Integrating the Ukrainian Garment Industry into Global Value Chains: National and Regional Dimensions

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Abstract

The garment production in Ukraine is an export-oriented industry. European countries, with the share of 90%, are the major partners in readymade clothes export. Ukrainian regions with the highest export capacity are determined by calculating the location quotient and export orientation level. The competitive advantages of domestic companies are revealed based on the SWOT analysis. The features of the garment industry as a complex system are examined using the methods of cognitive analysis. The expert survey of the garment enterprises revealed opportunities to expand their share within and beyond domestic market as well as prospects for increasing added value in the total export volume.

Keywords

global value chains, garment industry, EU markets, Ukraine, regions

Introduction

The COVID-19 pandemic has caused a record economic decline in most countries in the world and affected to a certain extent all types of economic activity. According to the Macroeconomic and Monetary Review of the National Bank of Ukraine (2020), the decline in Ukrainian manufacturing in October 2020 was 5.0% compared to October 2019, at the background of weak investment demand and falling external demand for engineering and chemical products. The textile and garment industry was among those having demonstrated the biggest decline: in the first quarter, 6.6% of employed were on the unpaid leave (in manufacturing – 2.5%) and 3.6% had shorter workdays. Already in April 2020, the decline in the industry's production was almost 40%. The UKRLEGPROM (Ukrainian Association of enterprises of textile & leather industry) reported that in 2020, about 20,000 people lost their jobs. The pandemic has become a serious challenge for the further development of the textile and garment industry in Ukraine along with a range of equally impactful restricting factors of the domestic environment, such as prevailing share of imported goods, counterfeit and smuggled goods, second-hand goods, and low share of goods produced by Ukrainian companies, accounting for only 15–20%. In recent years, Ukraine has been in top-5 countries in the world by the volumes of imported second-hand goods.

The textile and garment industry is one of the important sectors of national economy, which in the pre-pandemic period provided about 5% of budget revenues and 2.6% of Ukrainian commodity exports. Therefore, it has significant potential for further development. The production of textile and garment industry accounted near 1.6% in the total processing output of Ukraine. The share of garment production in the total textile and garment industry output of Ukraine amounts to about 50%. Across regions, it varies within 37.8–63.1%.

Garment production is among the most export-oriented industries in Ukraine. The transformation of global value chains creates new challenges and opportunities for the development of the garment industry in Ukraine. Nowadays, the current trends, which are impacting the development of global value chains. include: the regionalisation of value chains; reducing the complex global value chains (the reduction of the dependence on goods made in China); increasing the number of production stage within one country (widespread the division of labour at the national level); digitisation; strengthening protectionist tendencies (reshoring); import substitution policy; and, recently, the Russian-Ukrainian war. The level of industry development determines the type of its participation in global value chains.

This paper aims to investigate the export capacity of the garment industry in Ukrainian regions and determine the factors affecting the Ukrainian industry development and growing integration into the global value chains on the stages of creating the higher value.

Literature review

There are different types of international economic networks: producer-driven and buyer-driven global commodity chains. Large sellers, marketers, and producers of brands play a crucial role in buyer-driven commodity chains and influence the setting up production cycles in a variety of countries, mostly in less developed ones. The buyer-driven commodity chains have become common in labour-intensive, consumer goods industries such as garments, footwear, toys, housewares, consumer electronics, etc. (Gereffi, 2001).

The international production networks make up chains with a number of steps. Each one creates a different value, requires different quantity and quality of labour and technologies, and can diverse geographically.

Global value chains literature emphasises (Moskowitz & Gebeke, 2007, Gereffi & Frederick, 2010, Frederick and Daly, 2019) several stages in garment and textile industries:

1) *"Cut and Make"* or "*Cut and Manufacture*" (CM) is the stage with the lowest value. The customer provides design specifications, supplies toll row materials, gives guidelines to pursue the standard, and distributes the finished goods to the final consumer.
2) *"Cut, Make and Trim"* (CMT) includes all activities from previous stage plus some responsibility in the purchase of material (zippers, buttons, etc). At this stage, a contracted company cuts the fabric, sews it together, and adds final trim.
3) *"Full Price, Full Package"* (FOB). The firm performs services from previous stages and also provides sourcing, logistics, and other services. This stage also can be called *Original Equipment Manufacturers* (OEMs), as the producer is responsible for all production activities.
4) *"Original Design Manufacturers"* (ODMs) or "*Private Label*". A producer designs collections for the customer. However, the producer is still subcontracted company that highly depends on the customer's decision and products are labelled under the customer's brand.
5) *"Original Brand Manufacturers"* (OBMs) or "*Own Label*" is the highest stage in value chain. The company produces products under own label, controls marketing, and sales activities.

Generally, there are four basic types for upward growth in global value chains: *process upgrading* is achieving more efficient production system or introducing superior technology; *product upgrading*, or moving into more sophisticated product lines; *functional upgrading* creates new functionality to increase the overall skill content of the activities; *chain or inter-sectoral upgrading* is when a company moves into new productive activities (Humphrey & Schmitz, 2002).

In garment value chains, *product upgrading* refers to the production of more complex products, such as higher value-added fashion goods. *Process upgrading* improves productivity through capital investments in machinery, reducing costs and increasing flexibility. *Functional upgrading*

is moving upwards to OBM stage, including sourcing, supply chain management, design, product development, marketing, and branding. *Inter-sectoral upgrading* means moving into another value chain. There are also such types as *supply chain upgrading* (increasing forward and backward integration in production stages) and *end market upgrading* (diversifying or expanding sales to a new geographic locations or buyers) (Frederick & Daly, 2019).

The "product upgrading" or "functional upgrading" reflects a country's progress in economic upgrading. *Economic upgrading* occurs when the following two necessary conditions are fulfilled: 1) an increase (or at least no decrease) in the world export market share; 2) an increase in the export unit value, implying the production of higher-value products. Meanwhile, s*ocial upgrading* is 1) an increase (or at least no decrease) in employment and 2) an increase in real wages (and/or an improvement of labour standards) (Bernhardt & Milberg, 2011).

According to Pickles's research (2013), economic upgrading can but does not automatically lead to social upgrading, and economic upgrading can lead to social downgrading, and vice versa. Generally, countries have benefited the most in terms of social or economic upgrading in the apparel industry when they have enacted proactive governance and regulation policies.

Nordas (2004) emphasises that the textile and clothing industry has high-value added segments where design, research, and development (R&D) are important competitive factors. They are labour-intensive and react quickly to trade liberalisation in searching low-cost labour, cheap materials, less time to production, and flexible suppliers.

At the beginning of the 1990s, countries in the Baltic region, as well as East European countries, had some comparative advantages for internationalising westward textile and clothing industry: proximity to the Europe, cheap and educated labour; strong historical tradition; and industry development. Nowadays, such advantages still exist in Ukraine's garment industry.

A large number of Lithuanian companies worked on a CM and CMT basis in the mid-1990s. For Lithuanian textile and apparel companies, the EU integration was crucial in moving up along the value chains. For instance, by 1998, before Lithuania becoming fully-fledged member in 2004, the EU liberalised its trade with this country, providing it with free access to the EU's preference system. Moreover, with the liberalisation of free trade came increased volumes of FDI from EU countries. As a result, the investments and subsidies helped modernise textile and apparel plants. Furthermore, knowledge has been transferred as a result of close collaboration with EU companies and organisations, thus allowing Lithuanian firms to expand their capabilities in production, marketing, and distribution. Consequently, Lithuanian companies in the textile and clothing industry achieved an equal (or close to equal) status with their EU partners and evolved along the industry's value chain (Moskowitz, 2006).

At the same time, any Free Trade Agreement does not always result in upgrading the garment value chains. One of such examples is Mexican model. The trade restriction began to remove with the passage of NAFTA in 1994; low labour cost made Mexico attractive to the United States' apparel manufacturers with subcontracting operations. However, Mexico has traditionally lacked the necessary infrastructure for a full-package production of garments (Gereffi & Memedovic, 2003).

Recent research has emphasised that Mexico is still characterised with higher backward participation in the textile and apparel GVC. However, China's textile and apparel industry introduces the full package strategy and attracts foreign investment in order to increase its value added. As a result, the share of China's trade in apparel and textile is growing and approaching 40% of global demand (Rodil-Marzábal et al., 2002).

Zhang et al. (2016) point out that rising wages in China have driven clothing companies to relocate their production line to the countries with cheap land and labour such as Vietnam, Indonesia, Bangladesh, Myanmar, etc.

The publication of the ASEAN-Japan Centre (2020) mentions that the lower-income countries of the Association of Southeast Asian Nations (ASEAN) tend to specialise in labour-intensive activities such as CMT. On the other hand, processes such as design and marketing are distributed in more advanced economies of the region.

Apparel manufacturing requires strong institutional support in order to develop in production cycle and achieve more value-added activities. Thus, the authors identify several forms of institutional support in China. The first one includes favourable tax reduction, export subsidy, and internal

property rights policies, which has been launched to develop the private sector. The second one is regulation of industrial upgrading standards and providing companies with a guideline to upgrade. The third form of institutional support referred to promotion cluster-based industrial policy (Zhang et al., 2016).

Moldavian textile and apparel industries also were not so successful as Lithuanian ones in moving up the value chains. There are some reasons for this. After 1989, Moldavian industries attempted to turn westward and European clothing firms turned to Moldova as a subcontractor. However, Moldova was a non-EU member and was not attractive western FDI. Secondly, it was difficult to attempt proper quality in accordance with EU standards. Thirdly, it was difficult for small enterprises to involve in global value chains. The last but not least, there were lots of internal obstacles, including weaknesses in transportation and logistics networks, customs and bureaucratic inefficiencies and costs, underdeveloped financial institutions, and destructive taxation policies. Moreover, equipment and machinery were old and in poor condition. Nonetheless, Sanford L. Moskowitz notes that "it is not clear that internal conditions are fundamental to the evolution of Lithuania's textile and apparel firms, so the assumption that Moldova's internal problems is the decisive factor in the observed stagnation of that country's clothing sector remains problematical" (Moskowitz, 2006).

Evgeniev and Gereffi (2008) found out that Turkey managed to move up from the primary commodities export role to the original equipment manufacturing role, while Bulgaria remained in an assembly export role (between 1991 and 2005). Firstly, an analysis revealed that Bulgarian companies indicated high dependency on the several most important buyers in contrast to Turkish companies diversifying their clients. Also, Bulgarian companies had comparatively higher dependency on supplies from abroad compared to Turkish ones. Moreover, a large percentage (66%) of the Bulgarian companies used agents to contact them with foreign buyers, while the same was true only for 30% of Turkish companies. In addition, Turkey developed as a full-package supplier and successful exporter due to the cooperation between state and business actors (e.g. the programme called "Turquality", initiatives that aimed at introducing additional non-tariff barriers, etc). Meanwhile, Bulgaria's state came too late in supporting the local textile and apparel industry by developing national strategies. Textile and apparel manufacturers were already facing more difficulties in coping with the international competitors as a consequence of the liberalisation of trade, especially after the membership of the country in the EU since 2007 that introduced intensified competition and application of EU regulations and standards that were difficult to meet.

Methodology

Data collection

Quantitative and qualitative data was used. This includes the statistics provided by the State Statistical Service of Ukraine in general and across its regions (about 25 indicators). In addition, an expert survey of garment enterprises in Ukraine was conducted.

The location quotient (LQ) and export orientation level of Ukrainian regions

The location quotient (LQ) is used to determine the concentration level of the garment industry within the regions compared to the country as a whole. LQ is defined as the ratio between the proportions of regional and national employment in the garment industry attributable to an industrial sector generally:

$$LQ = \frac{e_a/e_i}{E_a/E_i}$$

where e_a – the number of employees in the garment industry in the region, e_i – the total number of employees in all industries of the region; E_a – the number of employees in the garment industry nationally, and E_i – the total number of employees in all industries nationally.

The export orientation level is calculated as a ratio of the export of products to their output.

Based on the calculation of location quotient and the level of export orientation, Ukrainian regions with the highest export capacity of the garment industry have been identified.

A cognitive analysis

The cognitive analysis methods are used while researching the functioning features of the garment industry as a weakly structured system[1]. The analysis of the problem of increasing the readymade garment output and expanding the capacity of the domestic market are reduced to the research of a complex system consisting of many interrelated variables. The mathematical simulation requires the balance between the accuracy of the results and an opportunity to get detailed information necessary to develop the model (Roberts, 1976).

The use of the cognitive approach has contributed to representing in an explicit manner the multiple factors impacting the process of the readymade garment production in Ukraine. It is preceded by structuring the information in the following order:

1) researching an object and forming the base of factors impacting the development of the readymade garment industry in Ukraine;
2) constructing a cognitive map of the factors' impact in the form of oriented signed and weighted graphs;
3) researching the factors' impact on the process of readymade garment production;
4) analysing positive and negative feedback loops strengthening or countering the deviations;
5) determining the weight of factors' impact on the intensification of the readymade garment industry development;
6) determining the relationships and factors that hamper the development of the readymade garment industry.

An expert survey of Ukrainian garment enterprises

An expert survey of garment enterprises in Ukraine was conducted. 40 managers of garment companies from different regions of Ukraine were interviewed. The vast majority of the companies are small and medium enterprises (SMEs). Manufacturers' contacts were obtained through the UKRLEGPROM, the Western Ukrainian Fashion Industry Cluster, and at the exhibition Galychyna Fashion Expo (Lviv). The time frame of the survey was August to October 2020. The survey results have contributed to determining the main problems, revealing the opportunities of expanding the presence of domestic garment producers on the internal market, examining the economic expectations of the companies in the garment industry in conditions of COVID-19, and evaluating their perspectives to enter external markets.

A SWOT analysis of the garment industry in Ukraine

The analysis contributed to defining: the strengths of the garment industry in Ukraine, which currently determine the competitive advantages of the industry and should be efficiently used and developed; weaknesses, which should be addressed in making the strategic decisions; opportunities and threats, which have emerged in conditions of contemporary external challenges to the development and transformation of global value chains as well as the appearance of new global development concepts.

Results and discussion

In the pre-pandemic period, the garment industry in Ukraine was dynamically developing. It is highly export-oriented and, therefore, it is dependent on changes in world markets for goods and services. The industry growth largely depends on the number of employees and their qualification level. The location quotient revealed the regions with a high concentration of the garment industry.

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[1] In the theory of complex systems, such terms as "semi structured", "weakly structured", and "ill-structured", which are close in meaning, are used in parallel. Socioeconomic systems by their nature (essence) are dynamic and weakly structured, as they function in conditions of uncertainty and their development is associated with constant adaptation to changing conditions, which may be accompanied by a change in the structure of the system and relationships between component systems. In addition, separate relationships between the components of the system cannot be formalised.

12 out of 25 regions of Ukraine had LQ greater than 1 in 2018. The LQ greater than 2 was estimated for four regions – Zakarpatska (3.332), Khmelnytska (3.551), Chernivetska (2.818), and Lvivska (2.117) (see Figure 1).
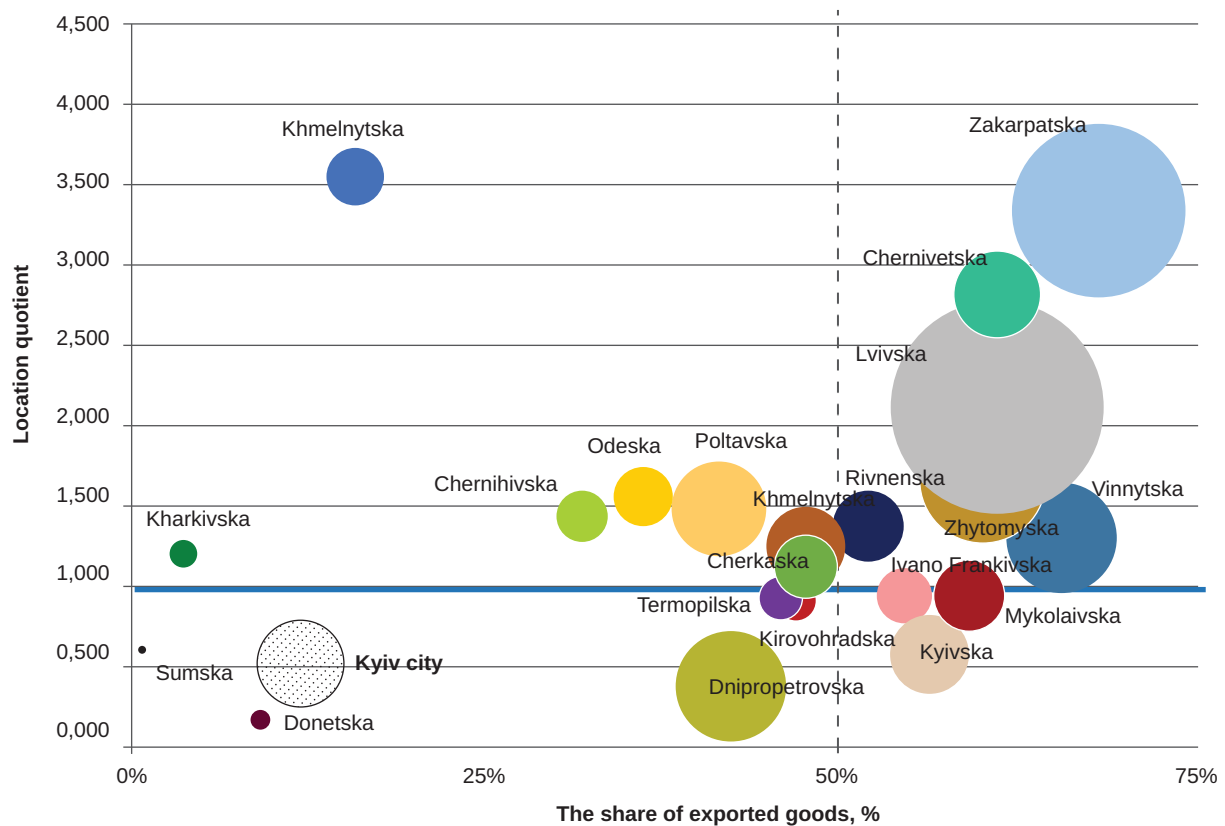
For Lukhanska, Khersonska, Zaporizska oblasts export data is unavailable.
LQ values were less than 0.5 in 2018 for all of them.

Figure 1. Location quotient, the share of exported goods in the total volume of goods produced in the garment industry of Ukraine's regions, and the share of the regions in the total export volume of readymade garments (bubble size), 2018

Source: Authors' elaboration based on data of the State Statistics Service of Ukraine.

Figure 1 shows that nine Ukrainian regions had the share of exported goods more than 50% in 2018. Regions in which location quotient values were more than 1 and the export orientation level more than 50% could be characterised with the greater export potential of the clothing industry.

6 out of 25 regions (the Lvivska, Zakarpatska, Vinnytska, Zhytomyrska, Chernivetska, and Rivnenska oblasts) have immense capacity for the export of clothing. These regions' exports accounted for 62% of the value of the total country's exports of clothing in 2018. Enterprises in border regions (the Lvivska, Zakarpatska, Volynska, and Chernivetska oblasts) accounted for almost half of the value of the total garment exports. It worth noting that the number of employees in the garment industry in the Volynska oblast has dramatically increased during 2016–2018, as well as its garment exports volume. However, the share of the export orientation of the Volynska oblast was 48% in 2018. Accordingly, the regions of Ukraine bordering Poland, Slovakia, Hungary, and Romania stand out among the other regions by volumes of garment production as well as the number of employees.

However, border regions of Ukraine have shown a decline in the share of garment exports of 61–62 product groups[2] in the total volume of region export during 2015–2019, with the exception

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[2] According to the Ukrainian Classification of Goods for Foreign Economic Activity (UCGFEA), which is used by the customs authorities of Ukraine for the classification (coding) of goods in customs clearance. Product group 61 – Articles of apparel and clothing accessories, knitted or crocheted; product group 62 – Articles of apparel and clothing accessories, not knitted or crocheted.

of the Volynska oblast. At the same time, the absolute value (in thousand USD) of the garment export has increased. In particular, exported apparel of the Volynska oblast increased by 2.2 times, the Lvivska oblast – 1.3 times, the Ivano-Frankivska oblast – 1.2 times, the Chernivetska oblast – 1.1 times, while the Zakarpatska oblast remained unchanged. Moreover, readymade garments are in the top three of commodity exports of the Chernivetska, Zakarpatska, and Lvivska oblasts.

European countries are the main trade partners of Ukraine's exports of readymade clothing. In 2021, the top countries for export of clothing were Germany, Poland, Denmark, Romania, and France. Furthermore, Germany accounts for 30% of exports in the group 61 (articles of apparel and clothing accessories, knitted or crocheted) and the group 62 (articles of apparel and clothing accessories, not knitted or crocheted).

The geographical structure of import is more diverse, including EU Member States, Asian countries, and African countries. China as well as Turkey are the largest importers of product groups 61–62 to Ukraine. The share of imported readymade clothing was 49% for both of these countries in 2021. Besides, the share of Turkey in the import of readymade clothing and footwear had tripled in 2019 compared to 2016. Also, in 2021, the share of readymade clothing imports from Bangladesh totalled 9%, and Poland was the fourth (3% in total import of clothes to Ukraine).

One of the peculiarities of the development of manufacturing in the border regions of Ukraine is processing toll raw materials and subsequent export of finished products. In general, within the border regions of Ukraine, the exports of goods by the product groups – XI. Textile materials and products – XII. Footwear, headwear, and umbrellas – XVI. Machinery and mechanical appliances; electrical equipment; parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles are all characterised by the highest shares in exports of finished goods made from tolling raw materials. The share of such goods in the total exports can be up to 95–99%.

Generally, integration into value chain, particularly at some of its links, is a peculiar feature of garment industry development in Ukraine (see Figure 2).
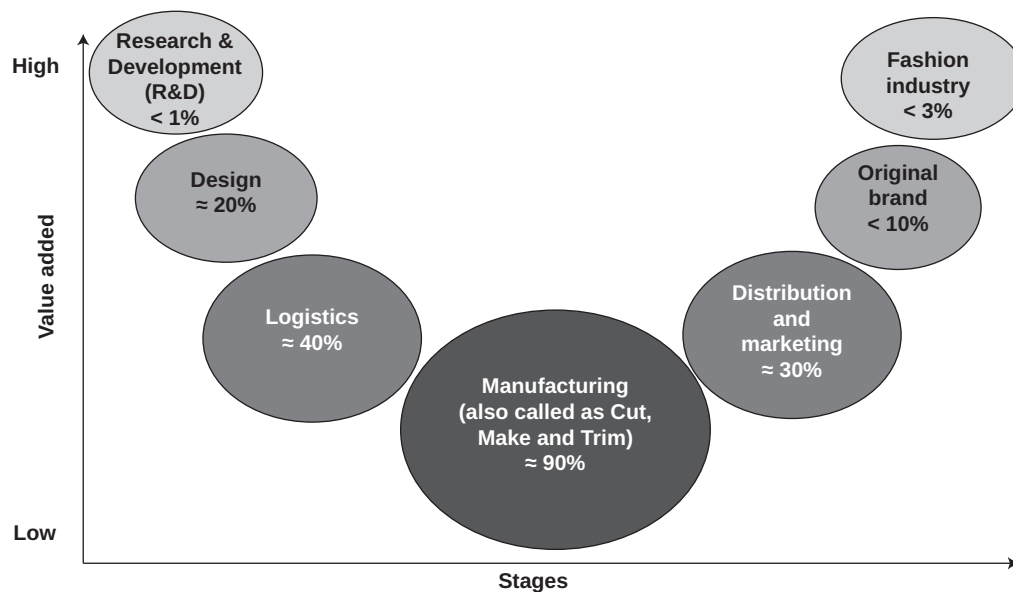

Figure 2. The participation of Ukrainian garment enterprises in global value chains, by stages

Source: Authors' elaboration based on data of the State Statistics Service of Ukraine and expert survey.

The "Smiling curve" has been used to analyse the participation of Ukrainian garment enterprises in global value chains (Shih, 1996). The vast majority of enterprises are integrated into value chains at the production stage. The share of enterprises that implement innovations is about 1–1,5%. Less than 10% of enterprises are integrated into value chains at the stages of the development of new technologies for production, fabrics, recycling, original brand creating, which are well-known at the national and world levels. Therefore, the share of value added created by Ukrainian companies in the global value chains is insignificant.

In 2020, the share of the imported garment accounted for two-thirds of the Ukrainian market. Garment exports (in relation to the domestic market capacity) slightly reduced during 2016–2020 (from 49.91% in 2016 to 32.64% in 2020). Meanwhile, during the pandemic, the ready-made clothing segment still dependent on import, in particular raw material, and the condition of the European garment market (see Figures 3–4).
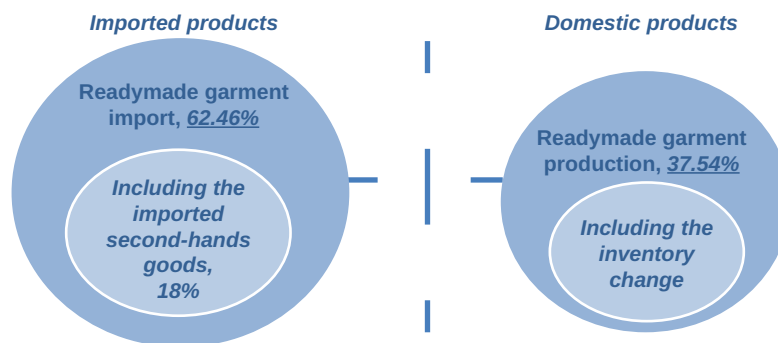
Figure 3. The structure of the readymade garment supply on the domestic market of Ukraine in 2020

Source: Authors' elaboration based on data of the State Statistics Service of Ukraine.
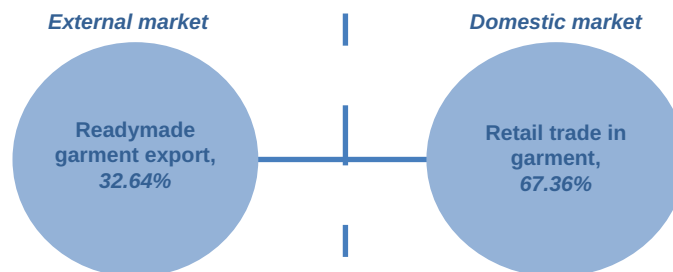
Figure 4. The structure of demand for the Ukrainian readymade garment in 2020

Source: Authors' elaboration based on data of the State Statistics Service of Ukraine.

An analysis of the change in main parameters of the readymade garment industry development in 2010–2019 (in the pre-pandemic period) in Ukraine and across regions has contributed to defining the main 16 factors impacting the readymade garment production development in Ukraine (Pr). They include the retail trade in the garment (Rt), the export of readymade garment (Ex), the import of readymade garment (Im), the import of used garment (second-hand) (ImSH), the import of raw materials for the readymade garment production (ImRM), the number of employees in the industry (Empl), the cost of fixed assets (FA), capital-labour ratio (CA), capital investment (CaInv), fixed assets depreciation (DepFA), labour productivity (LProd), households' expenditures on the garment (HExp), the income of the population (Inc), average salaries in the industry (AvS), the number of students by specialties "garment manufacture", "light industry technologies", "fashion design" (Stud), and distance to the state border (Br)[3].

The cognitive map of the functioning of the readymade garment industry is developed in the form of the oriented weighted graph , with the nodes representing the factors and arcs showing the casual relationships that demonstrate the impact of one conceptual variable on the other.

Figure 5 shows the cognitive map of the functioning of the readymade garment industry. The weights on the arcs are the coefficients of pair correlation between the parameters of respective nodes of the arc. The time lag was considered in the process of estimating the coefficients of correlation.

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[3] Starting since 2015, the prevailing share of export has been oriented on the European market; therefore, the distance between the region and the closest checkpoint on the state border with EU Member States was taken into account.
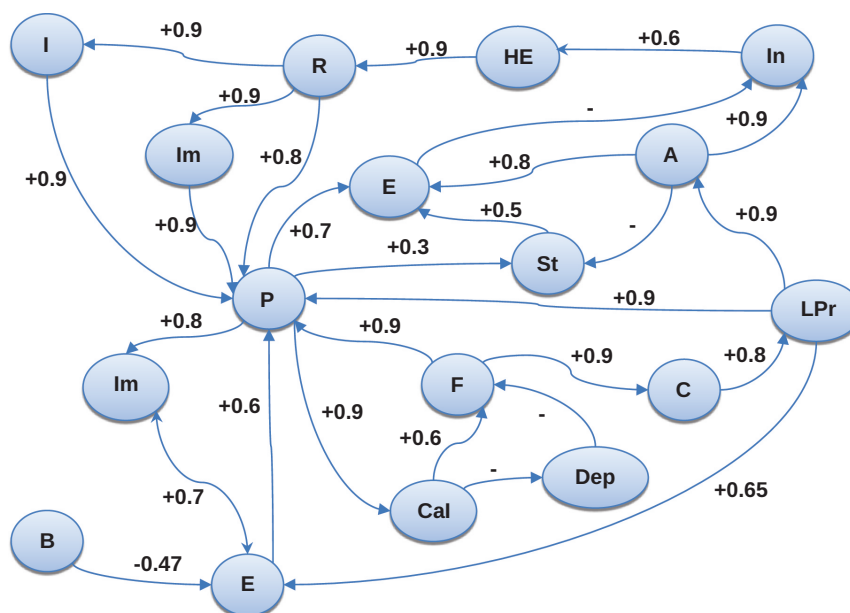
Figure 5. The cognitive map of functioning of the readymade garment industry in Ukraine

Source*:* Authors' elaboration.

The analysis of the cognitive map has contributed to revealing the incentives and disincentives for the readymade garment production and examining the resilience of some arcs in the graph. The results of the conducted research will be outlined below. The demand and supply factors impact the output in the first place is as follows:

$$\text{Pr} \Longrightarrow \begin{cases} Demand\_Factors\_(Rt,Ex) \\ Supply\_Factors\_(FA,Empl,ImRM) \end{cases}$$

The analysis of the cognitive map has contributed to revealing the positive and negative feedback loops as well as the level of certain factors' impact. Nowadays, less than half of output is sold on the domestic market. Meanwhile, the imported goods are more sensitive to the expansion of the domestic market capacity:

The expansion of the domestic market capacity $\Longrightarrow \begin{cases} \uparrow Rt \underset{+0.84}{} \uparrow Pr \\ \uparrow Rt \underset{+0.99}{} \uparrow ImG \\ \uparrow Rt \underset{+0.96}{} \uparrow ImSH \end{cases}$

The income of the population is the major factor impacting the volumes of retail turnover: ↑ Inc $\Longrightarrow$ ↑ Hexp $\Longrightarrow$ ↑ Rt. Meanwhile, growing income is the key task and result of the efficiency of economic policy in the country, strengthened by the time factor of the implementation of necessary policy measures. Moreover, the garment represents the goods with low elasticity, which is confirmed by the correlation coefficient $- k(Inc, HExp) = 0.66$[4]. Therefore, the use of marketing instruments of impact on the domestic consumer behaviour that would help partially reorient the consumption from imported goods on the same goods by quality and price produced domestically is among the ways to develop domestic production. The growth in the income of the population will, in the first place, impact the reduction of the share of second-hand goods on the market of the country.

The garment industry – especially in regions bordering Poland, Slovakia, Hungary, and Romania – is strongly export-oriented. Therefore, its development is particularly sensitive to the condition of the external markets of the textile and garment goods. Export deliveries since the start of the COVID-19 pandemic have helped to soften the consequences of falling sales volumes on the domestic market. Meanwhile, the export of products is currently determined, in the first place, by the volume of demand for goods manufactured on toll and the distance to European markets, while to a lesser extent – by the level of technological and economic efficiency in the industry:

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[4] $k(v_i, v_j)$ – arc weight *k(Inc,HExp) = 0.66* – coefficient of pair correlation between the factors.

$$\begin{cases} \uparrow ImRM \xrightarrow{+0.78} \\ \downarrow Br \xrightarrow{-0.47} \\ \uparrow LProd \xrightarrow{+0.65} \end{cases} \Longrightarrow \uparrow Ex$$

Domestically-produced goods are not competitive on the domestic market, in the first place due to high production cost determined by low efficiency. The efficiency level, in its turn, is determined by the capital-labour ratio. It is quite a challenge to increase capital investment in manufacturing in the nearest future due to prevailing micro and small companies in readymade garment production, low production efficiency, and high investment resources cost. Therefore, primary efforts should be directed at increasing the share of domestic producers on the Ukrainian market.

The industry's development is impossible without the available qualified staff on the labour market. Yet, the analysis of the cognitive map shows that nowadays the growing demand for the staff of respective qualification cannot be met to the fullest extent:

$$\uparrow Pr \Longrightarrow \begin{cases} \xrightarrow{+0.75} \uparrow Empl \\ \xrightarrow{+0.3} \uparrow Stud \xrightarrow{+0.5} Empl \end{cases}$$

The existing system of staff preparation does not correspond to the market requirements and is late to react to the growing demand, in the first place for product engineers, technologists, and designers. The problem can be solved by increasing the public procurement of the staff training by respective qualifications. Ukrainian garment enterprises will not be able to increase their share in global value chains at stages with higher added value without attracting more qualified and educated personnel.

The mentioned problems of the readymade garment industry development are essential obstacles to increasing the output of competitive products both on domestic and external markets. It is important to take into account the current economic expectations of the representatives of the entrepreneurship environment when developing the system of primary measures to stimulate the industry development.

According to the respondents, strong dependence on imported raw materials is an essential factor that restricts industry development. Yet, 51% of companies use mostly imported raw materials in their activity, and 21% base their production solely on the imported raw materials. Nowadays, Ukraine does not have its developed raw material base: cotton and synthetic fibre production as main components in fabrics manufacturing.

Most of the surveyed producers are actively trying to diversify their activities and sell their products both on domestic and external markets. Meanwhile, the share of goods sold on the domestic market prevails. The companies oriented solely on the external market were much stronger affected by the crisis related to COVID-19, while some have ceased to operate (see Figure 6).
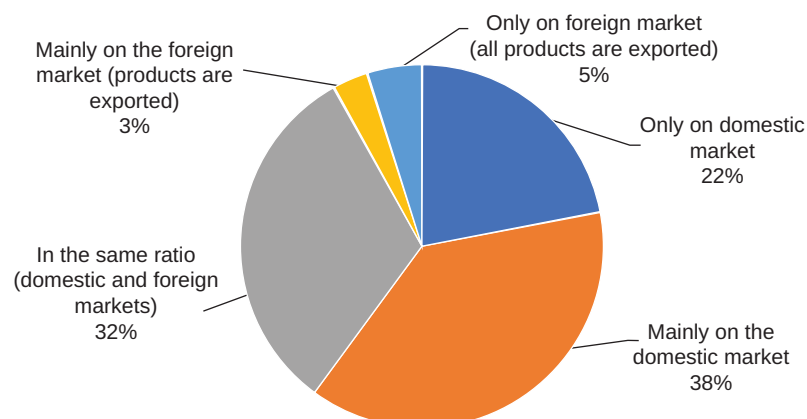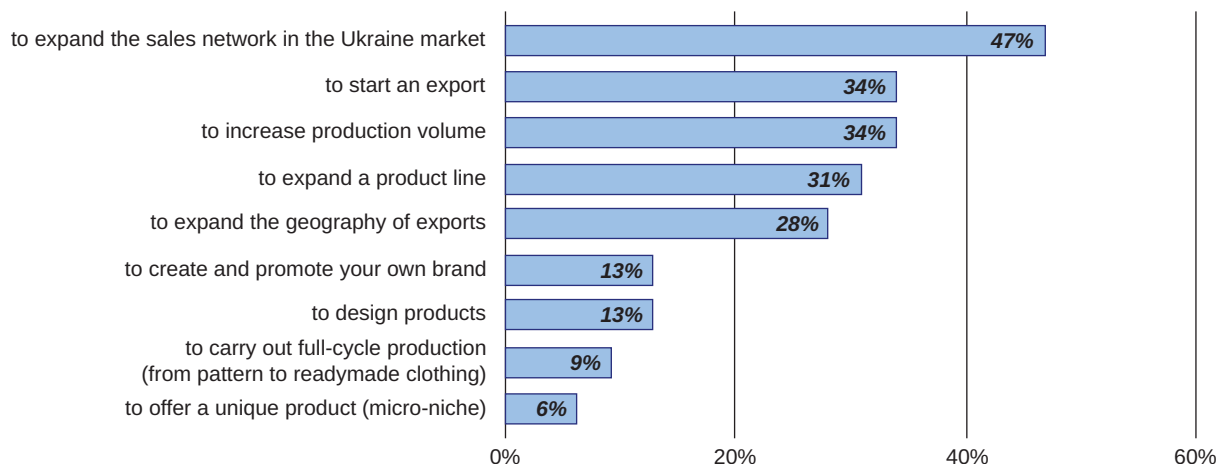

Figure 6. The distribution of answers to the question: "Please specify where your company sells produced products (export to other countries or sell on the domestic market)?"

Source: Based on the expert survey.

The survey contributed to evaluating the perspectives of entrepreneurship development in ready-made garment domains. Answering the question "Are you planning to expand the activity in the nearest two-three years?", one-third of the respondents mentioned that they had planned to expand their activity before the quarantine caused by COVID-19 threatened their plans (36%), while 10% did not plan to expand. It is worth emphasising that despite the instability and unpredictability of market development, 54% of the surveyed companies still tend to expand their activity in the nearest two-three years.

Companies that want to grow will do it by expanding the sales chains on the Ukrainian market (47%), increasing the output (34%) and diversifying the range of products (31%). Another one-third indicates the intention to start an export of their products (34%), and the quarter – to expand the geography of export countries (28%) (see Figure 7).
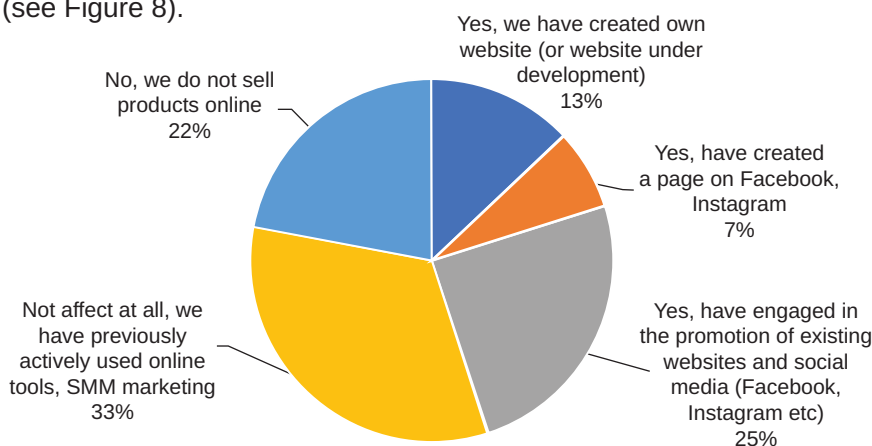

Figure 7. The distribution of answers to the question: "If you are planning to grow, please specify in which way?"

Note: The respondents were allowed to select more than one answer
Source: Based on the expert survey.

During quarantine, some producers have intensified the use of online channels for product sales. The survey shows that most of the respondents have actively used online tools and SMM marketing for a long time. Every fifth producer has launched either its website or page on Facebook or Instagram (see Figure 8).

Figure 8. The distribution of answers to the question: "Did the quarantine due to COVID-19 encourage the use of online tools for selling products?"

Source: Based on expert survey.

The respondents' view on the tools which local authorities have to establish in order to support entrepreneurship development is also important. About half of the respondents have mentioned that assisting in participation in exhibitions, festivals, and fairs in the neighbouring EU countries by

co-financing or partial reimbursement of the cost of participation as well as trade missions is essential support from local governments. The support is relevant for producers that are already exporting their products or intend to enter international markets. The issues of allocating trade areas and centres for domestic producers (40%) and their promotion in the region (38%) are more relevant to companies oriented towards the domestic market (see Figure 9).

Figure 9. The distribution of answers to the question: "What kind of support provided by the local government is necessary for fostering your enterprise?"

Note: The respondents were allowed to select more than one answer
Source: Based on expert survey.

The readymade clothing industry is mainly represented by small business entities, so the establishment of various forms of cooperation will help to increase the competitiveness of their products. First of all, it concerns clusters. Two-thirds of the managers in answering the question "Is your company involved in any forms of cooperation?" said that enterprise did not involve in any form of cooperation; 26% were the members of a cluster association, 21% – subcontractors, and 3% – members of a joint venture. In our survey, six companies were subcontractors as well as cluster members.

Typically, companies benefit from vertical and horizontal linkages in a cluster. The formation and development of clusters and cluster initiatives will contribute to the opening of new opportunities to enter international markets in order to find business partners and investors. Joining the efforts of cluster members within the framework of one value chain allows them to become more competitive, to increase the production capacity of the industry, and to expand the number of jobs. Nowadays, seven textile and apparel industry clusters are registered in Ukraine.

Based on the study of the garment industry development factors and the results of an expert survey, the SWOT analysis of the development of the garment industry in Ukraine is carried out. Its results are presented in Table 1.

Nowadays, key challenges in the textile and garment industry are mainly connected with war. As a result of the Russian invasion of Ukraine on 24th February, 2022, nearly 60% of textile and garment industry companies either have closed or operated intermittently.

In response to these challenges, the Ministry of Economy of Ukraine has launched an enterprise relocation programme. Currently, business entities can relocate to one of the nine regions (the Zakarpatska, Ivano-Frankivska, Lvivska, Ternopilska, Khmelnytska, Chernivtska, Vinnytska, Volynska, and Rivnenska oblasts). The relocation programme provides state assistance in searching for production facilities, staff relocation and resettlement, and searching for employees in the destination region. The Ministry of Economy received 1,424 applications from enterprises in April 2022, most of the companies being from the processing industry – food, textile and apparel, chemical, metalworking, woodworking, and the IT field.

Table 1. The SWOT analysis of the capacity development of the garment industry in Ukraine

STRENGTHS	WEEKNESSES
– strong historical traditions of garment production; – developed network of educational institutions (training system); – high share of employment relative to other regions (location quotient) (especially in border regions); – geographical location (proximity to the EU countries); – low wages; – tendencies to the formation of clusters and cluster initiatives; – the prevalence of small and micro enterprises, able to respond quickly to market needs; – developed network of highways; – quick adaptation for domestic demand (e.g. sewing the uniform, unloading vests and thermal underwear, etc.)	– the lack of own developed raw material base (high dependence on imported raw materials); – integration into value chains at the stage of production by processing toll raw materials; – the technological backwardness of most enterprises in the industry; – the lack of highly-qualified workers (technologists and designers); – the low competitiveness of products by price factor; – negative consumers' attitude towards domestic goods: "domestic – low quality"; – maintaining differences in technical standards, standardisation and certification systems, veterinary and environmental control with EU countries; – the outflow of personnel abroad (which was intensified by the war); – partly destroyed infrastructure (roads, railways, buildings, warehouses, etc.), damaged equipment; – decline in household income.
OPPORTUNITIES	THREATS
– prospects for expanding foreign goods markets ("made not in China"; supply flexibility); – the development of new sales tools (online); – expanding the presence in the domestic market (import substitution policy); – the development of brands by domestic enterprises; – companies' relocation to the western regions of Ukraine; – government and local authorities' support for companies' relocation to the western region of Ukraine.	– the intensification of competition from cheap clothes from China, second-hand, grey imports; – the reduction of global consumer demand for products (the concept of sustainable development); – the development of new technologies for the production of fabrics, clothing, waste management (the formation of a new model of economic development – circular economy); – the signing of the Agreement on the establishment of a Free Trade Zone with Turkey; – price increase in fabric imports due to Russia's blockade of Ukraine's ports and change in supply chains as well as transportation routes; – uncertain and unpredictable political and economic situation due to the war in Ukraine.

Among threats mentioned in Table 1, there is a Free Trade Agreement between Ukraine and Turkey. The Agreement was signed on 3rd February, 2022, and will enter into force after ratification by the parliaments of both countries. Domestic textile and clothing producers might face difficulties, because the Turkish textile and apparel sector is well-developed and export-oriented. However, according to the Agreement, transitional periods for most sensitive products are applied in on average five years. Thus, it is enough time to prepare and make strategic reorientation. Under these conditions, for instance, UKRLEGPROM is strengthening cooperation with EURATEX, which has launched EU–Ukraine Textile Initiative (EUTI) on 9th May, 2022. EUTI is designed to expand relationship between European and Ukrainian textile and garment companies and offers a single contact point for Ukrainian companies who seek support and cooperation with EU counterparts, and conversely.

Conclusions

The garment industry in Ukraine, particularly in its border regions, has a significant potential for growth. The prerequisites for its development are historically-formed – the traditions of garment production have been preserved in large cities (Kyiv, Lviv, Kharkiv, etc). Nowadays, the border regions of Ukraine (the Volynska, Lvivska, Zakarpatska, Ivano-Frankivska, and Chernivetska oblasts) account for about 22% of textile and garment industry goods production; about half of all exports of readymade clothing are provided by enterprises in regions bordering EU Member States. Among the other Ukrainian regions, the border regions differ both in terms of garment production volume as well as the number of employees. Today, location near the EU border is a significant competitive

advantage for entering foreign markets and keeping apparel enterprises afloat, saving the workplace and payment of taxes, which is vital for the country's economy, which is currently at war.

Manufacturing the export products on toll and strong dependence on the imported raw materials make the industry especially sensitive to the change of conditions, particularly on the European goods market. 51% of enterprises use raw materials mainly of foreign origin. The largest suppliers of raw materials are Turkey and China. One-third of enterprises use fabrics from Italy, less than a quarter – from Poland. It is urgent to develop a purposeful policy for the development of its own raw material base, primarily flax and wool. In addition, the existing training system needs radical changes in accordance with modern market requirements.

The EU–Ukraine Association Agreement has significantly reduced trade barriers. From the beginning of 2016–2017, regions of Ukraine are increasing the volume of exports. However, the low level of the competitiveness of Ukrainian goods does not allow taking full advantage of the Agreement, especially in the readymade clothing export. The vast majority of Ukrainian enterprises are still integrated into value chains at the production stage. Taking into account the experience of the development of the garment industry in the Baltic region, East European countries, East Asia countries, etc., Ukrainian companies should focus on full-package production, which includes not only the procurement of the raw materials and sewing, but also design activities. For this reason, it is necessary to invest in technology equipment, the implication of digital technologies, skilled labour, and local designers. Foreign direct investments as well as internal investments can be a driver for such processes. This will contribute to upward growth in global value chains by process, product, and functional upgrading. COVID-19 has ambiguous effect on the development of the garment industry:

– The textile and garment industry has shown the greatest decline: in the first quarter – 6.6% of employees were left without pay (in manufacturing – 2.5%), 3.6% – worked part-time. In April 2020, the decline in production volume was almost 40%.
– At the same time, the pandemic has provided the possibility for expanding the share of Ukrainian goods on the domestic market. Ukrainian companies have become more active in using new marketing tools, have opportunities to enter foreign markets by positioning products as "made not in China", and the proximity to European markets gives the ability to deliver in two-three days.

The national economy has been adapting to a new reality of COVID-19 pandemic during. Unfortunately, a new and more devastating challenge has risen, namely the Russian invasion of Ukraine on 24th February, 2022, which caused a significant decline in economic activity. McDougal (2010) pointed out that any decision of the production process depended on three primary factors: the proximity of the battlefront, the actions of the combating forces in relation to the company (e.g. when the rule of law was weak, the company could lose it property or capital because of the damage made by looters), and the market value of the produced good.

Thus, the garment industry of Ukraine is adjusting to the new realities of development in wartime conditions. These are: an increase in prices for raw materials on account of the disruption of the existing supply chains; changes in the transportation cost due to higher oil prices; the outflow of residents mostly – women with children – from the combat frontier (women are the main labour force in the textile and garment industry); inability to operate in areas where there are active hostilities, destruction of infrastructure, equipment, warehouses; the impoverishment of the domestic population. Moreover, import of readymade clothing has decreased by almost 60% during the war.

Nevertheless, the prospects for the development of garment enterprises are in the design, original brand, and marketing stages of the value chain due to higher added value in comparison to the cut, make, and trim stage. Before the war, the manufacturers of readymade clothing who took part in the survey were positively oriented. Half of the them intended to expand their activities in the following few years by expanding the sales network in the Ukrainian market. In their opinion, local authorities' assistance in the allocation of retail space or centres for national producers as well as promotion in the region plays a pivotal role in supporting domestic garment entrepreneurs. Meanwhile, the information and financial support is more important for the development of enterprises focused on foreign markets (e.g. partial coverage of costs for participation in exhibitions, festivals, and fairs abroad).

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