# Post-War Recovery Strategy for the Ukrainian Light Industry: Regional ESG Rating Application

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Abstract: Aims: The research purpose is to analyze the essence and efficiency of the functioning of the light industry of Ukraine before the full-scale invasion of Russia into Ukraine and to identify development problems during the full-scale invasion, to build the investment profile of the light industry in the regions of Ukraine based on environmental, social and governmental (ESG) rating to promote the recovery strategy after the war. The empirical data refers to the light industry ESG factors in 25 Ukrainian regions from 2015 to 2021. Methodology: The research is based on an approach to the formation of an investment strategy of light industry with adaptation to the requirements of an unstable environment. The theoretical foundations of the development of light industry were analyzed, the strategy of the development of light industry and the mechanisms of its implementation were formalized. On the basis of a comparative analysis of the development of the branches of the Ukrainian economy during the war period, the priority areas for investment were determined. A dynamic approach involves responding to changes in the external environment, identifying problems and using methods to solve them. The article analyzes directions for solving the problems of investment development of light industry and ensuring the competitiveness of enterprises. The study substantiates recommendations for post-war recovery. **Results:** Light industry is an important part of the economy, and its development can significantly improve the country's economic performance. Given the challenges of the external environment, the development of light industry in wartime is slowing down. Sales of light industry products account for a very small share of the country's total industrial production. Therefore, the problem of analytical assessment of the current state of the light industry is relevant in order to identify these problems and find ways to eliminate them. The future development of the light industry lies in increasing the share of domestic goods in the domestic market and increasing exports of local products. Thus, to increase the competitiveness of domestic products, it is necessary to improve the quality of products and reduce costs and prices. This will be possible when the national agro-industrial complex is restored, which will be able to provide light industry with raw materials for its products. Scientific Novelty: The scientific novelty of the results obtained is the development of an investment strategy for the development of light industry in the context of post-war recovery based on the analysis of literary sources and monitoring of the functioning of the light industry before the full-scale invasion of Russia in Ukraine, during the war, and forecasting the post-war recovery. Unlike existing strategies, this strategy is aimed at taking into account the principles of the ESG concept and allows banks and other financial institutions to make effective investment decisions. Conclusion: Improving the competitiveness of domestic products in terms of price and quality will allow domestic entrepreneurs to gradually move away from traditional production models. At the same time, the industry requires significant investment capital to implement all these measures. The competitiveness of domestic producers contributes to improving the quality of life of the population by raising wages and creating jobs. This will increase purchasing power and help reduce the import market segment.

Keywords: ESG, the Ukrainian light industry, regional investment profile, post-war recovery.

# INTRODUCTION

#### **Research Problem**

The Ukrainian economy has been in the recovery stage after the consequences of the coronavirus pandemic as well as the whole world economy for the last three years. Meanwhile, a rapid transition to a war economy due to the unexpected and massive attack to the large part of the Ukrainian territory by the neighboring Russia had to be started immediately. Although, Ukraine receives the full support from other countries, it experiences quite serious economic, political, social, demographic, and military issues. The Russia's full-scale invasion of Ukraine also lead to debates on the worldwide political and, certainly, security strategies. The power and viability of the global organizations and institutions such as the European Union, United Nations, North Atlantic Treaty

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Fig. (1). Loading of Production Facilities Capacity Comparing to Pre-war Period, % of respondents.

Organization (NATO), Organization for Security and Cooperation in Europe (OSCE), International Energy Agency (IEA), and others were challenged described in detail in works Akgün & Ertürk, 2022, Fleming, 2022, Irtyshcheva et al., 2022, Kelmendi, 2022, Kühn, 2022, Martins, 2022, Reynolds & Ketola, 2022, Sinkkonnen, 2022, Vines, 2022.

Meanwhile, before the war the Ukrainian light industry which included textiles, apparel, leather, and footwear sectors showed a production growth by 2.3% in 2021 after 3 years of constant declines.

Although, the Ukrainian light industry could not fully compete with the world's top light industry exporters while generating relatively low revenues, within the country it served the entire economic complex and actively cooperated with other industries. Thus, the researchers investigating the Ukrainian light industry issues and development directions stated that its powerful production potential allowed to produce an extensive range of widely used industrial goods and it can be revived due to various measures (Dudko, 2019; Havrylenko & Brodiuk, 2018; Kasyan, 2016; Rubin & Tkachenko, 2017; Selivestrova & Parhacka, 2018; Zhao et al., 2022).

Indeed, after the war the production decreased significantly, and a lot of companies had to relocate their production and employees immediately. Herewith, the Figure 1 shows that for the first half of 2022 the production declined by 23.3% comparing to the corresponding period in 2021 indicating the ability of the industry to adapt to the war economy. In addition, 7% of companies maintained 100% and more production loading, while 36% kept from 75 to 99% demonstrated by the Fig. (2). Besides, 42% respondents of the survey conducted by the Ukrainian online publisher exported their products without stopping after 24<sup>th</sup> of February (Industry in Ukraine - Which Sectors of Ukrainian Industry Are Recovering Better, 2022).

Meanwhile, the focus after the war is shifted from the specific problems of the particular industry to the Ukrainian national industry as a whole and its needs of recovery in human capital, reconstruction and re-building, logistics recovery and external financial support. Akgün & Ertürk (2022) identify ways to overcome the crisis in the economy, including in the energy and light industries. Angrist et al. (2022) identify one of the ways to overcome the crisis phenomenon of military conflict. The issues of Ukraine's economic recovery after the military invasion are discussed in detail in Blinov & Djankov (2022), Lunina et al. (2022), and Gorodnichenko et al. These papers discuss approaches to the postwar recovery of Ukraine's industry. At the same time, there is a need to develop specific measures for the postwar recovery of light industry. To address this issue, Moskalenko (2022) analyzed the new business cycle for Ukraine in a W-shape with an explanation of recovery trajectories, where international economic support plays a significant role. Vines (2022) examined in detail the issue of international partnership and support. Marshuk et al. (2022) examined Ukraine's financial system and the need for financial support under martial law.

The Ukrainian light industry which rights and interests is actively represented by Ukrainian Association of enterprises of textile and leather industry (Ukrlegprom) cooperates and promotes the business and cross-cultural exchanges with China, Kyrgyzstan, Lithuania, Austria, Uzbekistan and other countries. (Ukrainian Association of enterprises of textile and leather industry (Ukrlegprom), 2019a, 2019b, 2020, 2021; Ukranews, 2018)

In addition, the law "On promotion of digitalization and investment attractiveness of light industry enterprises" (N2508) came into force in April, 2020. Based on this law, a zero value added tax (VAT) rate is set on equipment imported to Ukraine for production needs. Also, it states that the light industry enterprises are free from the income tax referring to the main activities. Meanwhile, the released funds (tax amounts that are not paid to the budget and remain at the taxpayer's disposal) can be used to enhance the capital investments, production volumes, implement innovative technical and technological transformations of production, smart technologies, or use to repay loans (Liga Zakon, 2020). The justification of the centralized policy on the digitalization and innovative transformations of the Ukrainian light industry proclaimed by the government is verified and investigated by (Zhao et al., 2022). Also, the Ukrainian light industry showed the industry growth by 2.3% in 2021 (Fig. 1).

Besides, during the three decades of independence, Ukraine has concluded 19 Free Trade Agreements (FTAs), which

cover the markets of 47 countries (more than 800 million consumers) (Trade Support Team, 2021). The most recent agreement was signed with Turkey in February 2022. (Epravda, 2022)

In addition, the popularity of the "made in Ukraine" gives the chance to the Ukrainian light industry to sell the products around the world and to help to the country in obtaining financial resources for the army and war victims. The online marketplaces where all customers around the world are able to purchase the light industry products such as Made with Bravery, Saint Javelin, Buy Ukrainian and others.

Starting from 2019 Ukraine monitors the application of Sustainable Development Goals (SDG) (State Statistics Service of Ukraine, n.d.). Sustainability and eco-friendly approach are promoted by the Ukrainian fashion brands and recognized by the world community. Thus, in February 2023 the brand TG Botanical got the price at Zalando Sustainability AW23 (11 Sustainable Ukrainian Brands to Support and Love • Sustainably Kind Living, n.d.; Ukrainian Sustainable Brands - Renoon, n.d.; Visionary Ukrainian Label TG Botanical Flexes Experimental Techniques for Its AW23 Collection - Vogue Scandinavia, n.d.)

Hence, the sustainable development as the long-term strategy of post war recovery remains even more attractive for the Ukrainian light industry. Meanwhile, the investment will play the crucial role as well as the foreign direct investment, national and foreign grants, aid from the charitable funds, governmental incentives and other financing methods. Based on these assumptions and the current state circumstances discussed above, this research aims to develop the investment profile of the regional light industry in Ukraine based on environmental, social and governmental (ESG) rating to promote the recovery strategy after the war.

# **Research Focus**

The hypothesis of the study is to analyze the state and development of the light industry under martial law and to develop strategic directions for its functioning in the post-war period. The main objectives are to identify the problems of light industry development in wartime in order to develop a strategy for ensuring international competitiveness.

#### **Research Aim and Research Questions**

The research purpose is to analyze the essence and efficiency of the functioning of the light industry of Ukraine before the full-scale invasion of Russia into Ukraine and to identify development problems during the full-scale invasion and to build the investment profile of the light industry in the regions of Ukraine based on environmental, social and governmental (ESG) rating to promote the recovery strategy after the war.

The main tasks of the article are defined and solved as follows:

1. analysis of the current state of Ukraine's light industry and identification of the main problems of development under martial law;

- 2. analysis of scientific literature on the development of light industry in Ukraine before and during the full-scale Russian invasion of Ukraine;
- 3. analysis and forecasting of prospects for post-war recovery of Ukraine;
- 4. defining an approach to assessing the prospects for the development of Ukraine's light industry under martial law;
- 5. elaboration of strategic directions for the development of light industry in Ukraine in the context of an unstable external environment.

#### Literature Review

The contrast in research focus and motivation regarding the Ukrainian light industry is observed between the literature before and after the war. Thus, the research direction before the war focuses on the critical condition of the Ukrainian light industry and ways to overcome the issues using various mechanisms and incentives.

As the most emerging issues stated by the researchers are the following. First, the high dependency on the raw materials import is observed for the Ukrainian market. Rubin and Tkachenko (2017) and Berestetska (2018) provide a detailed study of market trends, problems, and prospects for the development of the light industry. Particular attention is paid to export-import relations in the industry. At the same time, these studies need to be adapted to the current operating conditions. Selivestrova and Parhacka (2018) assessed the financial instruments for ensuring the development of the light industry. Second, technological and innovative reequipment of the industry is emphasized in the article by Obelets & Tsymbal (2020). The article finds the best ways to solve existing problems and improve the current state and outlines the most realistic development prospects. The article establishes a close connection between the supply of raw materials and supplies through foreign trade and the export of finished products. Usarek, Smerichevska, et. al. (2020) studied the state and innovative development of light industry enterprises in the context of Ukraine's accession to the European Union. The paper analyzes the innovative and institutional prerequisites for the formation and development of cluster structures in Ukraine, taking into account the economic clustering policy of the European Union. Clustering issues have also been considered in the works of Dudko (2019), Havrylenko & Brodiuk (2018), Zheliuk & Berestetska (2019), and others). Meanwhile, that approach demonstrates its practical implication in establishing Ukrainian Fashion Cluster, Fashion Globus Ukraine, Kharkiv Fashion Cluster and West Ukrainian Fashion Cluster (Ministry of regional development construction and housing and communal services of Ukraine, 2019). At the same time, the issue of strategy formation in the face of an unstable environment requires improvement and further research. Thus, the lack of experience and activity as well as the standard mismatch when entering the international market is described by researchers (Rubin and Tkachenko, 2017; Havrylenko and Brodiuk, 2018). Havrylenko and Brodiuk (2018) analyze the relationship between the light industry and other industries in Ukraine. The authors conclude that the prospects for the development of the industry as a whole in Ukraine depend on the efficiency of light industry enterprises. Thus, the war in the East Ukraine which started back in 2014, corruption and mistrust of the legal system affects the state of the Ukrainian light industry. Meanwhile, it also experiences the difficulties in attracting staff due to high level of migration to other countries and income attractiveness of other industries such as IT industry, food industry, transportation, trade.

Promoting the technology transfer and innovation recommendation as week improving the credit and tax policy stated by researchers is reflected in the law "On promotion of digitalization and investment attractiveness of light industry enterprises" (N2508) came into force in April, 2020 (Liga Zakon, 2020). The authors Ishchuk & Sozanskyy (2019) clustered the Ukrainian industry. Based on the identified groups, the authors identified areas for the development of enterprises. In Puzyrova (2021), the authors grouped regions by the level of innovation and development financing. Similar studies have been conducted by Kasyan (2016), Olyinyk et al. (2019). Further recommendations include reasonable consumption and smart utilization, supporting the national brand, strengthening the government control and the legal support, and, finally, enhancing the investment image.

After the war started, the research direction is changed towards the restoration of the Ukrainian industry as a whole rather than the specific industry. Herewith, the recovery direction includes the recovery in human capital due the migration of the population who has to leave their homes and businesses to find a safer place (Angrist et al., 2022; Blinov & Djankov, 2022; Gorodnichenko et al., 2022). Angrist et al. (2022) identified general trends in migration processes and directions of their distribution. Blinov & Djankov (2022) estimated the economic losses from military conflict and migration processes. Gorodnichenko et al. (2022) in their analysis outlined possible directions for the restoration of human capital and quantified the development of industry and the achievement of economic benefits during the recovery. All of these studies outlined the directions of a strategic plan for the development of Ukraine's postwar economy and its quantitative estimates. This plan will require identifying priority areas for the development of industries and professions, as well as the overall institutional and regulatory environment. In doing so, logistics recovery is suggested as the key direction of the recovery.

The EU has to be careful and calculated enough to offer clear incentives and fair judgement to reluctant member states. As the bloc seeks to increase the likelihood of implementation at home, they must also pursue a coordinated approach with global emitters, such as China, the United States and India (Akgün & Ertürk, 2022)

Scientific novelty of the obtained results is as follows: it has been proven that in the field of financing the medium-term recovery strategy of Ukraine, it is necessary to rely on the funds of foreign donors in the form of grants, aid from charitable funds, free financing (the primary direction is financing of the innovative agricultural sector); to ensure the modernization of the country, which is subject to the long-term strategy of post-war recovery, the sources of financing are the attraction of foreign capital, direct foreign investments Proves the investment (Lemishko et al., 2022) It has for the first time in such a conflict been accompanied the imposition of an unprecedented range of financial sanctions. The "weaponization" of currencies raises both challenges, and opportunities for the EU as the digitalization of finance accelerates globally, raising question marks over the dominant role of the U.S. dollar in international geo-politics (Fleming, 2022). Thus, the war in Ukraine has caused a costly humanitarian crisis that requires a peaceful resolution.

# METHODOLOGY

Research Methodology. The following methods were used in the research: historical and economic - studying the theoretical foundations of light industry development. The strategic approach was used to formalize the strategy for the development of the light industry and the mechanisms for its implementation. The tabular method was used to formalize the strategic investment potential of Ukrainian light industry enterprises in the context of decentralization of the national economy. The comparative analysis of the development of Ukrainian economic sectors in the wartime period was used to identify the industries that are a priority for investment. The statistical assessment complemented the comparative analysis of Ukrainian economic sectors. The structural approach to the analysis of Ukraine's light industry involves analyzing the industry's components and identifying development problems. Foreign economic methods were used to analyze the directions of solving the problems of investment development of the light industry and ensuring the competitiveness of enterprises.

*General Background.* The study is based on an approach to the formation of an investment strategy for the light industry with adaptation to the requirements of the unstable environment. A dynamic approach to ensuring the implementation of the proposed investment strategy involves responding to changes in the external environment, identifying problems, and using methods to solve them.

*Data Analysis.* The information base of the study is based on legislative and regulatory acts of Ukraine, international legal acts, the Cabinet of Ministers of Ukraine, the National Statistics Office of Ukraine, the Ministry of Finance of Ukraine.

# RESULTS

# Problems and prospects of forming a strategy for the development of light industry

In Ukraine, the light industry can be classified as a strategic industry due to the fact that it provides jobs and essential products. At the same time, the statistical analysis shows imperfect development of the industry and its approaching crisis. This situation is mainly related to Russia's military invasion of Ukraine. Table 1 shows the main indicators of light industry development since the beginning of the full-scale Russian invasion.

These problems have had a negative impact on the activities of light industry enterprises, limiting further development of the industry. However, despite certain problems in the development of the Ukrainian light industry, it should still be considered as a promising industry. The industry's position is to increase the share of domestic products in the domestic

Indicator	Features of Manifestation	Industry Trends	Impact on Industry Development
Slowdown in industrial develop- ment	High impact on related industries (agri- cultural, machine-building)	7% of enterprises are operating at full capacity, 36% - 75%-99%, the rest - less than 75%.	The decline in the indicator affects the development of labor resources and gross national product
Increase in the number of unprof- itable enterprises	Decrease in investment in the country and growth of inflationary processes	More than a third of operating enterprises make losses	Insufficiently effective management of enterprise profitability
Increase in the cost of goods	High inflation leads to an increase in the cost of raw materials	Innovation dependence of enter- prises.	High cost of production leads to a de- crease in competitiveness and financial and economic position of the enterprise
Decrease in purchasing power of the population	Deterioration of overall macroeconom- ic indicators and increased defense spending	Depreciation of production assets	Reorientation of consumers to the cheap imported price segment. Decrease in the average wage leads to an increase in production costs.
Decrease in investment activity of enterprises	Lack of budget funding for research and development	Ukrainians have been experienc- ing a deterioration in their finan- cial situation over the past year. Families lack money for food and have difficulty buying clothes and shoes.	Decreased revenues to fixed assets, equipment obsolescence, economic and political instability.
Increase in military aggression	Cessation of operations of enterprises or their relocation to another region	Foreign direct investment ac- counts for 0.3% of total invest- ment in the country	The need to produce goods to meet military needs and volunteer orders increases the industry's prospects

Table 1. Light Industry Development Indicators (as of the end of 2022).

market and increase exports of domestic products. This makes it possible to constantly increase production volumes, expand the range of products, significantly improve the financial position of the company and create new jobs. The future of light industry development is to increase the share of domestic goods in the domestic market and increase exports of local products.

At the same time, there are difficulties in determining an approach to assessing and analyzing the competitiveness of an enterprise in an unstable environment. First, economic theory does not clearly explain this concept and attributes to it many different, sometimes contradictory definitions, each of which covers or tries to comprehensively characterize one or another aspect of it. Secondly, depending on the staff and the purpose of assessing the competitiveness of companies, the number and quality of factors included in the assessment of their value varies greatly. Thirdly, in addition to quantitative indicators, qualitative indicators are increasingly used in competitiveness assessment, which further complicates quantitative assessment and complicates the development of competitiveness benchmarking methods. Fourth, the methods of assessing the competitiveness of companies in the world practice are of a specific economic and quantitative nature and do not use scientific management methods (systematic, comprehensive, replicable, etc.). Usually, any method of assessing competitiveness does not apply to all similar companies, but to one or two companies. For example, one method of assessment takes into account the cost of production factors, another method of assessment takes into account the cost of a specific production factor, a third method of assessment takes into account the efficiency of potential use,

a fourth method of assessment takes into account the efficiency of the production and sales process, and a fifth method of assessment takes into account the efficiency of raw material use as a quality.

In analyzing competition at the industry level, the focus is on competition between firms, since it is the result of their activities that shapes the state of the industry. In this theory, there are two main approaches to defining competitiveness criteria: structural and functional. Thus, according to the structural approach, the situation can be analyzed based on knowledge of the degree of industry monopoly, concentration of production and capital, and barriers to entry. The main obstacles for new competitors are: the profitability of mass production, the degree of product differentiation; The undisputed economic advantage of modern companies is the capital required to organize efficient production. The strength of this approach lies in the assessment of the company's ability to ensure competitiveness. The company's competitive advantage is assessed for each available resource.

All competitiveness indicators are divided into four groups:

1) financial condition of the enterprise (indicators of financial and economic activity);

2) maximizing the market value of the enterprise (market share, market share growth);

3) capacity utilization rate of the enterprise

4) the level of competition in the industry in this market (intensity of competition).



Fig. (2). Investment strategy for ensuring the competitiveness of a light industry enterprise.

# Principles of Forming a Strategy for the Development of Light Industry in the Postwar Period

Based on the results of the analysis of these indicators, a comparative assessment of financial ratings, state and prospects of development, profitability and business activity is made. Rating indicators after a downgrade determine a financially stable company, and the highest ratings indicate leadership in this indicator. Recent studies in the field of competitiveness assessment related to the use of green environmental policy tools show that it is advisable to use green marketing tools to form and strengthen the green competitive advantage of enterprises. Therefore, today in Ukraine there are several trends in the adoption of ESG principles by companies.

Given the instability of the external environment as a result of Russia's military invasion of Ukraine, bankers are trying to protect their portfolios from high-risk projects as much as possible. For this purpose, it is recommended to use ESG data analytics, which facilitates investment decision-making. Khan, Saienko, & Tolchieva (2021) investigated how corporate culture and reputation of an enterprise affect its investment attractiveness. It is determined that the reputation of the enterprise affects the quality of customer relationships, increases its market value, and, accordingly, investment attractiveness.

ESG data is information about the environmental, social and governance factors of a company and is important for measuring the sustainable and ethical impact of investments on the company and the overall development of the company. The overall investment strategy based on the ESG method is shown in Fig. (2).

The main task of ensuring the competitiveness of the Ukrainian light industry is to increase and develop production, optimize light industry enterprises and focus on the industrial and innovation sector. Reshetnikova, et al. (2020) developed a methodological approach to assessing and improving the efficiency of functioning and development based on the integration of enterprises in the light industry of Ukraine based on the identification of key determinants. To ensure a broad and systematic approach, this study adopted a three-stage methodological framework. The article by Tyukhtenko et al. (2020) summarizes the views of the scientific community on the peculiarities of the development of industrial enterprises in modern market conditions and the need to attract modern innovative technologies to achieve their competitiveness. When determining the level of competition of a company, it is recommended to take into account the factors that determine the level of reliability of information and tools.

It is expected that the policy of localized production in developed countries will be stricter. This is due to Ukraine's accession to the European Union, which requires taking into account the optimal allocation of productive forces in addition to the existing law on the location of production. For example, Kushnirenko et al. (2023) determined that the strategic scenario of Ukraine's industrial development needs to be revised and adapted for the post-war restoration of industry and national sovereignty in the face of long-term external military threats.

Another clear trend is Ukraine's decarbonization policy, which replaces traditional technologies with more energyefficient ones. This requires the creation of a trust fund to be financed by taxes on corporate emissions and international subsidies, grants, and international aid. On a global scale, this is a multi-billion dollar program that needs to be controlled at the national level. Ovcharova (2022) and Ostropolska (2021) discuss in detail the problems and prospects of taking into account the requirements of the European Union in terms of integrating production into Europe and bringing it into line with European standards.

At the same time, Ukraine needs to strengthen credit programs for the real sector of the economy. The current figures are pre-war levels and do not meet the challenges faced by manufacturers and exporters today due to the destruction of factories and goods. In the coming years, the European Union will increase tax support from member state governments for domestic producers, thereby weakening the competitiveness of Ukrainian products. Now it is time to think about attracting money from the banking sector (with risk insurance, of course) to the real economy.

So, the key to the success of the recovery of Ukraine's light industry lies in effective cooperation between the state, enterprises, and international investors. There is also the protection of property rights, the rule of law, and a sustained fight against corruption. These are the factors on which Ukraine's membership in the European Union and the competitiveness of light industry enterprises depend.

# DISCUSSION

The considered issues of development of the light industry in the post-war period are related to ensuring the maximum market value of enterprises in the industry, taking into account the requirements of Ukraine's accession to the European Union. At the same time, the solution of these issues is limited by the instability of the external environment and Ukraine's weak readiness to implement the ESG concept. At the same time, it is undeniable that the situation on the domestic market is changing radically due to the devaluation of the hryvnia, and companies hope to increase sales by gradually displacing cheaper foreign products that have become incompatible with domestic production in recent years (Marshuk & Poplavska, 2019). In this case, it is interesting to analyze the experience of the Korean cotton and textile industry (Moonseok, 2007).

Exports of Ukrainian products to the European Union have become very profitable in the current environment. It is worth noting that the Ukrainian light industry is currently supported by an increase in orders from Europe. In particular, garment production facilities and enterprises that produce products commissioned by volunteers have the opportunity to scale up production (Okafor, Madu, Ajaero, Ibekwe & Nzekwe, 2021). At the same time, light industry products fully comply with national standards, but need to be improved in terms of integration into the European Union. Until recently, many companies manufactured products for the Russian market. However, since the military conflict closed the Russian market, exports by European businesses have become an urgent task. The situation is further complicated by the fact that Russia is a large market for European clothing, which should be reflected in orders from Ukrainian manufacturers.

It should be noted that to produce competitive products, light industry enterprises face the problem of modernizing their production. Most of the current production facilities are outdated and enterprises need new equipment. The problem of obsolescence of production means should be addressed by renewing production capital and introducing the latest technologies by industrial enterprises. This can be done through national and international funding, as well as close cooperation with machine-building enterprises. Jensen (2020) discusses in detail the ways of securing financing during the wartime and postwar periods of development.

Thus, in the context of the Ukrainian economy, a comprehensive systematic approach should be used to generalize the list and take into account the specifics of internal market relations, rather than using individual methods that are widely used in developed countries to assess competitiveness. Marketing departments established at domestic enterprises cannot conduct competitiveness research in the absence of appropriate specialists and information, methodological and technical support.

In modern economic thought, there is no single method for assessing the competitiveness of an enterprise, which is due to many factors, including differences in the scope of the enterprise, scale, financial accounting methods, and management methods. For example, Saidboriyevna (2023) states that an error in choosing a measurement method can lead to erroneous management decisions. When determining the level of competitiveness of enterprises, it is proposed to take into account the factors that determine the level of reliability of information and weapons. The authors of Boichenko, Klymenko, et al. (2022) have developed an integration map, modeling, and forecasting of the results of integrated development. Such a comprehensive assessment makes it possible to substantiate the effectiveness of management decisions and improve the quality of integrated development of the enterprise, as well as their overall performance. Therefore, each enterprise has its own development method for assessing its competitiveness or uses the most appropriate method available. The most common method of assessing the competitiveness of enterprises is the method of creating matrices and determining complex (integral) indicators. However, the complexity of the process of forming and choosing a strategy for some quadrants usually takes into account only two indicators used by the matrix. Therefore, at the present stage, it is relevant to apply the ESG method to assess the competitiveness and investment attractiveness of light industry enterprises.

Until now, ESG has been narrowed down to refer only to sustainability issues that affect the financial performance and profitability of a company, as well as the opportunities and risks associated with its impact on society and the environment. Companies often publish information on their official websites, reports, and sometimes in standard non-financial annual reports. Most of this information does not meet the reporting criteria for ESG indicators, for example, the lack of a financial component. Companies publish sustainability indicators but do not link them to financial results. Investors have little trust in corporate sustainability information because there is no systematic way to collect it - only some reports are verified by third parties.

Light industry is of particular socioeconomic importance as it provides a large number of jobs for the population. The industry is of great importance because light industry is second only to the food industry in terms of consumption. The main global producers of light industry products are countries such as China and India. China accounts for 40% of the world's cotton production, 64% of the world's yarn production, 41% of the world's fabric production, and 50% of the world's apparel production. India's light industry is the second largest employer in the country, employing 45 million people.

The light industry accounts for about 3% of global GDP, and in the largest producing countries this share exceeds 10%. In Kazakhstan, the industry has almost no impact on the economy - compared to other sectors of the economy, the industry accounts for 0.2% of GDP, 0.3% of total employment, and its share in the manufacturing industry does not exceed 1.2%. It is a complex sector that can be divided into three main categories: textiles, clothing and leather, and fur and footwear. In the structure of light industry, the largest share is occupied by textiles (36.6%) and garments (35.2%).

Households and businesses have been hit hard by the energy crisis. Inflation is rising in many areas of life, and economic growth is slowing. The situation is particularly dangerous under martial law, where gas shortages threaten to cut off electricity and business profitability. Industrial companies are vulnerable to energy crises due to the high energy intensity of their operations, mainly in the form of heat (Kovaliuk, Kobets, Ivashchenko, & Kushnarov, 2020).

Globally, industry is the largest consumer of natural gas, consuming all gas (37%), ahead of households (30%) and commercial and public services (13%). In particular, light industry has the potential to replace a large amount of natural gas with renewable heat during this decade. Electrification is crucial for industry.

The current limited development of light industry also means significant efficiencies and lower capital costs to scale up and remain competitive. In contrast, the cost of solar photovoltaic systems has increased fivefold over the past 10 years, while the price of lithium-iron batteries has fallen by 19% for every doubling of capacity. Another consequence of the limited development of the light industry is the company's lack of awareness of new technologies. In fact, the entire value chain still needs to optimize technology solutions for different use cases and link them to the most appropriate business models and financing mechanisms.

Finally, ways must be found for the financial sector to contribute to this industry transformation. New business models, such as power purchase agreements or the ESG concept, have accelerated companies' use of renewable energy for electricity generation, accelerating the transition of the entire energy industry to clean energy. For decentralized producers and consumers, the financial sector has not yet found a way to turn the numerous small investments of many light industry companies into scalability.

# CONCLUSION

The ESG concept identifies business initiatives that will accelerate the ability of industrial companies to integrate light industry development strategies by focusing limited resources and capital on markets that can present attractive business models for financing solutions. Thus, ESG principles are used by business structures to:

1. For companies: ESG information of companies adds value and creates attractiveness for investment. Proactive management of ESG activities helps to manage risks.

2. Financial institutions: reports, action plan. The ESG due diligence process should be aligned with the bank's business model and portfolio structure.

3. At the country level: ESG information is part of monitoring the implementation of contractual provisions. ESG data can be used for sustainability reporting. It recognizes the impacts on the community, the problems with the supply chain, and whether there is a high risk of groundwater and soil contamination.

4. Local governments: analyzes the application of ESG principles in businesses and organizations and their impact on regional development.

5. For external consultants: ESG principles help to assess the overall development of communities and individual companies.

Use of financial instruments to overcome the main obstacles that companies often face when using solutions to attract

investors to the industry. In this case, the following strategies can be applied:

The first type of strategy relates to decisions on the identification of companies to invest in. The longest-standing strategy involves negative screening, which, based on moral, normative or ethical principles, involves the removal of stocks with poorer ESG characteristics from the portfolio (Hong, & Kacperczyk, 2009]. In particular, this includes exclusions by geography (e.g., companies from South Africa in the 1970s under the apartheid regime) or in certain industries or activities (e.g., the tobacco industry due to the health impact of the company's products) for ethical reasons or to prevent reputational damage. Filtering the investment environment to exclude companies with conflicting practices or characteristics offers perhaps the most direct way to achieve ESG goals. Rather than bypassing companies that are willing to take certain ESG risks, another approach involves aligning capital allocation with desired sustainable outcomes. Such actions would lead to the use of positive screening methods (investing in top ESG companies) or normative screening (for example, using the UN Global Compact Principles for Responsible Investment). Thematic investing involves the use of appropriate investment instruments that facilitate the allocation of capital directly to sectors that should allow 54 ESG Principles and Responsible Institutional Investing in the World to benefit ESG Principles and Responsible Institutional Investing in the World from various ESG areas (e.g., renewable energy) and debt instruments such as green bonds (which finance environmental projects) and social bonds (for social projects).

- 1. The second type of strategy involves corporate management and is applied after the investment. As noted earlier, negative screening can limit the investor's influence on the implementation of ESG changes, as without rights to company shares, the investor cannot vote. Instead, through engagement (also known as active ownership or asset management), investors can use their position as partial owners of companies to improve company governance or ESG disclosure. Engagement involves discussing ESG issues with management (through private meetings or letters and dialogue during teleconferences or roadshows) or formally expressing approval or disapproval through voting based on shareholding rights. Investors can be engaged individually, in collaboration with other investors, or by outsourcing to a service provider.
- 2. The third strategy (and perhaps the most comprehensive) involves integration, which involves changes in traditional investment processes to incorporate ESG data and ESG analysis into the comprehensive investment assessment. According to this approach, investment teams use sustainability data to create a more comprehensive view of investment risks and opportunities, even when the sustainability of an investment fund is not relevant. This approach involves the processing of ESG data at the research, collateral or portfolio structure assessment stages, or later, or during risk monitoring and management.

# REFERENCES

- Akgün, M., & Ertürk, A. C. (2022). Putting an end to "Crisis Europe." *Transatlantic Policy Quarterly*, 21(1), 85–94. URL http://transatlanticpolicy.com/article/1122/putting-an-end-to-crisiseurope
- Angrist, N., Djankov, S., Goldberg, P., & Patrinos, H. (2022). The loss of human capital in Ukraine. Global Economic Consequences of the War in Ukraine Sanctions, Supply Chains and Sustainability, 169– 174. https://doi.org/10.5167/uzh-222703
- Boichenko, K., Klymenko, S. M., Shevchuk, N. V., & Terentieva, O. V. (2022). Quality management of the integrated development of Ukrainian light industry enterprises. *Journal of Eastern European* and Central Asian Research (JEECAR), 9(4), 554-568. DOI: https://doi.org/10.15549/jeecar.v9i4.921
- Blinov, O., & Djankov, S. (2022). Ukraine's recovery challenge. Global Economic Consequences of the War in Ukraine Sanctions, Supply Chains and Sustainability, 164–168. https://doi.org/10.5167/uzh-222703 URL https://www.zora.uzh.ch/id/eprint/222703/1/172987\_global\_econo

mic\_consequences\_of\_the\_war\_in\_ukraine\_sanctions\_supply\_chai ns\_and\_sustainability.pdf#page=174

- Epravda. (2022). Free trade zone what the agreement between Kiev and Ankara implies \_ Economic Pravda. URL https://www.epravda.com.ua/rus/news/2022/02/3/682057/
- Fleming, S. (2022). European Union and the euro: A bigger global role beckons? *Transatlantic Policy Quarterly*, 21(1), 143–155. URL http://transatlanticpolicy.com/article/1128/european-union-and-theeuro-a-bigger-global-role-beckons
- Gorodnichenko, Y., Kudlyak, M., & Şahin, A. (n.d.). The effect of the war on human capital in Ukraine and the path for rebuilding. URL https://docs.iza.org/pp185.pdf
- Havrylenko, T., & Brodiuk, I. (2018). Perspectives for development of the Ukrainian light industry in the conditions of the instable external environment. *Econ Horizons*, 1(4), 28-34. DOI:10.31499/2616-5236.1(4).2018.131940
- Irtyshcheva, I., Kramarenko, I., & Sirenko, I. (2022). The economy of war and postwar economic development: world and Ukrainian realities. *Baltic Journal of Economic Studies*, 8(2), 78–82. https://doi.org/10.30525/2256-0742/2022-8-2-78-82
- Ishchuk, S., Sozanskyy, L., Liahovska, O., Koval, L., & Ryvak, N. (2022). Regional functioning specifics of the Ukrainian economy industrial sector in conditions of development instability. *Financial and Credit Activity Problems of Theory and Practice*, 6(47), 253–265. https://doi.org/10.55643/fcaptp.6.47.2022.3932
- Jensen, L. (2020). United nations development programme foreign direct investment and growth in fragile and conflict-affected countries The Role of Peacekeeping and Natural Resources. URL https://www.undp.org/library/dfs-foreign-direct-investment-andgrowth-fragile-and-conflict-affected-countries
- Kelmendi, T. (2022). Enlargement of the European Union: Lessons from Western Balkans. *Transatlantic Policy Quarterly*, 21(1), 95–102. URL http://turkishpolicy.com/article/1123/enlargement-of-theeuropean-union-lessons-from-the-western-balkans
- Khan, R.U., Saienko, V., & Tolchieva, H. (2021). Dependence of the company's reputation and the quality of customer relations. Ikonomicheski Izsledvania [Economic Studies journal], 2, 159-176. URL https://www.ceeol.com/search/article-detail?id=929552
- Kovaliuk, T., Kobets, N., Ivashchenko, D., & Kushnarov, V. (2020). Environmental monitoring and population protection from environmental factors doi:10.1007/978-3-030-48939-7\_6
- Kühn, U. (2022). War, peace, and (in)justice in the nuclear age. *Transatlantic Policy Quarterly*, 21(1), 103–110. URL http://turkishpolicy.com/files/articlepdf/war-peace-and-injustice-inthe-nuclear-age\_en\_8231.pdf
- Kushnirenko, O., Gakhovich, N., & Venger, L. (2023). Strategic scenarios for sustainable industrial development of Ukraine in the post-war period. *Baltic Journal of Economic Studies*, 9(1), 89-99. https://doi.org/10.30525/2256-0742/2023-9-1-89-99
- Lemishko, O., Davydenko, N., & Shevchenko, A. (2022). Strategic directions of the economic recovery of post-war Ukraine. *Journal of Innovations and Sustainability*, 6(2), 09. https://doi.org/10.51599/is.2022.06.02.09

Lunina, I., Bilousova, O., & Frolova, N. (2022). The development of fiscal space during the war and in the post-war period. *Ekonomika Ta Derzhava*, 4, 20. https://doi.org/10.32702/2306-6806.2022.4.20

- Martins, N. W. (2022). Is there a future for Europe? *Transatlantic Policy Quarterly*, 21(1), 157–162. URL https://www.eeas.europa.eu/eeas/future-europe-being-defined-now-0 en
- Moonseok, S. (2007). Reconstruction and Engineers on Cotton Textile Industry in Korea. In *The Review of Korean Studies* (Vol. 10). URL https://accesson.kr/rks/assets/pdf/7611/journal-10-4-71.pdf
- Moskalenko, O. (2022). How is the post-pandemic economy transforming into a post-war economy in Ukraine: challenges for economic policy and society? *Bezpieczny Bank*, 86(1), 9–32. https://doi.org/10.26354/bb.1.1.86.2022
- Nations Industrial Development Organization, U. (2009). The Impact of World Recession on the Textile and Garment Industries of Asia.URL www.unido.org
- Obelets, T., & Tsymbal, A. (2020). Light industry in Ukraine: State, problems and prospects of development. Naukovi zapysky natsionalnoho universytetu «Ostrozka akademiia» Seriia «Ekonomika», 92. URL https://core.ac.uk/download/pdf/322383101.pdf#page=92
- Okafor, C. C., Madu, C. N., Ajaero, C. C., Ibekwe, J. C., & Nzekwe, C. A. (2021). Sustainable management of textile and clothing. *Clean Technologies and Recycling*, 1(1), 70–87. https://doi.org/10.3934/ctr.2021004
- Ovcharova, S. (2022). On the relationship between digitalization and the national smart economy model to achieve strategies of innovative progress. Futurity Economics&Law, 2(3), 28–38. https://doi.org/10.57125/FEL.2022.09.25.04
- Ostropolska, Y. (2021). Problems and prospects of development of SMART economy in the Post-Socialist States (challenges of the future). Futurity Economics&Law, 1(3), 4–16. https://doi.org/10.57125/FEL.2021.09.25.01
- Reshetnikova, I., Shvydanenko, H., & Boichenko, K. (2020). Determinants to provide the efficiency of integrated development of the light industry enterprises. http://dx.doi.org/10.21272/mmi.2020.3-11
- Rubin M., Tkachenko T. (2017) Ukraine: road map for the development of the clothing and footwear industries.

https://ukrlegprom.org/files/ukrlegprom-roadmap.pdf

Puzyrova, P. V. (2021). Evaluation of the current state of innovative activities of industrial enterprises of Ukraine in the conditions of sustainable development. Formation of Market Relations in Ukraine, 12(247), 52–60. URL

https://er.knutd.edu.ua/bitstream/123456789/19405/1/PUZYR%D0 %9EVA\_12\_2021.pdf

- Reynolds, B., & Ketola, J. (2022). Dialogue for OSCE renewal shifting security back to the people. *Transatlantic Policy Quarterly*, 21(1), 111–119. URL http://turkishpolicy.com/files/articlepdf/dialoguefor-osce-renewal-%E2%80%93-shifting-security-back-to-thepeople\_en\_4172.pdf
- Selivestrova, L. S., & Parhacka, O. M. (2018). Toolkit for the formation of financial policy for the development of light industry enterprises. *Efectivina Econ*, 9. https://doi.org/10.29013/EJEMS-22-2-52-67
- Saidboriyevna, I. K. (2023). Managing the Competitiveness of Light Industry Enterprises. *Eurasian Research Bulletin*, 16, 102-104. URL https://www.geniusjournals.org/index.php/erb/article/view/3133
- Sinkkonnen, V. (2022). A fleeting glimpse of hegemony? The war in Ukraine and the future of the international leadership of the United States. *Transatlantic Policy Quarterly*, 21(1), 121–131. URL http://turkishpolicy.com/article/1126/a-fleeting-glimpse-ofhegemony-the-war-in-ukraine-and-the-future-of-the-internationalleadership-of-the-united-states
- State Statistics Service of Ukraine. (n.d.). 17 Goals to Transform Our World. Retrieved March 12, 2023, URL https://www.ukrstat.gov.ua/
- Trade Support Team. (2021). List of current Free Trade Agreements of Ukraine - Ukrlegprom. https://ukrlegprom.org/ua/news/perelikdiyuchyh-ugod-ukrayiny-pro-vilnu-torgivlyu/

Tyukhtenko, N., Makarenko, S., Savina, G., Oliinyk, N., Oleksenko, Y., & Rybachok, S. (2020). Managing the competitiveness of light industry enterprises: the case of Ukraine. *Regional Formation & Devel*opment Studies, 30(1). DOI:

http://dx.doi.org/10.15181/rfds.v30i1.2040

- Ukrainian Association of enterprises of textile and leather industry (Ukrlegprom). (2019a). Round table with representatives of the light industry of the Republic of Kyrgyzstan - Ukrlegprom. https://ukrlegprom.org/ua/news/kruhlyj-stil-z-predstavnykamyhaluzi-lehkoi-promyslovosti-respubliky-kyrhyzstan/
- Ukrainian Association of enterprises of textile and leather industry (Ukrlegprom). (2019b). Ukrainian business mission to China -Ukrlegprom. https://ukrlegprom.org/ua/news/ukrainska-biznesmisiia-v-kytaj/
- Ukrainian Association of enterprises of textile and leather industry (Ukrlegprom). (2020). *Memorandums – Ukrlegprom*. https://ukrlegprom.org/ua/memoranda/
- Ukrainian Association of enterprises of textile and leather industry (Ukrlegprom). (2021). Online textile business forum with Uzbekistan. Results - Ukrlegprom.

https://ukrlegprom.org/ua/news/tekstylnyj-onlajn-biznes-forum-zuzbekystanom-pidsumky/

- Ukrainian sustainable brands Renoon. (n.d.). URL https://renoon.com/blog/3-ukrainian-brands-with-sustainability-atheart-we-are-supporting-now
- Ukranews. (2018). Barabashovo, Fashion Globus Ukraine and Shanghai Textile Industry Association sign Memorandum of Partnership -Ukrainian News. https://ukranews.com/news/601258-barabashovofashion-globus-ukraine-y-assocyacyya-tekstylnoypromyshlennosty-shankhaya-podpysaly
- Usarek, W., Smerichevska, S., Komar, Y., Hromozdova, L., Hromozdov, V., Hromyka, R., ... & Panchenko, O. (2020). Cluster Policy of Innovative Development of the National Economy: Integration and Infrastructure Aspects. In Cluster policy of innovative development of the national economy: integration and infrastructure aspects. Monograph under the general editorship of Doctor of Economics, Professor SV Smerichevska. Wydawnictwo naukowe WSPIA, Poznań, Poland. URL http://elartu.tntu.edu.ua/handle/lib/31413
- Vines, A. (2022). Impact of the war in Ukraine: What is the future of EU -Africa relations? *Transatlantic Policy Quarterly*, 21(1), 55–66. URL

https://pure.coventry.ac.uk/ws/files/55255178/impact\_of\_the\_war\_ in\_ukraine\_what\_is\_the\_future\_of\_eu\_africa\_relations\_en\_9045.p df

- Visionary Ukrainian label TG Botanical flexes experimental techniques for its AW23 collection - Vogue Scandinavia. (n.d.). https://www.facebook.com/voguescandinavia/posts/the-10-bestexhibitions-in-scandinavia-this-autumn/573844870902537/
- Zhao, L., Zolotova, O., & Wang, C. (2022). Impact of the regional technology development and innovation on the Ukrainian light industry's export. European Journal of Economics and Management Sciences, 2, 52–67. https://doi.org/10.29013/ejems-22-2-52-67
- Berestetska, O. (2018). Analysis of the roadmap for the development of the textile industry in the region as a tool for competitive positioning in the global economy. Institute of accounting, control and analysis in the context of globalization, (3-4), 77-85. https://doi.org/10.35774/ibo2018.03.077
- Marshuk, L., Movchan, D., & Pokoiovyi, O. (2022). Peculiarities of the financial system under martial law. Economy and Society, 37. https://doi.org/10.32782/2524-0072/2022-37-61
- Marshuk, L., & Poplavska, Ye. (2019). Challenges of the insurance market in Ukraine during the war period. *Modern Engineering and Innovative Technologies*, 21–02, 26–29. https://doi.org/10.30890/2567-5273.2022-21-02-008
- Industry in Ukraine Which sectors of Ukrainian industry are recovering better. (2022). Zn.UA. https://zn.ua/ukr/promyshliennost/jakukrajinska-promislovist-dolaje-vojenni-vikliki.html

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