

Viktor Pavliuk

National University of Ostroh Academy, Ostroh, Ukraine

viktor.pavlyuk@oa.edu.ua

orcid.org/0000-0002-5510-8161

Andrii Valchyshyn

National University of Ostroh Academy, Ostroh, Ukraine

valchyshyn@gmail.com

orcid.org/0009-0009-6223-5255

Viktor Ostroverkhov

West Ukrainian National University, Ternopil, Ukraine

v.ostroverkhov@wunu.edu.ua

orcid.org/0000-0002-3818-0604

Oleksiy Dzenis

Simon Kuznets Kharkiv National University of Economics, Kharkiv, Ukraine

oleksiy.dzenis@hneu.net

orcid.org/0000-0001-8479-6525

DOI: https://doi.org/10.14195/2183-203X_60_4

Ukraine and India in the System of International Cooperation: Commodity Flows, Capital Investments, Structural Changes

A Ucrânia e a Índia no Sistema de Cooperação Internacional: Fluxos de Mercadorias, Investimentos de Capital e Alterações Estruturais

Viktor Pavliuk

Andrii Valchyshyn

Viktor Ostroverkhov

Oleksiy Dzenis

ABSTRACT

The article provides a comprehensive analysis of Ukraine–India economic cooperation, highlighting its relevance amid global instability. It emphasizes Ukraine’s search for new strategic partners and India’s ambition to expand in Central and Eastern Europe. Using structural and comparative analysis, the study reveals key trade dynamics, such as Ukraine’s agricultural exports and India’s growing share of high-tech imports. It also identifies promising investment areas in pharmaceuticals, IT, education, and agrotechnology. By outlining both opportunities and institutional and cultural barriers, the article offers balanced insights and practical value for shaping foreign economic strategies and further research.

Keywords: Ukraine-India relations; Foreign trade; Investment cooperation; Strategic partnership; Economic integration.

RESUMO

O artigo apresenta uma análise abrangente da cooperação econômica entre a Ucrânia e a Índia, destacando a sua relevância num contexto de instabilidade global. Salienta a procura da Ucrânia por novos parceiros estratégicos e a ambição da Índia de expandir-se na Europa Central e de Leste. Através de uma análise estrutural e comparativa, o estudo revela dinâmicas comerciais chave, como as exportações agrícolas da Ucrânia e a crescente participação da Índia nas importações de alta tecnologia. Identifica também áreas promissoras

de investimento nos sectores farmacêutico, das tecnologias de informação, da educação e da agrotecnologia. Ao delinear tanto as oportunidades como os obstáculos institucionais e culturais, o artigo oferece uma visão equilibrada e um contributo prático para a definição de estratégias económicas externas e para futuras investigações.

1. INTRODUCTION

In the current context of global turbulence caused by the war in Ukraine, the transformation of the geoeconomic architecture, post-pandemic shifts, and climate challenges, the search for new, reliable, and promising partnerships is becoming a key task for national economies. Ukraine-India economic relations, previously characterized by stable but relatively limited trade, are now gaining new importance as a potential vector of strategic cooperation between the global South and the East of Europe. India, with its dynamic economic growth and growing global ambitions, is increasingly seen as an alternative economic powerhouse, especially as Ukraine seeks economic diversification, strengthened logistics ties, and investment in critical sectors. Academic interest in the topic of Ukraine-India cooperation has increased significantly in recent years, as reflected in a number of publications on both the geopolitical context and the economic, institutional, and digital aspects of cooperation (Bhattacharjee et al., 2023; Malyarets et al., 2025; Exim Bank of India, 2022; Desyatnyuk et al., 2024a). Reputable researchers consider the stability of foreign trade, changes in the structure of imports and exports, the transformation of the investment climate, the role of diplomatic missions, and the importance of IT, medical and educational projects in the context of the new global reality (Nikonenko et al., 2022; Kuybida et al., 2023; Reznikova et al., 2024). However, most existing studies focus mainly on certain aspects or provide a descriptive characterization without a comprehensive analysis of the dynamics of changes caused by military and political factors.

Currently, there is a need for a comprehensive study of the transformation processes in economic relations between Ukraine and India, considering the influence of foreign policy, geoeconomic and technological factors. In particular, the issues of bilateral investment cooperation, the role of regional business, changes in logistics models, and new areas of cooperation that meet the goals of sustainable development remain insufficiently covered. In addition, the lack of a unified analytical framework for assessing the impact of the crisis on the structural adjustment of trade and investment requires filling in research gaps.

The purpose of this paper is to study the current structure of Ukraine-India trade and economic relations, characterize the main areas of investment cooperation, and identify promising areas for deepening cooperation in the context of global challenges and the transition to a sustainable development model. The following tasks are envisaged within the framework of this goal: analyzing the dynamics of exports and imports between the countries, assessing the impact of geopolitical factors on foreign economic indicators, summarizing trends in investment activity, and drawing conclusions on further opportunities for strategic partnership.

2. LITERATURE REVIEW

Contemporary scholarly works on Ukraine-India economic relations cover a wide range of issues, from the impact of geopolitical challenges to the structural transformation of bilateral trade. In particular, a number of studies focus on the consequences of the Russian-Ukrainian war for the economies of both countries and their trading partners (Bhattacharjee et al.,

2023; Deore, 2024; Gururaj et al., 2022; Rahul, 2023). Scholars note that instability at the global level has increased the need for regional diversification and reorientation of logistics routes, in particular in the context of Ukraine's cooperation with India (Exim Bank of India, 2022; Embassy of Ukraine in the Republic of India, 2025; Jain, 2024). A number of publications examine the dynamics of exports and imports during the crisis, in particular the growth of the share of agricultural products and pharmaceuticals in bilateral trade (Sumathy et al., 2022; Bhaumik, 2024; Prime Minister's Office, Government of India, 2024). There is also a growing importance of the high-tech sector, especially in IT and medical services (Nikonenko et al., 2022; Malyarets et al., 2025; Desyatnyuk et al., 2024b).

Some authors focus on financial and investment cooperation between the countries, emphasizing the potential of bilateral investment in bioeconomy, logistics, digital technologies, and education (Dnipropetrovsk Investment Agency, 2024; Reznikova et al., 2024; Vorozhbyt, 2025). The studies by Desyatnyuk et al. (2025); Makedon et al. (2024) emphasize the importance of financial security, strategic approaches to risk management in the context of digitalization, and the implementation of sustainable development models. A generalization of scientific Amigos IAS (2024) positions reveals a trend toward a gradual transition from a linear model of raw material exchange to a more flexible, innovative system of strategic partnership (Reznikova et al., 2022; 2024; Kyredon and Shtepa, 2021; Shekhawat, 2024). This indicates the growing role of humanitarian, academic, and digital components in economic cooperation. Against the backdrop of geo-economic uncertainty, the formation of new policies to support small and medium-sized businesses, the development of innovation incubators and joint IT platforms also plays an important role (Ebo, 2024; Vorozhbyt, 2025).

It is also worth noting the works devoted to the political and diplomatic dimension of Ukraine-India relations, in particular, assessing the role of intergovernmental initiatives, trade agreements, and strategic visits (Amigos IAS, 2024; Embassy of Ukraine in the Republic of India, 2024). These studies confirm that the intensification of bilateral dialogue is accompanied by a growing interest of business communities in the formation of joint cooperation platforms. In turn, Bhattacharjee et al. (2023), Ebo (2024), and Hosen et al. (2023) consider the systemic impact of the military conflict on the investment climate and propose macroeconomic scenarios for overcoming it. Reznikova et al. (2022) and Reznikova et al. (2024) propose conceptual approaches to harmonizing the green and digital economies, which is especially important in the context of sustainable development of the partnership with India. Also noteworthy are publications analyzing the impact of economic uncertainty on the Indian stock market (Gururaj et al., 2022) and some studies on the microeconomic level of impact (Shekhawat, 2024). Special attention should be paid to studies analyzing the transformation of supply chains and the role of leadership in the face of global turbulence (Hosen et al. (2023)). In particular, these works highlight adaptive strategies in response to crises, which directly correlates with the challenges faced by Ukraine and India in the military-political context. Kuybida et al. (2023) emphasize the importance of digital solutions in ensuring the sustainability of international logistics, which is of particular importance for the further development of the Ukraine-India economic partnership. Thus, these studies complement the overall picture, emphasizing the need for strategic digital planning and increased flexibility of infrastructure interaction.

In general, the review of sources demonstrates an interdisciplinary approach to the analysis of Ukraine-India economic relations, covering aspects of foreign trade, investment policy, digitalization, sustainable development, and diplomacy. However, two key issues remain: the lack of a unified system for monitoring the effectiveness of joint economic projects and the insufficient level of scientific analysis of the impact of cultural and institutional barriers on investment interaction.

3. RESEARCH METHODS

The study employed a combination of structural and comparative analysis to identify and evaluate the dynamics of changes in the export-import structure of Ukraine and India over the period 2020–2024. This approach allowed for a systematic comparison of trade flows, identification of emerging patterns, and assessment of sector-specific trends in bilateral economic relations. The method of systematization and classification was applied to summarize the directions of investment interaction, distinguish sectoral priorities, and categorize forms of cooperation in various industries, including pharmaceuticals, IT, education, and agrotechnology. Statistical analysis was used to process quantitative indicators of foreign trade and investment, enabling a detailed understanding of trade volumes, growth rates, and investment flows between the two countries. Additionally, the historical and retrospective analysis method was employed to trace the stages of development of Ukrainian–Indian economic relations, highlighting key milestones, policy shifts, and periods of intensified cooperation.

All quantitative data were processed using MS Excel and the Scikit-learn module in Python to construct analytical graphs, visualizations, and tables. These tools facilitated the coordination of indicators, identification of trends, and comparison of performance across sectors. To ensure the representativeness and reliability of the information base, the study also conducted a comprehensive review of international statistical sources, official websites of relevant institutions, and publications from leading think tanks, providing a robust foundation for analytical conclusions and policy recommendations.

4. RESULTS

The main trends in foreign trade between Ukraine and India demonstrate both stable trade and economic ties and dynamic shifts driven by global and regional factors. The structure of Ukrainian exports to India is traditionally dominated by agricultural and raw materials: grain crops (in particular corn and barley), oilseeds and sunflower oil, ferrous metallurgy products (e.g., ferroalloys), and fertilizers. According to the Embassy of Ukraine in the Republic of India (2025), India is consistently among Ukraine's ten largest trading partners in Asia, and total Ukrainian exports to India exceeded \$2.2 billion in 2023, despite the difficult geopolitical situation. At the same time, the structure of Ukraine's imports from India has a different specificity, with pharmaceuticals, light industry goods, plastics, chemical raw materials, coffee, tea, spices, and other food products dominating.

The dynamics of Ukrainian-Indian trade over the past five years has been characterized by a wave-like pattern. Until 2020, there was a steady increase in trade, but the COVID-19 pandemic caused a short-term decline, and the subsequent Russian-Ukrainian war in 2022 led to a temporary decline in export activity by Ukraine. However, in 2023-2024, exports began to recover. Analysts point out that the main factors of stabilization were the reorientation of logistics routes, intensified cooperation within trade and diplomatic missions, and India's strategic interest in ensuring food security through grain imports from Ukraine (Bhattacharjee et al., 2023; Prime Minister's Office, Government of India, 2024). Another important factor is that India has not imposed any trade restrictions on Ukraine, supporting an open market.

In terms of changes in the commodity structure, the share of high-tech products in imports from India, in particular medical equipment, electronics, and IT services, is growing, indicating a gradual shift in bilateral trade from a predominantly raw material exchange to a more diversified economic partnership (Nikonenko et al., 2022; Desyatnyuk et al., 2025). At the same time, Ukrainian exporters are looking for new niches in the Indian market, particularly in agro-processing, organic production, and exports of intellectual services. According to the Dnipropetrovsk Investment Agency (2024), the number of business forums, economic missions, and initiatives to support small and medium-sized businesses focused on India is growing at the regional level. In general, the analysis shows that foreign trade between Ukraine and India not only demonstrates resilience to external shocks, but also has the potential to deepen in the direction of strategic partnership. The dynamics of recent years demonstrates the readiness of both sides to adapt to changes, seek new models of cooperation, and use economic challenges as an impetus to modernize the structure of mutual trade (Malyarets et al., 2025; Rahul, 2023).

In order to systematize the dynamics of transformation of bilateral ties, it is advisable to highlight the key stages of development of Ukrainian-Indian economic relations (Table 1).

Determining the impact of foreign policy and geoeconomic factors on Ukraine-India trade and economic relations requires a comprehensive analysis of the global context in which these relations are developing. First of all, it should be emphasized that the Russian-Ukrainian war, which began in 2022, caused a significant disruption of transport and logistics routes, destruction of industrial facilities, and a decrease in Ukraine's export potential. At the same time, the global post-covid restructuring of supply chains has changed the balance of power in global markets: countries have begun to diversify their sources of imports more actively and strengthen ties with alternative partners.

In this context, India is viewed by Ukraine as a stable and promising market, while India itself is trying to reduce its dependence on traditional suppliers, in particular China, which opens new windows of opportunity for Ukraine (Bhattacharjee et al., 2023; Exim Bank of India, 2022).

Table 1 – Stages of development of Ukrainian-Indian economic relations

Stage	Chronological limits	Key features
Initiative and diplomacy	1992-2000	– Establishment of diplomatic relations (1992); – Conclusion of basic agreements on economic cooperation; – Initial level of trade, dominance of raw materials from Ukraine.
Stabilizing and expanding ties	2001-2013	– Development of the contractual framework; – Growth in bilateral trade; – Exports of agricultural products and ferrous metals from Ukraine; – Indian companies entering the pharmaceutical and education sectors.
Corrections and adaptations to global challenges	2014-2021	– Decreased trade activity due to the geopolitical crisis; – Reorientation of logistics routes; – Intensify contacts in the private sector, especially in IT.
Strategic realignment and transformation	2022-2025	– Changes in the structure of cooperation due to the war; – Restoration of trade flows (2023-2024); – Increase in the share of high-tech imports from India; – Development of agricultural and IT startups; – Deepening educational interaction.

Source: Created by the author based on Embassy of Ukraine in the Republic of India (2025); Bhattacharjee et al. (2023); Exim Bank of India (2022); Malyarets et al. (2025).

It is noteworthy that over the past three years, the structure of bilateral trade has undergone certain changes under the influence of the above factors. Thus, there has been a change in the weight priorities in the commodity nomenclature, an increase in the share of critical resources, and at the same time a reduction in the volume of certain traditional export items. Given these trends, it is advisable to present a summary of the dynamics of changes in key economic indicators in Table 2. It provides a comparative description of the key external factors that influenced Ukraine-India economic cooperation in 2020-2024.

Table 2 – The Impact of Foreign Policy and Geoeconomic Factors on the Main Indicators of Ukraine-India Trade (2020-2024)

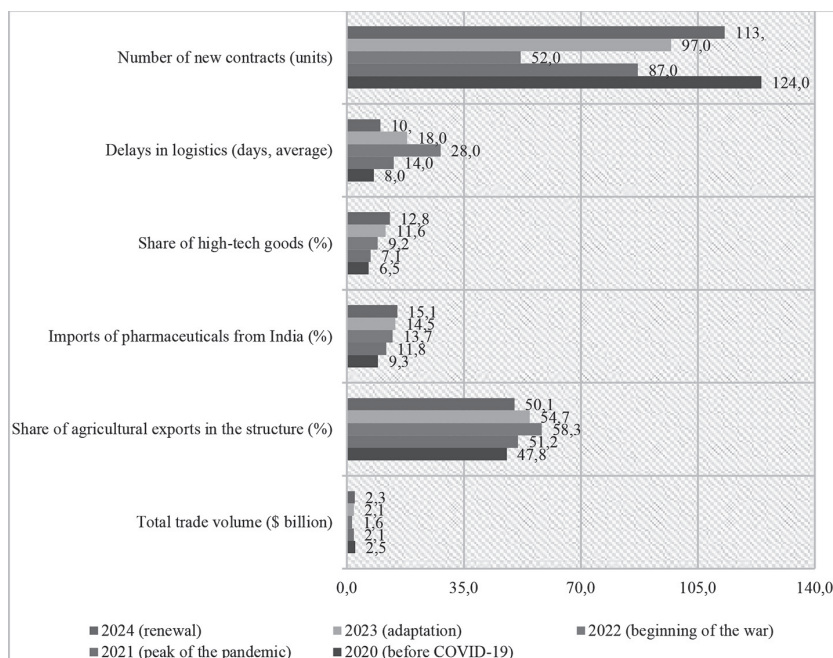
Indicator / Factor	2020 (before COVID-19)	2021 (peak of the pandemic)	2022 (beginning of the war)	2023 (adaptation)	2024 (renewal)
Total trade volume (\$ billion)	2.47	2.08	1.56	2.05	2.34
Share of agricultural exports in the structure (%)	47.8	51.2	58.3	54.7	50.1
Imports of pharmaceuticals from India (%)	9.3	11.8	13.7	14.5	15.1
Share of high-tech goods (%)	6.5	7.1	9.2	11.6	12.8
Delays in logistics (days, average)	8	14	28	18	10
Number of new contracts (units)	124	87	52	97	113

Source: Created by the author on the basis of (Exim Bank of India, 2022; Embassy of Ukraine in the Republic of India, 2025; Malyarets et al., 2025; Dnipropetrovsk Investment Agency, 2024; Bhattacharjee et al., 2023).

As shown in Table 2, the Russian-Ukrainian war was the most disruptive factor that caused a sharp drop in total trade in 2022, a decrease in the number of new contracts, and significant delays in logistics. At the same time, this crisis stimulated a redistribution of emphasis in the commodity structure - exports of critical food products increased, as well as imports from India in areas of shortage (e.g., pharmaceuticals). The post-quake restructuring of global chains has also affected trade through increased high-tech imports and increased cooperation in the medical and digital sectors (Desyatnyuk et al., 2024a; Makedon et al., 2025). The combined effect of these factors has contributed to the formation of a new model of interaction between Ukraine and India, characterized by adaptability, diversification, and a gradual transition from classical trade to strategic partnership with a focus on sustainability and mutual economic security.

To demonstrate the changes in key indicators of Ukraine-India economic relations in the context of the influence of foreign policy and geoeconomic factors, it is advisable to turn to graphical analysis of the data. Figure 1 visualizes the dynamics of six key indicators in 2020-2024, which allows us to trace the characteristic changes under the influence of the COVID-19 pandemic, the outbreak of a full-scale war in Ukraine, and the subsequent adaptation and recovery period.

Figure1 – Dynamics of Influence of Foreign Policy and Geoeconomic Factors on Ukraine-India Trade (2020-2024), %



Source: Created by the author on the basis of (Exim Bank of India, 2022; Embassy of Ukraine in the Republic of India, 2025; Malyarets et al., 2025; Dnipropetrovsk Investment Agency, 2024; Bhattacharjee et al., 2023)

The analysis of the numerical data in Figure 1 reveals both general and specific trends. The largest decline in total trade between Ukraine and India occurred in 2022 – to \$1.56 billion, which is 36.8% less than in pre-docking 2020 (\$2.47 billion), while in 2024 there was an increase to \$2.34 billion, which is approaching the pre-war level. The share of agricultural exports in the structure of Ukrainian exports increased to 58.3% in 2022, indicating India's dependence on food supplies during the crisis, but in 2024 the figure dropped to 50.1%, which can be interpreted as a sign of trade diversification. At the same time, the share of high-tech goods in imports increased from 6.5% in 2020 to 12.8% in 2024, almost doubling, indicating increased cooperation in the technology sectors. The volume of pharmaceutical imports from India increased from 9.3% in 2020 to 15.1% in 2024, driven by both pandemic challenges and growing demand for medicines in a war economy. Significant changes also occurred in logistics: average delays in supply chains increased from 8 days in 2020 to a peak of 28 days in 2022, but decreased to 10 days in 2024, indicating a gradual restoration of transport infrastructure and adaptation of logistics routes. The number of new contracts, which stood at 124 in 2020, dropped to 52 in 2022, but in the following years increased to 113, almost to the pre-war level, indicating renewed business confidence and intensified cooperation. Overall, the dynamics presented here confirm the profound impact of external factors on bilateral economic processes. At the same time, the adaptability of the system allowed not only to compensate for losses but also to formulate new strategies of interaction with a focus on sustainability, security, and technological upgrading of Ukraine-India trade relations.

Current investment trends between Ukraine and India indicate a gradual increase in interest in deepening bilateral economic cooperation not only in trade, but also in direct investment, technology transfer, and joint innovation projects. India, with its powerful human and financial resources, is seeking to expand its presence in the markets of Central and Eastern Europe, particularly in Ukraine as a country with high agricultural, IT, and logistics potential. Ukraine, in turn, sees Indian investment as a source of modernization of critical sectors, infrastructure development, and strengthening national resilience in the face of war. According to the Dnipropetrovsk Investment Agency (2024), recent years have seen an increase in the number of joint projects in pharmaceuticals, agriculture, and educational services, as well as the activation of Indian capital in IT incubators and clusters in Ukrainian cities. Table 3 shows the main areas of Indian investment in Ukraine and Ukrainian investment in India, with details on the types of capital, target sectors, and forms of project implementation. Table 3 summarizes the key areas of bilateral investment cooperation between Ukraine and India, covering the period of 2020-2024.

Table 3 – Structure and directions of investment cooperation between Ukraine and India (2020-2024)

Initiating country	Form of investment	Main sectors	Examples of projects / companies	Estimated volume (mln \$)	Characteristics of the dynamics
India → Ukraine	Foreign direct investment (FDI)	Pharmaceuticals, IT, agricultural sector	SunPharma, Cadila, Hetero, Infosys	83.5	Slow growth from 2020 to 2022, followed by acceleration in 2023-2024
India → Ukraine	Educational projects	Higher education, IT academies	NIIT, Aptech	11.2	Stable participation in the creation of educational centers since 2021
Ukraine → India	Joint ventures	Agricultural processing, logistics	Myronivsky Hliboproduct (MHP), GrainTech	6.4	Low but stable level of participation in logistics initiatives
India → Ukraine	Venture capital	Startups in the field of agrotechnology	AgroVision, BioSeedHub	5.1	A new direction that has been actively developing since 2022
Ukraine → India	Participation in consortia	IT, research and development	UNIT.City, TechUkraine	3.7	The initial stage of forming partner platforms

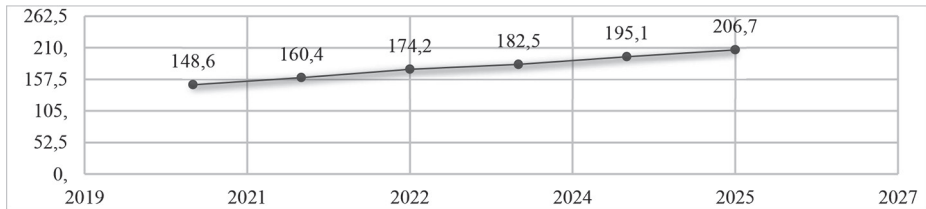
Source: Created by the author based on (Dnipropetrovsk Investment Agency, 2024; Embassy of Ukraine in the Republic of India, 2025; Desyatnyuk et al., 2024b; Nikonenko et al., 2022; Kuybida et al., 2023)

As can be seen in Table 3, the vast majority of investments come from India to Ukraine, with pharmaceuticals, IT, and agriculture remaining the key sectors. Companies such as SunPharma and Infosys already have a presence in Ukraine through joint ventures and representative offices, while the educational sector, including the opening of branches of IT schools and business academies, is emerging as a tool for long-term soft economic integration. Venture capital from India in agro-technology startups is showing positive dynamics, especially in the context of growing demand for innovative solutions in the agricultural sector. As for Ukrainian investments in India, they are limited in scale and are concentrated mainly in agricultural logistics and research clusters. The presence of companies such as MHP, as well as attempts to involve Ukrainian technology partners in Indian digital hubs (e.g., UNIT.City), indicate potential for expansion. At the same time, cultural differences, institutional risks, and weak support from government agencies in both Ukraine and India remain barriers. Thus, although investment cooperation remains moderate in scale, it has clear prospects for intensification if the security and regulatory environment improve.

In order to identify short-term trends in the development of the import component of Ukrainian-Indian economic cooperation, a forecast of the volume of pharmaceutical products supplied from India to Ukraine for 2025 was made using the least squares method. The model is built on the basis of statistical data for the period 2020-2024, which includes actual import volumes.

Linear regression was used to build the trend model. The calculations were performed in MS Excel and the Scikit-learn (Python) program module. Checking the accuracy of the model using the coefficient of determination showed a high level of approximation ($R^2 = 0.996$), which indicates the feasibility of using the model for short-term forecasting. According to the forecast results, the expected volume of imports of pharmaceutical products in 2025 will amount to USD 206.7 million USD. The forecast values are presented in Table 3a, and the graphical interpretation of the results is shown in Fig. 2. The graph shows the actual import values for 2020-2024, the trend line and the forecast value for 2025.

Figure2 – Forecast of imports of pharmaceutical products from India to Ukraine (least squares method)



Source: Calculated and visualized by the author based on data from Exim Bank of India (2022); Embassy of Ukraine in the Republic of India (2025); Malyarets et al. (2025); Dnipropetrovsk Investment Agency (2024); Bhattacharjee et al. (2023).

Figure 2 demonstrates the dynamics of imports of pharmaceutical products from India to Ukraine in 2020-2024 with the construction of the forecast value for 2025 using the least squares method. Based on the trend line obtained by approximating statistical data, there is a clear upward trend: starting from USD 148.6 million in 2020, imports followed by USD 1.5 million in 2024. Starting from USD 148.6 million in 2020, imports have been consistently growing every year, reaching USD 195.1 million in 2014. USD in 2024. The forecast for 2025 is USD 206.7 million. This is in line with the general development of pharmaceutical trade between the two countries. Such positive dynamics demonstrate not only the resilience of the pharmaceutical sector in the face of global challenges, but also the strategic strengthening of bilateral healthcare ties.

In the context of global instability caused by war, climate change, digital transformation, and the rethinking of global value chains, the search for promising areas of deepening economic cooperation between Ukraine and India is becoming particularly relevant. Both countries have the potential for a strategic partnership based not only on traditional trade, but also on the mutual introduction of innovations, the development of a green economy, digital solutions, and the strengthening of humanitarian cooperation. Given the new challenges, including – energy security, food independence, digital sovereignty, sustainable development, and logistics transformation – it is worth outlining the areas where synergies between the two countries can be most productive (Reznikova et al., 2024; Desyatnyuk et al., 2025). Table 4 provides a comparative description of the priority areas of cooperation, their strategic importance, expected benefits for both countries, and potential barriers.

Table 4 highlights promising areas for deepening economic cooperation between Ukraine and India in the context of sustainable development challenges.

Table 4 – Perspective directions of economic partnership between Ukraine and India in the context of sustainable development

Industry / Direction	Strategic value	Potential benefits for Ukraine	Potential benefits for India	Possible barriers to implementation
Agricultural technologies	Food security	Investing in agricultural startups, exporting know-how	Import of quality agricultural products, storage technologies	Tariff restrictions, logistics instability
Green energy	Energy transformation	Attracting Indian capital to renewable energy projects	Access to Ukrainian bioenergy production facilities	Regulatory irregularity, political risks
Pharmaceuticals and bioeconomy	Healthcare sector, R&D	Localization of production by Indian companies	Market expansion, clinical trials	Institutional uncertainty
IT and digital infrastructure	Digital transformation	Joint R&D projects, participation in digital hubs	Access to IT talent, cooperation in cybersecurity	Personnel leaks, technical compatibility
Education and academic mobility	Human capital	Attracting Indian students, creating joint programs	Academic exchanges, expanding cultural presence	Bureaucratic procedures, language barriers
Logistics and infrastructure	Regional integration	Modernization of transport hubs, development of multimodal routes	Creating hubs for transit to the EU	Damaged roads, difficulty in harmonizing regulations

Source: Created by the author based on (Desyatnyuk et al., 2025; Dnipropetrovsk Investment Agency, 2024; Embassy of Ukraine in the Republic of India, 2025; Reznikova et al., 2024.

To summarize, the priorities for the development of economic cooperation between Ukraine and India should focus on integration in areas that combine mutual needs with global trends in sustainable development. The areas related to innovation, digitalization, the bioeconomy, and the modernization of logistics routes, which are of great importance both for the stabilization of the Ukrainian economy and for India's strategic positioning in the Eurasian market, look particularly promising. Successful implementation of these areas will require joint political and economic planning, intergovernmental coordination, and support for business initiatives at both public and private levels.

5. DISCUSSION

The findings of the study indicate relative stability and gradual diversification of Ukraine-India trade and economic cooperation, despite the difficult geopolitical situation,

the impact of the COVID-19 pandemic, and the war in Ukraine. The identified tendency to increase the share of high-tech imports from India and the simultaneous consolidation of Ukraine as a supplier of agricultural products indicates the formation of an asymmetric but strategically complementary partnership that is in line with global trends in supply diversification (Desyatnyuk et al., 2025; Nikonenko et al., 2022). However, there is a divergence in the scientific community in interpreting the depth and sustainability of this interaction. On the one hand, Bhattacharjee et al. (2023), Malyarets et al. (2025), and the Embassy of Ukraine in the Republic of India (2024) emphasize the stabilizing role of the Indian market for the Ukrainian economy and the growth of trade activity as a result of the successful reorientation of logistics. On the other hand, researchers such as Gururaj et al. (2022) and Ebo (2024) point to a high level of instability in Indian foreign trade, especially in connection with global market fluctuations, and a lack of transparency in the implementation of long-term projects.

In addition, there are differences in assessments of the investment potential of bilateral cooperation. For example, Kuybida et al. (2023) and Dnipropetrovsk Investment Agency (2024) emphasize the positive dynamics in Indian direct investment in Ukraine in the areas of pharmaceuticals, IT, and education. At the same time, some authors, such as Rahul (2023), emphasize the weak representation of Ukrainian business in the Indian space and the structural barriers that hinder capital investment. In this context, the results of the study confirm that although cooperation shows some positive dynamics, it remains largely dependent on foreign policy factors and situational economic conditions. Another important point of intersection and controversy is the role of digital transformation and innovative cooperation. Kuybida et al. (2023) argue that digital infrastructure can be a catalyst for partnerships, while Reznikova et al. (2024) insist on the need for comprehensive integration of the green and digital economies. The results of the study confirm that the intensification of joint IT projects and digital platforms such as UNIT. City has the potential to compensate for weaknesses in physical logistics and support the development of new forms of integration.

Thus, although the hypothesis of positive dynamics and strategic prospects of the Ukraine-India economic partnership was generally confirmed, the study revealed a number of factors that may hinder its full implementation. Among the limitations are a lack of comparative analysis at the microeconomic level, cultural and institutional barriers, and a limited amount of public data on the actual volume of joint investments. Given this, further research should be focused on studying the effectiveness of specific economic initiatives, mechanisms of financial insurance of investments in high-risk areas, and modeling scenarios for the development of cooperation in the new architecture of global economic relations.

6. CONCLUSIONS

The results of this study have revealed qualitatively new shifts in the structure of Ukraine-India economic relations, indicating a shift from the traditional raw material model of trade to more diversified and strategically oriented cooperation. Strengthening the position of high-tech products and educational and investment cooperation is an indicator of the qualitative transformation of the partnership, which previously remained peripheral

in the foreign economic policy of both countries. In contrast to the expected conservation of relations in times of war and global instability, the analysis showed an increased desire on both sides to adapt to new challenges and seek innovative formats of cooperation. The novelty of the study lies in the attempt to combine macroeconomic indicators with a logical and prognostic approach to analyzing structural changes and assessing prospects, which is often ignored in existing publications. The practical significance of the results lies in the identification of specific sectors for targeted expansion of cooperation, such as agrotechnology, digital hubs, pharmaceuticals, and educational mobility. At the same time, the study revealed certain limitations, including a lack of relevant analytics from official agencies, fragmented statistics, and limited access to the results of implemented investment projects. Further research should be focused on building a risk management model in the context of Ukrainian-Indian cooperation, studying the impact of institutional compatibility on long-term projects, and predicting the effectiveness of technology transfer between countries with different economic systems. A promising area is also a comparative analysis of the effectiveness of Ukraine's bilateral cooperation with other countries of the Global South in the context of creating an alternative economic coalition based on complementary interests.

REFERENCE

- Bhaumik, A. (2024). India, Ukraine agree to restore trade, bilateral cooperation to preRussiawar levels. *Deccan Herald*.
- Bhattacharjee, A.; Gaur, D.; Gupta, K. (2023). Russia–Ukraine war and the impact on Indian economy. *Journal of Economic Studies*, 51(4), 841-858.
- Deore, S. P. (2024). The Russia-Ukraine war and its impact on the Indian economy. *International Journal of Emerging Knowledge Studies*, 3(2), 92-95.
- Desyatnyuk, O.; Krysovaty, A.; Ptashchenko, O.; Kyrylenko, O. (2024a). Financial security in the conditions of globalization: Strategies and mechanisms for the protection of national interests. *Economic Affairs*, 69, 261-268.
- Desyatnyuk, O.; Naumenko, M.; Lytovchenko, I.; Beketov, O. (2024b). Impact of digitalization on international financial security in conditions of sustainable development. *Problemy Ekorozwoju*, 19(1), 104-114.
- Desyatnyuk, O.; Ptashchenko, O.; Murenets, I.; Oliinyk, K.; Kyrylenko, O. (2025). Ensuring financial security: Approaches to risk management and protection in the digital economy. *Data and Metadata*, 4, 674-684.
- Dnipropetrovsk Investment Agency (2024). Strengthening economic, political and cultural relations between Ukraine and the Republic of India.
- Ebo, D. (2024). The economic impact of the Russian–Ukrainian crisis on Russian-Indian relations: A literature review. *American Economic Journal: Economic Policy*.
- Embassy of Ukraine in the Republic of India (2024). Trade and economic relations of Ukraine and India.
- Exim Bank of India (2022). Economic impact of Russia-Ukraine conflict: an Indian perspective. Exim Bank Research Papers.
- Gururaj, P., Kumar, K.S.; Bhat, D. C. (2022). Impact of Russia-Ukraine war on Indian stock market – An event study with reference to Nifty 50. *International Journal of Research – Granthaalayah*, 10(4), 161-167.
- Hosen, M. S.; Hossain, S. M.; Mia, M. N.; Chowdhury, M. R. (2023). The effects of COVID19 and the RussiaUkraine war on inward foreign direct investment. *International Research Journal of Economics and Management Studies*, 2(4), 408-417.
- Jain, R. (2024) India and Ukraine strengthen bilateral ties during PM Modi’s visit. *DD News*.
- Amigos IAS (2024). India-Ukraine Relations: A New Chapter in Diplomacy
- Kuybida, V.; Savitska, S.; Shkoda, M.; Akhromkin, I.; Pron, L.; Kolomiets, Y. (2023). Methodology of development of social investment projects for the economy: Legal aspects. *Journal of Law and Sustainable Development*, 11(4), 1-20.
- Kyredon, D.; Shtepa, O. (2021). Trends and forecast of Ukrainian foreign trade relations. *Scientific Journal of Polonia University*, 44(1), 187-195.
- Makedon, V.; Trachova, D.; Myronchuk, V.; Opalchuk, R., & Davydenko, O. (2024). The development and characteristics of sustainable finance. In A. Hamdan (Ed.), *Achieving sustainable business through AI, technology education and computer science* (Studies in Big Data, Vol. 163, pp. 373-382). Springer.
- Makedon, V.; Myachin, V.; Kuriacha, N.; Chaika, Yu., & Koptilyi, D. (2025). Development of strategic management of a corporation through the implementation of scenario analysis. *Scientific Bulletin of Mukachevo State University. Series "Economics"*, 12(2), 135-146.
- Malyarets, L.; Labunska, S.; Sidak, M.; Bilokononko, H.; Onegina, V. (2025). Export-import activity and its assessment: The Ukrainian case. *Administrative Sciences*, 15(2), 42.

- Nikonenko, U.; Shtets, T.; Kalinin, A.; Dorosh, I.; Sokolik, L. (2022). Assessing the policy of attracting investments in the main sectors of the economy in the context of introducing aspects of Industry 4.0. *International Journal of Sustainable Development and Planning*, 17(2), 497-505.
- Prime Minister's Office, Government of India. (2024). India-Ukraine joint statement on the visit of Prime Minister of India to Ukraine. Press Information Bureau.
- Rahul, M. A. (2023). Russia-Ukraine war – Impact on Indian economy in context of imports and exports. *Asian Journal of Management*, 14(4), 23-30.
- Reznikova, N.; Ivashchenko, O.; Hrynychak, N.; Dvornyk, I. (2022). Monetary traps of the new macroeconomic consensus: Problems of stabilization policy after COVID-19. *Economics of Development*, 21(1), 17-24.
- Reznikova, N.; Panchenko, V.; Karp, V.; Grod, M.; Stakhurska, S. (2024). The relationship between the green and digital economy in the concept of sustainable development. *Economic Affairs*, 69 (Special Issue), 389-399.
- Shekhawat, T. (2024). Impact of decisionmaking abilities on promoting successful aging: A multidimensional perspective. *International Journal of Emerging Knowledge Studies*, 3(12), 1009-1013.
- Sumathy, M.; Das, A. S., Shaneeb, P. (2022). Impact on export import of India with respect to Russian-Ukraine war. In *Technology and Commerce: Prospects and Challenges* (pp. 243–250).
- Vorozhbyt, O. (2025). Heading towards the new level: IndoUkrainian relations in the era of shaky geopolitics. Foreign Policy Council “Ukrainian Prism”.