

Yevhen REVTIUK\*, Halyna MALYNOVSKA\*\*

**DETERMINANTS OF SMALL AND MICRO ENTERPRISES'  
DEVELOPMENT IN UKRAINE'S REGIONS:  
A LONGITUDINAL ANALYSIS**

DOI: 10.21008/j.0239-9415.2021.083.13

The growth of small and medium enterprises (SMEs) is an important prerequisite for the economic development of the country because it creates the lion's share of jobs in developed economies and is an engine for innovations. SMEs usually do not have significant resources and are affected by changes in the external environment. In recent years, in Ukraine, a transit economy, small and micro-enterprises have been increasingly important in the economic processes. This article examines the effect of macroeconomic factors on the development of small and micro-businesses in Ukraine's regions, namely the size of the gross regional product, purchasing power of the households, the value of gross exports and imports, income from sales of large enterprises. Using official statistical data, we created a panel-like dataset covering all regions of Ukraine for 2015-2019. We performed longitudinal modeling with fixed effects specification. We found a positive impact of a change in the total income and expenditures of households and a change in the foreign trade indicators and a negative impact of a change in gross regional product and a change in the economic performance of large enterprises on the number of small and micro-enterprises in the region.

**Keywords:** entrepreneurship, small and micro enterprises, regional development, Ukraine

---

\* Politechnika Poznańska, Wydział Inżynierii Zarządzania, Instytut Zarządzania i Systemów Informacyjnych, Zakład Przedsiębiorczości i Komunikacji w Biznesie. ORCID: 0000-0002-9229-5015.

\*\* Department of Theory of Economics and Management, Ivano-Frankivsk National Technical University of Oil and Gas, Ukraine. ORCID: 0000-0003-3551-5648.

## 1. INTRODUCTION

Small and medium enterprises (SMEs) are the key players in modern developed economies (Gupta, Guha, Subramanian, 2013), given their potential to create new jobs (OECD, 2017) by responding flexibly to market changes, innovating, and creating new products or even entire industries. On the other hand, the SME sector, especially small and micro enterprises, is most sensitive to positive and negative changes in the external environment, primarily due to the lack of resources to counteract long-term negative phenomena.

It is therefore not surprising that determinants of the emergence and growth of SMEs have been the focus of researchers over the last five decades (for example, Anokhin, Grichnik, Hisrich, 2008; Gupta, Guha, Subramanian, 2013; Teeffelen, Uhlener, 2013; Wang, 2016). However, due to the variety of preconditions for starting and doing business in different countries, in different historical periods, in different industries and even for different entrepreneurs, there are significant differences among researchers in determining the factors that are critically important for the successful operation of SMEs.

The case of the emergence and development of small and micro businesses in Ukraine is unique given that before the country gained independence after the collapse of the Soviet command-administrative economy and the collapse of the USSR, entrepreneurship as such did not exist. Thus, starting in 1991, Ukrainian entrepreneurs began to master and apply new skills to start their own business in an institutional environment that often remains unfriendly to entrepreneurship after 30 years of market transformation (Smallbone et al., 2010). While most existing large and medium-sized enterprises in Ukraine formed due to the privatization of state-owned enterprises, small and micro businesses emerged as startups of enterprising and active individuals. The factors of their emergence and development have been insufficiently studied.

## 2. DEVELOPMENT OF SMES IN UKRAINE

The initial opportunities for Ukraine's development differed somewhat from the conditions experienced by the country's neighbors, which eventually became more economically successful. Entrepreneurship was banned in the USSR, unlike in Poland or Hungary, where entrepreneurs could operate in certain areas, such as working in a family business, in business-to-consumer services or running private agricultural firms. Moreover, the Soviet regime lasted in Ukraine for more than seven decades, while in Poland, Hungary, Slovakia and Romania, the socialist rule lasted for about 40 years. Consequently, the understanding of the phenomenon of entrepreneurship,

including nurturing business traditions and sharing personal success stories of entrepreneurs, was lost. Last but not least, Ukraine was home to a significant share of the industrial complex of the USSR. Most high-tech enterprises in the country were producing for the military. After the collapse of the Soviet military bloc, this production, with some exceptions (e.g., aircraft, spacecraft), had no demand in both domestic and foreign markets.

Given the above factors, at the beginning of the 21st century, Ukraine's industry was mostly represented by metallurgical, mining, chemical and energy companies, which produced low value-added products using outdated technologies. Today these enterprises are mostly concentrated in the eastern and central parts of Ukraine. As a result, two different business composition models developed in the country: the regions where big businesses formed following the privatization of the Soviet "giants"; and the regions where the SME sector formed following the bankruptcy of post-soviet enterprises at the end of the 1990s.

SMEs are considered the backbone of the economy (Gupta, Guha, Subramanian 2013). For example, in the EU, 64.9% of employees in 2018 worked in SMEs, of which 49% worked in small businesses. At the same time, the SME sector produced 52.8% of value-added, of which small enterprises accounted for 35.7% of value-added ('Eurostat'). The SME sector also plays an important role in the Ukrainian economy. The SME sector employed 66.5% of all employees in 2012-2013, and as high as 72.6% in 2017 (see Fig. 1). However, in contrast to EU countries, in Ukraine, the main share of employees worked in medium-sized enterprises (ranging from 41% to 45%), while small and micro-businesses accounted for nearly 25% in 2012 to 27% in 2017 (State Statistics Service of Ukraine, 2021).

The analysis of income from sales of goods and services shows a similar trend. The share of income generated by SMEs ranged from 55.1% in 2012 to 62% in 2017, of which the share of small and micro enterprises ranged from 14.9% in 2012 to 19.2% in 2017 (Fig. 2).

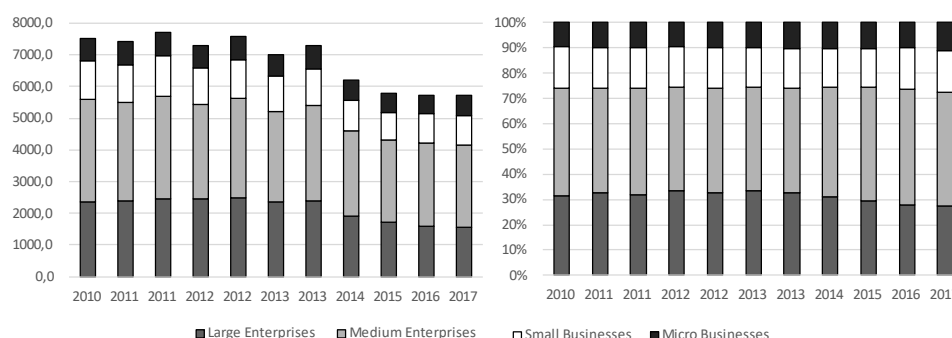


Fig. 1. The share of employees in terms of enterprise size; left graph – thousand employees, right graph – percent (State Statistics Service of Ukraine, 2021)

Several main trends should be highlighted. First, we observe a lower share of small and micro enterprises in the Ukrainian economy compared to EU countries. This may be due to the institutional barriers to doing business and the lack of state support for small businesses. Second, the importance of small and micro businesses has been growing in recent years. This latter trend may be explained by the stabilization of the macroeconomic situation in Ukraine after the 2014-2015 shock caused by the regime change following the Revolution of Dignity and the Russian military aggression, as a result of which Ukraine lost control over the Autonomous Republic of Crimea and parts of Donetsk and Luhansk regions. At the same time, the acceleration of institutional reforms after Ukraine signed the Association Agreement with the EU has somewhat improved the business climate in the country, which, above all, has led to a decrease in the number of unprofitable enterprises, including in the SME sector (Fig. 3).

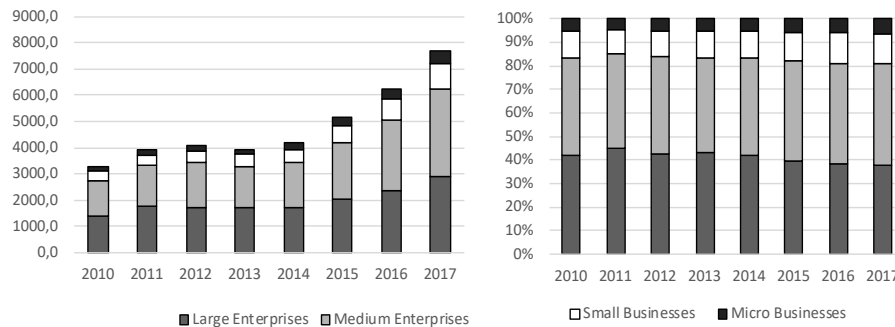


Fig. 2. Revenue from sales of products in terms of enterprise size; left graph – billion UAH, right graph – percent (State Statistics Service of Ukraine, 2021)

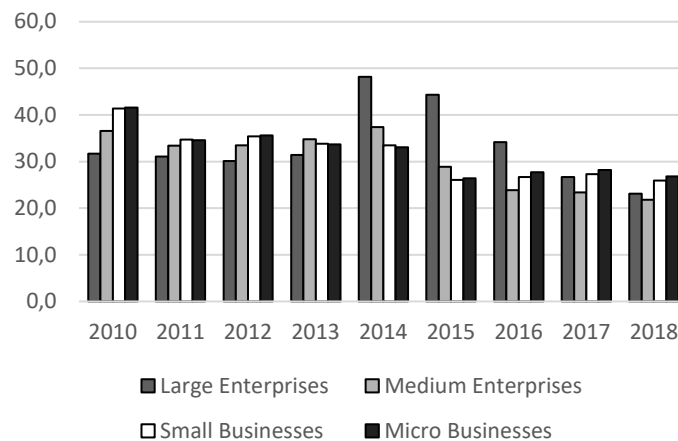


Fig. 3. The share of enterprises that declared a financial loss at the end of the reporting year (State Statistics Service of Ukraine, 2021)

One can assume that the market transformations in Ukraine led to an increase in the share of small businesses in the economy. In particular, Ukraine rose in the World Bank's Doing Business ranking from the 152nd position in 2011 to 64th place in 2019 (World Bank, 2020). This further raises the question of local factors that positively or negatively affect the development of small and micro businesses, the share of which in the overall structure of Ukraine's economy remains lower than in the developed countries.

### 3. THEORETICAL BACKGROUND

Over the past decades, entrepreneurship studies have developed dynamically and covered a broad range of different aspects of economic life. Most researchers recognize the role of entrepreneurship as a driver of economic growth and innovation. Scholars defined entrepreneurship as "the entry of new firms, and the creation of high-growth firms" (Hoffmann, 2007); the ability of individuals to create and develop innovative organizations that generate value (Gartner, 1990); or even "competitive behaviors that drive the market process" (Davidsson, 2016). For this paper, we define entrepreneurship as the ability of an entrepreneur to pool resources for creating new business opportunities (Filion, 2021).

The SME sector is an important factor in economic growth in the modern economy, as small and medium-sized businesses significantly contribute to employment growth (OECD, 2017), especially in times of crisis (Rotar, Pamić, Bojnec, 2019). Entrepreneurship is "the main vehicle of economic development" (Anokhin et al., 2008, p. 117), and one of the reasons for that is that SMEs are more flexible and dynamic, which allows them to quickly adapt to changes in the environment and implement innovations (Gupta, Guha, Subramanian, 2013).

On the other hand, the growth of SMEs depends on many factors, which can be divided into internal and external. Internal characteristics usually include the owner's insight, managerial skills, training, education, and background. The absence of these characteristics often leads to bankruptcy (Gaskill et al., 1993). External factors include access to financial (Wang, 2016) and other resources (Chittithaworn et al., 2011), state policies supportive of SME development, including macroeconomic policy, government legislation, tax burden, direct support policies and programs that are designed to assist SMEs (Smallbone, Welter, 2001).

Most studies point to a correlation between the size of the SME sector and economic growth, but the causal relationship between these two factors is not obvious (Beck, Demirguc-Kunt, Levine, 2005), especially in the case of developing coun-

tries. On the one hand, the development of small and medium-sized enterprises contributes to reducing unemployment and increasing incomes and, consequently, increasing GDP. According to empirical research, the above assumption is true in the case of developing countries (Audretsch, Keilbach, 2004), but in the case of developed countries, the relationship is reversed. A cross-national study found that the growth of entrepreneurial activity by nascent entrepreneurs affects economic growth, but this effect depends on per capita income. Researchers found a negative effect for developing countries and a positive effect for the developed countries (Stel, Carree, Thurik, 2005). Another study examining the impact of the size of the SME sector on the economic growth of rich and poor regions of the same country came to similar conclusions (Cravo, 2010).

On the other hand, most researchers agree with the “classical theory” of SMEs, suggesting that areas with more dynamic economic growth in developing countries generate additional opportunities for small business development (Anderson, 1982). Urban areas usually have higher income rates and create better preconditions for business growth than agricultural areas (for example, Cravo, 2010; Tambunan, 2008). These assumptions, however, have several important caveats.

The resource theory suggests that the main prerequisite for starting a business and surviving in a competitive environment is the availability of heterogeneous assets for achieving a firm’s sustainable competitive advantage (Alvarez, Busenitz, 2001) and for exploiting opportunities (Gupta, Guha, Krishnaswami, 2013). Here, the human capital of both the entrepreneur/the head of the enterprise (Teffelen, Uhlaner, 2013) and the employees (Rauch et al., 2005) play a crucial role. However, in the context of accelerating economic growth, human capital becomes the most scarce resource. The growth of competition in the labor market creates additional obstacles to starting a new business.

Rapid economic growth creates favorable conditions for the growth of *existing* firms. Consequently, there will be a consolidation of small and micro enterprises and the transformation of small enterprises into medium ones and, in turn, micro enterprises into small enterprises. Following this logic, one could hypothesize that:

*H1. An acceleration of economic growth leads to a decrease in the number of small and micro-enterprises.*

On the other hand, small, and especially micro-businesses, usually emerge to meet the needs of local consumers, whose purchasing power, along with other factors that characterize the market, such as tastes and preferences of consumers, competitors, or market capacity, is an important indicator, which will affect both the decision of a potential entrepreneur to start a business and the chances of survival for the existing firms. Therefore, the following hypothesis can be formulated:

*H2. The growth of purchasing power of the local households has a positive effect on the number of small and micro-enterprises.*

It should be noted that most of the external factors analyzed in the literature are common to the territories of a particular country. At the same time, territories differ in business development opportunities due to the availability of resources, the structure of local markets, infrastructure and innovation centers (Janssen, 2009), which, in turn, create additional factors that support or suppress the development of SMEs.

Ukraine has regions where large industrial enterprises (metallurgical plants, mining enterprises, energy-generating enterprises) dominate, and regions where the contribution of large enterprises to the gross regional product is not decisive. Given that large enterprises tend to be more competitive, especially in terms of competition for access to scarce resources (Anderson, 1982), one can suggest that the regions dominated by large enterprises are less attractive for small business development:

*H3. The increasing share of large enterprises in the region's economy has a negative impact on the growth of small and micro-businesses.*

The increase in activity of SMEs in foreign markets at the end of the last century (Knight, 2000) has attracted the attention of researchers, although there was a consensus that it is more difficult to enter foreign markets for SMEs. The main challenges that small businesses have to overcome to enter international markets are product competitiveness, opportunities for access to foreign markets, the degree of market liberalization and the availability of the necessary management skills and knowledge (Abe, 2016). Entering foreign markets creates additional opportunities for the growth of small and micro-businesses by expanding the range of their potential customers and gaining new knowledge and skills that increase their competitiveness. To compare the availability of foreign markets for local businesses in different regions one can check the indicators of gross imports and exports of goods and services. The following competing hypotheses can be formulated:

*H4.1. The size of regional exports of goods and services has a positive effect on the development of small and micro-businesses in the region.*

*H4.2. The size of regional imports has a positive effect on the development of small and micro-businesses in the region.*

#### **4. DATA AND METHODS**

*Dataset.* We used the data published by the State Statistics Service State (Statistics Service of Ukraine, 2021) at the level of Ukraine's regions from 2015 to 2020. We have chosen this time period given that 1) since 2014, there has been an increase in the share of small business in the economy; 2) in 2014, the Russian Federation occupied the Autonomous Republic of Crimea and parts of Donetsk and Luhansk

oblasts, so since 2015, statistical data on these territories are not taken into account in the published statistical reports. The study covered all 25 regions of Ukraine, including 24 oblasts and the city of Kyiv, which has the status of a separate administrative-territorial unit of the all-Ukrainian level.

*Dependent variables.* To test the hypotheses about factors influencing the development of entrepreneurship, we built two groups of identical models, with outcome variables being 1) the number of small businesses in the region per 1000 inhabitants (QSE), and 2) the number of micro-businesses in the region per 1000 inhabitants (QMicroE).

*Independent variables.* The following indicators were used to construct controls that characterize the macroeconomic conditions of small and micro-businesses:

- indicators that characterize the economic development of the region, namely the value of the gross regional product (VRP);
- indicators that characterize the purchasing power of the population living in the region, namely the total annual expenditure of the households (ExP) and the total annual income of the households (InP);
- indicators that characterize the role of large enterprises in the economy of the region, namely the total revenue from sales of products and services of the large enterprises (RLE);
- the degree of inclusion of the region in international trade, namely the value of total annual imports (Im) and exports (Ex) of goods and services by enterprises in the region.

At the same time, during the construction of the models, we encountered a lack of data on the performance of small and medium-sized businesses by region in open access, which narrowed the opportunities for comprehensive testing of the assumptions. Also, the widespread use of tax avoidance practices by small and micro-businesses forced us to abandon financial performance indicators for small and micro-enterprises in favor of indicators of the number of enterprises.

To construct a panel-like dataset, we collected indicators for each of the 25 regions for every year, from 2015 through 2019, with a total  $N = 150$ . Some values of the revenue of large enterprises (RLE) are missing for several regions and completely absent for the Chernivtsi region. As a result, our analytical sample consists of  $N = 108$  observations, nested in 24 regions. Descriptive statistics for dependent and independent variables are provided in Table 1.

*Statistical analysis.* To understand the effect of independent variables on the number of small and micro enterprises in Ukraine's regions, we performed calculations using *xtreg* command with fixed effects specification in Stata 16 statistical software. In this way, a longitudinal dataset and corresponding data design potentially mitigate problems common to cross-sectional datasets, namely omitted variables bias and reverse causality (Andreß, Golsch, Schmidt, 2013). The fixed effects ap-



Table 1. Summary statistics for all variables

Variable name	Minimum	Maximum	Mean	Standard deviation	Number of units	Number of observations	T bar
Number of small businesses per 1000 inhabitants	3106.0	97710.0	14629.40	17445.79	24	108	4.5
Number of micro businesses per 1000 inhabitants	2666.0	85235.0	12614.61	15171.83	24	108	4.5
Import, mln US\$	105.4	25690.3	2025.78	4214.69	24	108	4.5
Export, mln US\$	152.9	12491.4	1915.36	2377.22	24	108	4.5
Gross regional product, mln UAH	23849.0	949531.0	131794.94	148954.75	24	108	4.5
Income of the households, mln UAH	34064.0	675427.0	117003.15	101219.02	24	108	4.5
Expenditures of the households, mln UAH	22942.0	674683.0	125362.68	107700.28	24	108	4.5
Revenue from sales of large enterprises mln UAH	5622.3.0	1541477.3	139266.50	279080.34	24	108	4.5

proach is considered a more robust method of panel data analysis, as it reduces the impact of confounding by accounting for units' of observation (in this case regions') time-invariant measured *and* unmeasured characteristics (Cameron, Trivedi, 2010).

We used two different models for each of the dependent variables. Model 1 for the dependent variable on small businesses QSE (equation 1) and Model 3 (equation 2) for micro-enterprises (QMicroE), which include control variables that characterize the economic development of the region (VRP), the level of inclusion of the region in international trade (Im and Ex), the purchasing power of the households (InP) and the role of big business in the economic development of the region (RLE).

$$QSE_{it} = \beta_1 \cdot VRP_i + \beta_2 \cdot RLE_i + \beta_3 \cdot InP_i + \beta_4 \cdot Im_i + \beta_5 \cdot Ex_i + \alpha_i + \mu_{it} \quad (1)$$

$$QMicroE_{it} = \beta_1 \cdot VRP_i + \beta_2 \cdot RLE_i + \beta_3 \cdot InP_i + \beta_4 \cdot Im_i + \beta_5 \cdot Ex_i + \alpha_i + \mu_{it} \quad (2)$$

Where:

- $\mu_{it}$  is the error ( $i$  = region,  $t$  = time);
- $\beta_n$  is the coefficient for the independent variable;
- $\alpha_i$  is the unknown intercept for each region.

We avoided testing the ExP and InP variables in the same model because of the close relationship between these variables. Therefore, Model 2 (equation 3) for the dependent variable QSE and Model 4 (equation 4) include similar groups of variables as the previous specification, except for the indicator that characterizes the purchasing power of the households.

$$QSE_{it} = \beta_1 \cdot VRP_i + \beta_2 \cdot RLE_i + \beta_3 \cdot ExP_i + \beta_4 \cdot Im_i + \beta_5 \cdot Ex_i + \alpha_i + \mu_{it} \quad (3)$$

$$QMicroE_{it} = \beta_1 \cdot VRP_i + \beta_2 \cdot RLE_i + \beta_3 \cdot ExP_i + \beta_4 \cdot Im_i + \beta_5 \cdot Ex_i + \alpha_i + \mu_{it} \quad (4)$$

## 5. RESULTS

The results presented in Table 2 below suggest that a change in the gross regional product is negatively associated with the change in the number of both small and micro-enterprises. This impact of the gross regional product is statistically significant in all analyzed models. Thus, our first hypothesis is confirmed. Because the

negative impact is observed for both small and micro-enterprises, one may assume that the main reason for this relationship is the lack of resources and the need to compete with other market participants, rather than the “migration” of enterprises from one group to another due to the growth of the enterprise itself.

Table 2. Results of longitudinal analysis using fixed effects specification

Independent Variables	Dependent Variables			
	Number of small businesses		Number of micro-businesses	
	Model 1	Model 2	Model 3	Model 4
Gross regional product	-0.05** (0.02)	-0.07*** (0.02)	-0.05** (0.02)	-0.06*** (0.02)
Revenue from sales of large enterprises	-0.03*** (0.00)	-0.02** (0.01)	-0.03*** (0.00)	-0.02** (0.01)
Income of the households	0.06*** (0.01)		0.05*** (0.01)	
Expenditures of the households		0.06*** (0.01)		0.06*** (0.01)
Import	3.18*** (0.46)	2.95*** (0.43)	3.00*** (0.44)	2.79*** (0.42)
Export	1.27** (0.46)	1.87*** (0.43)	1.33** (0.45)	1.88*** (0.42)
Intercept	9748.33*** (667.44)	9501.87*** (635.49)	8167.33*** (650.11)	7943.56*** (620.09)
AIC	1760.66	1751.82	1754.98	1746.52
BIC	1787.48	1778.64	1781.80	1773.34
Unit-times	108	108	108	108
Units	24	24	24	24
R <sup>2</sup>	0.8453	0.8575	0.8265	0.8396

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors in parentheses.

The above analysis also suggests that the growth of purchasing power, which we have operationalized using indicators of gross income (Model 1 and Model 3) and gross expenditures of the households (Models 2 and 4), is positively and significantly associated with the change in the number of both small and micro-businesses. Our hypothesis H2 that the growth of purchasing power of the population has a positive effect on the functioning of small and micro-enterprises is confirmed. Consequently,

this suggests that small and micro-enterprises in Ukraine are primarily focused on meeting the demand of local consumers.

The increase of income from the sale of goods and services of large enterprises is negatively and significantly associated with the change in the number of small (Model 1 and Model 2) and micro (Model 3 and Model 4) enterprises, so hypothesis H3 that the growing role of big business in the local economy negatively affects small and micro-businesses is also confirmed. This finding again supports the above assumption about the negative impact of increased competition among market participants for resources on the functioning of small and micro-businesses.

The increase of the region's involvement in international trade positively affects the number of small and micro-businesses. These control variables – the value of imports and exports – are positively and significantly associated with the number of small and micro-enterprises in all four proposed models. While the positive relationship with the value of exports indicates the competitive advantages of Ukrainian enterprises in the international markets, the impact of imports requires more explanation. One might argue that the opening of Ukrainian markets for importers of goods and services, especially consumer goods, created additional opportunities for small and micro-businesses. Such a statement, however, requires a more detailed investigation.

Overall, the proposed model specification accounts for more than 80% of the variation in the number of small and micro-enterprises in Ukraine's regions, as suggested by  $R^2$  indicators. A change in AIC and BIC indicators also suggests that models with household expenditures are slightly better than those with household income in explaining a change in SME numbers.

## 6. CONCLUSIONS AND DISCUSSION

Economic reforms in post-Soviet Ukraine have led to the rapid development of the SME sector. The reasons behind this growth, at the same time, are not addressed by the existing literature. In this study, we use data on the development of entrepreneurship at the regional level to reveal trends related to the local characteristics and factors related to national macroeconomic processes and their impact on SMEs development in the country. To tackle the impact of local and national economic conditions, we constructed a panel-like dataset and performed a fixed-effects analysis.

Our findings, first and foremost, suggest the unwillingness of small and micro-enterprises in Ukraine to compete for resources with large businesses, which was suggested by a negative impact of both the growth of large enterprises and accelerating regional economic development on the number of SMEs. One might argue that this trend is due to the imperfect regulatory policies and corrupt practices that complicate the access to resources for small and micro-entrepreneurs (World Bank, 2020). At the same time, the liberalization of visa policy with the EU, which caused

a wave of labor migration, only exacerbated the negative trends in the labor market and, consequently, increased competition among employers for skilled workers. Small businesses are not always compatible with large enterprises.

The growth of purchasing power in the region positively impacts the number of small and micro-businesses, given that local households are the main consumers of goods and services in the SMEs sector. At the same time, the growth of purchasing power of the households is primarily due to economic growth, which, as we have found, hinders the development of small and micro-enterprises. Because the growth of the large enterprise sector negatively affects the development of small and micro-enterprises, the latter are mostly not focused on cooperation with large businesses and are not integrated into the production chains. This situation may be partly explained by the sectoral structure of big businesses, the lion's share of which is mining, metallurgical or industrial enterprises created before the independence of Ukraine, whose products are mostly exported.

The positive relationship between the number of small and micro-enterprises and the region's involvement in international trade demonstrates the potential for Ukraine's small businesses to enter new markets and closer integration into the modern international division of labor. Successful cases of Ukrainian high-tech startups and the growing share of IT products in the export of services demonstrate the readiness of Ukrainian small businesses to take advantage of existing competitive advantages and produce innovative products for both domestic and international markets.

In general, the results of our study highlight two main features of the Ukrainian sector of small and micro-businesses. First of all, the entrepreneurs are willing to use opportunities both in the domestic (in the case of our study, such an opportunity is to increase the purchasing power of the households) and in foreign markets. At the same time, the development of big businesses not only hinders the development of small businesses by creating additional demand in local consumer markets but also creates barriers related to access to production resources, including a limited supply of qualified human capital in local markets.

We acknowledge the limitations connected with the design and analytical strategy employed in this study. First of all, the results of this initial analysis are hard to generalize to other economies. It is also difficult to talk about SME development patterns in Ukraine outside the analyzed period of five years.

## BIBLIOGRAPHY

- Abe, M. (2016). SME Participation in Global Value Chains: Challenges and Opportunities. In: *Integrating SMEs into Global Value Chains*, 27-65.
- Alvarez, S.A., Lowell, W.B. (2001). The Entrepreneurship of Resource-Based Theory. *Journal of Management*, 27(6), 755-775.

- Anderson, D. (1982). Small Industry in Developing Countries: A Discussion of Issues. *World Development*, 10(11), 913-948.
- Andreß, H.-J., Golsch, K., Schmidt, A.W. (2013). *Applied Panel Data Analysis for Economic and Social Surveys*. Berlin, Heidelberg: Springer.
- Anokhin, S., Grichnik, D., Hisrich, R.D. (2008). The Journey from Novice to Serial Entrepreneurship in China and Germany: Are the Drivers the Same? *Managing Global Transitions*, 6(2), 117-142.
- Audretsch, D., Keilbach, M. (2004). Entrepreneurship Capital and Economic Performance. *Regional Studies*, 38(8), 949-959.
- Beck, T., Asli, D.-K., Levine, R. (2005). SMEs, Growth, and Poverty: Cross-Country Evidence. *Journal of Economic Growth*, 10(3), 199-229.
- Cameron, A., Trivedi, P. (2010). *Microeconometrics Using Stata, Revised Edition*. Stata Press books. StataCorp LP.
- Chittithaworn, Ch., Aminul Islam Md., Keawchana, T., Dayang Hasliza Muhd Yusuf (2011). Factors Affecting Business Success of Small & Medium Enterprises (SMEs) in Thailand. *Asian Social Science*, 7(5), 180-190.
- Cravo, T.A. (2010). SMEs and Economic Growth in the Brazilian Micro-Regions. *Papers in Regional Science*, 89(4), 711-734.
- Eurostat (2021). Retrieved 26 September (<https://ec.europa.eu/eurostat>).
- Filion, L.J. (2021). Defining the Entrepreneur. In: *World Encyclopedia of Entrepreneurship*. Cheltenham, UK; Northampton, MA: Edward Elgar Publishing Limited, 72-83.
- Gupta, P.D., Samapti, G., Subramanian, K.S. (2013). Firm Growth and Its Determinants. *Journal of Innovation and Entrepreneurship*, 2(1), 15.
- Gupta, P.D., Samapti, G., Subramanian, K.S. (2013). SME Growth and Influence of Internal and External Environmental Factors. In: E.G. Carayannis (Ed.). *Encyclopedia of Creativity, Invention, Innovation and Entrepreneurship*. New York, NY: Springer, 1654-1665.
- Janssen, F. (2009). Does the Environment Influence the Employment Growth of SMEs? *Journal of Small Business & Entrepreneurship*, 22(3), 311-325.
- Knight, G. (2000). Entrepreneurship and Marketing Strategy: The SME under Globalization. *Journal of International Marketing*, 8(2), 12-32.
- OECD, P. (2017). *Enhancing the Contributions of SMEs in a Global and Digitalised Economy*. Paris. Retrieved Feb 25:24.
- Rotar, L.J., Kontošić Pamić, R., Bojnec, Š. (2019). Contributions of Small and Medium Enterprises to Employment in the European Union Countries. *Economic Research-Ekonomska Istraživanja*, 32(1), 3302-3314.
- Smallbone, D., Welter, F. (2001). The Role of Government in SME Development in Transition Economies. *International Small Business Journal*, 19(4), 63-77.
- Smallbone, D., Welter, F., Voytovich, A., Egorov, I. (2010). Government and Entrepreneurship in Transition Economies: The Case of Small Firms in Business Services in Ukraine. *The Service Industries Journal*, 30(5), 655-670.
- State Statistics Service of Ukraine (2021). Retrieved 22 September, <http://ukrstat.gov.ua/>.
- Stel, A. van, Carree, M., Thurik, R. (2005). The Effect of Entrepreneurial Activity on National Economic Growth. *Small Business Economics*, 24(3), 311-321.
- Tambunan, T. (2008). *SME Development in Indonesia: Do Economic Growth and Government Supports Matter? SSRN Scholarly Paper*. ID 1218922. Rochester, NY: Social Science Research Network.

Teeffelen, L. van, Uhlaner, L.M. (2013). Firm Resource Characteristics and Human Capital as Predictors of Exit Choice: An Exploratory Study of SMEs. *Entrepreneurship Research Journal*, 3(1), 84-108.

Wang, Y. (2016). What Are the Biggest Obstacles to Growth of SMEs in Developing Countries? An Empirical Evidence from an Enterprise Survey. *Borsa Istanbul Review*, 16(3), 167-176.

World Bank (2020). *Doing Business 2020. Economy Profile Ukraine*.

## DETERMINANTY ROZWOJU MAŁYCH PRZEDSIĘBIORSTW I MIKROPRZEDSIĘBIORSTW W REGIONACH UKRAINY: ANALIZA PODŁUŻNA

### Streszczenie

Rozwój małych i średnich przedsiębiorstw (MŚP) jest ważnym czynnikiem rozwoju gospodarczego kraju, ponieważ podmioty te tworzą lwią część miejsc pracy w rozwiniętych gospodarkach i są motorem innowacji. MŚP zazwyczaj nie dysponują znacznymi zasobami i podlegają zmianom pod wpływem otoczenia zewnętrznego. W ostatnich latach na Ukrainie coraz większe znaczenie w procesach gospodarczych mają gospodarka tranzytowa oraz małe przedsiębiorstwa i mikroprzedsiębiorstwa. W artykule zbadano wpływ czynników makroekonomicznych na rozwój małych przedsiębiorstw i mikroprzedsiębiorstw w poszczególnych regionach Ukrainy, a mianowicie wielkość produktu regionalnego brutto, siłę nabywczą gospodarstw domowych, wartość eksportu i importu brutto, dochody ze sprzedaży dużych przedsiębiorstw. Korzystając z oficjalnych danych statystycznych, stworzono panelowy zestaw danych obejmujący wszystkie regiony Ukrainy na lata 2015-2019. Przeprowadzono modelowanie podłużne ze specyfikacją efektów stałych. Stwierdzono pozytywny wpływ zmiany całkowitych dochodów i wydatków gospodarstw domowych oraz zmiany wskaźników handlu zagranicznego oraz negatywny wpływ zmiany produktu regionalnego brutto i zmiany wyników ekonomicznych dużych przedsiębiorstw na liczbę małych przedsiębiorstw i mikroprzedsiębiorstw w regionie.

**Słowa kluczowe:** przedsiębiorczość, małe przedsiębiorstwa i mikroprzedsiębiorstwa, rozwój regionalny, Ukraina

