http://www.moderntechno.de/index.php/meit/article/view/meit41-03-024
DOI: 10.30890/2567-5273.2025-41-03-024

UDC 658:004:339.9(477)

STRATEGIC GUIDELINES FOR THE DEVELOPMENT OF INTERNATIONAL TRADE AND INVESTMENT COOPERATION OF LIGHT INDUSTRY ENTERPRISES OF UKRAINE IN THE CONTEXT OF DIGITALIZATION

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Abstract. *The article studies the role of digitalization as a determining factor in the transformation of international trade and investment cooperation of Ukrainian enterprises. The impact of digital technologies on improving the efficiency of international and foreign economic activity, the formation of new business models and the expansion of investment opportunities is revealed. Current trends in digital integration into the global economic space are analyzed and institutional barriers that hinder the digital adaptation of enterprises are outlined. The necessity of developing a comprehensive strategy for digital transformation as a tool for strengthening Ukraine's international competitive position has been substantiated. On the basis of generalization of theoretical approaches and practical analysis, a system of strategic guidelines for the development of international trade and investment interaction of Ukrainian enterprises has been formed. These include: the development of digital infrastructure to support exports and investments, the introduction of electronic trading platforms and blockchain solutions, the stimulation of digital innovation, the improvement of the regulatory framework of the digital economy, as well as the increase in the level of digital literacy of personnel. The expediency of forming a state policy of digital integration aimed at strengthening the participation of Ukrainian enterprises in international economic networks has been substantiated.*

Key words: *strategic guidelines, international interaction, trade and investment activities, digitalization, digital economy, competitiveness, international cooperation.*

Introduction. In the context of globalization and digital transformation of business, business structures, and in our study, light industry enterprises, are rapidly adapting their business models: e-commerce, cloud services, automation of production and logistics processes are becoming prerequisites for competitiveness. These changes are especially important for the light industry of Ukraine — this industry traditionally has a high export potential and opportunities to attract investments. At the same time,

there are significant barriers: imperfect digital infrastructure, low digital literacy, limited access to technology, legal and organizational barriers.

The problem of the study lies in the formation of strategic guidelines that will allow light industry enterprises of Ukraine to more effectively realize international trade and investment opportunities under the conditions of digitalization. The purpose of this study is to determine the strategic guidelines for the development of international trade and investment interaction of light industry enterprises of Ukraine, which take into account the potential and challenges of digitalization. The object is international trade and investment interaction of light industry enterprises of Ukraine in the context of digital transformation of the economy. The subject of the study is the theoretical and applied foundations of the formation of strategic guidelines for the development of international trade and investment interaction of Ukrainian light industry enterprises on the basis of digitalization. The objectives of the study are to: to analyze the evolution and current state of international trade and investment activities of Ukrainian enterprises; to identify the key factors of the impact of digitalization on the processes of business internationalization; to assess the level of digital readiness of Ukrainian enterprises for integration into global trade and investment networks; to formulate strategic guidelines for the development of international cooperation in the context of the digital economy; to substantiate mechanisms for increasing the effectiveness of international partnership through digital platforms, tools and innovative business models.

The scientific novelty lies in the formation of a systematic approach to determining the strategic guidelines for the development of international trade and investment cooperation of Ukrainian light industry enterprises, taking into account the digital transformation of the economy. The concept of integrating digital technologies into the processes of international partnership has been improved, which allows to strengthen the investment attractiveness and competitiveness of light industry enterprises. A model of strategic development is proposed, which combines digital adaptation, institutional support and innovative renewal of mechanisms of foreign economic activity.

Main text. The development of the modern economy cannot be considered outside the context of digital changes, which radically transform the way we do business, international cooperation and institutional development. The concepts of *"digitalization"* and *"digital transformation"* have undergone significant evolution - from individual technological processes to complex system categories that define a new paradigm of the world economy. At the initial stages (1990s–2000s), digitalization was understood as the process of digitizing analog data (digitalization) – that is, computerization of document flow, the introduction of electronic databases, and automated management systems. During this period, digital technologies performed an auxiliary function aimed mainly at increasing productivity and reducing transaction costs. Since the 2010s , *the concept* of digitalization has begun to be identified with deeper structural changes in business models of enterprises, including the transition to digital channels of communication, sales, marketing, and remote management of production processes. In the latest interpretation (after 2020), digitalization encompasses the integration of artificial intelligence (AI), Internet of Things (IoT), cloud computing**,** and blockchain technologies and Big Data Analytics**.** That is, it turns into a driving force for strategic changes and becomes the basis for the digital transformation of enterprises. As a scientific category, *digital transformation* emerged in the context of managerial and socio-economic research in the 2010s. If digitalization is the process of technology introduction, then digital transformation is a qualitative change in business models, management structures, organizational culture and value guidelines of the enterprise under the influence of digital innovations. digital economy, where data, digital platforms, ecosystems, analytics and partner networks play a key role [1]. It involves not only automation, but also the integration of technology into all aspects of the enterprise's activities, which changes the way value is created, communicates with customers, manages supply chains and interacts in international markets. Evolutionarily, *digitalization* has become a technological basis, *digital transformation has become a* managerial and organizational dimension, and *international trade and investment interaction* has become a global space for the implementation of digital strategies. The combination of these processes forms a new

architecture of the world economy, where digital competencies, innovative mobility and strategic flexibility determine the success of enterprises and national economies in global competition [2]. In **(Tab. 1)** we will summarize and present theoretical approaches to the study of the impact of digital technologies on the processes of business internationalization.

Table 1 - Theoretical Approaches to the Study of the Impact of Digital Technologies on the Processes of Business Internationalization

Theoretical approach	The main idea of the approach	Manifestations of the impact of digital technologies on the internationalization of business
Eclectic paradigm (OLI approach)	Internationalization is based on the advantages of ownership, location, and internalization.	Digital assets (data, brands, IT solutions) are becoming a new type of competitive advantage.
Uppsala Model (Uppsala Model)	Gradual increase in presence in foreign markets through the accumulation of experience.	Digital platforms reduce the time barriers to entering markets; accelerate "virtual" internationalization.
Network model of internationalization	International expansion occurs through the formation of business networks.	Digital ecosystems provide integration through online communities, marketplaces, digital logistics networks.
The concept of digital internationalization (Digital Internationalization)	The use of digital technologies as the main mechanism for entering international markets.	E-commerce, big data, AI, CRM systems minimize transaction costs and expand the geography of sales.
Model “Born Global” / “Born Digital”	Companies have been targeting global markets since their inception.	Startups are immediately integrated into the international space thanks to digital platforms, online marketing, e-export.
Digital Platform Theory (Platform-based Internationalization)	International activities are carried out through digital marketplaces and platforms.	Global platforms (Amazon, Alibaba, Etsy) provide access to international markets without a physical presence.
Institutional and economic approach	The institutional environment determines the conditions of international activity.	Digitalization is changing the regulatory framework (e-commerce, cybersecurity, digital certificates, GDPR, etc.).
Resource-competence approach	Competitive advantages are based on the unique resources and competencies of the enterprise.	Digital competencies, analytical data, technological flexibility are becoming strategic resources for global expansion.
The concept of digital ecosystems (Digital Ecosystem Approach)	Internationalization is carried out through interaction in global digital networks.	Partner ecosystems are being formed with collective value creation, shared digital platforms.

Notes: grouped by authors.

The modern evolution of theoretical approaches shows that digital technologies have become not only a tool, but also a backbone factor in the internationalization of

business. They expand access to global markets, reduce transaction costs, ensure integration into international digital ecosystems and contribute to the formation of new business models - flexible, networked and data-oriented. For Ukrainian enterprises, this means the need to reorient internationalization strategies to digital formats of cooperation, the development of e-commerce, branding and digital competencies. The set of digital tools forms an innovative environment for the global activities of enterprises, in which integration, analytics and network interconnections play a key role. For light industry enterprises in Ukraine, the introduction of these technologies opens up opportunities for scaling exports, forming international-level brands, increasing the transparency of business processes and reducing transaction costs.

The use of such solutions allows Ukrainian manufacturers to become active participants in digital trade ecosystems focused on innovation, sustainable development and global competitiveness.

In (**Tab. 2**) we will reflect the main digital tools for influencing the internationalization of business of enterprises (in particular, in light industry).

Modern international cooperation of enterprises is based on the integration of digital technologies that ensure transparency, speed, security and analytical validity of transactions. Tools such as Big Data, blockchain, artificial intelligence, electronic trading platforms and smart contracts are shaping a new architecture of global economic interaction, changing the mechanisms of trade, financing, quality control and trust between partners (**Tab. 3**).

The synergistic action of these digital tools creates a new ecosystem of international interaction, in which: Big Data provides information analytics and support for strategic decisions; Blockchain builds trust and security; AI increases the efficiency and speed of management processes; E-commerce provides commercialization at a global level; Smart contracts guarantee legal accuracy and automation of obligations.

As a result, a digitally integrated model of international cooperation is being formed, based on transparency, automation and innovation.

For Ukrainian enterprises, this opens up real opportunities for integration into

global value chains, especially in the context of the development of export-oriented industries, such as light industry, agro-processing and IT services. It is necessary to focus on the fact that in the current conditions of global competition, digital integration is becoming one of the key determinants of sustainable development of enterprises and national economies.

Table 2. - The main digital tools that contribute to the internationalization of business

Digital Tool	Essence and functionality	Impact on business internationalization	Examples of use in light industry
E-commerce	Online sale of goods and services through its own websites, marketplaces, mobile applications.	Reduces barriers to entry into foreign markets; provides direct access to consumers; Supports cross-border trading.	Selling clothes through Amazon, Etsy, eBay; Creation of own e-shops for European markets.
Digital Marketing	A set of tools for promotion in the digital environment: SEO, SMM, content marketing, targeting, email newsletters.	Increases brand awareness in global markets; allows you to quickly adapt strategies to local audiences.	Using Instagram, TikTok, Google Ads to promote Ukrainian textile and footwear brands.
ERP systems (Enterprise Resource Planning)	Integrated solutions for enterprise resource management — finance, inventory, production, logistics.	Provide effective management of global supply chains; optimize international coordination.	Using SAP Business One, Microsoft Dynamics for Production and Order Management.
CRM-System (Customer Relationship Management)	Tools for managing customer relationships, sales, marketing, and service.	They allow you to form a base of international customers, maintain communications, analyze consumer behavior.	Using HubSpot, Zoho CRM to personalize customer service from different countries.
Cloud Solutions	Online environment for data storage, collaboration, and remote access to resources.	Reduce IT infrastructure costs, ensure business scalability at the international level.	Using Google Cloud, AWS, Dropbox Business for joint projects with foreign partners.
Analytics and Big Data	Collection and analysis of large amounts of data for managerial decision-making, demand forecasting, price optimization.	Improves the quality of strategic planning of international activities, allows taking into account regional characteristics of markets.	Using Google Analytics, Power BI, Tableau to analyze sales in foreign markets.
Internet of Things (IoT)	Technology for connecting devices and sensors for automatic data collection in production and logistics processes.	Optimizes production and transportation of products, increases transparency and control in international supply chains.	Use of RFID tags, "smart warehouses", raw material quality monitoring systems.
Blockchain	Decentralized transaction accounting technology that guarantees transparency and security of data.	Increases confidence in international trade relations; simplifies certification, confirmation of the origin of goods.	Using blockchain to authenticate textile products, control ethical production.

Notes: grouped by the authors by [1;3].

Table 3. - Mechanisms of action of digital tools in the field of international cooperation

Digital Tool	Main mechanism of action	Impact on international cooperation	Practical application examples
Big Data	Collect, process, and analyze large amounts of structured and unstructured data in real time.	Provides information and analytical support for decisions to enter new markets; demand forecasting; Analysis of consumer behavior in different countries.	Using Google Trends, IBM Watson, Power BI analytics to assess market potential in the EU or North America.
Blockchain	A decentralized transaction recording system that guarantees the immutability, transparency and reliability of data.	Strengthens trust between international partners; provides control over the origin of products; facilitates the verification of certificates and contracts.	TradeLens, VeChain, IBM Food Trust platforms for transparent deliveries and supply chain control.
Artificial Intelligence, AI	Machine learning algorithms analyze large amounts of data, make predictions, and automate decision-making.	Optimizes international marketing strategies; personalizes offers for different countries; automates communication with customers.	The use of AI to personalize ads, chatbots in global e-commerce systems, and predict price trends.
E-commerce platforms	Enable electronic interaction between sellers, buyers and logistics partners through digital marketplaces.	Simplify the entry of enterprises into foreign markets without physical presence; provide rapid integration into global supply chains.	Amazon, Alibaba, Etsy, Shopify — as channels for international electronic export of light industry goods.
Smart Contracts	Automated blockchain-based contracts that are executed independently when specified conditions are met.	Reduce fraud risks, speed up financial settlements, eliminate the need for intermediaries in international transactions.	The use of smart contracts in international logistics and financial transactions (textile supply, payment after delivery).

Notes: grouped by authors.

The formation of strategic guidelines in the field of digitalization should be based on the study of successful international practices that demonstrate effective mechanisms for combining public policy, business initiatives and innovation ecosystems. The analysis of the experience of the European Union, South Korea, Singapore, Estonia and Ukraine allows us to identify universal approaches and tools relevant for the development of light industry enterprises. The European Union is forming a strategic vector through the Digital Compass 2030 program, focused on the development of digital competencies, entrepreneurial digital maturity and the integration of electronic services into business processes.

The focus is on data security (GDPR), the development of artificial intelligence and analytical systems that ensure the inclusiveness and sustainability of the digital

transition. South Korea is implementing the "Digital New Deal" concept, which is based on massive investments in 5G, IoT and AI, as well as public-private partnerships in the creation of "smart factories". This approach demonstrates the effectiveness of coordination between government, research institutes and business. The experience of Singapore illustrates the strategic effectiveness of the "Smart Nation" model, which encompasses digital governance, the development of electronic public services and the stimulation of innovation through pilot programs and sandboxes. Estonia, in turn, has built a holistic e-state ecosystem based on electronic identity (e-ID) and residency (e-residency), which provides transparency, trust and simplification of regulatory procedures for international business.

Ukraine is gradually adapting the best European and Asian practices through the Diia digital platform, expanding digital services for business, developing the Diia.Business platform and creating an infrastructure for interaction with international investors and donors (**Tab.4**).

Table 4. - Comparative Analysis of Global Digital Integration Practices and Strategic Guidelines for Ukraine

Country/Region	Basic digital practices	Implementation mechanisms	Strategic Guidelines for Light Industry Enterprises of Ukraine
EU	Digital Compass 2030 program, digital standards (GDPR, AI Act), Horizon Europe	Regulatory harmonization, grant support programs, development of digital skills	Introduction of European standards as a prerequisite for entering the EU market; participation in Digital Europe and Horizon programs; Certification and digital transparency
South Korea	"Digital New Deal" – smart factories, 5G, IoT, AI	Public funding R&D, industrial clusters, public-private partnerships	Development of digital transformation clusters in production; joint investments in the modernization of production (ERP, IoT, Big Data)
Singapore	Smart Nation strategy, digital governance, fintech innovations	Public-private integration, pilot projects, incubators	Development of digital business incubators; creation of cluster platforms for entering e-commerce markets; Participation in sandbox projects
Estonia	e-ID, e-residency, e-government	Open government APIs, digital transaction transparency, e-signature	Integration of electronic services for business (registration, reporting, certification); Development of digital identity systems
Ukraine	Diia, Diia.Business, digital public services platforms	Digitalization of the public sector, institutional support for SMEs, digital grant programs	Expanding the digital readiness of enterprises; participation in international digitalization programs; creation of joint ERP/CRM solutions at the cluster level

Notes: grouped by authors.

The analysis of these practices shows that successful digital integration at the national and entrepreneurial levels requires a combination of three components: 1. Regulatory consistency - the creation of uniform standards and digital norms that form trust between participants in international trade. 2. Institutional support and financing - state and donor mechanisms to stimulate digital investments, in particular for SMEs. 3. Development of digital competence - systematic professional development of personnel capable of using Big Data, AI, blockchain, e-commerce tools, etc. For the light industry enterprises of Ukraine, it is strategically important to create digital clusters that will unite manufacturers, logistics and marketing partners around common information platforms. This will reduce costs, ensure transparency of operations and integrate into global value chains. Further research should be directed to the development of a roadmap for the digital integration of industry clusters in Ukraine, taking into account the experience of the EU and East Asia, as well as to assess the economic effect of the introduction of digital technologies in international trade and investment interaction of enterprises.

Summary and conclusions. Digitalization is a key strategic benchmark for the development of light industry enterprises in Ukraine, because it is digital transformation that determines the competitiveness of business structures in the global market. In the current conditions of integration into the European economic space, high standards of digital interaction, automation and analytics are becoming not only a technological necessity, but also a strategic factor of sustainable development.

An analysis of the current state of digitalization of enterprises in the industry shows that basic information technologies (automated management systems, e-commerce, CRM solutions) have already become widespread, but the level of digital maturity remains limited, especially in the introduction of innovative technologies - artificial intelligence (AI), Internet of Things (IoT), big data (Big Data) and analytical forecasting tools.

This necessitates the formation of a holistic strategy for the digital development of light industry enterprises, which should include both internal organizational transformations and external institutional support. Strategic guidelines for digital

transformation should be aimed at increasing the digital readiness of enterprises, developing e-commerce infrastructure, improving logistics models, as well as strengthening the institutional foundations for supporting innovation. It is advisable to actively involve small and medium-sized businesses in state and international digitalization programs, participate in EU grant initiatives, cooperate with business incubators and cluster structures. An effective direction can be the creation of cooperative digital platforms between light industry enterprises, which will ensure the joint use of ERP solutions, marketing resources, and access to international markets. It is also important to expand the use of state digital services, in particular Diia.Business, for registration, reporting, access to consulting and educational resources. Particular attention should be paid to investing in digital marketing, product certification, translation of web resources into foreign languages, as well as participation in international online and offline exhibitions. It is advisable to focus further scientific research on the analysis of digital transformation within certain sub-sectors of light industry - textile, clothing, footwear, furniture, etc.

This approach will identify specific barriers and drivers of digitalization, as well as develop adapted strategic development guidelines that will take into account industry specifics, scale of activities and the degree of innovative readiness of enterprises.

Thus, digitalization not only increases the efficiency of the operational activities of light industry enterprises, but also forms a new management paradigm based on data, partnership and openness to innovation, which are determining factors of the competitiveness of Ukrainian business in the international market.

References:

1. Bezus A.M., Bezus P.I., Shevchun N.B. (2022) Osoblyvosti vprovadzhennia informatsiinykh tekhnolohii v suchasnykh umovakh. [Peculiarities of the implementation of information technologies in modern conditions]. Efektyvna ekonomika, No. 4. DOI: https://doi.org/10.32702/2307-2105-2022.4.76

2. Dvulit Z.P., Zaverbnyi A.S, Romaniuk A.O. (2021) Dydzhytalizatsiia – diievyi

instrument antykryzovoho rozvytku biznesu v umovakh pandemii. [Digitization is an effective tool for anti-crisis development of business in the conditions of a pandemic]. Efektyvna ekonomika, No. 1.

3. Fishchuk V., Matiushko V, Cherniev Ye., Yurchak O., Lavryk Ya ., Amelin A. Ukraina 2030 E-kraina z rozvynutoiu tsyfrovoiu ekonomikoiu. Ekonomikoiu. [Ukraine 2030 E-country with a developed digital economy]. Available at: https://strategy.uifuture.org/kraina-z-rozvinutoyu-cifrovoyu-ekonomikoyu.html#6-2-4. (accessed October 13, 2025).

DOI: https://doi.org/10.32702/2307-2105-2021.1.5

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Article sent: 13.10.2025