

Ministry of Education and Science of Ukraine
Black Sea Universities Network

ODESA NATIONAL UNIVERSITY OF TECHNOLOGY

International Competition of
Student Scientific Works

BLACK SEA SCIENCE 2022 PROCEEDINGS



ODESA, ONUT 2022

Ministry of Education and Science of Ukraine

Black Sea Universities Network

Odesa National University of Technology

International Competition of Student Scientific Works

BLACK SEA SCIENCE 2022

Proceedings

Odesa, ONUT 2022

Editorial board:

Prof. B. Iegorov, D.Sc., Professor, Rector of the Odesa National University of Technology, Editor-in-chief

Prof. M. Mardar, D.Sc., Professor, Vice-Rector for Scientific and Pedagogical Work and International Relations, Editor-in-chief

Dr. I. Solonytska, Ph.D., Associate Professor, Director of the M.V. Lomonosov Technological Institute of Food Industry, Head of the jury of «Food Science and Technologies»

Dr. Yu. Melnyk, D.Sc., Associate Professor, Director of the G.E. Weinstein Institute of Applied Economics and Management, Head of the jury of «Economics and Administration»

Dr. S. Kotlyk, Ph.D., Associate Professor, Director of the P.M. Platonov Educational-Scientific Institute of Computer Systems and Technologies “Industry 4.0”, Head of the jury of «Information Technologies, Automation and Robotics»

Prof. O. Titlov, D.Sc., Professor, Head of the Department of Oil and Gas Technologies, Engineering and Heat Power Engineering, Head of the jury of «Power Engineering and Energy Efficiency»

Prof. G. Krusir, D.Sc., Professor, Head of the Department of Ecology and Environmental Protection Technologies, Head of the jury of «Ecology and Environmental Protection»

Dr. V. Kozhevnikova, Ph.D., Associate Professor, of the Department of Hotel and Catering Business, Technical Editor

Black Sea Science 2022: Proceedings of the International Competition of Student Scientific Works / Odesa National University of Technology; B. Iegorov, M. Mardar (editors-in-chief) [*et al.*]. – Odesa: ONUT, 2022. – 749 p.

Proceedings of International Competition of Student Scientific Works «Black Sea Science 2022» contain the works of winners of the competition.

The author of the work is responsible for the accuracy of the information.

Organizing committee:

Prof. Bogdan Iegorov, D.Sc., Rector of Odesa National University of Technology, Head of the Committee

Prof. Maryna Mardar, D.Sc., Vice-Rector for Scientific and Pedagogical Work and International Relations of Odesa National University of Technology, Deputy Head of the Committee

Prof. Baurzhan Nurakhmetov, D.Sc., First Vice-Rector of Almaty Technological University (Kazakhstan)

Prof. Michael Zinigrad, D.Sc., Rector of Ariel University (Israel)

Prof. Plamen Kangalov, Ph.D., Vice-Rector for Academic Affairs of “Angel Kanchev” University of Ruse (Bulgaria)

Prof. Heinz Leuenberger, Ph.D., Professor of the Institute of Ecopreneurship of University of Applied Sciences and Arts (Switzerland)

Prof. Edward Pospiech, Dr. habil., Professor of the Institute of Meat Technology of Poznan University of Life Sciences (Poland)

Prof. Lali Elanidze, Ph.D., Professor of the Faculty of Agrarian Sciences of Iakob Gogebashvili Telavi State University (Georgia)

Dr. Dan-Marius Voicilas, Ph.D., Associate Professor of the Institute of Agrarian Economics of Romanian Academy (Romania)

Prof. Stefan Dragoev, D.Sc., Vice-Rector for Scientific Work and Business Partnerships of University of Food Technologies (Bulgaria)

Prof. Jacek Wrobel, Dr. habil., Rector of West Pomeranian University of Technology (Poland)

Dr. Mei Lehe, Ph.D., Vice-President of Ningbo Institute of Technology, Zhejiang University (China)

Dr. V. Kozhevnikova, Ph.D., Associate Professor of the Department of Hotel and Catering Business of Odesa National University of Technology, Secretary of the Committee

INTRODUCTION

International Competition of Student Scientific Works “Black Sea Science” has been held annually since 2018 at the initiative of Odesa National University of Technology (formerly Odesa National Academy of Food Technologies) with the support of the Ministry of Education and Science of Ukraine. It has been supported by Black Sea Universities Network (the Association of 110 higher education institutions from 12 countries of the Black Sea Region) since 2019, and by Iseki-FOOD Association (European Integrating Food Science and Engineering Knowledge into the Food Chain Association) since 2020.

The goal of the competition is to expand international relations and attract students to research activities. It is held in the following fields:

- Food science and technologies
- Economics and administration
- Information technologies, automation and robotics
- Power engineering and energy efficiency
- Ecology and environmental protection

The jury includes both Ukrainian and foreign scientists. In the 4 years that the competition has been held, the jury included scientists from universities of 24 countries: Angola, Azerbaijan, Benin, Bulgaria, China, Czech Republic, France, Georgia, Germany, Greece, Israel, Italy, Kazakhstan, Latvia, Lithuania, Moldova, Pakistan, Poland, Romania, Serbia, Slovakia, Switzerland, Turkey, USA.

At the same time, every year the geography has expanded and the number of foreign jury members has increased: from 46 jury members representing 25 universities from 12 countries in 2018, to 73 jury members of the 46 universities from 19 countries in 2022.

More than a thousand student research papers have been submitted to the competition from both Ukrainian and foreign institutions from 25 countries: China, Poland, Mexico, USA, France, Greece, Germany, Canada, Costa Rica, Brazil, India, Pakistan, Israel, Macedonia, Lithuania, Latvia, Slovakia, Romania, Kyrgyzstan, Kazakhstan, Bulgaria, Moldova, Georgia, Turkey, Serbia.

The interest of foreign students in the competition grew every year. In 2018, the students representing 15 institutions from 7 countries have submitted 33 works. In 2021 the number of submitted works increased to 73, authored by the students of 40 institutions from 18 countries.

The competition is held in two stages. In the first stage, student research papers are reviewed by members of the jury who are experts in the relevant fields. In the second stage of the competition, the winners of the first stage have the opportunity to present their work to a wide audience in person or online.

All participants of the competition and their scientific supervisors are awarded appropriate certificates, and the scientific works of the winners are included in the electronic proceedings of the competition. Every year the competition receives a large number of positive responses from Ukrainian and foreign colleagues with the desire to participate in the coming years.

2. ECONOMICS AND **ADMINISTRATION**

SMALL BUSINESS OF UKRAINE IN THE CONDITIONS OF THE COVID-19 PANDEMIC

Author: Maryna Tertyshna

Advisors: Tetiana Borovyk

Iryna Ivanova

Cherkasy State Business College (Ukraine)

Abstract. *The development of small business and micro-entrepreneurship is perceived as one of the main tasks of Ukraine's economy. Despite the active work of various government agencies to implement and improve the existing measures to support small business, a number of various acute problems remain unresolved, which has a negative effect on the desire of young people to start their own business in the country. The relevance of the study lies in the fact that in the current economic crisis caused by the COVID-19 pandemic and the development of various economic processes, the further growth of small and micro enterprises requires in-depth research, especially in implementing effective and flexible regional policies to provide an objective assessment of small business activities during this crisis. Legislative regulation of small business in Ukraine is assessed. Current state of small business in Ukraine is analysed according to various indicators. The main obstacles and challenges are highlighted. Ways to improve the development of small business in Ukraine are offered. The author concludes that one of the most important forms of regulating the development of small business and micro-enterprises is state support through its special tools for doing business, financial mechanism, information and legal measures to ensure decent conditions for business and its development.*

Keywords: *small enterprise, microenterprise, small business, state regulation, state support, pandemic.*

I. INTRODUCTION

Small business today is the most common type of business. It is easier to launch, even having little or no work experience. Gradually, the size may increase to a medium one, due to the increased annual turnover and attraction of more resources. The development of Ukrainian entrepreneurship is only a few decades old and requires more in-depth theoretical research and analysis in general, a clear definition of its place in the society and the state in general, improvement of development paths during the pandemic aimed at overcoming certain economic and social problems as well as crisis socio-economic problems [1].

A vital component of any healthy and prosperous market economy is the active development of the small business sector, which plays a key role in creating new jobs and promoting economic growth and innovation. Small businesses have undergone significant changes over the last two years due to the pandemic. At that time, entrepreneurs tried to find a way out to stay in business and not to go bankrupt. The challenge for small business to survive is the use of digital technology, online business and e-commerce. At the same time, the development of small business has necessitated

the evolution of forms and methods of management at small enterprises, taking into account the peculiarities of their functioning, the use of experience of small enterprises in the developed market economies.

II. LITERATURE ANALYSIS

2.1. The essence of small business and its impact on the economy

Small business is characterized by economic and production as well as socio-economic advantages, namely flexibility, dynamism, rapid adaptation to new technologies, the ability to create and implement innovations, social stability, labour market saturation with new jobs, open access and ease of entry into the economy sector. In addition, small business has significant socio-psychological benefits that are based on the specific motivation to work, which involves overcoming the elements of alienation and attracting elements of economic and non-economic incentives [1].

The issue of small business formation in Ukraine attracts the attention of domestic scholars who offer different interpretations of small business category. In particular, O. Hetman defines small business as an independent economic activity of small businesses and citizens-entrepreneurs. O. Belorus considers small business as a subtype of entrepreneurship, which consists in the creation and practical implementation of a new economic process. N. Voloshchuk's research emphasizes that this is a special type of activity taking into account the creative abilities of the entrepreneur and innovative approaches. O. Matusova singles out small business as a sector of the regional economy. V. Frolova argues that this is an independent organic element of a market economy. O. Pukalo defines small business as an independent activity related to production, provision of services [2, p. 124].

The researchers agree that the main purpose of small business is to make a profit and ensure social impact. Their studies are still in great demand among novice entrepreneurs and are a base for qualified professionals.

S.Z. Varnaliy notes that the role and place of small business in the Ukrainian economy is best manifested and analysed through a set of the following functions:

- formation of a competitive environment;
- providing flexibility to the market economy;
- promoting rapid development;
- absorption of surplus labour during cyclical downturns and structural shifts in the economy;
- creation of new jobs;
- mitigation of social tensions and democratization of market relations through the formation of the middle class in society [3, p. 60].

According to I.A. Serova, the main economic function of small business is its integral role in the market economic system.

The social function is an opportunity for the general population to realize their organizational, entrepreneurial and creative abilities, as well as to provide themselves with work (Figure 1).

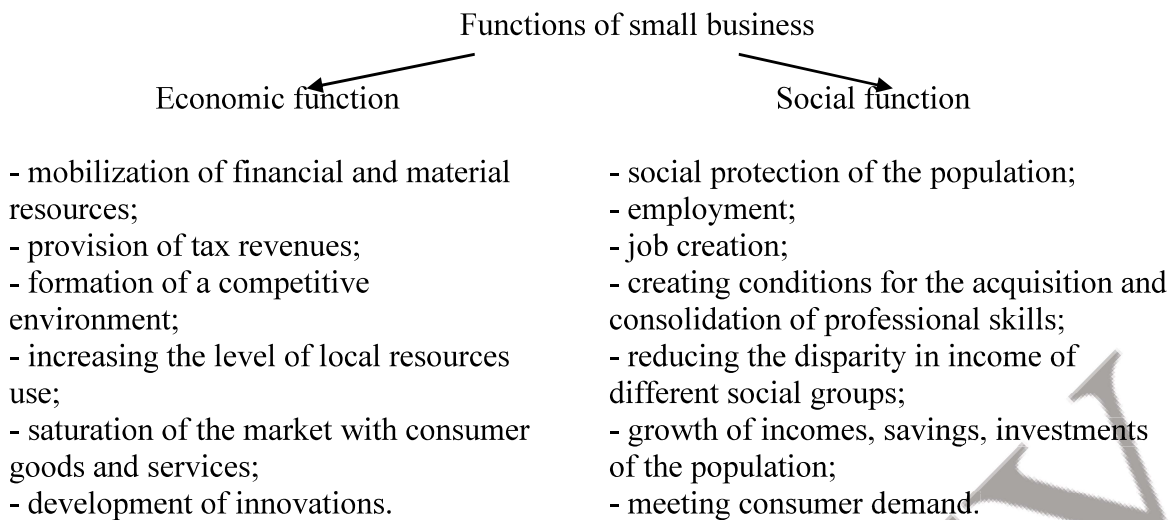


Figure 1. Economic and social functions of small business according to I.A. Serova [4, p. 12].

In addition, the economic function of small business is expressed in the functioning of the enterprise and is manifested in the entry of its goods into the market, as well as obtaining sales revenue and increasing budget revenues through taxes and fees. Small business helps to strengthen the economic independence of the population and, consequently, increase the solvency of demand, but the social role of small business can be assessed by reducing unemployment, creating conditions for realizing citizens' potential.

Based on the study, the general functions of small business are identified as follows:

- 1) the formation of competitive, civilized market relations that contribute to better meeting the needs of the population and society in goods (works, services);
- 2) expanding the range and improving the quality of goods, works and services. Wishing to meet consumer demand, small business helps to improve the quality of goods (works, services) and service culture;
- 3) bringing the production of goods and services closer to specific consumers;
- 4) promoting structural adjustment of the economy. Small business gives the economy flexibility, mobility, maneuverability;
- 5) attracting personal funds for the development of production. Partners in small businesses invest more in the business with more interest than in large ones;
- 6) creation of additional jobs, reduction of unemployment;
- 7) more effective use of creative abilities of people, disclosure of their talents, development of various types of work;
- 8) involvement in labour activity of certain groups of the population, for which work in large-scale production has certain restrictions (housewives, pensioners, the disabled, students);
- 9) the formation of the social stratum of owners, owners of enterprises, firms, companies;
- 10) intensification of scientific and technological progress;

11) development and use of local sources of raw materials and waste from large industries;

12) promoting the activities of large enterprises through the manufacture and supply of components and equipment, the creation of ancillary and service industries.

Thus, small business is an organic structural element of a market economy. It is both a goal and a tool for the development of a market economy. Its dual role is confirmed by the results of the analysis of the functions inherent in small enterprises.

2.2. Legislative regulation of small business in Ukraine

Small business plays a key role in the economy of Ukraine, providing about 64% of value added, 81.5% of employees, businesses and 37% of tax revenues [5]. The main normative legal acts regulating the sphere of small business in Ukraine are the Commercial Code of Ukraine, the Tax Code of Ukraine, the Law of Ukraine on Development and State Support of Small and Medium Business in Ukraine, etc. The main financial instrument that regulates the relations between small business and the state is taxation and the type of tax regime – general or special. It is a special tax regime aimed at stimulating small business, and its system involves only one type of tax: a single tax paid to the local budget and a single social contribution, which is deposited into the accounts of the Pension Fund of Ukraine bodies [6].

The Tax Code regulates a number of benefits for small businesses:

- 1) simplifies the current accounting and forms of financial reporting;
- 2) is used instead of various forms of reporting on taxes and fees, which are replaced by a single tax; one form of reporting is filled in;
- 3) significantly simplifies the calculations associated with determining the amount of taxes.

However, along with the simplified reporting system, some shortcomings hinder the development of small business:

- 1) limiting the amount of revenue of small businesses;
- 2) switching to a simplified taxation system by registering as a single tax payer if a number of requirements specified by law are met;
- 3) the amounts of the single tax of a natural person-taxpayer are paid in advance for the reporting period (quarter).

The researchers agree that the stable development of small and medium-sized businesses, especially at the initial stage, requires government support. The lack of effective state aid in recent years has led to a decrease in the share of small and medium enterprises, the number of employees and their share in national production [7, p. 31].

The main elements of state support for entrepreneurship are:

1. State legislation to support and develop entrepreneurship in general, which includes law enforcement mechanisms to ensure the rule of law and equality of small business in cooperation with government agencies and other enterprises. It is important to use tools of financial state support, in particular:

- 1) a certain partial compensation of interest rates on loans that can be provided for the implementation of various economic plans of small businesses;
- 2) partial compensation of lease payments;

- 3) providing guarantees for lending to small businesses;
- 4) providing loans, including small loans, to start and run a business at a low interest rate;
- 5) providing loans for the acquisition and implementation of innovations;
- 6) compensation of expenses for the development of cooperation between small business entities;
- 7) financial support for the introduction of energy saving and environmentally friendly technologies;
- 8) other types of financial state support not prohibited by the current legislation.

2. The system of certain state institutions, which are responsible for the direct development of small business, ensure the implementation of state policy in this area and regulate the field of small business and infrastructure management.

3. Infrastructure to support entrepreneurship – a system of specialized institutions, both commercial and non-commercial, implementing national programs for the development of all commercial units and regional business development programs [8].

To implement a comprehensive system of new opportunities aimed at stabilization and sustainable development of Ukraine's economy and increase employment by maintaining existing and stimulating the creation of new highly productive jobs with decent working conditions during 2020-2022, the Economic Stimulus Program has been approved to overcome the consequences of the COVID-19 pandemic.

Thus, the purpose of state business support is to create equal conditions for all business entities engaged in business, as well as the alignment of business structures with other areas of social production. State support for small business is important. Nevertheless, the decisive role in the successful operation of enterprises belongs primarily to the personal qualities of the entrepreneur – talent, intelligence, education, organizational skills, perseverance, determination, ability to analyse the situation and take risks.

III. OBJECT, SUBJECT, AND METHODS OF RESEARCH

The aim of the research is to analyse domestic small business activities and identify the ways to improve their efficiency in the conditions of global challenges.

The object of the research is functioning of small business in Ukraine.

The subjects of the research are theoretical, methodological, organizational and practical aspects of small business and micro-enterprises functioning and development, identification of problems and prospects for their development taking into account the transformational changes caused by the global pandemic.

The research methods are comparison, explanation, abstraction, empirical analysis and synthesis, a combined method of similarity and divergence.

IV. RESULTS

4.1. Current state and problems of small business in Ukraine

According to the State Statistics Service of Ukraine, we can see and analyse the number of small businesses and micro-enterprises in 2015-2019 (Table 1).

Table 1. Number of small business and micro-enterprises in 2015-2019, units *

Years	Number of small enterprises		Number of micro-enterprises	
	Units	Specific weight,%	Units	Specific weight,%
2015	327,814	95.5	284,241	82.8
2016	291,154	95.0	247,695	80.8
2017	322,920	95.5	278,102	82.2
2018	339,374	95.4	292,772	82.3
2019	362,328	95.2	313,380	82.3
2020	355,708	95.2	307,871	82.4

*Source formed by the author. [9, p. 51].

Thus, the number of small businesses at the beginning of 2021 was 355,708 units, which is 95.2% of the total number of enterprises, and micro-enterprises – 307,871, which is 82.4 of the total. We can conclude that compared to previous years the number of both small and micro enterprises decreased significantly in 2020, which negatively affected the country's economy.

During 2015-2019, i.e. before the beginning of some economic instability due to the spread of the COVID-19 pandemic, there is a slight but positive dynamics in the development of small businesses in Ukraine (Table 2).

Table 2. Dynamics of the main indicators of small business entities during 2015-2019*

Indicators	2015	2016	2017	2018	2019
Share of small business in GDP,%	13	14	15	15	16
Number of small businesses, thousand units	1958.4	1850.1	1789.4	1822.7	1923.0
Micro-business entities inclusive	1910.8	1800.7	1737.1	1764.7	1864.0
The share of small business in the business structure,%	99.2	99.2	99.1	99.1	99.0
Number of employees in small businesses, thousand people	1576.4	1591.7	1658.9	1641.0	1746.6
Number of small enterprises per 10 thousand population, units	77	68	76	80	86

*Source: formed by the author [96].

Thus, according to the data in Table 2.2, we can see that the values of all indicators are quite significant in the economy as a whole. However, the share of small business in GDP is quite low and does not exceed 16%.

Micro-entrepreneurship and small business in Ukraine have always existed in difficult socio-economic conditions. The current situation is primarily caused by the COVID-19 pandemic, and then by the consequences of overcoming the third wave of the economic crisis, which began in 2014 due to the military conflict in the east and the annexation of Crimea.

According to USAID CEU, the complexity of legislation, corruption and insufficient demand was determined as the main obstacle to further small business growth in 2019 (Figure 2).

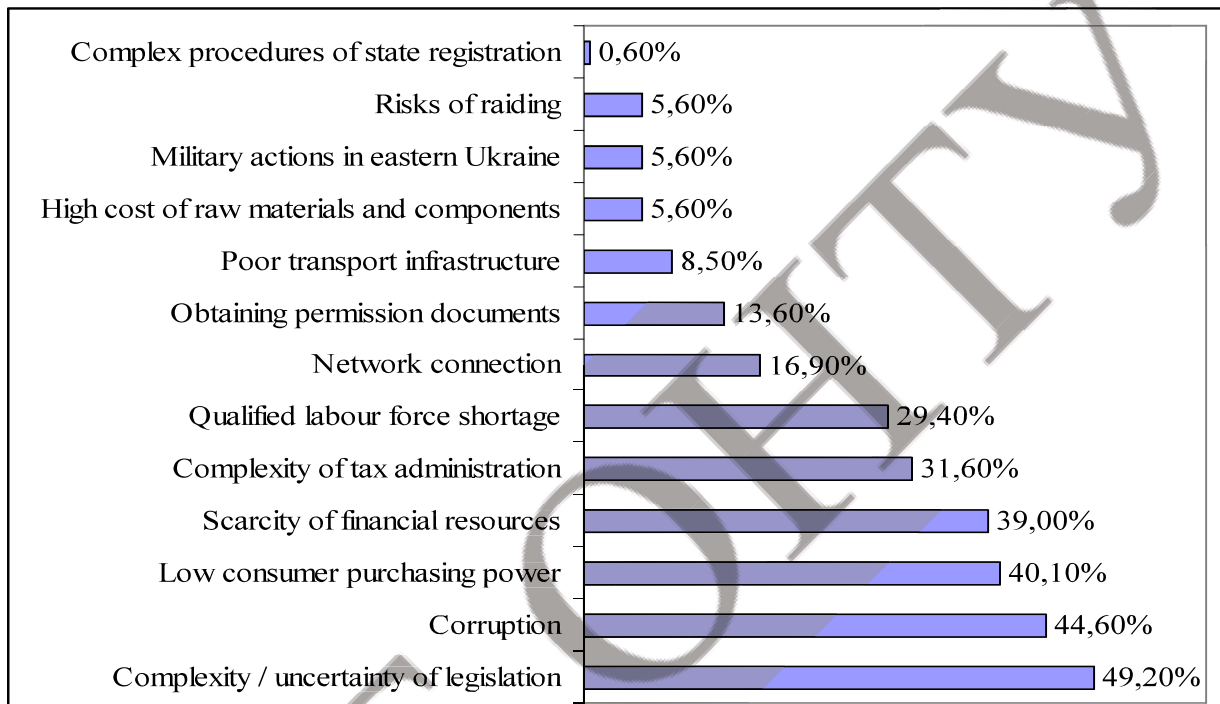


Figure 2. The main obstacles for small business in 2019-2020.

**Source: formed by the author [10, p. 15].*

The development of small business is one of the top priorities of the Government of Ukraine, which is enshrined not only in the European Union–Ukraine Association Agreement [3] but also reflected in the Strategy for Small and Medium-sized Enterprise Development in Ukraine until 2020.

International organizations consider corruption to be one of the factors hindering the development of entrepreneurship in Ukraine, which is confirmed by the Global Competitiveness Index (Table 3).

Table 3. Ranking of countries according to the Global Competitiveness Index *

Rating	Country	Competitiveness index
37	Poland	68.9
43	Russia	66.7
85	Ukraine	57.0
86	Moldova	56.7
96	Kyrgyzstan	54.0

**Source: formed by the author [11].*

Thus, according to the Competitiveness Index for 2019, we can see that Ukraine takes the 85th position out of 141 countries in this ranking. For the last two years, this study has not been made in connection with the COVID-19 pandemic, which means that Ukraine is still in the second part of the list. If we compare 2018 and 2019, we can see that during that time the country had lost two positions in the ranking. Therefore, we can assume that next year we will go down again a few steps lower.

As mentioned before, small business provides a large number of new jobs and we can say that the dynamics of the share of employees of small businesses in the total number of employees of businesses from 2015 to 2019 can be considered quite positive (Figure 3).

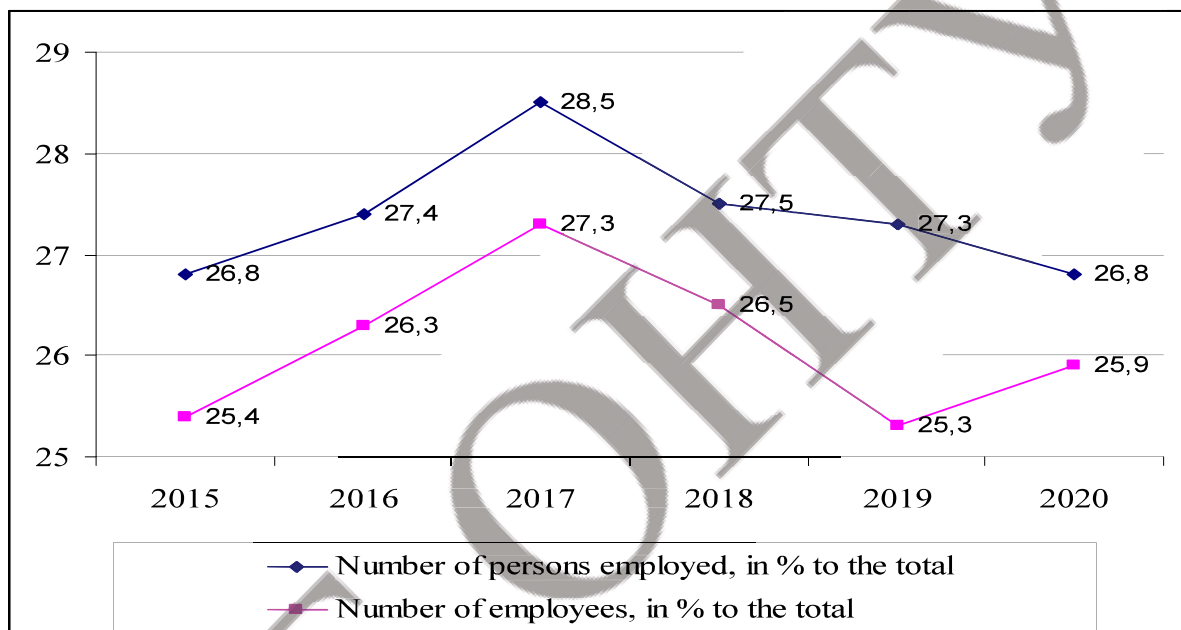


Figure 3. Dynamics of the number of the employed and employees of small enterprises, in % to the total

**Source: formed by the author [9, p. 63].*

According to Figure 3, we can conclude that the dynamics of the share of the employed and employees in small enterprises remained almost at the same level, and illustrate that the value of this indicator is not stable and averages 25-26%.

The problems of small and micro-enterprises, despite the efforts of the state, have remained unchanged for a number of years. For small businesses to function properly, carry out their economic activities and increase their share in GDP, it is expedient to implement a comprehensive socio-economic approach, developing new measures to regulate business, using government regulation tools, consolidating government and local self-government efforts to support its development.

4.2. Analysis of the effectiveness of small business in Ukraine and the world during the pandemic

The global COVID-19 pandemic has not only disrupted the country's economic stability, but also caused one of the world's largest economic crises. Disruption of

economic stability has led to the reduction in economic activity and falling GDP, rising unemployment, disruption of price stability, etc.

The government's restrictive measures necessary to prevent the spread of the virus have been a challenge not only for the country and its citizens, but also for the business sector. The introduction of quarantine measures, which were supposed to settle the situation in the country, led to significant negative consequences for business:

- 1) partial or full work of some enterprises;
- 2) complications of logistics;
- 3) dismissal of some employees;
- 4) granting temporary non-normatively significant vacations;
- 5) forced reductions in the length of the working day or week;
- 6) reduction of profits;
- 7) destruction of supply chains, etc.

A large number of enterprises in various sectors of the economy, especially small business and micro-enterprises, faced inability to operate and lose their income and found themselves on the verge of bankruptcy and closure, while other enterprises were severely restricted and tightly controlled by the state. Many companies are faced with a difficult choice: keeping staff or keeping their business afloat, so a large percentage of businesses have announced closure at the beginning of quarantine or some time later.

In Figure 4, we can see the data of the analysis of the European Business Association, which was aimed specifically at small business and micro-enterprises against the background of measures to prevent the spread of COVID-19 (Figure 4).

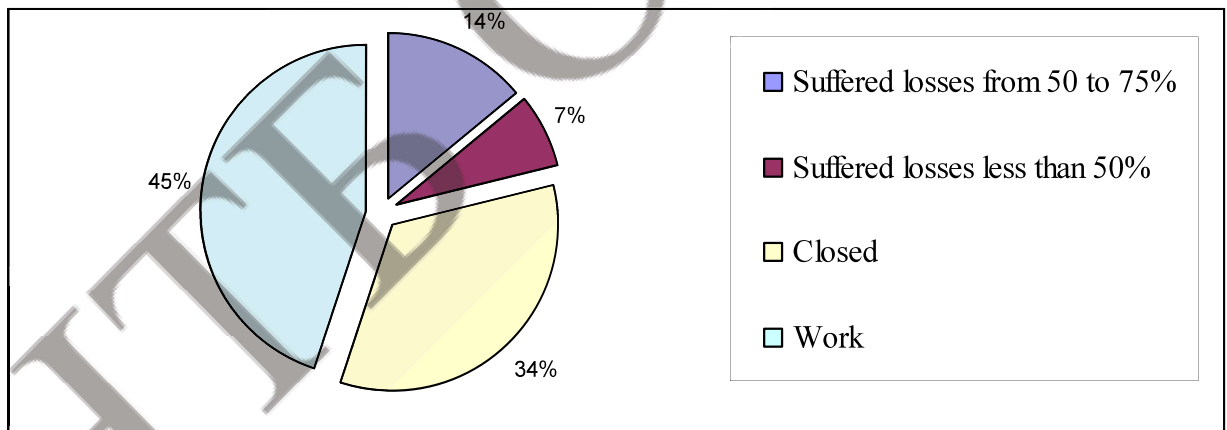


Figure 4. The impact of the global pandemic on small business

**Source: formed by the author [9;12, p. 148].*

Thus, 14% of small business and micro-enterprises suffered losses of 50 to 75% of operating revenue, 7% of enterprises suffered losses of up to 50%, the closure rate was 34% while remaining operating and not bankrupt 45% of all small enterprises. In Ukraine, 277 thousand entrepreneurs have been suspended, and their number continues to grow every day [10], respectively, the number of the unemployed has increased (Table 4).

Table 4. Dynamics of the unemployment rate in Ukraine in 2017-2021

Year	Registered unemployed, thousand people
2017	352.5
2018	341.7
2019	338.2
2020	459.2
2021 (II quarter)	344.8

**Source: formed by the author [9].*

Therefore, in the last almost 2 years, the number of the registered unemployed has increased by almost 100,000 due to the pandemic, because a large number of small businesses could not work in this difficult time and went bankrupt.

At present, small business and micro-enterprises, both in Ukraine and around the world, are making great efforts to adapt to the situation in the world economy. First, it is a question of realization of new opportunities in the organization of labour relations in connection with the introduction of a flexible mode of work and remote (online) work [7, p. 33]. At the beginning of the pandemic, a significant number of businesses changed their sales channels and switched to e-commerce to reach as much target audience as possible and not to go bankrupt.

If we talk about assistance to private entrepreneurs, the state has already provided sole proprietors with support, which means that entrepreneurs who have suffered significant economic losses could receive a one-time aid from the state for UAH 8,000. Enterprises had a tax holiday until May 2021. Part of the tax debt in the amount of up to UAH 3030 has been written off. Temporary tax exemptions for individual entrepreneurs and other tax measures such as the suspension of tax audits, payment of interest to taxpayers and social security payers have also been introduced.

We can say that granting benefits during the pandemic is the right step to help small businesses, so the government should continue doing it and provide more opportunities for entrepreneurs to do business.

Although there is some state support in Ukraine during the pandemic, we lag far behind in this matter compared to the assistance provided in the world, (Figure 5).

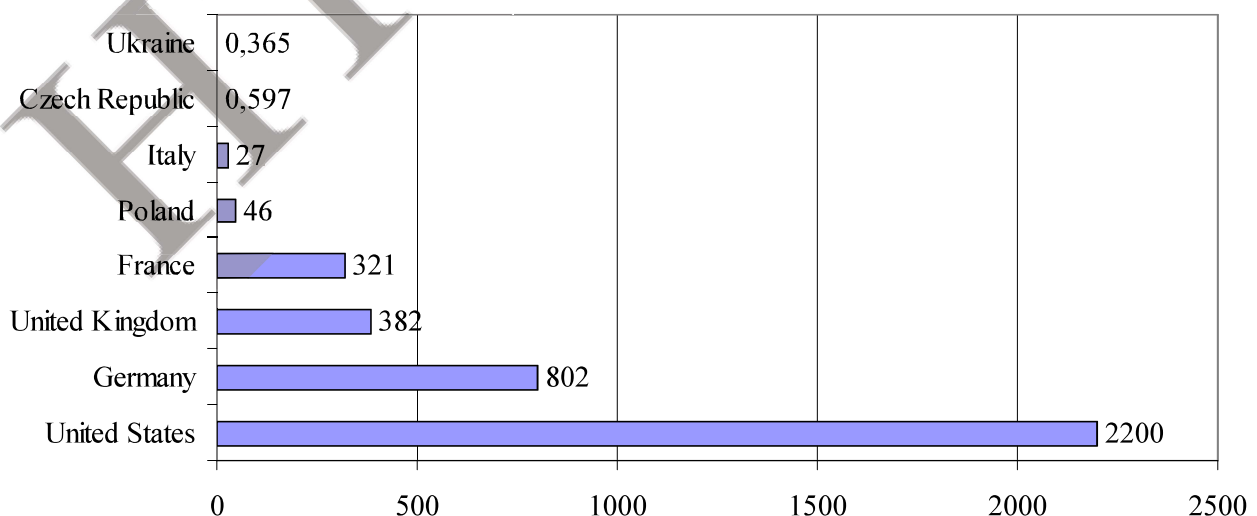


Figure 5. State financial support during the pandemic in 2020, billion dollars USA

**Source: formed by the author [13].*

The main tools of public financial support of the economy from the impact of the pandemic in the EU are:

- postponement or reduction of tax and social contributions;
- financial guarantees;
- wage subsidies;
- direct loans;
- deferment period;
- direct grants for micro-enterprises and self-employed [13].

Taking into account one of the main roles of small business for the modern economy and its improvement, comprehensive support for its development is needed. The main task of national governments is to create a decent “airbag” for small business and micro-enterprises that could work not only online but come back offline, with prospects for further development.

4.3. Ways to improve the development of small business in Ukraine

To improve the development of small business in Ukraine, it is necessary to spread state support. We need to develop programs that would help small businesses in different situations where entrepreneurs could turn to find out the information they need or solve business issues. State support for small business is regional in nature, developed by each region separately, and has its own individual characteristics. So today, there are the following support programs (Table 5).

Table 5. Support programs for small and medium-sized enterprises in Ukraine as of November 30, 2021

Program area	Material assistance, grants	Loans	Training, consultations
Regional	11	2	1
Ukrainian	8	20	0
International	6	2	13
Total	25	24	14

**Source: formed by the author [14].*

In the run, Ukraine must ensure the sustainable development of its own institutional, advisory and legislative framework for small business policy [5]. At the conceptual level, legislation on state support for small businesses should be developed based on the following key provisions:

- maintain a special law on small business, which should establish criteria for small business, as well as the rights of small businesses, different from the rights of other businesses;
- the law should contain norms that guarantee small business entities stable conditions for the development of their activities;
- rules providing support or benefits to entrepreneurs should be rules of direct action, i.e. their receipt should not depend on the subjective decision of any authorized body or official.

At the regional level, attention should be paid to the following tasks that contribute to the formation of the system of state support for small business:

- identification and consolidation of a stable source of budget allocations to support small business, as well as the development of rational mechanisms for the use of allocated funds;
- use of municipal property and property rights in various forms in the interests of small businesses, distribution of property (including land) to accommodate small business support infrastructure, rational use of existing production facilities;
- restricting the activities of judicial, control and law enforcement agencies to protect the interests of small businesses legally, ensure their security and protection of property rights;
- improving education and advocacy aimed at stimulating small business, preparing people to start their own business, forming relevant public opinion and retraining civil servants;
- establishing cooperation of business associations with government agencies, including on the basis of special agreements [14, p. 37].

The second direction of improving small business in Ukraine is to expand the access of small businesses to financial resources to ensure sustainable development and build their capacity. In addition, the model of primary information support of business at the community level and the information point of the entrepreneur (IPP) should be applied in Ukraine. The target audience is mainly microbusiness and potential entrepreneurs of the Community. The problem is the low awareness of entrepreneurs about the available opportunities for state support.

The next direction of improving small business in Ukraine is its digitalization. Digital technologies are at the forefront of today's news due to their widespread use during the COVID-19 outbreak [15]. Digital efficiencies can help small businesses expand their scale. Digital platforms can create new professions and jobs. Small businesses can enter remote markets that do not have the infrastructure. However, small business digitalisation requires significant financial investment, which is why not all small businesses have the opportunity to do it, and crowdfunding can help a lot [7].

The Internet platforms are the main tool of crowdfunding as a source of funding, because they can provide an opportunity to meet all the needs of both parties, developers and investors and greatly simplify the process. Currently, the main platforms are Kickstarter and Indiegogo, Crowdfunder, RocketHub, FundRazr, Ulule, FundedByMe, MyMicroInvest, Symbid, which were created in the leading countries of Western Europe and North America.

V. CONCLUSIONS

One of the most important forms of regulating the development of small business and micro-enterprises is state support through its special tools for doing business, financial mechanism, information and legal measures to ensure decent conditions for business and its development. State aid for small businesses is aimed at financial, informational, consulting support, including support in the field of innovation, science

and industrial production, support for small businesses engaged in export activities, support in the field of training, retraining and advanced training management and business personnel. The introduction of restrictive measures to prevent the spread of the COVID-19 pandemic in Ukraine has led to significant negative consequences for business in general, due to partial or complete closing of some enterprises, complicated logistics, reduced demand and destruction of supply chains. As we can see, in 2021 macroeconomic stability in Ukraine and the world was disrupted again by the spread of the COVID-19 pandemic. Disruption of stability in general has occurred both at the global level and at the level of national economies. Small business and micro enterprises are the most vulnerable in the current context of economic instability, which are more at risk and do not have sufficient support and decent development conditions. The difficulties that arose at the beginning of the pandemic were compounded by the new ones related to the broader aspect of economic instability: significant financial losses, forced staff reductions, job losses, increased risk of bankruptcy, and more.

Thus, at the current stage of development of Ukraine's market economy, small businesses are forced to overcome a number of economic barriers, the main reason being ineffective financial support, excessive tax pressure, and imperfectly developed programs for business during a pandemic and other restrictions imposed by law. Therefore, the main way to overcome these obstacles is to gain equality that means that entrepreneurs themselves should protect the interests of entrepreneurship. The role of the state should be only to improve the necessary infrastructure, create an effective legal framework and oversee the effectiveness of developed programs that would create space and conditions for the development of various public organizations and other associations founded to address small business development in Ukraine.

VI. LIST OF REFERENCES

1. Zosymenko, T. I. (2013). Role of small business in the socio-economic development of the country. *Efektivna ekonomika*, (10).
2. Mitsa V. V. (2018). Small business as a subject of the economic system of the region. *zhorod National University Herald. Series International Economic Relations And World Economy* (20 Part 2). 123-126.
3. Varnalii, Z. S. (2003). Tendentsii stanovlennia maloho pidpriemnytstva v Ukraini. *Rynkovi peretvorennia*, (7), 58-64.
4. Sierova, I. A., & Shapovalova, V. O. (2009). *Biznes-statystyka*. Konspekt leksii. Kharkiv: KhNEU.
5. Uriadovyi portal (2021). Pidtrymka maloho i serednoho pidpriemnytstva. <https://www.kmu.gov.ua/diyalnist/reformi/ekonomichne-zrostannya/pidtrimka-malogo-i-serednogo-pidpriemnytstva>
6. Myronenko-Shulhan O. (2021). Malyi biznes v umovakh pandemii COVID-19: pravove rehuliuвання finansovoi pidtrymky derzhavoiu. Retrieved from <https://unba.org.ua/publications/print/5792-malij-biznes-v-umovah-pandemii-covid-19-pravove-regulyuvannya-finansovoi-pidtrimki-derzhavoyu.html>
7. Luchik, S. D. (Ed.). (2021). *Problemy i perspektyvy rozvytku maloho i serednoho biznesu*. Chernivtsi : Tekhnodruk Retrieved from <https://cutt.ly/1Iu3KZd>
8. Pro rozvytok ta derzhavnu pidtrymku maloho i serednoho pidpriemnytstva v Ukraini № 4618-VI. (2012). Retrieved from <https://zakon.rada.gov.ua/laws/show/4618-17#Text>
9. State Statistics Service of Ukraine. (2021). *Activity of large, medium, small and micro-entrepreneurship entities Statistical publication*. Kyiv.

10. Systemnyi zvit (2021). Velyki problemy maloho biznesu otsinka realizatsii stratehii rozvytku maloho ta serednoho pidpriemnytstva v Ukraini na period do 2020 roku ta podalshi napriamy polityky. Retrieved from https://boi.org.ua/media/uploads/system_bigproblemssmalbusiness/3_2020_system_ua.pdf
11. IMD Global Competitiveness Rating. (2021). Humanitarian portal. Retrieved from <https://gtmarket.ru/ratings/the-imd-world-competitiveness-yearbook>.
12. Shevchenko-Perepolkina, R. (2020). Ways of small business development in COVID-19. *Market Infrastructure*, (49) 147-151.
13. Informatsiino-doslidnytskyi tsentr Verkhovnoi Rady Ukrainy. (2021) Zakhyst maloho i serednoho biznesu pid chas pandemii COVID-19: YeS, Shveitsariia, Velyka Brytaniia, SShA. Retrieved from https://pdf.usaid.gov/pdf_docs/PA00XD6Z.pdf
14. Krainy Skhidnoho partnerstva. (2020). Otsinka stanu realizatsii Aktu pro maliy biznes dlia Yevropy. Ukraina: Akt pro maliy biznes, krainnyi profil. Retrieved from <https://www.oecd.org/global-relations/SMEPI-EaP-2020-Ukraine.pdf>
15. Tsentr Razumkova. (2020). Tsyfrova ekonomika: trendy, ryzyky ta sotsialni determinanty.. Kyiv. 2020. «Zapovit». Retrieved from https://razumkov.org.ua/uploads/article/2020_digitalization.pdf

SMALL BUSINESS OF UKRAINE IN THE CONDITIONS OF THE COVID-19 PANDEMIC Author: Maryna Tertyshna Advisor: Tetiana Borovyk, Iryna Ivanova Cherkasy State Business College (Ukraine).....	191
THE IMPACT OF UKRAINIAN MIGRATION ON THE ECONOMIC DEVELOPMENT OF UKRAINE AND POLAND Authors: Ivan Salai ¹ , Kateryna Lypets ² Advisor: Svitlana Polkovnychenko ¹ ¹ Chernihiv Polytechnic National University (Ukraine) ² Kozminski University (Poland).....	205
THE ECONOMIC AND ENVIRONMENTAL ASPECTS OF SHARING ECONOMY FUNCTIONING Authors: Vladyslav Piven, Anastasiia Yaremenko Advisors: Leonid Melnyk, Oleksandr Kubatko Sumy State University (Ukraine).....	220
US-CHINA TRADE WAR Authors: Sheptun Natalia, Martyniuk Ivan, Shulyarenko Eugene Advisors: Reznik Nadiia National University of Life and Environmental Sciences of Ukraine (Ukraine).....	232
MAIN TRENDS OF DIGITALIZATION DEVELOPMENT IN UKRAINE AND DIRECTIONS OF THEIR IMPROVEMENTS Author: Maryna Kurochkina Advisor: Iryna Novik National Technical University «Kharkiv Polytechnic Institute» (Ukraine).....	243
RESEARCH OF THE MODEL OF RELATIONS BY METHODS OF GAME THEORY Author: Denis Borovskiy Advisor: Olga Kichmarenko Odessa I. I. Mechnikov National University (Ukraine).....	255
MARKETING COMPLEX DEVELOPMENT FOR THE PROJECT “WINE ROUTES OF UKRAINIAN BLACK SEA REGION” ON THE BASIS OF MARKETING RESEARCH Authors: Vladyslava Braiko, Tamara Tkachenko Advisors: Olena Holubonkova, Maryna Braiko Odessa National Academy of Food Technologies (Ukraine).....	263
FEATURES OF THE IMPLEMENTATION OF REENGINEERING OF ADMINISTRATIVE SERVICES IN THE DEPARTMENT OF ADMINISTRATIVE SERVICES OF THE ODESSA CITY COUNCIL	