

# Digital Tools for Stimulating Business in Conditions of Uncertainty of Economic Development

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**Abstract:** The article discusses digital tools for stimulating business in conditions of uncertainty of economic development. The range of services provided by chambers of commerce and industry for business was considered, the activity of the CCI system in the direction of promoting the protection of information resources and information and communication systems of the business sphere in the conditions of digitalization was examined. The project activity of chambers of commerce and industry is analyzed as an important tool for stimulating entrepreneurial activity today. Based on the analysis of grant and program funding opportunities accumulated by the Ukrainian Chamber of Commerce and Industry for the development and recovery of Ukrainian business, a coordinate system was formed that illustrates and characterizes the types of projects and directions, methods of organizing project work in three aspects: sphere; source of opportunities; beneficiaries Digital business stimulation tools that can be used by entrepreneurs to make management decisions and strategic planning in conditions of uncertainty of economic development are considered.

**Keywords:** Entrepreneurship, Stimulation, Project activity, Digitization, Information technologies.

## 1 Introduction

Today, small and medium-sized businesses in both developed and developing countries are faced with a large number of problems related to bureaucratic procedures, lack of access to investment sources, insufficient knowledge of the intricacies of conducting economic and financial affairs, inability to conduct qualitatively international business operations, establishing cooperation with foreign partners, etc. Stimulating the development of small business is a purposeful policy for the activation of entrepreneurial potential, which involves changing the nature of the instruments for supporting small businesses, as well as the implementation of new, fundamentally different approaches. If state support is a manifestation of «concern» for small business, then stimulation is support with the goal of achieving certain changes. It is more pronounced, has specific goals and regulatory influence [1] (see p.172-173).

Stimulation of small entrepreneurship in the region is a set of various external means of influence on small entrepreneurship in the region and prerequisites for its development, which are applied taking into account the interests and in order to achieve the goals of both the region and small entrepreneurship [2, p. 26]. In Ukraine, starting in 2021, the Ministry of Digital Transformation of Ukraine, together with the Office for the Development of Entrepreneurship and Export, a state institution responsible for the development and support of Ukrainian entrepreneurship on domestic and foreign markets, will implement a large-scale national project on the development of entrepreneurship and export - Diya.Business [3].

The components of the project: the online component – Diya.Business Portal in the format of a one-stop shop, where you can find all the necessary information for the establishment and development of your own business, and the offline component – the network of Diya.Business support centers for entrepreneurs – spaces where Ukrainians can get free consultations, attend educational events for entrepreneurs, rent halls for events, test your product at a special pop-up location.

In countries where there is no effective state support for small businesses, an important role in the development and stimulation of entrepreneurial activity is played by independent institutions that provide qualified assistance to businesses in solving a number of issues. Such organizations are business support organizations. A group of individual non-profits, public organizations, called business support organizations (BSOs), united by a common mission to support business [4].

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Non-governmental business support organizations provide specialized business resources, including professional advice and industry-specific services, to help with current business management and support issues. Today, organizations that influence and interact with both large corporations and medium and small businesses are Chambers of Commerce and Industry (CCI), which operate around the world. Within the framework of this work, we will focus on the study of digital tools, functional and project capabilities of the system chambers of commerce and industry of Ukrainian, which stimulates the development and provides support for Ukrainian business, which is actually an economic front in the current conditions of war with the aggressor. Such research is relevant because the business of countries in conditions of uncertainty of economic development needs mechanisms and support tools for survival and recovery, resources for relocation, etc.

## 2 Methodologies

When writing the article, a number of methods were used, in particular: the method of systemic analysis and synthesis, which made it possible to analyze digital tools for business stimulation and the main directions of activity of the system of chambers of commerce and industry of Ukraine; a comparative method that allowed to analyze and distinguish the peculiarities of the activity of domestic CCI; statistical methods for quantitative analysis of the membership community of the Chamber of Commerce and Industry of Ukraine and assessment of the range of business services provided during the analyzed period; method of system analysis, comparative and graphic method for forming a coordinate system that illustrates and characterizes the types of projects and directions of project work of the CCI system of Ukraine, which can be used to analyze the project work of CCI of other countries; generalization method for forming the conclusions of the conducted research.

## 3 Discussions

The functional capabilities of Chambers of Commerce and Industry in support of business development include activities aimed at the liberalization of entrepreneurship, in particular: participation in committees, commissions under government bodies; involvement in the preparation of laws and regulations; analysis of legislation and organization of monitoring of its compliance; protection of the rights and interests of business and activities aimed at stimulating entrepreneurship, including: creation and expansion of business development opportunities; promoting the strengthening of the competitiveness of members; increasing the business awareness of entrepreneurs; provision of requested business services [6]. The aspect of the researchers' vision of the beneficiaries of the activities of business support organizations, including chambers of commerce and industry, is debatable as to the subject in whose interests the organizations' activities are carried out, namely: members of the organization, or a certain group; members of the organization and society as a whole.

The relationship between business and digital technologies today has a dual nature: on the one hand, the success of a business organization in the digital economy is impossible without the use of innovative digital technologies, on the other hand, the use of modern digital technologies and tools actualizes the importance of protecting information resources and information-communication systems of the business sphere.

## 4 Results

Chambers of Commerce and Industry (CCI) are today important catalysts of economic development, both in developed countries and in countries with transition economies and developing countries, because they provide a number of resources, services and opportunities for enterprises and interact with large, medium and small corporations' business Chambers of Commerce and Industry act on behalf of their members, promoting policies and initiatives that promote business, trade and investment. The Chamber of Commerce and Industry is a platform for business collaboration, organizing events, seminars and educational programs to provide members with the knowledge and skills they need to succeed in the marketplace.

Chambers of commerce are not directly involved in creating laws or regulations, but their organized lobbying efforts can be effective in influencing regulators and legislators. There are currently 1.5 million business support organizations in the United States, including 7,200 chambers of commerce and 155,000 business associations, whose membership is voluntary. The only trade association that is international in scope is The International Chamber of Commerce (ICC), which was founded in 1919 and represents the point of view of business to governments and the world public. The organization received the highest consultative status of Category A at the Economic and UN Social Council The International Chamber of Commerce operates an arbitral tribunal that provides conciliation and arbitration to resolve disputes for representatives of different nationalities [7]. Member companies and associations engage in international business, the ICC has the authority to create rules governing the conduct of business abroad. The International Chamber has published a set of Incoterms, known as international commercial terms, which are recognized worldwide and

Eurochambres - the Association of European Chambers of Commerce and Industry. Founded in 1958 as a direct response to the creation of the EU, it now represents more than 20 million companies through its members and a network of 1,700 regional and local chambers across Europe. Eurochambres is the voice of the wider business community at EU level, building on the chambers' close links with the grassroots economy and their practical support for entrepreneurs. On the basis of regular consultations with its members, Eurochambres represents the interests of European business in European institutions [8].

In different countries, the activity of the Chamber of Commerce and Industry has its own characteristics, for example, in the United States, the Chamber of Commerce and Industry is primarily an effective lobbyist for business interests. In Ukraine, the activity of the Chamber of Commerce and Industry is focused on stimulating business, including its foreign economic activity. The Ukrainian peculiarity of the operation of the Chamber of Commerce and Industry is also that the Chamber of Commerce and Industry is authorized to perform a number of exclusive functions (issuance of certificates of origin, certification of force majeure, issuance of the ATA carnet).

The Chamber of Commerce and Industry of Ukraine (CCI of Ukraine) is a non-governmental non-profit self-governing organization that works on a voluntary basis and unites legal entities and individual entrepreneurs and their associations. The Chamber of Commerce of Ukraine is a member of the International Chamber of Commerce, the World Federation of Chambers and an affiliated member of the Association of European Chambers of Commerce and Industry. The goal of the Chamber of Commerce and Industry of Ukraine is a developed and competitive Ukrainian business on world markets [9].

The Chamber of Commerce and Industry (CCI) of Ukraine works according to the membership model. The membership community of the System of Trade and Industry of Ukraine for the period 2019-2022 has more than 7,000 members, 85% of them are small and medium-sized businesses, which are most in need of protection and assistance in their development, and 15% are large companies.

Today, the Chambers provide a wide range of professional services: expert consultations on foreign trade and evaluation of foreign markets, independent examination of goods, evaluation of movable and immovable property, as well as intangible assets. Chambers are also engaged in the provision of patent and licensing services, bar coding of goods, preparation of various documentation in order to ensure the protection of intellectual property rights, etc. An important function of chambers is information, which involves providing business and legal information to Ukrainian and foreign entrepreneurs, organizing seminars, conferences and exhibitions in Ukraine and abroad, ensuring business negotiations on various economic issues [9]. The percentage ratio of services provided in 2019-2022 is shown in Figure 1.

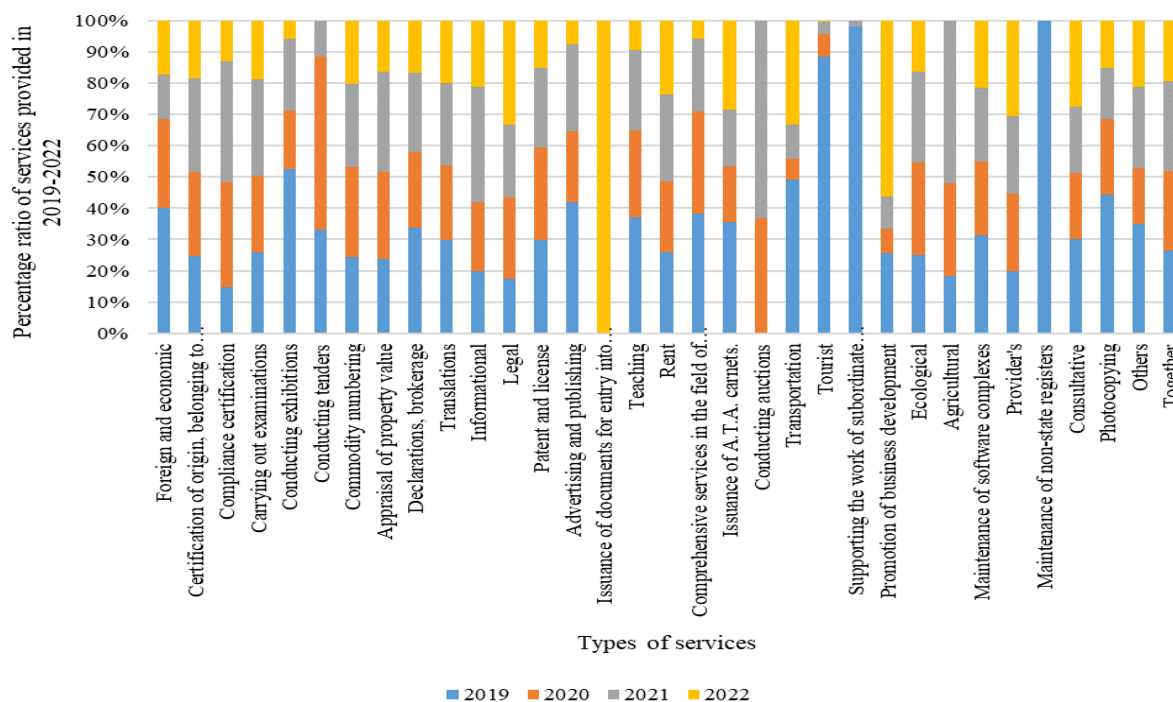


Fig. 1: Percentage ratio of services provided in 2019-2022

A high percentage of the specific weight in the total number of volumes of services is carried out by the conduct of commodity examinations, which provide an objective assessment of the characteristics of goods, quality and compliance with standards. These documents are valuable for both domestic and international trade. At the end of 2022 and in 2023, as a result of the war, requests for the assessment of lost property and damages increased especially.

One of the most popular services offered by the Chamber of Commerce and Industry is declaration and brokerage services, which play an important role in facilitating international trade by helping businesses and individuals with customs conditions and requirements, including: customs declaration, documentation preparation, duty calculation and taxes, etc. These services help ensure proper compliance with customs procedures, accurate payment of duties and taxes, efficient cross-border movement of goods, and compliance with relevant regulations. During 2019-2023, there is a steady decline in the implementation of these services by an average of 30%, due to a number of force majeure situations that were mentioned earlier - pandemic and war.

The Chamber of Commerce and Industry of Ukraine and regional Chamber of Commerce and Industry also provide services to ensure the holding of exhibitions, which includes the complex organization of events: selection or provision of a location - the Chamber of Commerce and Industry of Ukraine has among its assets a modern conference venue in the center of Kyiv (Chamber Plaza), technical support, placement of advertising for the event, catering. The largest volume of realization of this service was in 2019, however, with the emergence of the pandemic in 2020, significant quarantine restrictions in 2021, and the war in 2022, the volume of realization decreased significantly, in particular, in 2020 it decreased by 63.7%, slightly increased by 20% in 2021, and decreased by 74.7% in 2022, with an extraordinary increase in the risks of such events.

Since some chambers of commerce and industry have premises in their assets, they provide services for renting premises, most often for holding various events. Yes, we can see that during the analyzed period, the share of rental services in the total volume of implemented services is quite significant and varies between 3.5-4.5%.

Modern business cannot exist without the influence of digital technologies. Businesses are becoming more and more dependent on developed tools that make work easier, attract customers, and increase efficiency. The key digital tools that help in business development are: website, social media, CRM systems, analytics, cloud tools and electronic communication. Considering the societal importance and origin of digital transformation, it is important to understand the fact that it affects the business organization not only from the inside, due to the transformational changes carried out by the management, but also from the outside - from the side of society, the state, digital trends that set new requirements and standards for the work process, communication processes, communication, coordination, etc. [10, p.250].

The rationality of investing time and resources of business organizations in the use of these digital tools in order to be competitive in the market is now obvious. At the same time, the use of modern digital technologies and tools actualizes the issue of protecting information resources and data of business entities. In order to create an effective environment and mechanisms for the protection of information resources and information and communication systems of the business sphere, as well as to ensure the continuity of business processes and the provision of services by enterprises, organizations and institutions in modern conditions of information warfare and external aggression, the Anti-Crisis Center for Cyber Business Protection at the Chamber of Commerce and Industry of Ukraine was established [9].

The Anti-Crisis Center for Cyber Business Protection at the Chamber of Commerce and Industry of Ukraine offers seminars and workshops on cyber security for small and medium-sized businesses, which provide an opportunity to master the basic concepts and principles of modern technologies for protecting digital information (table. 1).

**Table 1:** Seminars and workshops on cyber security for small and medium-sized businesses offered by the Anti-Crisis Center for Cyber Business Protection at the Chamber of Commerce and Industry of Ukraine

Name of the course	The purpose of the course	Audience of listeners
1	2	3
Technologies for building complex information resource protection systems organizations and institutions according to domestic requirements and standards	training in the methodological foundations of the organization of a comprehensive information protection system (ICSI) at enterprises and institutions, as well as training in a wide range of practical aspects of the development, implementation, ensuring the functioning and control of the effectiveness of IIS processes in accordance with domestic requirements and standards	business owners, specialists in the field of information technologies, specialists in areas of security of operating systems and software
Technologies for building an information security management system according to international requirements and standards	teaching the methodological and practical foundations of the organization of the information security management system at enterprises and institutions with different forms of ownership	business owners, executive directors, directors, specialists in the field of information technologies

of the ISO series		
1	2	3
Technologies for building systems of cyber protection of information resources on the base Cisco equipment	training in the methodological and practical foundations of the organization of the cyber security system at enterprises, organizations and institutions based on Cisco equipment	specialists in the field of information technologies, specialists in areas of security of operating systems
Official Course «CCNA R&S»	the study of network technologies and in-depth theory in the field of protocols (LAN, WAN), the main means of network protection based on communication equipment are considered. The first part – «Introduction to network technologies - routing and switching» is dedicated to studying the basics of building corporate networks. The second part is «Basics of routing and switching». The third part - «Routing and switching. Scaling of networks» The fourth part - «Routing and switching. Connecting networks».	specialists in the field of information technologies, specialists in areas of security of operating systems
Technologies of administration and protection of information resources in information-communication systems and networks	training of information technology specialists to perform the duties of information protection (cyber protection) officials in automated systems, including security administrators of information and communication systems and networks.	specialists in the field of information technologies, specialists in areas of security of operating systems
Organization of complex security of objects of information activity	training of information technology specialists for performing the duties of officials of the Information Protection Service in automated systems.	specialists in the field of information technologies.
Informational security. Computer software security networks and cybercrime investigations. Informational security. Computer software security networks and cybercrime investigations.	providing the basic concepts and principles of modern technologies for the protection of digital information and the investigation of cybercrimes. To create conditions for the exchange of experience of specialists, experts, legal experts for professional growth of trainees and implementation of acquired knowledge in practice in the investigation of cybercrimes.	specialists in the field of information technologies, specialists in areas of security of operating systems, heads of information security departments
General principles of cyber hygiene	provision of basic concepts and principles of modern technologies for the protection of digital information and general rules of behavior on the Internet. Basic requirements for users. Basic recommendations for safe use of software	average users, initial level of knowledge.
Protection of critical business objects	providing basic concepts for identifying critical processes and objects Basic recommendations for protecting technologies	business owners, users.
Basic information protection technologies in corporate networks.	provision of the basic concepts and principles of modern technologies for the protection of digital information and the implementation of security standards of corporate networks	business owners, executive directors, directors

Project activity is an important component of the system of chambers of commerce and industry in modern conditions, which allows expanding the range of services provided for business, promoting the sustainable development of enterprises and entrepreneurship, increasing their competitiveness and influencing the economic environment. Project activity should be considered taking into account the following aspects:

1. Project programs can be grouped by scale depending on their geographical coverage. Accordingly, the project programs, depending on the scale, that have already been implemented or are being implemented by the CCI system are the following: - International development programs (COSME-EEN, Horizon, East Invest, GIZ, IOM, UNDP); - National development programs; - Regional development programs.
2. Depending on the donor: GIZ [10]; USAID [11]; IOM [12]; UNDP [13]; COSME-EEN-SGA (EU) [14] others.
3. Depending on the type of involvement: - as a beneficiary (GIZ, UNDP, IOM); - as a partner (Erasmus for Young Entrepreneurs SEEK, Horizon 2020, East Invest(I-III)); - as a coordinator (SMP-COSME).
4. Depending on the target application of the received project programs: - for foreign trade entities, business (consulting); - for other business associations (educational component); - for the system of the Chamber of Commerce and Industry (development of the membership base, professional development experts, etc.).
5. Depending on the initiator of program implementation: - search and involvement of programs independently (CCI of Ukraine, or by regional chambers independently); - appeals of international donors to the system of the Chamber of Commerce and Industry of Ukraine, or regional chambers independently, in order to perform certain tasks/provide business services under the terms of service contracts.



During 2018-2023, the Chamber of Commerce and Industry of Ukraine, together with regional chambers, implemented more than a dozen important and large-scale international projects, as shown in Table 2.

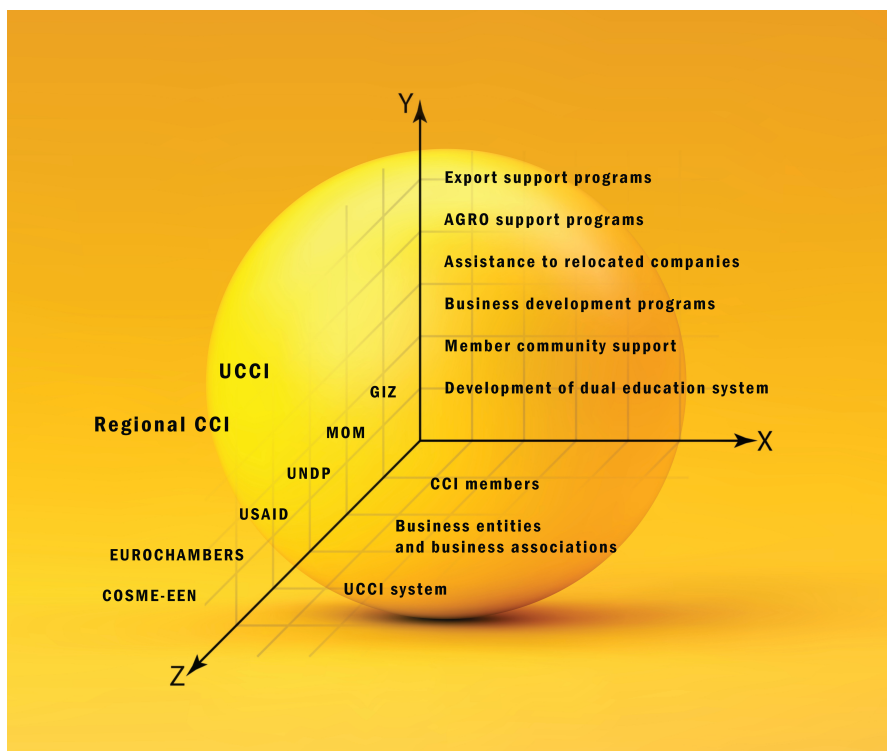
**Table 2:** Participation of the system of CCI of Ukraine in the implementation of complex programs

Programs	Period	Content, the role of chambers of commerce and industry in the implementation of the program	Number of subjects involved.
1	2	3	4
Executive Agency for SMEs COS-EYE-2019-4-01 Erasmus for young entrepreneurs SEEK PLUS	2020-2024	From 28.02.2018 The Chamber of Commerce and Industry of Ukraine is a member of the international consortium that ensures the implementation of the Erasmus project in EU countries. Erasmus for Young Entrepreneurs is an exchange program initiated by the European Commission in 2009 as an innovative response to the two-fold task of stimulating entrepreneurs and promoting cross-border trade in the EU, as well as enabling entrepreneurs who intend to start a business or have recently started one to study in experienced small business entrepreneurs in other EU countries. Role-partner	More than 50 companies.
COSME-EEN-SGA	2017-2021	The project is aimed at achieving two main goals: internationalization of SMEs and stimulation of innovation policy for SMEs. CCI, as a member of the "EEN-Ukraine" consortium, together with regional chambers, provides the following services: search for partners-investors in EEN member countries; innovative technologies in EEN member countries; partners in the EAEU member countries to create a joint venture; partners in the EEA member countries for import and export. Role-partner	
HORIZON 2020//H2020-EEN-SGA2-2017-1 EEN-Ukraine	2017-2020; 2020-2022	Program for evaluation of innovative activity of Ukrainian companies. The program helps the company to obtain an analysis of the level of its innovative activity, recommendations for improvement, as well as a comparative analysis with companies in a similar sector in EU countries. Role-partner.	More than 80 companies.
EU East Invest project (I-II) EU4Business: Establishing connections between companies (East Invest-3)	2010-2020; 2020-2023	Supporting the development of a favorable economic environment and a competitive private sector by increasing trade and investment between EU member states and Eastern Partnership countries As part of the project, various activities (academies, trainings, business visits, seminars) were organized both for business support organizations with the aim of improving the structure and human resources, and for SMEs whose priority sector is agricultural products (entering the EU market). Role-partner.	More than 1000 companies
GIZ Номер проекту: 14.2261.7-002.00	2019-2020	The project was aimed at: 1. Creation of a system of export support centers in the system of the Chamber of Commerce of Ukraine, development of export-oriented services, creation and training of the internal training team of the Chamber of Commerce of Ukraine, creation of a new service in the system of the Chamber. 2. Development of services for creating and providing technical files for Ukrainian companies. The role is the beneficiary	230 companies
GIZ 81276507 Project registration number 18.2197.4-004.00	2021-2023	Within the framework of the project "EU4Business: Competitiveness and Internationalization of SMEs", co-financed by the EU and the Government of Germany and implemented by the German federal company "Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH" The main areas of project activity: provision of consulting services on export issues. The role is the beneficiary	
SMP-COSME-2021-EEN	2022-2025	Priorities of EEN: 1. internationalization of SMEs - search for partners in 65 countries; 2. commercialization of innovations - transfer of technologies, search for investors/partners abroad to market new technological products or services, protection of intellectual property rights. Role - coordinator	More than 4,000 companies have received services.
1	2	3	4
UNDP project on business support in wartime	2022	Development of SME support coordination centers. Purchase of computer equipment and equipment, creation of a support hotline for export-oriented enterprises, provision of consultations on export of goods abroad. Conducting specialized webinars for business. The role is the beneficiary	
UNDP project	2023	Development and launch of regular monitoring solutions for regular monitoring of the business environment and support of business relocation to achieve project goals Support inclusive economic development in Ukraine by combining export promotion with regional development Role - beneficiary	
International Organization for	2023-2024	The project "Recovery and Export: Export Support and Access to New Markets" provides support to Ukrainian SMEs in export issues and the process of	More than 200

Migration		internationalization of markets	companies
AGRITRADE UKRAINE	2019-2022	Providing consultations on agrarian trade issues within the framework of the Agreement on the Deep and Comprehensive Free Trade Area (CFTA) between the EU and Ukraine.	30 companies

The conducted analysis of the possibilities of program financing accumulated by the CCI system for the development and restoration of Ukrainian business makes it possible to classify the projects and project work of the CCI system, which is reflected in the graphic interpretation presented in Figure 2.

Thus, we can form a coordinate system that illustrates and characterizes types of projects and directions, methods of organizing project work of the CCI system of Ukraine in three aspects: 1. Scope (problems and areas covered by development programs) - X-axis; 2. Source of opportunities - donors (from where programs for obtaining opportunities for business development GIZ, USAID, EUROCHAMBERS, etc. come from). At the same time, the initiator of program implementation should be taken into account: finding and attracting programs independently (by the Chamber of Commerce and Industry of Ukraine, or by regional chambers independently) or by applying international donors to the system of Chamber of Commerce and Industry of Ukraine, or by regional chambers independently, with the aim of involving business in programs - Y axis; In general, the following sources of opportunities can be: international development programs; national development programs; regional and interregional development programs. 3. Beneficiaries (audience who benefit from programs and projects): members of the Chamber of Commerce and Industry, business entities of the country, personnel of the Chamber of Commerce and Industry - Z axis. According to this approach, there may be groups of programs with different sets of three defining criteria, but may simultaneously combine other, auxiliary ones. At the same time, all programs are large and small in terms of scale and financial capabilities.



**Fig. 2:** Classification of projects and directions, ways of organizing project work of the CCI system

In 2023, the Chamber of Commerce and Industry of Ukraine, with the support of the United Nations Development Program and GIZ Ukraine, launched the «Business Barometer» - a tool for assessing entrepreneurs' expectations regarding changes in the business environment [9]. «Business Barometer» from the Chamber of Commerce and Industry of Ukraine is a vision of companies and entrepreneurs who are members and partners of the Chamber of Commerce and Industry of Ukraine, which reflects expectations regarding changes in the business environment in the next month compared to the previous one. The results can be used by entrepreneurs for management decisions and strategic planning.

The survey takes into account the state of indicators («sub-indices») of respondents' activity in 4 sectors (production, construction, trade, services). «Business Barometer» is adapted to the needs of members and partners of the Chamber of

Commerce and Industry of Ukraine. A feature of the «Business Barometer» is the inclusion of specialized industry issues and an analysis of the state of exports, which provides an additional perspective on market conditions. A quick electronic survey using the Telegram and Viber chatbots of managers/owners/authorized persons of enterprises that are members of the Chamber of Commerce and Industry of Ukraine takes only 2 minutes. The main purpose of the Index is to give enterprises and entrepreneurs who are members and partners of the Chamber of Commerce and Industry of Ukraine a simple and accessible digital tool for assessing changes in the state of the business environment in Ukraine.

It is also important to note the trend of digitization of individual processes of the CCI system. By using digital technologies in their activities, chambers of commerce and industry promote transparency, efficiency and inclusiveness in the business environment. Digitization enables the creation of centralized digital platforms where companies can access a wealth of information, from market trends to regulatory updates. The Chamber of Commerce and Industry has created a convenient website that provides all the most up-to-date information. CCI also maintains its own pages on various social networks, such as Facebook, Instagram and LinkedIn.

## 5 Conclusions and recommendation

A business operating in conditions of uncertain economic development needs comprehensive support, both from the state and non-governmental organizations. On the basis of the conducted research, we can conclude that the system of the Chamber of Commerce and Industry of Ukraine carries out active activities in the direction of stimulating entrepreneurial activity and provides a wide range of services, including expert services, both to members and to the entire business community of Ukraine, thus ensuring a favorable business environment in the country.

The rapid development of digital technologies determines not only the active use of digital technologies in everyday life, but also the digital transformation of the business environment, which involves the use of digital analytical tools for the implementation of economic activities, as well as the digital transformation of the management of business structures. In order to create an effective environment and mechanisms for the protection of information resources and information and communication systems of the business sphere, as well as to ensure the continuity of business processes and the provision of services by enterprises at the Chamber of Commerce and Industry of Ukraine, an anti-crisis Center for cyber protection of business was created, which offers seminars and workshops on cyber security for small and medium-sized businesses that actively use digital tools in their activities and development.

Project work is an important component of the system of chambers of commerce and industry in modern conditions, which allows expanding the range of services provided for business, promoting the sustainable development of enterprises and entrepreneurship, increasing their competitiveness and influencing the economic environment. Program financing and participation in programs for business development of members of the TPP system opens up new opportunities for their development and successful activity, especially in difficult conditions of martial law. Such participation provides numerous benefits and may include: financial support; exchange of experience and new knowledge; dating and networking; the opportunity to be directly involved in the business of foreign countries; support in business internationalization. Establishing effective interaction of its members with supporting organizations, grantors around the world, provides industry knowledge and funding, with the aim of helping development.

In 2023, the Chamber of Commerce and Industry of Ukraine, with the support of the United Nations Development Program and GIZ Ukraine, launched the «Business Barometer» - a tool for assessing the vision of companies and entrepreneurs who are members and partners of the Chamber of Commerce and Industry of Ukraine, which reflects expectations for changes in the business environment. The survey is conducted monthly, provides a unified questionnaire for comparability of results over time and has interactive data visualization, reports that can be used by entrepreneurs in decision-making and strategic management.

### Conflicts of Interest Statement

*The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.*

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### Authors' Biography:



**Vakhovych Iryna** is the Rector of Lutsk National Technical University (Ukraine), Head of the Expert Council of the Ministry of Education and Science of Ukraine on certification issues of academic staff in Economics. In 2008, she received Doctor of Economics degree at the Institute of Market Problems and Economic and Environmental Studies of the National Academy of Sciences of Ukraine and the academic title of Professor. She held the positions of Head of the Department of Economics, Dean of the Faculty of Business, Director of the Institute of Economics and Management, vice-rector for scientific work and international relations of Lutsk National



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**Daria Smolych** is an associate professor of the Department of Management at the Lutsk National Technical University. In 2013, she received the degree of Candidate of Economic Sciences with the specialty 08.00.05 - Development of

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2003, as a post doctorate visitor, he joined the Quantum Information Group in Egypt. He received the D. Sc. (Doctor of Science), in 2007. He is especially well known for seminal contributions to theories of quantum measurement, nanomechanical modeling, highly non-classical light, practical information security, and optical implementations of quantum information tasks. His current research interests include quantum resources, atomic implementations of quantum information tasks and protocols.



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