

# Digitalization of the Economy as a Factor of Sustainable Development in the Regions of Russia and Belarus



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**Abstract** The purpose of the study is to justify the prerequisites and priority lines for the transformation of regional cooperation between countries in the context of global digitalization. The objective of the study is to assess the foreign economic potential in the system of integration cooperation between the regions of Russia and Belarus, on which the contribution of the digital technologies to be introduced in small and medium-sized enterprises (SMEs) to the macroeconomic parameters of the national economy, including the scope and nature of diffusion of SMEs foreign economic activity, is contingent. Economic and statistical studies were conducted in the composed information-analytical environment, mainly using the example of the Mogilev region. Studies have found out that the introduction of digital technologies in business processes is a driver of the performance of SME's foreign economic activity amidst the regional integration of the Russian Federation (RF) and the Republic of Belarus (RB). It has been established that both information communication tools under use (electronic document flow management, application of e-commerce platforms to gain access to international markets), and the very concept of arranging a foreign economic activity need changes. The study revealed a low involvement of the region in the foreign trade turnover of the republic; inertia and geographical imbalances in the foreign economic turnover and its commodity composition; under-utilization of potentials of cross-border cooperation, including SME, organizations of free economic zone "Mogilev" (enterprises of machine engineering, construction, wood-processing, highway transport industries). The foreign economic activity of SME in the Mogilev region is distinguished by a prudent approach to the product range structure of export and import turnover with a high share of intermediate and

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food products and a low proportion of investment and high-tech goods. To solve these problems, governments of the countries in the segment of SME's foreign economic activity approved the introduction of economic digitalization tools that would ensure the sustainable development of the regions.

**Keywords** Economy · Digitalization · Sustainability · Factor · Regional development · Cooperation between russia and belarus

**JEL Codes** C29 · F61

## 1 Introduction

One of the priority areas of the digital economy is the composition of an information-analytical environment for the management of the foreign economic activity of countries. A coordinated digital policy of the Republic of Belarus and the Russian Federation will help to avoid the emergence of digital barriers in the relations between SMEs of different countries [1]. The current importance of digitalization in the segment of interregional cooperation between economies hinges on cross-country barriers to be overcome and the conditions for small businesses and consumer welfare to be improved [2].

Digitalization in inter-regional cooperation of countries reduces transaction and supply costs; facilitates the solution of multivariate problems of choosing a supplier and consumer; improves the range of export-import operations; establish conditions for high-speed document flow management and paperless trade with an account of optimized stocks of raw materials and finished products, which ultimately contributes to the attainment of the recommended proportions, receivables and payables, positive and negative cash flows [3]. The urgency of creating a digital environment for regional economic relations is explained by the need to implement strategies on the support of sustainable regional development, leaping globalization processes, as well as sanctions in the global economy [4].

The system of digital integration at the state level, including the Russian Federation and the Republic of Belarus, has created new opportunities and premises for the development of international trade cooperation [5].

## 2 Methodology

Statistical data during the research was taken from the Federal State Statistics Services of the Russian Federation and the Republic of Belarus. The legal and statutory regulation of procedures for the development of the digital environment is stipulated within the National List of Indicators, the Sustainable Development Strategy of the Mogilev Region and the High-Tech Park Development Strategy (HTP), approved

by the Decree No. 8 of President of the Republic of Belarus “On the Development of the Digital Economy” on December 21, 2017 [6]. Regional nuances of economic activities were evaluated through statistical and economic-mathematical simulation.

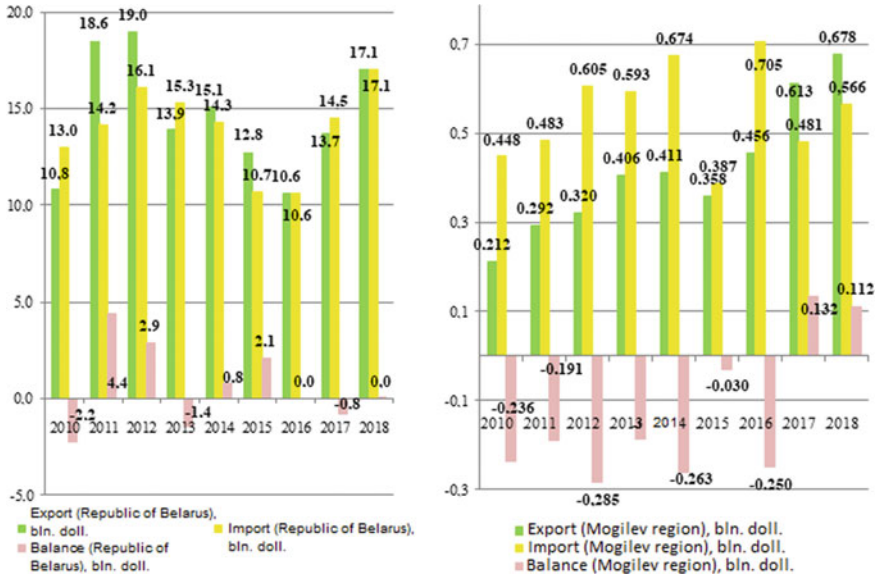
### 3 Findings

The potential of inter-regional cooperation of the Mogilev region within integration between Russia and Belarus has some features identified in the study of the foreign economic potential of the Mogilev region in the system of inter-regional cooperation of Russia and Belarus: negative trend and a low share of the Mogilev region in the macroeconomic indicators of the international trade turnover of the Republic of Belarus; growing proportion of export turnover relative to GRP under a value close to the level of Belarus; the concentration of exports of the Mogilev region across 5 regions of the Russian Federation in 2018 made up 87.53%, which matches a high level of market risks; ambiguous assessment of the level of economic ties between the regions of Russian-Belarusian integration (in particular, the largest volumes of foreign trade turnover of the Mogilev region accrue to Moscow, Central, Volga and North-West federal districts; a high percentage of SMEs in macroeconomic indicators of foreign trade activity of the region under research; commodity pattern of foreign trade turnover of the Mogilev region is prevailed by intermediate food products, at the same time a low share of investment high-tech products; lagging development of foreign trade at the border of Russia and Belarus; underutilization by SMEs of the infrastructural capabilities of digitalization provided by free economic zones the Mogilev region; unavailable large-scale SME development projects at the territories near the border of Russia and Belarus [5].

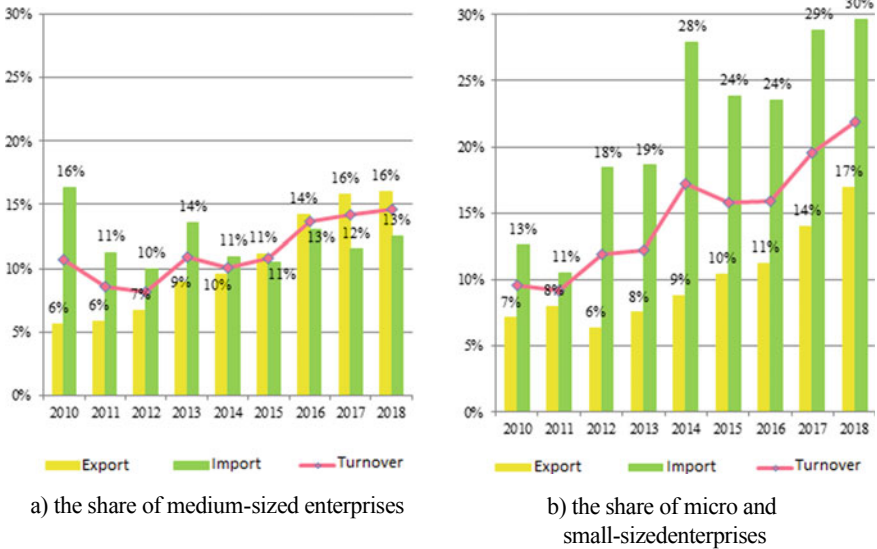
A high-potential platform for the introduction of digital technologies is the foreign economic activity of small and medium-sized enterprises [7]. SMEs make a sizeable contribution to the growth of macroeconomic parameters of foreign trade cooperation between Belarus and the Russian Federation in the system of sustainable development indicators of the national economy and regions. The export of goods by SMEs in the republic amounted to \$ 17.1 billion as of 2018, which is 24.8% higher against 2017; in the Mogilev region, the above parameter is estimated at \$ 0.678 billion (a 3.96% share in the regional export) and 10.6% increase (Fig. 1). The import of goods by SMEs across the republic did not change and showed a slightly positive balance of foreign economic turnover at \$ 19 million; in terms of the Mogilev region: \$ 0.566 billion (share in the import pattern 3.31%); the positive balance of \$ 0.112 billion.

A positive trend was discovered in the volumes of export and import of goods by SMEs. The average annual growth rate made up 105.9 and 103.5% respectively, which corresponds to a positive foreign trade balance.

Structural imbalances in the growth of foreign economic development parameters of the Mogilev region by SMEs incorporation forms have been highlighted (Fig. 2). The proportion of medium-sized enterprises in the foreign trade turnover of the Mogilev region is found at 14.6%, micro and small enterprises—at 21.9%.



**Fig. 1** The volume of foreign trade in goods of micro, small and medium-sized enterprises, billion dollars. *Source* [17]



**Fig. 2** The dynamic pattern of SMEs' share in the foreign trade of the Mogilev region over 2010–2018, percent. *Source* [8]

The exports of medium-sized enterprises demonstrate a positive trend (basic increase in the share of 10.4 p.p.; chain increase—0.2 p.p.), micro and small enterprises (basic increase in the share of 9.8 p.p.; chain—2.9 p.p.).

As for medium-sized enterprises, imports overrun exports and shaped a negative balance up to 2015; the subsequent core indicator marked a positive balance of export-import operations in this segment of SMEs. The outstripping growth of micro and small enterprises in the turnover of imports of goods in relation to the export trend provided a negative balance of foreign trade in this sector of SMEs. In 2018, the import-export pattern of the Mogilev region was mainly represented by the chemical industry, agricultural raw materials, and processed products, as well as industrial equipment.

Foreign trade turnover of micro, small and medium-sized enterprises of the Mogilev region was mentioned in many segments of the regional cooperation of the Russian Federation. SMEs of the region were marked by large amounts of foreign trade turnover in many regions of Russia. For instance, in 2018, the Mogilev region supported trade relations with 77 Russian regions, in 47 of them export deliveries increased [5]. In 2018 within the concluded Agreements the region aggressively cooperated both with the neighboring regions like Smolensk (export growth rate of 121.8%) and Bryansk regions (114.9%), as well as Moscow (93.1%), St. Petersburg (136.4%), Moscow (111.2%), Leningrad (86.1%), Rostov regions (104.5%) [8]. The findings of statistical analysis showed a significant proportion of the foreign trade turnover of SMEs with the republics of Tatarstan and Bashkortostan, the Nizhny Novgorod and Samara regions [5].

At the district level, the largest volumes of foreign trade accrue to Mogilev and Bobruisk; Mogilev district; Kostyukovichskiy district; Goretskiy district; Osipovichskiy district; Kirovskiy district, Bobruisk district [8].

The product range structure of SME's foreign trade turnover with the Russian Federation is relatively stable. The products of chemical industries, machine and instrument engineering, metallurgical industry, as well as the light and food industries (including dairy, meat, and processed meat products), construction and woodworking industries. Vertical analysis of the commodity pattern of the foreign trade turnover of the Mogilev region and Russia exhibits the low turnover of investment goods and high-tech products [5].

In the field of the digital economy, the regions cooperate within the following directions [9].

Information penetration in local government and self-government bodies of the Mogilev region of Belarus within e-government services. The information space of local government and self-government bodies of the above region is shaped as a corporate information network of local government and self-government bodies with 70 local computing networks of all regional executive authorities and 179 local Councils of Deputies, including 155 rural Councils of Deputies, connected.

At the regional level, information communication is provided by five licensed regional information services operating based on a server cluster located in the switching center: corporate mail; regional Intranet portal; a regional system of

unified communications; a departmental system of electronic document management; regional server of the automated information system “Local Councils of Deputies”.

The regional Intranet portal created 114 nodes of regional executive committee divisions and other collective workgroups for 900 users with information collection systems at the executive level of the Mogilev region of the Republic of Belarus, the city of Mogilev, and the Mogilev district automatically generating summary reports.

The departmental system of electronic document management “Electronic Business” implemented with one access point in the switching center of the corporate network has 836 client places. Under Decree of the President of the Republic of Belarus No. 157 on April 4, 2010, the document management system is integrated with the same interdepartmental system of state bodies.

The site of the Mogilev regional executive committee of the Republic of Belarus is the largest and most often used information resource of the region (over 90 thousand unique visitors, over 290 thousand views per month).

In addition to keeping the main information sections of the site attached to the structural divisions of the regional executive committee up-to-date, the portal annually publishes over 200 news pieces (more than 70% of them are copyright) and 120 author’s photos (on the life of Mogilev and the region) and weekly presents video-news. Most news articles are used by local newspapers, radio, and television for making up their newscasts. The site is closely integrated with social networks (own youtube and twitter channel), which allows sharing news and photos with others in a couple of clicks.

In 2018, electronic administrative procedures in relation to SMEs reached 75% of the total number; blocks of open data of state bodies and organizations accounted for 100 units.

Digitalization of SME business processes in the foreign trade: the feature set of Web site “Unified State Register” (<http://egr.gov.by>) has been expanded with some electronic procedures (for example, a notification on a change of location, manager (another person) authorized to act on behalf of the organization); checking the data contained in the USR on the business entity of interest; drawing up an application for submission in person or by mail.

SMEs are enabled to send documents for liquidation (termination of activity) through the USR web site.

Implementation of projects by HTP residents in the Mogilev region, expansion of the activities of IT companies and Mogilev Regional Development Agency OAO. The Agency is accomplishing a project on the establishment of IT parks, teaching language programming, and integrating IT student and scientific developments in the SME economy (more than 10 projects for 2018).

Historically, most organizations have applied IT to reduce costs through the conversion of paper-based processes to cheaper digital ones [10]. SMEs are developing thanks to information transformation, which provides a high awareness and prompt trade and intermediary operations and in turn, dramatically reduces the

production and transaction costs of inter-regional trade. But now SME organizations are keen on finding new sources of income by using digital processes, such as technology parks.

A promising line in the development of regional foreign economic activity is the design of a unified digital platform for inter-regional cooperation based on SME digitalization space services [11]. The digital platform will allow for direct communication between partners within joint SMEs. Therewith, common standards, infrastructure management, and development of digital transport corridors are deemed as the prerequisites for integration of digital infrastructure in the regions of Russia and Belarus [12].

In this block of digitalization of the SMEs economy in the Mogilev region of Belarus, the establishment of some joint ventures (productions) are recognized the high-profile projects:

- enterprises manufacturing professional sports equipment in the free economic zone “Mogilev” (Foreign Production Unitary Enterprise “FORMAN Products”);
- enterprises producing biofuels and organic compounds in the free economic zone “Mogilev”;
- upgrade of the existing production of pre-insulated pipes and fittings and arrangement of new productions in the free economic zone “Mogilev” (Polymer Pipe Plant ZAO).

Besides, there are two ongoing investment projects with the participation of Russian capital in Mogilev region in the framework of the concluded investment agreements with the Republic of Belarus:

- UNIMILK Invest SOO (“set of organizational and technical measures aimed at the development of the milk processing industry...” in the city of Shklov of Mogilev region;
- Omsk Carbon Mogilev IOOO (launch of production of carbon black in the free economic zone “Mogilev” (the founder is group company Omsktekhuglerod OOO).

In the system of SME’s foreign economic activity, digitalization ensures the execution of customs processes and speeds up the movement of goods and services, which reduces their cost. Relevant projects on paperless trade and traceability of goods.

Coordinating digitalization is a key factor for enhancement of the competitiveness of the regions in Russia and Belarus from the perspective of opportunities for inter-regional cooperation within EAEU acting as a large-scale platform for digitalization of SMEs foreign trade operations to take advantage of the integration [13].

The EAEU assumes the digital transformation of SME business processes on the back of Eurasian technology platforms to bolster the competitiveness of small and medium-sized businesses and efficient use of regional economic potential. Prospects for joint innovation and investment projects lay down a single platform for the growth of the regional scientific and technical potential of the countries. The entrenchment of digitalization tools in the mechanisms of SME’s inter-regional cooperation patterns will ensure the sustainable development of the regions to a large extent [14].

The applications of digital economy tools are the development of SMEs integration in the service sector, improvement of the business climate, and elevation of investment attractiveness (Malinetskiy 2017). In 2018, 43 service sectors were included in a single market. The services of digitalization institutions are available to all regional SMEs of the Russian Federation and the Republic of Belarus on the terms of the trust to the staff's expertise.

Economic digitalization is aimed at four principles such as facilitation, acceleration, convenience, cheapening of business processes. There are negative points in the organization of SME digitalization. For example, legislative coercion into a contract with a sole service provider (see Article 2 and Article 391 of the Civil Code of the Republic of Belarus), unreasonably high price of these services, and their low quality. The cost of electronic document management services "WEB SMDO" is more than 10 (or even 21) times higher than the cost of alternative methods of communication delivery: (connection to WEB SMDO is 684.3 rubles; maintenance is 99 rubles per month; + communication channel is 12.5 rubles monthly).

The number of e-mails is up to 300 per year (25 per month, including incoming and outgoing). With that, resending an e-mail via an ordinary mail service (for example, Google) using the Internet is free. SMDO propounded by National Center for Electronic Services is inconvenient, non-alternative, cost-inefficient, and compulsory.

## 4 Conclusions

Small and medium-sized enterprises are important structural elements shaping the foreign economic potential of Russia and Belarus, countries' regions, which foregrounds the introduction of tools for economic digitalization tools in this sector and field of activity. The footing of SME's foreign economic activity is the inter-regional cooperation of the Mogilev region with the partner regions of the Russian Federation. The positive growth rates of the foreign economic turnover of micro, small and medium-sized enterprises and their higher share in the foreign trade turnover of the Mogilev region with a commitment to a positive balance are considered as prerequisites for transfer of business processes into digital space.

The profile of macroeconomic parameters has changed. The average annual growth rate of foreign trade in SMEs across the Republic of Belarus and the Mogilev region amounted to 5.89 and 3.45% respectively under a positive balance. The export potential of both medium-sized enterprises (16% share in the volume of exports for 2018, which exceeds the 2010 figures by 10 p.p., as well as micro and small ones (17% share, 10 p.p. basic increase in the share) is noticeable. Micro and small enterprises are highly active in the import of the Republic of Belarus. In 2018, their share reached 30% (accretion in the share over 2010–2018 is 17 p.p.).

The foreign economic activity of SME in the Mogilev region is distinguished by a prudent approach to the product range structure of export and import turnover with



a high share of intermediate and food products and a low proportion of investment and high-tech goods.

All the negative points constraining foreign economic activity in the system of sustainable development of the regions can be largely overcome by a single digital platform for regional cooperation of the Russian Federation and the Republic of Belarus [15].

The following lines for the transformation of regional cooperation between countries in the context of global digitalization are prioritized:

- development of the information space of local government and self-government bodies of the Mogilev region;
- facilitation of document management and regional commodity turnover due to common standards, infrastructure administration, the establishment of digital transport corridors;
- the employment of digital and ICT technologies relying on HTP in the Mogilev region to increase the performance of SMEs foreign economic activity;
- simplification of customs procedures within electronic (digital) customs;
- development of infrastructure for digitalization of SMEs interregional activities [16];
- more efficient engagement of SME's foreign economic potential in neighboring regions on the back of free economic zone digitalization.

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