of the Georgian tourism business. Although some works have been done in the direction of consumer behavior in Georgia recently (Apil, et al., 2009; Jashi and Todua, 2013; Todua et al., 2013; Todua and Dotchviri, 2015a; Todua and Dotchviri, 2015 b; Todua et al., 2015; Todua and Jashi, 2016; Todua et al., 2016; Mghebrishvili and Urotadze, 2016; Todua, 2017a; Todua, 2017b; Seturi and Urotadze, 2017; Matin et al., 2022). To date, the issues of consumer behavior in Georgian tourist destinations have not been studied much, which requires proper scientific processing. Therefore, it is necessary to conduct research to facilitate the improvement of relations with tourists based on an effective social media marketing platform. Based on the above, the aim of this paper was to determine the attitude of consumers towards social media marketing activities provided by Georgian tourist destinations.

Literature review

Destination marketing, as a conception is increasingly used by the governments of many countries and touristic organizations (Howie, 2003). Different countries, taking into consideration significance of tourism in the economy, make attempts to show themselves at world tourism market as the best touristic destinations (Fyall et al., 2009). Strengthening of globalization processes in late 20th century made destination marketing a quite complex sphere that causes particular interest of modern researchers (Baker and Cameron,

2008). One of the outcomes of active development of tourism all over the world is increase of number of destinations available for tourists, making competition between the tourist companies increasingly severe (Kotler et al., 2002). Destination marketing provides promotion of certain country or city as a competitive place compared with the other places offering similar products or services (Mutinda, 2013). Therefore, destination marketing could be regarded as the means of improvement of touristic destination competitiveness and its holistic development (Wanjala, 2015).

At the modern stage, the development of destinations is unthinkable without social media. Today, consumers spend more and more time on social networks and receive most of their information through them (Khan and Jan, 2015). That's why social media is a powerful tool for companies to attract customers and compete (Safko, 2010). As the social media space expands, so do marketing opportunities (Lee, 2010). Consequently, it becomes necessary for businesses to develop social media marketing strategies that ensure the delivery of information to the target audience at minimal costs (Barker et al., 2012). It should be noted that the marketing potential of social media has been widely studied (Safko, 2010; Zeng and Geristen, 2014). Social networking issues focus on both organizations and users. However, it is clear that the main subject of social media marketing is the consumer. Therefore, in developing a successful social media communication strategy, researchers pay special attention to listening, understanding, engaging and interacting with users (Sweeney and Craig, 2011).

The use of social media marketing is particularly popular in the tourism industry (Zeng and Geristen, 2014; Evangelos, 2012). Current technological changes in mass media enable the rapid dissemination of information in the field of tourism (Zarella, 2013). Wise use of social media in tourism requires creative

marketing approaches that ensure maximum coverage of the target audience (Zeng and Geristen, 2014). Social media websites are becoming increasingly popular in the tourism industry and are likely to become the primary source of information for management of destination organizations (Jalilvand et al., 2012). Such organizations perceive the social media space as a new marketing mechanism that allows tourists to learn more about the destination (Boulin, 2008). However, it should be noted that the functional attributes of tourist destinations alone no longer help destinations attract travelers, as the similarity and interchangeability of destination products is gradually increasing (Pike and Ryan, 2004; Usakli and Baloglu, 2011). Therefore positioning of destination based on its ability to offer visitors unique experiences, relationships and self-expression represents a strong competitive advantage (Papadimitriou et al., 2013). This requires a complex approach to understanding the emotional experience of tourists (Garcia et al., 2012; Blain et al., 2005).

Based on the above, social media contributes to the development of marketing in the tourism industry. The analysis of literature sources shows that travel service users usually trust online information and visit forums and online reviews as well as specialized blogs before planning their trip (Evangelos, 2012). Most of today's consumers rely on social media sites to gain information and learn more about new travel destinations to help them make travel planning decisions. A large number of users believe that there is a strong relationship between social media site engagement and changes in user behavior (Minazzi, 2015). Online reviews of travel and booking sites are becoming increasingly popular for travel planning. From the point of view of some travel agencies, it is quite important to measure the impact of social media on customer satisfaction, in which the effectiveness and sustainability of each social channel will be considered (Schaefer, 2014).

The technological development and globalization of the media create new opportunities that provide information exchange between tourism consumers through blogs, web pages or destination sites (Zarella, 2013). Destinations need creative and strong social media marketing strategies to attract potential visitors. Social media enables destinations to communicate with visitors at a relatively low cost and with a higher level of effectiveness than can be achieved through traditional communication methods (Kaplan and Haenlein, 2010). Social media as a stimulation tool is used for interactive marketing, but it is worth noting the fact that in recent times the number of visitors who use social media applications is constantly increasing, which creates new challenges for the tourism industry as a whole (Schmallegger and Carson, 2008; Heinonen, 2011; Carr and Hayes, 2015). Based on the review of literature review, we can formulate the following hypotheses:

- H1 Interest in social media marketing activities provided by Georgian tourist destinations has a positive effect on tourists' satisfaction;
- H2 Engagement in social media marketing activities provided by Georgian tourist destinations has a positive effect on tourists' satisfaction;
- H3 Credibility towards social media marketing activities provided by Georgian tourist destinations has a positive effect on tourists' satisfaction;
- H4 Satisfaction with the social media marketing activity provided by Georgian tourist destinations has a positive effect on the buying behavior of tourists.

Methodology

The research was carried out in two stages, which was based on qualitative and quantitative research methods. In the first stage, qualitative research was conducted using the focus group method (Malhotra,

2010). Focus group participants were selected to cover different categories of tourism product users. At this stage, the research design was introduced, research questions were formulated and priorities for further research were determined. In the second stage, we used the customer survey method, and as a research tool we selected a questionnaire consisting of several structured questions. The questionnaire included information on respondent consent and confidentiality, as well as an explanation of the study and instructions for completion. The research used measures taken based on relevant literature and selected for their reliability and validity. In particular, the study measured 4 items of Interest (Savitri et al., 2022; Juliana et al., 2022), 4 items of Engagement (Pansari & Kumar, 2017; Tafesse & Wien, 2018), 4 items

of Credibility (Chiguvu et al., 2019), 2 items of Satisfaction (Van Dolen et al., 2007) and 3 items of Buying behavior (Jamil et al., 2022). A five-point scale is used in the questionnaire. The survey was conducted by face-to-face interview method. We formed the sample in such a way that it was representative. Duration of interview was 15-20 minutes. Selection was provided so that it was representative. Area of the survey was Tbilisi, the capital city of Georgia, where the respondents were selected randomly. Considering a 95% reliable probability and a 4% margin of error, a total of 600 foreign tourists were interviewed who were accommodated in different hotels in Tbilisi. 43 hotels located in Tbilisi were selected as the research object. The obtained results were processed by the statistical software SPSS -22

Table 1: Sample Characteristics

Characteristics	Percent (%)	Characteristics	Percent (%)
Age		Profession	
18-24	16.7	Owner/Entrepreneur	13.4
25-34	26.8	Manager	27.8
35-44	22.3	Employee	39.4
45-54	18.7	Student	12.7
55-64	12.0	Other	6.7
65 or above	3.5	Marital status	
Gender		Single	41.4
Female	56.8	Married	58.6
Male	43.2	Stay	
Education		1-3 days	29.8
Pre high school	12.0	4-5 days	34.6
Vocational	21.5	1 week	21.2
Bachelor degree	29.3	>1 week	14.4
Master degree	34.1	Personal monthly income	
Ph.D.	3.1	Below 1000 USD	5.6
Visitation		1001 – 2000 USD	8.7
First time visitor	51.0	2001 – 3000 USD	23.8
Repeat visitor	49.0	3001 – 4000 USD	17.4
Travel party		4001 – 5000 USD	13.9
Alone	19.5	Over 5000 USD	12.1
Couple	34.8	Private (n/a)	18.5
Family	5.7		
Friends	26.7		
Colleagues	13.3		

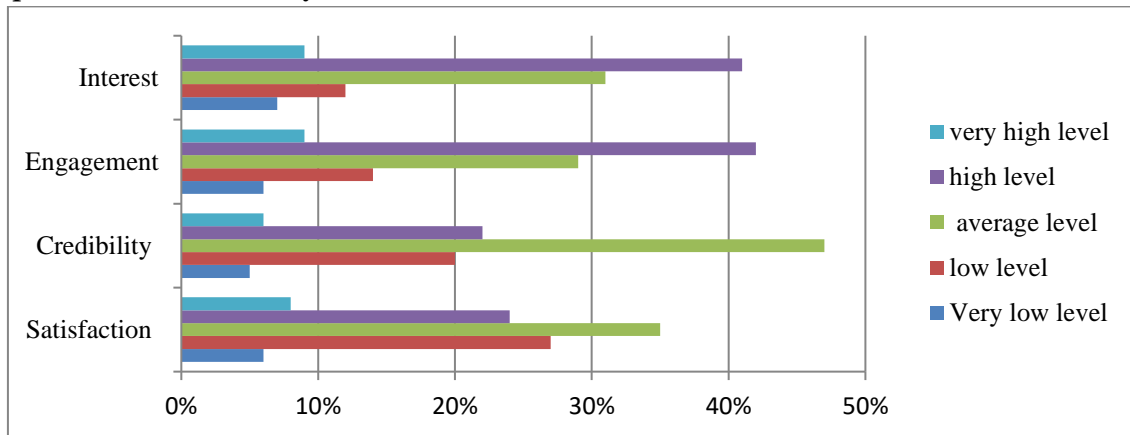
Source: own elaboration

The research showed that among the social media platforms, Facebook is the most popular among foreign tourists who come to Georgia. It is consumed by 85.1% of the respondents. This is followed by YouTube

(54.7%), Instagram (32.4%), Google+ (31.1%), LinkedIn (29.9%), Twitter (27.2%) and MySpace (15.5%). Other social networks (Pinterest, Tumblr, Flickr, Reddit, Ask.fm, Vkontakte, Odnoklassniki) are used by 14% of

respondents. The research revealed the interest, engagement, credibility and satisfaction of the respondents towards the information provided by the pages related to the tourist destinations of Georgia. The respondents presented their evaluations using a five-point Likert scale. They recorded scores

from 1 to 5 in ascending order of importance (see Fig. 1). The analysis reveals that the respondents are more or less satisfied with the social media marketing offered by the tourist destinations of Georgia, however, they show quite a lot of interest.



Source: own elaboration

Figure 1: Levels of Foreign Tourists' Interest, Engagement, Credibility and Satisfaction with Social Media Marketing provided by Georgian Tourist Destinations

Table 2: Mean score of interest, engagement, credibility, satisfaction and buying behavior

Construct and scale items	Mean	SD
1. interest (5-point scales anchored from very low to high level) 1= very low level; 5= very high level		
1.1. context	3.88	1.19
1.2. communication	3.29	1.14
1.3. collaboration	4.30	0.91
1.4. connection	4.06	1.09
2. Engagement (5-point scales anchored by strongly disagree and strongly agree) 1= strongly disagree; 5= strongly agree		
2.1. Tourist destinations encourage consumers to interact with them in social media	3.27	1.13
2.2. Tourist destinations create engaging content to stimulate consumer engagement	3.36	1.11
2.3. Tourist destinations actively respond to consumer comments and questions	4.12	1.04
2.4. Tourist destinations acknowledge and reward consumers who engage with them	4.31	0.89
3. Credibility (5-point scales anchored by strongly disagree and strongly agree) 1= strongly disagree; 5= strongly agree		
3.1. I trust the information provided by tourist destinations	4.47	0.82
3.2. Tourist destinations offer enough information to make decisions	4.02	1.15
3.3. I use social media to find information about tourist destinations	4.31	0.91
3.4. I use social media to get feedback from other users about travel destinations	3.44	1.14
4. Satisfaction (5-point scales anchored by strongly disagree and strongly agree) 1= strongly disagree; 5= strongly agree		
4.1. I am satisfied with the way of social media marketing activities provided by tourist destinations	4.10	1.18
4.2. Based on my experience, I am satisfied with the social media marketing activities provided by tourist destinations	4.33	0.93
5. Buying behavior (5-point scales anchored by strongly disagree and strongly agree) 1= strongly disagree; 5= strongly agree		
5.1. I intend to make buying decisions related to travel destinations use social media	4.23	0.97
5.2. My intentions are to engage with the social media offered by the tourist destinations	4.27	0.96
5.3. I intend to make buying decisions about travel destinations through social media in the near future	4.34	0.98

Source: own elaboration

Conducted an analysis of variance in order to verify the hypothesis of interest. One Way ANOVA F-Test used to understand the relation between the independent variables and the dependent variables. At first, investigated how the social media marketing activities attributes (Interest, Engagement and Credibility) provided by Georgian tourist destinations

influences on the tourists' satisfaction. The findings indicate the coefficient of the tourists' satisfaction is significant at the 5% level. This meaning social media marketing activities attributes (interest, Engagement and Credibility) are significant determinants of the tourists' satisfaction (see Table 3).

Table 3: Dispersion analysis of the impact of social media activity provided by Georgian destinations on tourist satisfaction

Independent variable	Dependent variable: Tourist satisfaction				
	Sum of Squares	DF	Mean Square	F	P
Interest	6,155	4	2,052	1,930	.001
Engagement	9,930	4	1,986	1,867	.001
Credibility	8,166	4	1,633	1,316	.003
Error	868,343	817	1.063		

Source: own elaboration

One Way ANOVA F-Test has been used to check the satisfaction attributes impacts on the buying behavior of tourists (see Table 4).

Table 4: Dispersion analysis of the impact of satisfaction on tourist buying behavior of tourists

Independent variable	Dependent variable: Buying behavior of tourists				
	Sum of Squares	DF	Mean Square	F	P
Satisfaction	10.608	3	3.536	3.628	.013
Error	868,343	817	1.063		

Source: own elaboration

As can be seen from conduct our analysis of variance, the level of statistical significance in all cases discussed does not exceed 0.05. Consequently, between the discussed variables statistically significant relations at the 5% level is established, thus all the above-stated hypotheses are supported.

Cronbach's coefficient alpha was used in this study to assess the reliability of the measures. Nunnally (1978) suggests a reliability coefficient of 0.60 or larger as a basis for acceptance of the measure. A

Cronbach alpha coefficient of 1 would indicate perfect uni-dimensionality within a scale. When Cronbach alpha was computed for all the twenty-three items of the scale this was found to be 0.901. This indicated the possibility that the entire scale was uni-dimensional. Cronbach alpha coefficient of 0.901 can be considered a reasonably high-reliability coefficient. Based on this, it can be concluded that all 23 attributes used are measuring the attitudes of foreign tourists toward Georgian destinations (See Table 5).

Table 5: Reliability statistics

	Cronbach's Alpha	N of items
All	0.901	17
Interest	0.902	4
Engagement	0.893	4
Credibility	0.879	4
Satisfaction	0.862	2
Buying behavior	0.828	3

Source: own elaboration

Conclusion

As a result of our marketing research, we can conclude that Georgia is an attractive destination for foreign tourists. That is why the number of people coming to Georgia for the second time is increasing every year. When choosing Georgian tourist destinations, foreign tourists are interested in information posted on social media. Despite this, foreign tourists evaluate the media marketing actions carried out by Georgian tourist companies at an average level, which indicates the inappropriate activity of local tourist companies on social networks. Therefore, based on the results of the research, it is necessary to provide foreign tourists with more information about Georgian destinations on social media. The companies employed in the tourism business of Georgia should understand the current situation and implement such social media activities for foreign tourists that will give them a higher level of satisfaction and make them want to be loyal to the respective destinations. The present study is the basis for the further study of the attraction of foreign tourists in the tourist market of Georgia and the corresponding consumer behavior. The results of the research will help people working in the tourism business of Georgia to form a global view of the attitude of consumers towards destinations, which will allow them to determine the main trends in the development of the local market.

Limitations and directions for future research

This study uses data from only one city of Tbilisi, which may not be represented in all destinations of Georgia (despite the fact that 50% of the total number of visits by foreign tourists to Georgia occur in Tbilisi). The ideal study on this topic should be based on data from several cities and relevant destinations to determine if the results are very common for different destinations in Georgia. In the end, it may also be useful to conduct a survey using the same questionnaire in different cities of the country to get a global view. In addition, we did

not investigate the attitudes of foreign tourists to different attributes of destinations of Georgia and therefore the relationship between the respective dependent variable and the independent variable was not established. We also did not explore the effects of interactions between independent variables. Future work may explore these modifications. Notwithstanding the foregoing, the results of the research will be useful for employees of the Georgian destinations and travel agencies that are planning to attract foreign tourists and win their loyalty.

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Pricing Strategies in a Digital Environment

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Abstract: The paper aims to find out if there is a difference in the pricing strategies in online and offline environments as well as to establish the most common pricing strategies used by companies in a digital environment. With this regard, online research has been carried out of executive directors/managers/experts in 150 companies that provide services in three product categories: digital products; non-digital products sold both offline and online or online only; and digitalised services in addition to traditional offers. It is established that for the majority of the companies that sell both offline and online there is no difference in the pricing strategies used. The most common pricing strategy applied in a digital environment according to the adopted revenue model is dynamic pricing, of the product mix pricing strategies – bundle pricing, and according to the payment method – rebate systems.

Key words: pricing strategies in a digital environment, pricing strategies according to the adopted revenue model, product mix pricing strategies, pricing strategies according to the payment method

JEL: M39, D47

Introduction

Price is a strategic tool that companies use to position themselves in a competitive environment. Today, more than ever, managers are aware of the importance of price as a key element on which the competitiveness, size of revenues and profits of companies largely depend (Nikolova, 2019). In the era of digitalisation, strategic flexibility is a core competence that is particularly important for price management (Frohmann, 2018). Economy digitalisation results in significant changes in the way companies price products. On the one hand, consumer behaviour is changing (more information is available online, search engines and price robots help find the best offers). On the other hand, market structures are becoming more fragile (barriers to entry for new competitors are reduced, traditional products are cannibalized by digital products)

and competition is intensifying (Krämer and Kalka, 2017, p. 87). Not only did this lead to new business models and products, but it also forced companies to rethink the pricing strategies they implement.

The report topicality is determined by the challenges that digitisation poses to companies in relation to pricing.

The paper objectives are: (1) to find out if there is a difference between company pricing strategies online and offline; (2) to find out which are the most common pricing strategies used by companies in a digital environment.

The expected results are to answer the above questions, which will give a clearer idea of company pricing in a digital environment.

The limitations of the study are that: (1) the study refers only to products that are sold in a digital environment; (2) the subject of research is only company pricing strategies in a digital environment.

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The issue of pricing in a digital environment has been widely discussed over the last years. The scientific literature review has shown that most studies are of theoretical rather than empirical character and are aimed at clarifying the nature of pricing strategies in a digital environment as well as their advantages and disadvantages. The issues that are of minor importance are the ones about the difference in company pricing strategies online and offline as well as of the most commonly used company pricing strategy in a digital environment. These are the issues this paper attempts to clarify.

Literature review

According to Simon (2015), it could be assumed that in the centuries-old history of prices, everything has been discovered and studied, all opportunities have been taken advantage of, and innovations are very rare. In practice, however, over the past thirty years, the complete opposite has been observed – new ideas have arisen, new systems and methods have been used to collect information about prices and their implementation. Modern information technologies and the Internet create opportunities for pricing that until recently were considered the realm of fiction (Simon, 2015).

The most direct and powerful effect of the Internet so far has been price transparency resulting in an increase in consumer price sensitivity (Simon and Fassnacht, 2019).

New technologies give companies the unprecedented opportunity to track and analyse consumer behaviour, obtain valuable information about consumer preferences (which provides for product personalisation) and deeper knowledge of consumer sensitivity to prices and willingness to pay in an online environment (Hinz et al., 2011).

Competitor prices are more easily tracked. Obtaining real-time information about consumer behaviour and competitor pricing give rise to dynamic pricing (Mauri, 2014).

According to Frohmann (2018), the main advantage digitalisation gives companies in terms of pricing is the opportunity for optimisation of the pricing process. Apart from optimisation, the pricing process should reflect higher level decisions about company business model and revenue model. A starting point for optimisation is customer benefit (the value of the product to the customer) defined in the business model, and the customer value delivered and willingness to pay should be the focus when developing the revenue model and pricing strategy (Frohmann, 2018). What is more, new technologies and the Internet led to the emergence of a number of innovative payment systems. These systems influenced consumer behaviour in a digital environment and consumer willingness to pay (Simon and Fassnacht, 2019). Kotler, Chao, Wang and Quiao (2020) think that the trends in the pricing in a digital environment vary from “charging to free of charge and subsidies” to “from indifference to dynamic pricing and pricing based on scenes”. Pricing structures change in a digital context (Docters, Tilstone, Bednarczyk and Gieskes, 2011) and become increasingly complex (Frohmann, 2018).

Krämer, A. and Kalka, R. (2017) examine the implementation of the different pricing strategies, relating them to business and marketing objectives. According to them, when the goal is to attract new customers and build loyalty among consumers quickly in a digital environment, free, freemium and subscription strategies are employed. With dynamic pricing, companies try to determine a price that the target group is ready to pay for a product based on different criteria. Bundle pricing is used when a company aims to generate revenue from the sale of products that would be less often bought separately, and captive product pricing is used in cases where there is a main product for the functioning of which additional products must be regularly used. With the pay-what-you-want (PWYW) strategy, unlike the name-your-own-price (NYOP) one, the use of the product may occur

before payment and the seller has no authority to accept or refuse shipment at the price specified by the buyer. With rebate systems, there is customer redirection to partner shops via a digital platform and commission is received for each redirection, which leads to a purchase, i.e. there are B2B and B2C business relationships.

The literature review shows that in a digital environment, companies use other pricing strategies in addition to traditional ones. Some of them are applicable in both online and offline environments, while others are primarily used online. The most common company pricing strategies applied in a digital environment are: for free, freemium, subscription, differential pricing, dynamic pricing, bundle pricing, captive product pricing, product line pricing, name-your-own-price, pay-what-you-want, rebate systems and pay-per-use.

Methodology

In accordance with research objectives, the following working hypotheses are tested in the paper:

H1: Most companies use different pricing strategies in online and offline environments.

H2: The most common reasons for companies to use different pricing strategies in online and offline environments are the opportunities provided by digital environment and the differences in the costs for product distribution in online and offline environments.

H3: The most common pricing strategy according to the adopted revenue model and used in a digital environment is dynamic pricing.

H4: The most common pricing strategy according to the product mix and used in a digital environment is bundle pricing.

H5: The most common pricing strategy according to the payment method and used in a digital environment is the rebate systems strategy.

An empirical study was conducted to achieve the research objective and test the working hypotheses.

The object of research are three product categories: (1) digital products (cloud storage, software, online conversations, mobile applications, etc.); (2) non-digital products sold online and offline as well as online only (online newspaper and magazine subscription, online air ticket sales, online rental, etc.); (3) digitalised services as a complement to traditional offers (online machine maintenance, online consultations, etc.).¹

The subject of research is company pricing strategies in a digital environment. In this paper, pricing strategies are grouped according to the following characteristics: adopted company revenue model; product mix, and consumers' payment method. The reasons to group pricing strategies this way are that: (1) digital environment creates opportunities for companies to use revenue models that are different from the ones used offline and revenue is crucial for company success; (2) in most cases, companies offer more than one product; and (3) digital environment creates opportunities to use more convenient consumer payment methods.

The main method of data collection used is the structured personal online survey. It was chosen because of the following advantages: easy access to respondents; easy administration and control of research; low cost of data collection; facilitated data processing and analysis; convenience for the respondent; dynamic organisation; survey conducting and information analysis.

The survey was conducted in the period June-July 2022.

The observed units in the research are companies selling products online. The target respondent in each company is the CEO/manager/expert who in terms of the distribution of functions in the particular company is in charge of prices and pricing.

¹ The differentiation of the three product categories is according to Frohmann, F. (2018) *Digitales Pricing*:

Strategische Preisbildung in der digitalen Wirtschaft mit dem 3-Level-Modell. Springer Gabler.

The sample size is 150 investigated units (companies) and the data obtained from them are the subject of analysis. It is assumed that this volume is large enough to provide insight into the pricing strategies used by companies in a digital environment.

The statistical data processing was realized with the use of the IBM SPSS Statistics v23 programme.

Results and discussion

Respondent profile

According to the way of product realisation – 74,0% of the companies in the sample offer products online and offline and 26,0% – online only. According to the product category– 40,0% of the companies offer non-digital products sold online, 38,0% –

digitalised services as a complement to traditional offers and 22,0% – digital products. According to the target consumers – 26,7% of the companies sell to end consumers, 18,0% – to business consumers and 55,3% – sell to both end consumers and business consumers.

Pricing strategies in a digital environment – general questions

54,0% of the companies in the sample use the same pricing strategies in online and offline environments (Figure 1). This means that when developing a pricing strategy, most of the companies still have not started taking advantage of the challenges and benefits provided by digitalisation.

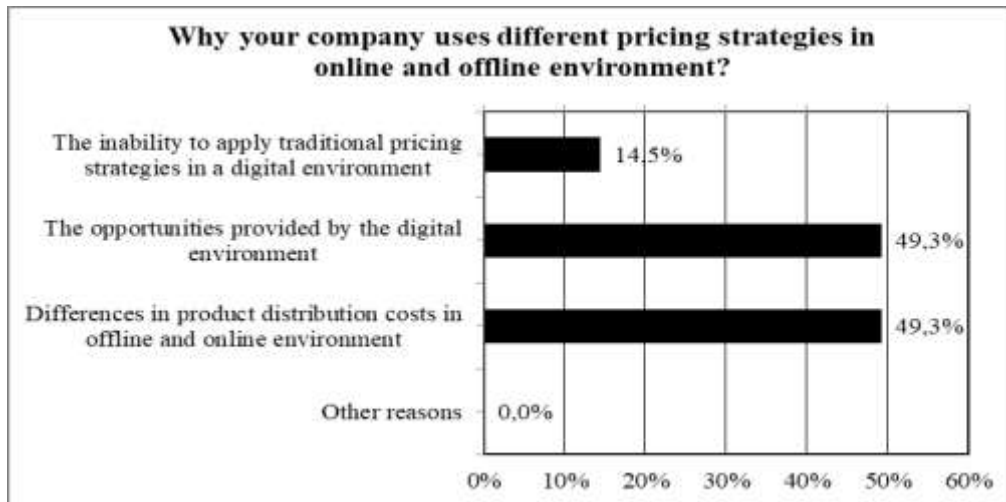


Source: Empirical survey from 2022.

Figure 1: Distribution of the studied aggregate of companies according to whether their pricing strategy differs in online and offline environments

In order to find out why some companies use different strategies for online and offline sales, only the respondents from the companies with such differences are asked about the reasons for this. The answers to this question show that the traditional pricing strategies companies implement in an offline environment can be used in an online environment as well. The main reason not to apply them in a digital environment is not the

impossibility for this (for only 14,5% of the companies the respondents have given this reason). The reasons why companies use different pricing strategies online are related mostly to (1) the opportunities provided by digital environment and (2) lower costs for product realisation online. These reasons were given by 49,3% of the companies in the survey (Figure 2).



Note: The total percentage of responses is over 100 because the respondents chose more than one answer.

Source: Empirical survey from 2022.

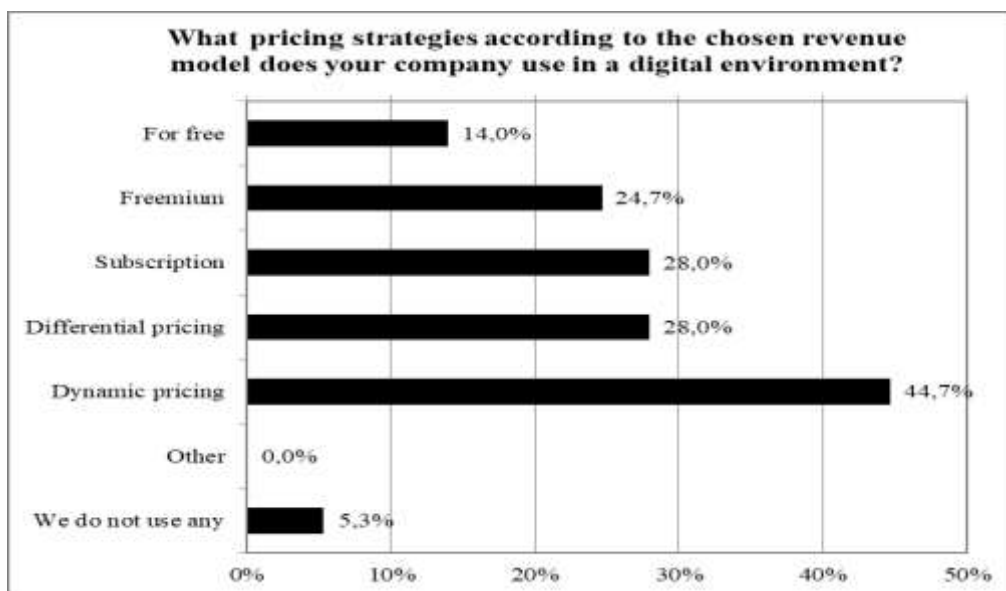
Figure 2: The reasons why companies use different pricing strategies in online and offline environments

Pricing strategies according to the adopted revenue model

The most common pricing strategies according to the adopted revenue model and used in a digital environment are the following

ones: for free, freemium, subscription, differential pricing and dynamic pricing.

The distribution of the respondents' answers with relation to the adopted pricing strategy according to the revenue model chosen is shown in Figure 3.



Note: The total percentage of responses is over 100 because the respondents chose more than one answer.

Source: Empirical survey from 2022.

Figure 3: Company pricing strategies in a digital environment according to the revenue model chosen

14,0% of the companies in the sample use the for free strategy. The companies that have adopted this pricing strategy set a zero price for the product offered and, accordingly, end users pay nothing for it while the supplier company generates revenue from advertising to business customers or from selling information to third parties /advertisers/.

24,7% of the companies from the studied aggregate use the freemium pricing strategy. These companies offer their main product or its base variant for free and consumers pay only for its upgrade functions (added to the base version). With this pricing strategy, the basic (free) version of the product is cross-funded by the premium revenue.

Subscription pricing is used by 28,0% of the respondent companies. These are companies interested in building a closer connection between company and consumers, encouraging greater consumer involvement, generating consumer loyalty or achieving a more efficient use of production capacity or marketing opportunities. Subscription pricing enables companies to manage stock on a regular basis, to create new marketing channels and guarantee themselves more stable income over time. In this survey, subscription pricing is used by companies offering digital services (cloud services), digitalised services (providing video content) or non-digital products through a developed online store and by new players in the market who are developing their overall concept on a subscription basis.

Another 28,0% of the companies in the sample use differential pricing. They set different prices for different consumer groups (market segments) for the same products or for modified ones, or by setting different prices for the same products, but in different channels. Differential pricing in different channels (online or offline) is mainly because of the differences in the costs for product transportation and storage as well as for channel management (Atanasov, 2016, p. 154). By using different prices, companies use price

to optimise profit based on the differences in consumer preferences, on the price elasticity of demand and on consumer willingness to pay for the same offer. According to Simon (1992), price differentiation according to consumer characteristics, region of sale, time of purchase and sales channel is most applicable for digital products.

44,7% of the respondent companies apply dynamic pricing and change product prices at certain time intervals according to the current market situation. The companies that have adopted this pricing strategy use the opportunities given by new technologies fully, track and analyse consumer behaviour (their preferences, past actions, price sensitivity, willingness to pay, etc.) and based on this develop algorithms for automatic adjustment of prices in real time. They avail of the opportunities provided by digitalisation and use them to set personal prices for each customer and thus optimise sales revenue and company profit. Dynamic pricing strategy is the most common strategy according to the adopted revenue model for all three product categories that are subject to this research.

5,3% of the surveyed companies do not use a pricing strategies according to the adopted revenue model.

Pricing strategies for a product mix

The pricing of a set of products, including in a digital environment, is more complex because the goal is to optimise the profit from the entire product mix, not of the individual products in the set. The product mix pricing strategies employed in an online environment do not differ significantly from the ones used in an offline environment. The most commonly used product mix pricing strategies are: bundle pricing; captive product pricing and product line pricing.

The answers to the question "What pricing strategies according to the product mix does your company use in a digital environment?" are presented in Figure 4.



Note: The total percentage of responses is over 100 because the respondents chose more than one answer.

Source: Empirical survey from 2022.

Figure 4: Company product mix pricing strategies in a digital environment

50,7% of the respondents have indicated that their companies use a bundle pricing strategy. The high percentage of companies in the sample that implement this type of pricing in a digital environment is not accidental. The bundle pricing strategy is gaining more and more popularity in the digital environment, and mostly in relation to digital products. There are at least three reasons for this: (1) the low marginal costs of digital products make bundling them an attractive marketing strategy, even if consumers do not use some of them (Choi, 2012, p. 2); (2) digital products are often characterized by network effects which means that the benefits a user derives from a particular product increase with the number of other users using the same product; (3) digital convergence brings together different products that were previously separate (e.g. the broadcasting industry (Yoo, 2009)).

40,0% of the companies in the sample implement a pricing strategy for products

connected in use. The goal of the companies that have adopted this pricing strategy is an optimal overall result of the revenues realized from all products (main product and additional ones).

34,0% of the respondents have indicated that their companies implement a product mix pricing strategy. The companies that have adopted this pricing strategy set a price floor and ceiling for the products in the line and a price step between individual products. The goal of the companies is to optimise the revenue from the product line as a whole, which is the major advantage of this pricing strategy.

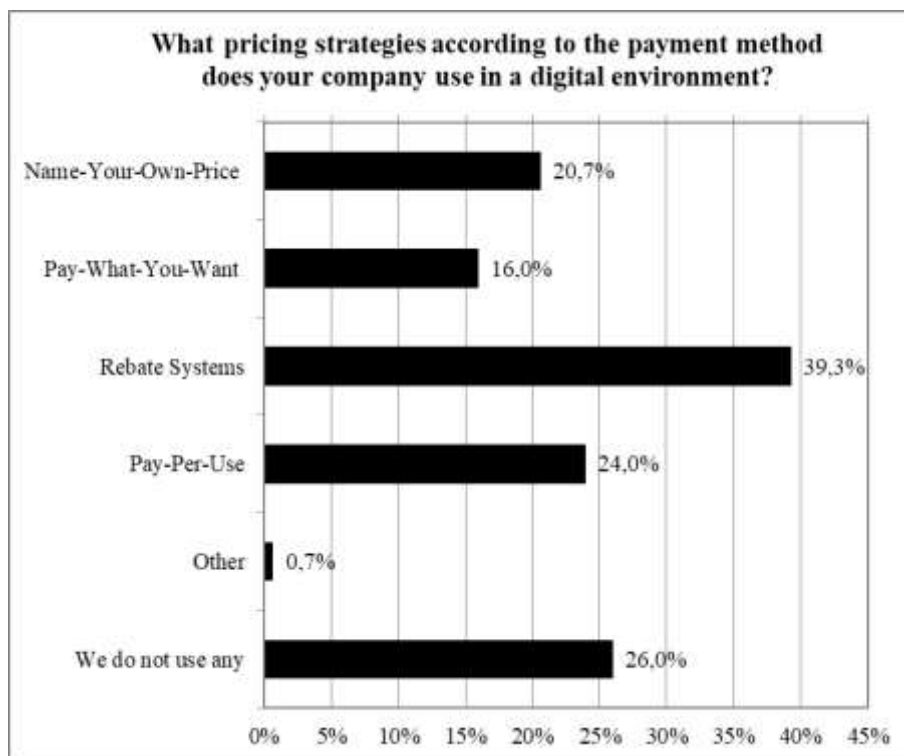
13,3% of the surveyed companies do not use a product mix strategy.

Pricing strategies according to payment method

In terms of payment method, the most common pricing strategies are: name-your-own-price (NYOP); pay-what-you-want

(PWYW); rebate systems (RS) and pay-per-use (PPU).

The distribution of the answers of the respondent companies and according to the payment method is shown in Figure 5.



Note: The total percentage of responses is over 100 because the respondents chose more than one answer.

Source: Empirical survey from 2022.

Figure 5: Company pricing strategies in a digital environment according to the payment method

39,3% of the companies offer discount shopping in a digital environment (Rebate Systems (RS)). The companies implementing this strategy use a digital platform to redirect customers to partner shops and receive commission for each referral resulting in a purchase. Commission varies for different shops. This amount is then credited to the customer's account in the form of a discount. Consumers are satisfied with the purchase of a product at a discount, and the owner company of the platform realizes income from the business partners it works with.

Pay-Per-Use pricing (PPU) is implemented by 24,0% of the companies in the sample. They measure the usage of the product and bill the customer each time he/she uses it. The logic behind this pricing strategy and payment method is that it is not always important for

customers to have the product, but rather the needs it can satisfy. The benefits for the users of this payment method are that: they pay only for what is used, no excess capital and other costs are imposed, operational risk is transferred to the company providing the product and responsible for its maintenance. For companies, the advantage of the PPU strategy implementation is that they extract value from their customers more effectively since customers' willingness to pay is greater when they pay based on product usage. The main disadvantage of this strategy is the impossibility to forecast the revenue of the supplier company.

20,7% of the respondent companies implement the Name-Your-Own-Price (NYOP) strategy with which the customer offers a price for a given product sold on the

Internet and, then, the seller decides whether to sell at this price or not. With NYOP sellers first list products with their own threshold prices that are not visible to buyers. Once a buyer likes a product, they announce the price they would pay for it. If the price offered by the customer is equal or higher than the threshold price, the deal is closed at the price indicated by the buyer. It is binding and payment is secured by credit card number or an automated clearing house. If the price offered by the customer is lower than the threshold prices set by all sellers, the customer is given the opportunity to make another offer.

16,0% of the companies use the Pay-What-You-Want (PWYW) pricing strategy with which the customer sets a price and pays what they want without the seller being able to reject the offer. The low percentage of the surveyed companies that have adopted this

pricing strategy can be explained with the fact that with it seller's revenue depends entirely on the buyer and thus the strategy is risky for the seller. What is more, the strategy is applicable mostly to products of social character and the price the customer decides to pay depends on their social preferences and understanding of fairness, and the share of the surveyed companies offering such products is small.

26,0% of the companies in the sample do not use pricing strategies where the leading criterion is the payment method.

In summary, based on the empirical results, a check of the working hypotheses has been done and its results are given in Table 1. The table shows that of the five working hypotheses four have been confirmed and one has been rejected.

Table 1: Hypotheses check results

	Hypothesis	Result
H1:	Most companies use different pricing strategies in online and offline environments.	<input checked="" type="checkbox"/>
H2:	The most common reasons for companies to use different pricing strategies in online and offline environments are the opportunities provided by digital environment and the differences in the costs for product distribution in online and offline environments.	
H3:	The most common pricing strategy according to the adopted revenue model and used in a digital environment is dynamic pricing.	
H4:	The most common pricing strategy according to the product mix and used in a digital environment is bundle pricing.	
H5:	The most common pricing strategy according to the payment method and used in a digital environment is the rebate systems strategy.	

Legend: completely confirmed - rejected

Source: Developed by the author.

Conclusion

The results of the conducted empirical research show that the pricing strategies of most companies do not differ in online and offline environments. For companies where such differences exist, the most common reasons for this are the opportunities provided

by the digital environment and the differences in the costs of distributing products offline and online. The most common pricing strategy according to the adopted revenue method used in a digital environment is dynamic pricing; bundle pricing is the most common product mix pricing strategy, while the most common

strategy according to the payment method is the rebate systems strategy.

Pricing issues have always been topical, significant, complex, multi-layered and vast. To clarify the issue in more depth, in the future it could be investigated whether company pricing strategies in a digital environment differ by product category (digital products; non-digital products that are sold both offline and online or only online, and digitised services, in addition to traditional offers).

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Specific Characteristics of Pharmaceutical Marketing

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Abstract: In view of the growth of various types of diseases and the desire of patients as consumers to be increasingly informed, both globally and nationally, the importance of pharmaceutical marketing is increasing and should not be neglected. Its place and role are essential in increasing sales of various drugs and, in parallel, achieving sustainable development while, in particular, preserving the health of all users. In this paper, the emphasis is placed on the basic features of pharmaceutical modelling through the prism of marketing-physician-patient relationships, their interaction, the desired and achieved results as well as satisfaction.

Key words: pharmaceutical marketing, marketing, patient, consumer, market

JEL: M3, M30, M31, I10

Introduction

Indisputably, pharmaceutical marketing carries specific characteristics, and its analysis requires a multi-layered consideration of various factors that influence not only its foundation but also its practical implementation. Since the main protagonists of all types of marketing are consumers, in pharmaceutical marketing these are the patients.

The purpose of this article is to present the specific features of pharmaceutical marketing in a basic framework.

Methodology

The historical review of the issue under consideration sheds light on the place and role of physicians, traditionally treating patients largely as passive participants in a process that affects their health outcomes and recovery. In the current economic and social conditions, patients have had access to detailed information about diseases and drugs and are increasingly willing to assert their point of view, especially when chronic diseases are concerned. They are informationally prepared,

thanks to the data they have access to through various communication channels.

Since many diseases are chronic in nature, the assumption that there is a single physician or consumer who maximises the utility is largely exaggerated.

There is a body of scientific research demonstrating that the trade-offs made by physicians in ordering medical treatments to patients are not necessarily consistent with the latter's preferences (Fraenkel et al., 2004). Therefore, developing and testing models that incorporate the preferences of both physicians and patients when ordering medical treatments is an open research area.

According to Misra (2004), there are two types of physicians, i.e. those who value their patients' utility strongly and those who value it less. Moreover, he claims that there are two types of patients, i.e. new and continuing ones. Based on his research, he structures a model that maximises the utility of the interaction between a physician and a patient.

In turn, post-purchase consumer behaviour is an important determinant of product use, satisfaction and repurchase behaviour. As far as patients are concerned, non-compliance

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leads to medical complications (Loden and Schooler, 2000) and increased healthcare costs (Johnson and Bootman, 1995). As far as pharmaceutical companies are concerned, the decrease in sales caused by brand switching and negative word of mouth resulting from perceived product failure is estimated at \$15–20 billion annually (Beavers, 1999).

Poor compliance also leads to poorer customer retention, which leads to lower prescription revenues for pharmacy retailers (Huffman and Jackson, 1995; Jackson et al., 1996). Based on this, it is not surprising that the issue of compliance is of great importance (Van der Pool, 2003).

Regarding the role of marketing on compliance, Bowman et al. (2003) investigates the determinants of compliance behavior, using a unique set of patient diaries. Based on a comprehensive set of specific metrics, they identify a number of indicators consistent with the medical literature and marketing constructs. They claim that an impending visit at a physician increases compliance. From an advertising perspective, they claim that different market segments of patients have different reactions (sometimes negative ones), which they attribute to inflated expectations set by advertisements.

Wosinska (2005) includes a large panel of patients in testing whether the number of missed treatment days decreases when the level of advertising expenditure for these products decreases as well. She claims there is a positive effect of advertising on patient acceptance of a competing brand and a negative effect on adherence to the advertised brand. Although her findings are surprising, the economic significance of both effects is very small. She claims that the negative effect is due to advertising providing information not only about the benefits but also about the risks associated with a drug. However, many questions still remain pending in this area (Manchanda, P. 2005).

Another specific feature is the possibility of social networks to influence pharmaceutical marketing and spread the new products.

In the contemporary digital environment, there is a growing interest in understanding the degree of influence that consumers exert on the adoption of new products by other consumers, i.e. through viral marketing or word of mouth. Although the existence of this effect has been known for a long time, not much is known about the characteristics of the network (the degree and type of influence of close vs distant users, the effect of the influencers) on the actual behavioural outcomes (treatment time and usage levels).

The pharmaceutical industry offers a unique opportunity in terms of documenting this effect. First, the outcomes related to treatment time and use are important to industry participants. Second, it is relatively easy to isolate networks (eg, for most drugs, physician networks are in the tens of thousands). Third, the industry collects a lot of data recording post-launch events. Finally, the presence of multiple (potentially interacting) networks holds the promise of enriching our understanding of these effects.

Coleman et al. (1966) claim that a physician's decision to adapt is influenced by interactions with other physicians. Based on a combination of behavioural and survey data in four physician communities, they ascertain that physician professional interactions had a greater effect on adjustment time than social interactions.

Narayanan et al. (2005) adopt a different point of view. They examine how the role of new products marketing communication changes over time in the presence of training. Their model is defined on the basis of physicians learning about the quality of new drugs through companies' marketing communication (detailed descriptions; meetings with physicians) as well as their own use experience. They claim that detailing has a predominantly indirect (study) effect in the early stages of the product life cycle and a

predominantly direct (persuasive) effect later. Coscelli and Shum (2004) explain the slow uptake of a new drug in an existing product category by the slow information flow (based only on patient feedback) on its quality by risk-averse physicians. Physicians' initial pessimism about a drug, as well as their aversion to risk, make them less likely to prescribe a drug when it is very new, but the more information they gather, the more likely the drug gets prescribed.

Ching (2005) examines why companies increase their efforts to advertise a drug and the demand for it increases. He explains this by noting that detailing has a direct effect on the number of well-informed physicians. Although much has been done in this area, various aspects of training have not yet been explored. For example, most training models have ignored a physician's training by other physicians (this could potentially provide a structural explanation for the contagion effect). In addition, there is an opportunity for physicians and consumers to learn together during a course of therapy. Finally, there is not much research on differences in training levels among physicians (Narayanan and Manchanda, 2004)

A specific characteristic of this industry is the complex relationship between the price set by the producer and the fair price in consumers' opinion. (Kolassa, E.M. 1997, Berndt, Ernst R. 2002). Often the reason for this disagreement lies in the presence of intermediaries like governmental or private insurers.

Regarding physicians' response to price, Misra (2004) claims that physicians were more sensitive to the cost of co-pays for new patients than current patients. Other researchers examine the role that price plays in the overall marketing mix. Thus, Wosinska (2002) claims that the effectiveness of direct-to-consumer advertising is higher if the drug is on a formulary (ie, the search cost is lower). On the other hand, Narayanan et al. (2004) find no significant interaction between direct

advertising and supply-side price. (Manchanda, P. et al. 2005)

Results and discussion

Pharmaceutical companies adapt their advertising strategies to changing societal and market opportunities to remain competitive and profitable (Lyles 2002; Wilkes, Bell, and Kravitz 2000).

Over the years, pharmaceutical companies have generated dynamically changing promotional campaigns that are effective in targeting key audiences, delivering marketable messages and driving product demand.

Physician-oriented marketing (eg, providing free drug samples, office visits by sales representatives) remains the largest factor in drug advertising, constituting 85% of the dollars spent in 2000 (Frank et al. 2000; PhRMA 2004). What is changing, however, is the disproportionate growth of direct-to-consumer (DTC) advertising compared to other forms of promotion for the period (Frank et al. 2000; IMS Health 2001; Lyles 2002). Supporters claim that direct marketing provides information about common diseases, boosts patient empowerment, improves medical compliance, and reflects the informed audience social trends. (Holmer 2000; Pitts 2004).

Opponents, however, argue that it does not provide sufficient information about therapeutic alternatives, efficacy, and costs, interferes with the physician-patient relationship, and increases the cost of medical care (Kravitz et al. 2005; Robinson et al. 2004; Woloshin et al. 2001).

Corstjens (1991) identifies the following four main purchasers of prescription drugs:

- * Prescriber: Prescribing rules vary internationally and this category may include physicians, dentists, pharmacists, nurses and others.

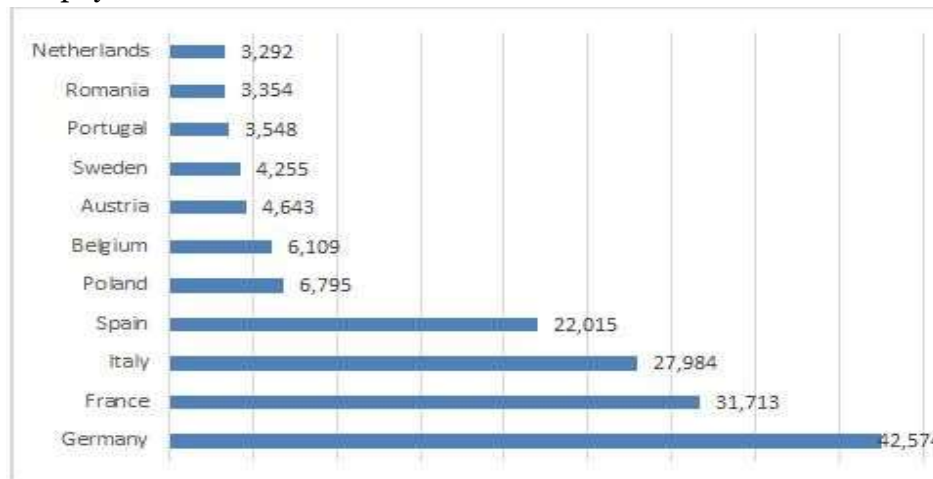
- * Influencers: hospitals, nurses, professors, agencies.

- * Direct user: patient.

* Funder: part patient, part government or a third party, i.e. hospitals, healthcare organisations, etc.

Most of the budget in pharmaceutical marketing goes to physicians and others who

have the authority to prescribe, who in effect are the ones who have the power to manage the entire process.



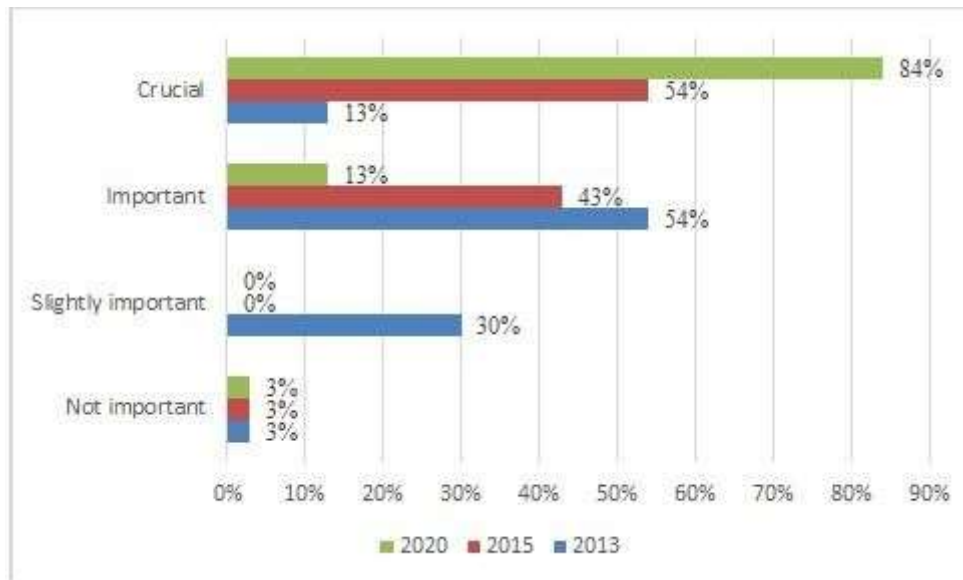
Source: (<https://www.statista.com/statistics/266321/sganda-to-sales-rate-of-top-pharmaceutical-companies> SG&A to revenue rate of top pharmaceutical companies 2021 | Statista)

Figure 1: Selling, general and administrative expenses compared to revenues of leading pharmaceutical companies in the world in 2021.

At over 53%, AstraZeneca has the highest cost-to-income ratios among leading pharmaceutical companies in 2021. SG&A growth should not exceed sales growth because it would reduce the company's profitability. This statistic shows the ratio of selling, general and administrative expenses to revenue of the world's leading pharmaceutical companies in 2021 (Source: <https://www.statista.com/statistics/266321/sganda-to-sales-rate-of-top-pharmaceutical-companies>)

Fig. No. 2 presents the importance of digital health strategies of pharmaceutical companies from 2013 to 2020.

The survey shows the importance of digital health strategies in 2013 and 2015 and their importance for pharmaceutical companies in the future, in 2020. About 54 percent of respondents say that digital health strategy will be critical for pharmaceutical companies in 2015 (Source: <https://www.statista.com/statistics/422332/digital-health-strategy-importance-current-and-future-for-pharmaceutical-companies>)

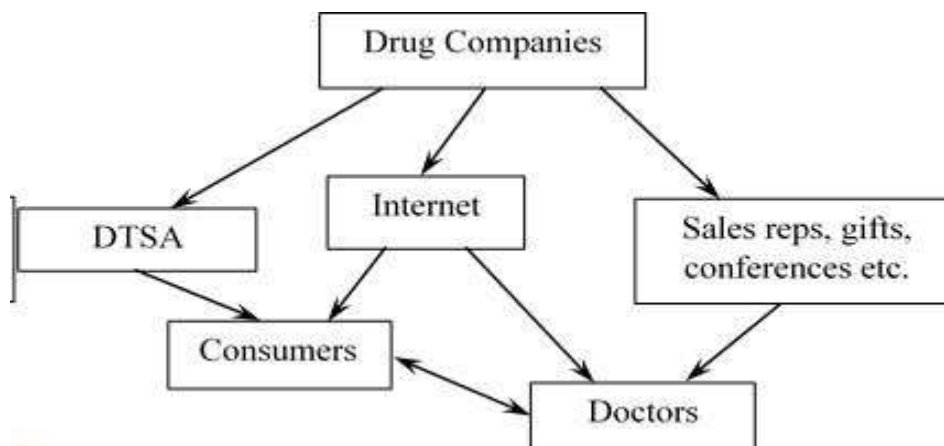


Source: <https://www.statista.com/statistics/422332/digital-health-strategy-importance-current-and-future-for-pharmaceutical-companies> Importance digital health strategy for pharmaceutical companies 2013-2020 | Statista

Figure 2: The importance of digital health strategies of pharmaceutical companies from 2013 to 2020.

In the USA, all drugs can be promoted to consumers, but in practice, direct-to-consumer advertising focuses on over-the-counter and prescription drugs for common ailments. There are other drugs with more limited use for less common diseases that are recommended only to healthcare professionals as well as hospital and organisational formulary committees.

The drug marketing process can be described by the model below in Figure #3, which shows the flow of information from pharmaceutical companies to both consumers and physicians. It also shows the power that internet-informed consumers have in "downloading" prescription drugs from physicians.



Source: Buckley, J. (2004) Pharmaceutical Marketing – Time for Change, EJBO Electronic Journal of Business Ethics and Organization Studies Vol. 9, No. 2

Figure 3: Process of pharmaceutical marketing

In the modern market conditions, more and more often the attraction of consumers and

their desire to purchase medicinal products is also very closely linked to Internet promotions

or recommendations from various social media and other communication channels. Consumers themselves can buy prescription and even non-prescription drugs online.

In this direction, the scientific research by Bloom (1999) proves that most pharmacies selling online provide poor quality information, fail to be protected by adequate measures to ensure that drugs are dispensed in a proper way and the price almost is always higher.

Another perspective is offered by Smith (2003) who claims that online pharmacies often lack important information about drug contraindications available on their sites. However, even leaving aside the impact of Internet pharmacies, on the grounds that additional costs may put them out of reach for the consumer, the Internet also offers pharmaceutical companies a largely unregulated way to reach the consumer directly – via websites of the companies.

On the other hand, Herxheimer (2003) points out that in the absence of adequate independent funding, patient organisations and lobby groups are likely to continue to accept funding from pharmaceutical companies despite clear ethical concerns. He gives as examples the International Alliance of Patient Organizations and the Global Mental Illness Advocacy Alliance, which are highly visible and financially connected to pharmaceutical companies.

Medawar (2002) quotes the chairman of the Danish Migraine Association as suggesting that patient organisations are becoming more sophisticated in their interactions with pharmaceutical companies and may become more adamant about this form of promotion. The researcher points out that pharmaceutical companies have been able to present their concerns to reach consumers directly as a consumer rights issue and a potential positive contribution to national health profiles. He suggests that drug companies are gradually shifting the core of their business from the unpredictable and increasingly expensive task

of creating drugs to the more robust business of marketing them. (Buckley, J. 2004)

Conclusion

In conclusion, in today's digital environment, marketing managers in the pharmaceutical business face a number of challenges. In order to be able to deal with them, they should know the main specific features of marketing in this area, because it is the timely and accurate information about consumers, competitors and the market that will ensure not only their survival, but their development and increase in market share.

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The Role of Social Media Marketing in Healthcare Industry (Case of Georgia)

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Abstract: The article shows that social media marketing plays an important role in the modern healthcare industry. Based on the conducted marketing research it has been identified frequencies of respondents' assessments of social media marketing activities carried out by Georgian healthcare organizations, also Frequencies of respondents' engagement in social media concerning healthcare. It is established through regression analysis the impact of social media marketing activities provided by healthcare organizations on consumer engagement.

Key words: Social Media Marketing, Healthcare Industry, Georgia, Marketing Research

JEL: M31

Introduction

Social media is an integral part of modern society and is gradually becoming an important marketing tool that provides companies with ample opportunities to interact with their consumers (Kaplan and Haenlein, 2010). Today, social media is considered an important cultural event all over the world. Therefore, the number of active users of social media is growing significantly every year. In 2022, the number of social media users amounted to 4,7 billion people (59% of the world population), which is 93.6% of the population connected to the Internet (Statista, 2022). Social media plays an important role in the healthcare industry (Moorhead et al., 2013). Recently, the use of social media by health professionals and providers, as well as patients, has increased significantly (Kordzadeh, 2016). Healthcare professionals use social media to build professional relationships with their colleagues and to share information (Rolls et al., 2016). Healthcare providers use social media to promote their organizations, also to establish strong relationships with existing and potential customers, and to raise the

awareness of their own brand (McCann and Barlow, 2015). As for patients, they receive information about their health condition through social media (Ventola, 2014).

Nowadays, healthcare organizations face many challenges. First of all, consumers move from a passive state to an active participant in the process of providing medical services (Danaher and Gallan, 2016; Osei-Frimpong, 2017). They are increasingly using digital applications and various technologies that help them to be directly involved in protecting their well-being. Accordingly, health care organizations try not to stay behind and improve the methods of providing medical services, in which marketing approaches play a special role. Scholars emphasize the fact that one of the tools for success in the field of healthcare is marketing skills (Anderson et al., 2018). According to Google, 77% of patients use search engines prior any doctor's appointment, and a third of patients use social media platforms to find out about the doctor and his or her services (Geekship, 2020). In particular, according to a study by the Pew Research Center, 70% of Internet users in the United States seek health

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information online (Zhou et al., 2018). Social media can make a significant contribution to improving the quality of medical services, however, we must also consider the associated risks associated with the protection of personal data and the accuracy of information (Alshakhs and Alanzi, 2018). Under the influence of social media marketing, consumer access to digital healthcare tools is expanding. A clear example of this is telemedicine, which is a recent achievement in the field of digital healthcare tools. It provides the exchange of information between healthcare providers and users at a time, location, and touchpoint of their choice via computer, smartphone, or tablet (Swan et al., 2019). In the modern world, the benefits of healthcare consumers are changing. The COVID-19 pandemic is influencing consumer health behavior. According to a study by consulting firm PwC, 32% of US consumers have reduced their healthcare costs (PwC's Health Research Institute, 2020). That's why healthcare providers are using new marketing approaches to attract and retain potential customers.

Today, many medical institutions in Georgia use digital technologies to promote their services and customer relations. Georgian healthcare organizations that pursue social media marketing deserve the trust and goodwill of patients and society. This especially appeared during the COVID-19 pandemic. A common electronic healthcare system has been introduced at the governmental level in Georgia, and the government has made enormous efforts to adapt to the ongoing changes in the global environment to adapt the healthcare system and introduce innovative technologies in the medical field (World Health Organization, 2020). But that is not enough. Unfortunately, many healthcare organizations in Georgia still have an indifferent attitude towards digital marketing. We can say that the use of social media marketing tools is still perceived

as a novelty in the Georgian healthcare industry. Consequently, the level of consumer awareness and satisfaction of their needs in the Georgian medical services market is generally low. Most of the Georgian consumers do not receive adequate and timely information about the current developments in the field of healthcare. One of the reasons for this is that there are fewer studied issues related to the impact of social media marketing on the behavior of local consumers in the healthcare sector in the Georgian reality. In our opinion, the most important of such issues is the following: Impact of Social Media Marketing activities provided by healthcare organizations on Georgian consumer's engagement. This requires well-defined scientific research. With this in mind, the study's goal is to determine how social media marketing activities impact consumer behavior in the healthcare sector. Based on the above, following Research Question are introduced: How Social Media Marketing activities impact on Georgian consumers engagement in the healthcare Industry?

Literature review

Sending messages over the Internet is one of the hallmarks of the 21st century. Such messages influence various aspects of consumer behavior such as obtaining information, forming opinions, making purchasing decisions, and more (Ionas, 2014). The sphere of e-commerce is constantly expanding and understanding the behavior of the users involved is extremely important for companies. For companies to maximize their profits, they need to pay particular attention to expanding their knowledge of the behavior of their customers (Karimi, 2015). However, online mechanisms are fundamentally changing consumer behavior. In the past, people made purchasing decisions based on advertisements or professional advice. Nowadays, when making such a decision,

they increasingly consider the discussions and opinions expressed in the online space (Alsubagh, 2015).

Today, social media has a great influence on users' perceptions, attitudes, and opinions, which ultimately affect their decision-making (Xhema, 2019). Social media, providing raising the brands popularity (Al-Sheikh and Hasanat, 2020) and supporting Word of mouth communication (Li & Wu, 2018), enables organizations to make a positive impact on consumers. Particularly noteworthy is the fact that such networking relationships primarily affect consumer trust (Hajli, 2014). Therefore, social media, through trust-building mechanisms, ensures the development of marketing strategies in companies that influence consumer behavior (Usman and Okafor, 2019).

Consumers belong to different online groups. These groups can change consumer behavior when making purchasing decisions (Solomon et al., 2010). In general, purchasing decision making is determined by information obtained from the mass media (Evans et al., 2009). Today, online social networks have the greatest impact on consumer buying behavior (East et al., 2021). Particularly noteworthy in this regard is electronic Word of mouth communication, which allows consumers to share their knowledge, opinions and experiences, what in turn influences other people's buying behavior. Online Word of mouth is more flexible, cheaper, faster, and more effective than other marketing communication tools (Brown et al., 2007). Consumer behavior is also significantly influenced by reference groups, which can be divided into several types. The most important of these is the online community. This is explained by the fact that the exchange of opinions and experiences between members of the reference group in the online space can lead to the rapid sale of goods or services or, conversely, cause failure (Schiffman et al.,

2012). It should also be noted that in recent years, the activity of consumers in the online space is growing at an astonishing rate, which is of great interest to researchers. Studies are particularly concerned with the study of consumers opinions expressed on online sites (Hajli, 2014). For example, Sharma and Rehman (2012) found that positive or negative electronic Word of mouth regarding to company, product, or brand, have a significant impact on sales, image, and consumer buying behavior (Sharma and Rehman, 2012). The same way, Wang et al. (2012) investigated that the relationship between online consumers through different chat groups also influences a purchasing decision that develops in two directions. The first is to recommend a given product to friends and relatives, and the second is to participate directly in the development of the product (Wang et al., 2012).

Modern companies are giving social media platforms a huge role in their customer relationships. Therefore, researchers are especially interested in studying the phenomenon of social media engagement (Colicev et al., 2018; Harmeling et al., 2017; Hollebeek et al., 2014; Kumar and Pansari, 2016). In turn, buyers also welcome companies to engaging in social media, as this process simplifies their relationships with organizations (Dolan et al., 2016; Lee et al., 2018; Lim et al., 2015; Moe et al., 2017; Viswanathan et al., 2018). In addition, recent advances in mobile technology have digitalized the day-to-day transactions of shoppers, making it easier to interact on social media with businesses from various sectors of the economy. For example, social media is actively used in the healthcare industry as a tool to improve the quality of service (Hawkins et al., 2016; Huppertz and Otto, 2018; Ranard et al., 2016). Consequently, recent research has focused on both social media strategies and related consumer buying behavior and social media engagement (Glover et al., 2015; Huppertz

and Otto, 2018; Lagu et al., 2016; Kumar et al., 2016; Wang and Kim, 2017).

Today, the formation of a vision for customer relations is considered as the most important resource and intangible asset of the organization (Hollebeek et al., 2014; Pansari and Kumar, 2017; Verhoef et al., 2010). Indeed, customers involved in social media not only build positive relationships with companies and demonstrate loyalty, but also become brand ambassadors (Brodie et al., 2013). Recent research has found that customer engagement in social media facilitates the process of co-creating a market characteristics of new product and company values (Hollebeek et al., 2019; Jaakkola and Alexander, 2014; Kumar and Pansari, 2016).

Research suggests that customer engagement improves cognitive processes, positive attitudes, emotional benefits, and social identity. Consequently, customer engagement is defined as a particular mental state that is created in customers during their relationships with organizations and brands (Hollebeek, 2011).

Consumer engagement through social media is especially important in the health sector. For example, hospital-sponsored events such as health posting, preventive webinars and online discussions make it easier to communicate with clients. Consequently, such activities ensure that customers form a positive attitude and improve their experience (Kumar and Pansari, 2016; Vivek et al., 2012).

Social media platforms are changing customer engagement in several ways. First, social media platforms can trigger customer engagement behavior by forcing organizations to analyze customer interaction data to offer better service (Carlson et al., 2019). On the other hand, through social media it is possible to achieve high results of customer engagement. Social media platforms allow users to connect with a diverse audience, both in terms of users and organizations (Schivinski et al., 2016). Third,

social media platforms today offer location-based services that help attract new customers and build relationships with them (Wang and Stefanone, 2013). Based on the above literature review, following hypothesis (H) is introduced:

H: Social Media Marketing provided by healthcare organizations has a positive impact on consumer engagement.

Methodology

In our study, an electronic questionnaire was used as the main method of data collection. In addition, in this study, we conducted a survey using a self-administered method. Such an approach has led to the fact that the method of self-administration in collecting data directly from respondents is simple, relatively fast, and inexpensive (Saunders et al., 2019). The answers to the questions are presented in multiple-choice, and a 5-point Likert scale is used (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree). A systematic random sampling method was used. The confidence interval is 95% and the margin of errors is set to be equal to 4%. A total of 425 questionnaires were collected. Statistical analysis of the obtained data was performed as follows: we first transferred the data from the questionnaire to the Microsoft Excel spreadsheet, and then the data was processed using statistical software which is a package for Social Science (SPSS) -21. From the statistical analysis methods we used Regression Analysis. In similar studies, managers use the Cronbach's alpha coefficient to determine reliability measures. The reliability coefficient is considered acceptable if it is 0.60 or higher (Nunnally, 1967). The Cronbach's alpha coefficient was 0.894, which can be considered as a significantly higher reliable coefficient.

Results and discussion

Our marketing research revealed the respondents' characteristics in the sample,

grouped by different aspects. Sampling characteristics according to the number of respondents and the percentage is shown in Table 1. The survey showed that most

respondents (47.1%) belong to the age category of 18 to 24 years, while the minority (1.6%) are 65 years or older. 63.5% of the respondents are women, and 36.5% are men.

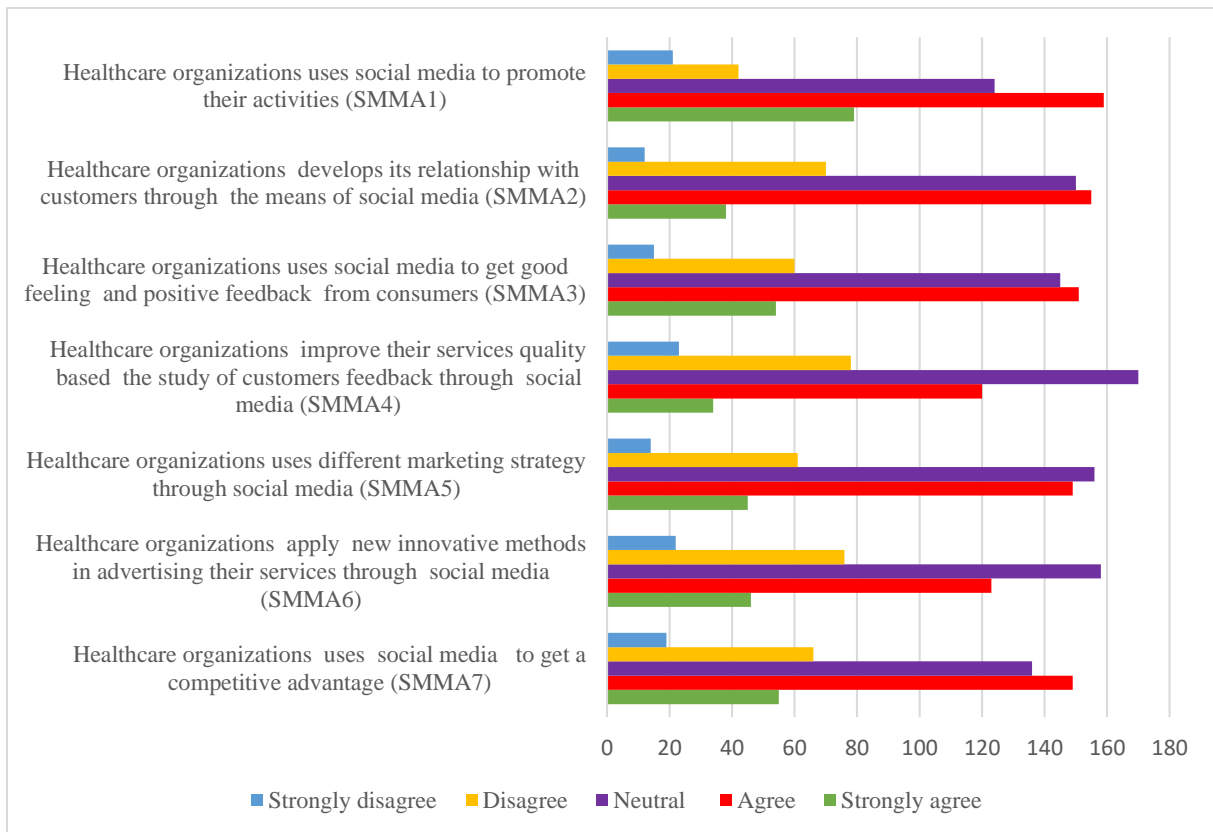
Table 1: Sampling characteristics

Characteristics	Frequency / Percentage	Characteristics	Frequency / Percentage
Age		Government Employee	73 (17,2%)
18-24	200 (47,1%)	Private Employee	174 (40,9%)
25-35	138 (32,5%)	Other	17 (4%)
36-45	29 (6,8%)	Marital status	
46-55	30 (7,1%)	Single	293 (68,9%)
56-65	21 (4,9%)	Married	112 (26,4%)
More than 65	7 (1,6%)	Divorced	15 (3,5%)
Gender		Widowed	5 (1,2%)
Male	155 (36,5%)	Personal monthly income	
Female	270 (63,5%)	Below 500 USD	163 (38,4%)
Education		501-1000 USD	127 (29,8%)
Pre high school	39 (9,2%)	1001-1500 USD	29 (6,8%)
Vocational	26 (6,1%)	1500-2000 USD	17 (4%)
Bachelor's degree	164 (38,6%)	Over 2000 USD	10 (2,4%)
Master's degree	150 (35,3%)	Private (n/a)	79 (18,6%)
Ph.D.	46 (10,8%)		
Job			
Student	134 (31,5%)		
Owner/Entrepreneur	27 (6,4%)		

Source: own elaboration

We were interested in the respondents' opinions regarding the social media marketing activities carried out by health organizations. Respondents were instructed to express their attitudes on a 5-point scale. The results of the study are given in Figure 1. As the analysis shows, most respondents refrained from radical responses to the marketing activities carried out by health organizations on social media and mostly showed a positive attitude. Table 2 shows the mean score rating of social

media marketing activities conducted by health organizations. Most respondents' choices are associated with healthcare organizations using social media to promote their activities (mean=3.548). While the least-healthcare organizations improve their service, quality based on the study of consumers' feedback through social media (mean=3.151). Frequencies of evaluation of the attributes of it are presented in Table 2.



Source: own elaboration

Figure 1: Frequencies of respondents' assessments of social media marketing activities carried out by healthcare organizations

Table 2: Mean score about the items of social media marketing activity

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
SMMA1	425	1.0	5.0	3.548	1.0565	1.116
SMMA2	425	1.0	5.0	3.322	0.9477	0.898
SMMA3	425	1.0	5.0	3.398	0.9950	0.990
SMMA4	425	1.0	5.0	3.151	0.9910	0.982
SMMA5	425	1.0	5.0	3.353	0.9628	0.927
SMMA6	425	1.0	5.0	3.224	1.0299	1.061
SMMA7	425	1.0	5.0	3.365	1.0353	1.072
Valid (listwise)	N 425					

Notes: Mean values are obtained on a scale of 1-5 where: 1= strongly disagree; 2= disagree; 3=neutral; 4= agree; 5= strongly agree

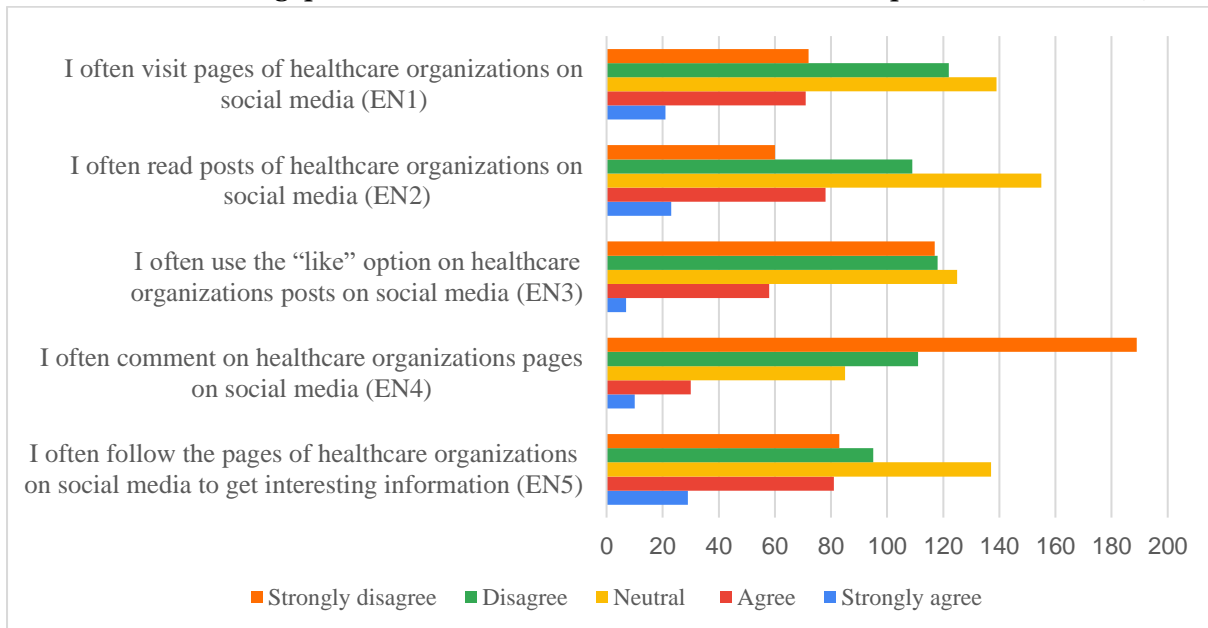
Source: own elaboration

To determine Georgian consumers' engagement in social media regarding healthcare, the respondents were asked to express their attitude towards the characteristics that define such activities on a 5-point scale. The results of the study are given

in Figure 2. As the analysis shows, most respondents have a primarily neutral attitude towards the items that define such engagement. The exception is the comments made by respondents on the posts of healthcare organizations on social media,

which, for the most part, receive the lowest rates. Table 3 shows the mean score rating of engagement on social media regarding healthcare. Most respondent's choices were associated with reading posts of healthcare

organizations on social media (mean=2.753). While the least-commenting on healthcare organization's pages on social media (mean=1.967). Frequencies of evaluation of the attributes are presented in Table 3.



Source: own elaboration

Figure 2: Frequencies of respondents' engagement in social media concerning healthcare

Table 3: Mean score about the items of social media engagement

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
EN1	425	1.0	5.0	2.640	1.0967	1.203
EN2	425	1.0	5.0	2.753	1.0784	1.163
EN3	425	1.0	5.0	2.341	1.0723	1.150
EN4	425	1.0	5.0	1.967	1.0679	1.140
EN5	425	1.0	5.0	2.713	1.1786	1.389
Valid N (listwise)	425					

Notes: Mean values are obtained on a scale of 1-5 where: 1= strongly disagree; 2= disagree; 3=neutral; 4= agree; 5= strongly agree

Source: SPSS output based on own data

Next, we explored whether there is a connection between social media marketing activities and consumer engagement. As it turned out, such a connection is statistically reliable ($P < 0.001$), and the correlation coefficient is positive ($r = 0.267$) (Table 4). As mentioned above, the hypothesis relates to the impact of social media marketing activities on customer engagement. Regression analysis is

used to test the hypothesis. Table 4 shows that the model we developed is reliable ($P < 0.001$); $F = 32.581 > F_{critical} = 3.84$. The hypothesis is supported. Consequently, social media marketing activities have a positive impact on customer engagement. In addition, R square = 0.072, which allows us to say that 7.2% of the activities are caused by engagement, which is

quietly low. Accordingly, the rest is due to other factors.

Table 4: Regression analysis of the impact of social media activity on consumer engagement

	R	R ²	Adjusted R ²	Standard Error of Estimate		Sum of squares	df	Mean square	F	Significance level
	0.267	0.072	0.069	4.222	Regression	580.65	1	580.6	32.581	0.000
					Residual	7538.47	423	17.8		
					Total	8119.12	424			
	Unstandardized Coefficients			Standardized Coefficients						
(Constant)	B	Standard Error		Beta			t	Significance level		
Activity	7.440	0.895		0.267			8.310	0.000		
	0.213	0.037					5.708	0.000		

Notes: Dependent Variable :Engagement; Predictors: (Constant), Activity

Source: SPSS output based on own data

To process the obtained data, we used a linear regression model (Malhotra, 2010), which has the following form:

$$Y_i = \beta_0 + \beta_1 X_i + e_i \quad (1)$$

Where: Y_i = dependent or criterion variable; β_0 =intercept of the line; β_1 =slope of the line; X_i = independent or predictor variable; e_i is the error term associated with the i th observation. In this case dependent or criterion variable is Engagement, and independent or predictor variable - Activity. By inserting the data in Table 4, we get the following equation:

$$\text{Engagement} = 7.440 + 0.213(\text{Activity}) \quad (2)$$

Equation (2) allows us to assume that a one-unit increase in social media marketing activity will result in a 0.213 unit increase in customer engagement.

Conclusion

The role of social media marketing has grown immeasurably in the modern world. Marketers have new opportunities to operate in the marketplace, as social media provides companies with a chance to run a successful business. Following global trends, many Georgian companies are actively running their online platforms and making social media an integral part of their marketing activities. This research has shown increasing trends in the use of social media in different segments of the population. Georgian consumers are

particularly interested in health-related information and are increasingly using online space to access medical care. Healthcare organizations in the Georgian medical services market indeed have official accounts on various social networks. However, according to our research, Georgian consumers still show a moderate activity level. At the same time, the trust of Georgian consumers in the information posted on social media is not so high.

Social media indeed has a lot of users in Georgia. The activities carried out by health organizations on social media have a significant impact on the choice of Georgian consumers. The regression analysis obtained statistically significant values that represent the relationship between social media activities provided by healthcare organizations and consumer engagement.

This research has several theoretical and practical implications for the use of social media marketing in healthcare. First of all, we should note that although the topic of social media marketing is quite broad and a lot of research has been devoted to it, significant shortcomings in this area are still observed. By this, we mean that there are fewer studies that link social media marketing activities carried out by healthcare organizations with variables that determine consumer behavior, such as consumer engagement. From a managerial point of view, the study results will help Georgian managers employed in the health sector to broaden their understanding of how

social media marketing activities are an effective means of communicating with existing and potential customers.

The present research is the basis for further study of social media marketing activity and relevant consumer behavior in the Georgian medical services market. First of all, it concerns the impact of social media marketing

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Legal Measure as an Expression of Legal Meaning in the Digital World

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Abstract: Examining the philosophical projections of law as a value-regulatory system, this paper argues that the measure of law in the digital world particularizes and concretizes legal meaning. It reflects the distributive nature of law as a fundamental legal quality.

Key words: Measure of law, Digital world, Sociality, Bilateralism, Contradiction, Balancing of legal meaning, Distributive nature of law

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Introduction

Drawing on a semantic and phenomenological theory of law as goods and order, the measure of law grounds legal legitimacy in the digital world. It is an extension and concretization of legal meaning (Mihailova, 2001, p. 7). It specifies the qualitative-quantitative legal possibilities for the participants in the legal order, thus building the distributive function as a property of law. It makes sense of the flow of order as a fundamental task of law.

Measure of law as a part of the legal values

Social regulation is based on values and value relations, they reflect the legal sense. They are the foundations on which the principles and norms of the social legal system grow. As part of legal values, legal measure requires an integral meaning phenomenological (Husserl, 1996, p. 27) approach for law to be part of the ontological-functional system of society. The existential-myopic view of the nature of legal values is advocated. In it values and value relations are determined by the laws of development of the formative culture of mankind, they are

objective phenomena. This position is maintained when considering measure as a part of legal values that detail and concretize legal meaning and because it is in line with the essence of legal measure as a fundamental distributive property of law.

The legal measure as a carrier of legal meaning

The legal measure contains, specifies and details the meaning of law - it is a bridge to the sociality of man. As a social phenomenon, law is consciousness of community and order (Mihailova, 2001, p. 14). Sociality is the first feature of legal meaning, it is also present in measure as its concretization. Law springs from society and is intended for society, it exists in terms of coexistence, co-consciousness, co-thought. It is external to the individual, drawing it in experience, but the idea of right carries within itself, so the individual is both meaning-cognizing and meaning-making (Mihailova, 2001, p. 13). The individual is cognizant, appreciative of social reality, but is also involved in it. Through the law and the legal measure in the digital world, the individual inscribes himself in existence, receives his qualitative and quantitative

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characteristics and possibilities. Law is a meaning-making consciousness that discovers the meaning of the position of possessing, acquiring and disposing of goods in conditions of coexistence, in an established, binding order (Mihailova, 2001, p. 13-14). The position of subjects in possessing, acquiring and disposing of goods within their scope within the legal order is the essence of legal measure. Its significance derives from the justified positions of the participants in the field of law, but also from the balance between received, given, recompensed. Legal sense justifies positions on goods, is part of man's being and consciousness of law, and lays a bridge to man's sociality. The relation of man to others within the unified legal order in its qualitative-quantitative parameters is contained in the legal measure as an extension of the legal sense and as a fundamental property of law.

The initial coordinates of any law in society are goods and order (Mihailova, 2001, p. 45). Order is a good that is achieved by specifying clear qualitative and quantitative parameters in the mass customary operation of social relations under conditions of co-existence. As a quality of law, the legal measure details the relations between subjects, determines to each - his in the distribution and exchange of goods. The measure sets the position of the subjects in relation to the goods by measuring it by type and limits. It is part of the existential sense of law, related to the distribution of legal power and legal possibilities in relation to legally relevant goods, directed towards the human being.

The search for the measure of things, for the mean, for balance, is given in the nature of man and is his highest faculty (Mihailova, 1996, p. 36). In the mythological and religious understanding of the world, man seeks the idea of co-(dimensionality), determination, harmony and order in the course of social life. The deepest essence of man is bound up with the need for co-measurement, correlation and proper determination of man's positions and capacities in the conditions of social life. The

need for "similar cases to be treated similarly", for moderation and balance in the course of mass relations, for correlation in the positions and setting of the possibilities of subjects, predetermines the distributive function of law. It is an objective (Milkova, 2003, p. 81) property (function) of law that is expressed in measure as an essential legal quality.

As a defining property of law, measure is opposed to chaos and arbitrariness in the flow of the exchange of goods. Part of the legal sense, legal measure concretizes the freedom of man in the conditions of living together. Without it, both the universal and existential order and meaning of law is impossible.

Measure in law presupposes the active, creative beginning in man. Man, with his will and consciousness, knowledge of co-community and order, is the primary social cause of law. It determines the necessity of regulation of social relations and setting the freedom of subjects in type, scope and limits within the legal order. Legitimately, one of the definitions of law is a measure of freedom (Mihailova, 1996, p. 43).

In order to fulfill its role as a standard, a model of what is due, of legal substance, law and legal measure must specify freedom for what, freedom from what, how much freedom. The legal measure is conceptualized as freedom in essence, kind, and scope, it is set as freedom from legal regulation (Mihailova, 1996, p.43), its limits are outlined. In this sense, law rests on the principle that anything is permitted that is not expressly prohibited. As an intrinsic property of law, a concretization of legal meaning, the legal measure sets in kind and scope the limits of legally permissible freedom in the conduct of subjects. The legal measure serves as a benchmark, functioning as a definition of lawful and unlawful, permissible and impermissible conduct of subjects.

Concretizing the legal meaning, setting the quantitative and qualitative parameters of law, the legal measure outlines the autonomy and self-determination of man in the field of

law. The freedom of the human being, enshrined in kind and volume in the essence of the legal measure passes through the human being. It transforms the common will, common good and order in terms of coexistence into freedom for the unit and the individual. Freedom in law has value and meaning in its qualitative-quantitative parameters. It is contained in the legal measure which sets what is permissible for the individual within the socially permissible, within the order of law. In this sense, the legal measure is part of the substance of law, which specifies the freedom/non-freedom in type, scope and limits of the person. Through the essence of the legal measure to allocate by type and volume the freedom of subjects within the legal order is measured to the categories of permissible-impermissible, lawful-unlawful.

Law unites freedom and goods by expressing them through each other. It unites my position of "I have good" and personal freedom with the good and freedom of others. The legal measure contains the most immediate legal meaning, which points to the direct relation of law to the social exchange of goods. It thus conceptualizes, regulates and sets the joint life in the relations of giving and receiving by providing activity or obligation. Simultaneously, the measure of law transforms the communal legal sense of order and harmony, directed and detailed to the individual consciousnesses of subjects.

In its original sense, law is not a norm, but a position on goods conceptualized as "good for me" and defensible as such. The first approximation of the right and the legal measure is the justification of the position of having to dispose of goods (Mihailova, 1996, p. 37), the protection of one's own actions freedom from foreign interference, the qualitative-quantitative dimensions of one's freedom in accessing the goods of the right. An expression of the freedom that is present in the value justification of law as a measure is the opportunity granted to the subject to choose his or her behavior within the

requirements of order. The measure of right therefore carries a useful existential meaning and is polyvariant, comparable to heterogeneous social practice, which, however, as a rule preserves the positive nature of man. Even when it prescribes restrictions and prohibitions, when it sanctions, the measure of law is not arbitrary. Through a clearly defined freedom for subjects, the measure of law seeks balance and equilibrium in distributive and exchange relations in order not to cross the line and to preserve order in society. Law and legal measure does not justify any freedom, any activity/passivity of the subject. Reflecting the justified dependence in subjects' positions regarding goods, the legal measure selects and anchors a permissible pattern of legally justified freedom - for what, from what, how much freedom.

Law does not repeat but evaluates, distributes and sets the social interactions mediated by the goods of law. Reflecting the legal sense, the legal measure provides an enduring definition of the socially justifiable relationship between subjects in the distribution of goods (Mihailova, 1990, p. 68). It indicates the reasonable, socially selected, useful in kind and limits of the power of subjects with respect to the goods and order of law.

The right is a carrier of a particular social meaning, representing the possession, giving, receiving of goods as a legitimate state, when it has as its basis the requirement of entitlement. The deepest sense of right is o-righteous-n, rightful, two-sided, commensurate, opposite, just, right. These qualities also characterize the measure of right. Opposite to what is received is what is given. The commensurability of the legal sense is concretized by its two-sidedness (Mihailova, 2001, p. 52). The legal sense sets a formula of correlative dependencies on goods different in their nature. The acquirer has a counter-contribution commensurate with the measure of the right, with dependence on a common

legitimate law of conceptualizing, commensurating and setting positions in access to legal goods. Commensurability and commensurability (Dachev, 2004, p. 177) is an essential feature of the legal meaning embedded in the legal measure. Available social matter takes on legal meaning, assumes new qualities and parameters, is valid with the approval and legitimacy of law (Mihailova, 2001, p. 40), and is embedded differently in legal positions. The commensurability of legal meaning reflected in the legal measure is a synthesis between the factual and the entitled. Through it a useful, desirable social dependence is constructed in its qualitative and quantitative dimensions between subjects. The legal measure names the social matter of facts, positions and dependencies, in optimal quality, quantity and state of affairs. At the same time, it gives them the quality of law, adds to them its requirement of justice, of justified legal sense.

The legal sense detailed in the measure of law reconciles and balances opposites. They give rise to the operation of law. They are a necessary essence, quality, property, objecthood, condition for law to be at work and to order being (Mihailova, 2001, p. 207). Each position depends on the subject's counter-position, on an available circumstance and ground. Each good is commensurate and relative to another good. Legal measure contains the unified essence of law to be applied as a rule and criterion, as a superpersonal principle. At the same time, the measure of law reconciles opposites, fulfills the requirement of law for concreteness in the positions and conduct of subjects, and thus guarantees the order of law.

Conclusion

The history of human development proves that law existed even before the emergence of

the state as customary, mythological law, interwoven in social practice, in the common life of people. The notion of law in digital world, thanks to its legal sense, carries a useful existential code that points to man's place in society without being institutionalized. The measure of law fulfills precisely this function of law to justify, balance and distribute relations of giving and receiving within the community. The value qualities of balance (proportionality), bivalence, opposition and sociality of the legal meaning embedded in the measure of law lend legitimacy and justify what is due. Thus, they bind the person within the social, they give effectiveness to law.

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