

# Activation of entrepreneurship among vulnerable groups of the population under martial law: Organization and taxation

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**Abstract:** In 2022, the Russian Federation's troops invaded the territory of independent Ukraine full-scale. Since then, Ukraine's economy has been operating under martial law, which imposes certain restrictions on business activities. In addition, due to the hostilities, businesses, infrastructure, and housing were destroyed, leaving many people without homes and sources of income. To boost entrepreneurial activity, the government has introduced many grant programs. This study examines one of these programs. The intensification of entrepreneurship should ensure that citizens receive new sources of income, create new jobs in the country, and fill the state budget.

**Keywords:** business, entrepreneurial activity, entrepreneurship, martial law, taxation, Ukraine

**JEL Classification:** G51, H71, L26

## 1 Introduction

The full-scale invasion of the territory of Ukraine by the Russian Federation in 2022 caused many economic problems. In particular, in 2022, Ukraine's economy contracted by 30%<sup>3</sup>, the unemployment rate was 21.1%<sup>4</sup>, and the number of Ukrainians who left the country is estimated to be between 8 and 10 million (approximately one-fifth of the population of Ukraine). Ukraine's budget is financed by 19.16% from foreign countries and international organizations, 44.89% from tax revenues, and 35.95% from other sources<sup>5</sup>. Given that the hostilities continue, businesses, housing, and infrastructure are being destroyed, and a large part of the population is unemployed, without housing, and without sufficient funds to cover basic needs. Investments in restoring economic potential and infrastructure are risky, as newly created businesses, roads, and residential buildings can be destroyed at any time.

To prevent emigration and provide people with livelihoods, Ukraine has created many grant programs aimed at restoring, creating, and developing small businesses, funded by various countries and international organizations. Such grant programs provide financial support for business development in the amount of \$2,000 to 10,000 on a non-refundable basis. The government, in turn, supports the development of small and medium-sized businesses in Ukraine by introducing a simplified taxation system. The legal form of business activity in Ukraine is the individual business entity (IBE). IBEs are divided into groups depending on the types and scope of activities and the number of employees. Each group of IBEs has equal single tax rates. The use of a single tax is more beneficial for entrepreneurs than paying taxes under the general scheme. However, grant support and the introduction of a simplified taxation system are not enough to support and restore Ukraine's economy during martial law.

Despite the state's desire to boost entrepreneurship in Ukraine and the difficult, non-alternative conditions in which Ukrainians find themselves, other factors affect entrepreneurial activity and may cause its inefficiency. In particular, Mujahid et al. (2017) and Nguyen (2018) argue that self-confidence affects the ability to conduct entrepreneurial activity. A self-confident person has the following qualities: determination, adaptability, determination, communication skills, stress resistance, and positive thinking. An important factor influencing entrepreneurial activity is social support, which is confirmed by Neneh (2022) and Usadha et al. (2020). The purpose of the study is to establish a list of factors that affect the ability of citizens belonging to vulnerable groups to carry out entrepreneurial activities under martial law.

## 2 Methods

The research authors had the opportunity to work on an international project that provides grant support for USD 4,000. The project was aimed at providing \$4,000 in grant support to Ukrainians affected by the armed aggression of the Russian Federation against Ukraine or residing in Ukraine but belonging to low-income groups (single mothers or fathers, large

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<sup>3</sup> Official website of the Ministry of Economy of Ukraine. URL: <https://www.me.gov.ua/>

<sup>4</sup> Official website of the National Bank of Ukraine. URL: <https://bank.gov.ua/>

<sup>5</sup> Official website of the Ministry of Finance of Ukraine. URL: <https://index.minfin.com.ua/ua/finance/budget/gov/income/>

families, disabled people or families raising disabled children) to restore or scale up small and medium-sized businesses. As part of this program, participants received training (24 hours), individual consultations on writing a business plan (5 hours), and defended their business plans in front of the commission and other project participants. During the meeting and communication with the participants, a questionnaire was e conducted questionnaires to find out what helps and hinders them in starting and running their own business.

For processing and initial analysis of the input information, the simple grouping method was used, which includes a set of procedures related to determining the main characteristics of the data set to be grouped. The following characteristics were selected for grouping the data: gender, age, presence of dependent minor children, level of education, previous experience of earning active income, attitude to business as a source of income, and type of activity in which it is planned to establish (conduct) business. In our opinion, the selected characteristics directly affect a person's willingness and ability to engage in entrepreneurial activity. Within the groups, we have identified structure indicators that provide additional information about the set of data under study according to the selected characteristics. Average values were used to determine generalizable indicators within individual populations. The arithmetic mean was used to determine the average age of project participants. To determine the most frequently occurring attribute in the selected population, we identified modes based on such characteristics as level of education, previous experience of earning active income, and type of business activity. 427 project participants completed the survey, and their main characteristics are shown in Table 1.

**Table 1** Key characteristics of project participants

| Characteristics  | Group  | Specific gravity, % | Average indicators   |
|--|--|---------------------|--|
| Gender   | Men  | 5,39                | -  |
|  | Women  | 94,61               |  |
| Age  | up to 25 years old                               | 18,27               | 38 years - the average age of a project participant  |
|  | 25-40 years old                                  | 74,94               |  |
|  | over 40 years old                                | 6,79                |  |
| Presence of young dependent children                         | without children                                 | 12,41               | -  |
|  | 1-2  | 83,37               |  |
|  | 3 and more                                       | 4,22                |  |
| Level of education   | Secondary school education                       | 5,85                | Most of the project participants have higher degrees   |
|  | Junior bachelor's degree (and equivalent levels) | 11,24               |  |
|  | Bachelor, Master (and equivalent levels)         | 82,90               |  |
| Previous experience of receiving active income               | not available                                    | 11,48               | Most of the project participants have no entrepreneurial experience, as they were employees            |
|  | Employee   | 67,68               |  |
|  | Entrepreneur (current or former)                 | 20,84               |  |
| Attitude to business as a source of income                   | Permanent basic income                           | 71,90               | -  |
|  | Temporary basic income                           | 24,59               |  |
|  | Non-basic income                                 | 3,51                |  |
| Type of activity in which you plan to start (run) a business | Production                                       | 5,85                | The service sector is the most desirable for project participants to start and continue their business |
|  | Agriculture                                      | 5,39                |  |
|  | Service sector                                   | 88,76               |  |

Source: Own processing

An interview was conducted with 36 randomly selected project participants, the results of which were used in the study. According to the authors of the study, the quantitative indicator that characterizes the participants' interest in starting and running their own business is the amount of funds that they are willing to invest in the project over the grant amount. The need to invest their funds is because \$4,000 that can be provided to participants as support can be used according to a certain formula: no more than 10% of the grant amount for advertising; no more than 30% of the grant amount for current assets; 100% of the grant amount for fixed assets. However, many participants had to cover the costs of rent, utilities, and salaries for their employees to implement their business plans. Therefore, despite the participation of vulnerable people in the project, investing their own money in the business project was a prerequisite for its implementation. During the interviews, the researchers hypothesized that the amount of personal funds that a person is willing to invest in their own business is influenced by the respondent's age, which they decided to test using correlation analysis.

### 3 Research results

Correlation and regression analysis is carried out to establish the relationship between the outcome and factor indicators. In this case, the outcome indicator was the amount of funds that the project participant was willing to invest in their own business. The resultant indicator is displayed in US dollars based on the exchange rate of the National Bank of Ukraine

as of 09 October 2023. The age of the participant was chosen as a factor indicator, measured in the full number of years of the project participant. Microsoft Excel for Data Analysis was used to calculate and visually display the results of the correlation and regression analysis.

The calculations included the following steps:

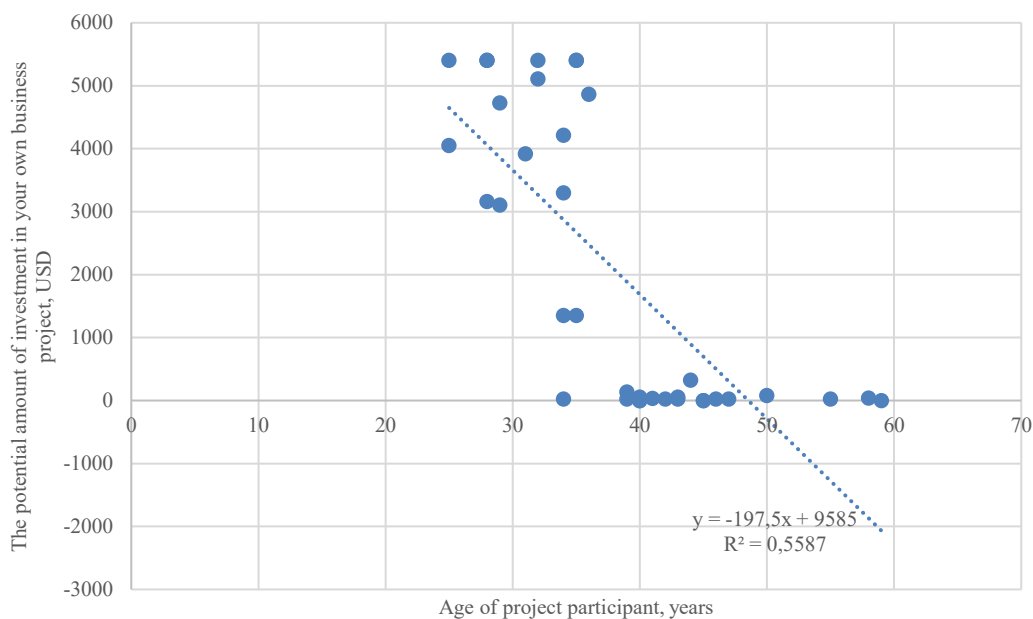
$$\sum X = 1380, \sum Y = 72504, \sum X \cdot Y = 2255177, \sum X^2 = 55554$$

$$a = \frac{\sum Y \cdot \sum X^2 - \sum X \cdot \sum XY}{n \cdot \sum X^2 - (\sum X)^2} = \frac{72504 \cdot 55554 - 1380 \cdot 2255177}{36 \cdot 55554 - 1380^2} \approx 9585$$

$$b = \frac{n \cdot \sum XY - \sum X \cdot \sum Y}{n \cdot \sum X^2 - (\sum X)^2} = \frac{36 \cdot 2255177 - 1380 \cdot 72504}{36 \cdot 55554 - 1380^2} \approx -197.5$$

The equation of the regression line is:  $y = 9585 - 197.5 x$ . Correlation is characterized by direction, strength of connection, probability, and form. As a result of the calculations, it was determined that there is a moderate relationship between the selected indicators. This is evidenced by the value of the calculated correlation coefficient. The dynamic of the parameters is multidirectional, i.e. an increase in one parameter leads to a decrease in the other. This is illustrated by the minus sign in the regression equation. The graph of the regression line is:  $y = 9585 - 197.5 x$  (Figure 1).

**Figure 1** Correlation and regression analysis



Source: Own processing

#### 4 Conclusions

The results of the analysis show that older project participants do not have the ability or desire to invest in the development of their businesses. This can be due to various reasons: 1) lack of savings; 2) lack of confidence in the profitability of future business; 3) unwillingness to take entrepreneurial risks or many others that may be the subject of further research. However, it can be unequivocally stated that boosting entrepreneurship in Ukraine among vulnerable populations cannot be achieved only by providing non-repayable financial assistance for business development (Meng et al., 2023), tax cuts (Arulampalam et al., 2021), and educational projects (Santana Vega et al., 2016; Karimi et al., 2012). Strategic entrepreneurship should be applied and managed at the macro and micro levels (Dogan, 2015; Olutuase et al., 2018). The study also shows that participants over the age of 35, who still have to be involved in the economy for the next 30 years before reaching retirement age, have low motivation to engage in entrepreneurial activities and do not have sufficient resources to run a business. At the same time, the age of future entrepreneurs cannot be the only factor that influences the desire to start a business. Psychological factors (Wu et al., 2022; Audretsch & Lehmann, 2023), geographical factors

(Wach, 2015), socio-cultural factors (Stam et al., 2008), and the level of digitalization of the economy (Shen et al., 2018) should be taken into account.

The limitations of the study are that most of the project participants were women, while the gender ratio of individual entrepreneurs in Ukraine as of the end of 2021 was 53.4% men and 46.6% women<sup>6</sup>. Other features that indicate that the project participants belong to vulnerable groups of the population are, in our opinion, representative of this type of research.

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<sup>6</sup> Opendatabot. URL: <https://opendatabot.ua/open/foonomics>