Evaluation of Self-employment Support in a Selected Group of Supported Unemployed With the Same Work Experience

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Abstract. Allowance for self-employment is one of the tools of the ALMM (active labor market measures) aimed at reducing the unemployment rate. The aim of the research work is to monitor the sustainability of self-employment and employment among the unemployed with work experience in the skilled construction industry, crafts, metallurgy, engineering. The research focuses on the Slovak supported unemployed in the 2012-2016. We monitor sustainability in the short and long term by socio-demographic and other factors. Through the probit model, we monitor the sustainability of the allowance and self-employment from 6 months to 4 years after the end of financial support. The results show that the allowance has a higher sustainability of employment than self-employment. The length of previous registration as unemployed (days) is an important variable in the short and long term after the end of receiving financial support. In the short term, the age of the supported unemployed plays an important role. In the long term, the sustainability of the self-employment is important for the supported, who have decided to start a business based on previous experience. The results of the work can help to effectively select applicants for support with work experience in certain qualified areas based on selected factors.

Keywords: Sustainability, Unemployed, Self-employed, Employed.

JEL classification: *I38, H53, J01*

1   Introduction

The allowance for self-employment is one of the tools of active measures on the labor market. The contribution to support self-employment can be examined from two parts. The first is monitoring the return of the supported unemployed on the labor market. The

second is monitoring the sustainability of self-employment among the supported unemployed.

Research works focus on comparing different programs [5][18] comparing participating and non-participating unemployed to programs or businesses founded by unemployed and employed [2][8]. Other researches use the characteristics of the supported unemployed [7][15][17] to determine the degree of sustainability. Studies investigating self-employment use quantitative methods such as PSM methods [5][16], regression model [13] probit and [15] logistic regression [17][10][12], Duration model [11]. The probit model was used in the research. Research works mostly focus on the comprehensive monitoring of the supported unemployed. In our case, we examine a selected group of supported unemployed with previous work experience and its smaller subgroups such as qualified construction worker, craftsman, worker in the metallurgical industry, engineering and similar workers (ISCO_71 and ISCO_72) in Slovakia.

The aim of the work is to examine the sustainability of self-employment and employment among a selected group of supported unemployed people with past work experience. We use socio-demographic factors, the amount of financial support, compatibility between work experience and field of business and the number of days of registered unemployment. The research focuses on the supported unemployed in the 2012-2016, sustainability in self-employment or employment in the range of 6 months to 4 years after the end of receiving financial support. All the supported unemployed received an allowance to start self-employment. In order to fulfill the research objective, we created a research question: Which factors influence the sustainability of self-employment and employment among the supported unemployed with work experience ISCO_71 and ISCO_72 from 6 months to 4 years after the end of financial support?

2 Literature review

Self-employment support is an ALMM (active labor market measures) tool. The primary aim of support is to reduce the unemployment rate, but it can also support the development of self-employment. The support of self-employment is an effective tool for the sustainability of employment or self-employment according to the results of studies [1][5][10][8]. In Germany, the sustainability rate is 70% in the short term [4]. In Slovakia, the rate of sustainability of self-employment after three years is 40.33% or 37.58%, depending on the region [17]. In France, after 5 years of sustainability, it is 59.4% [8].

Women decide to end their self-employment more often than men [14]. Entering self-employment is not popular among the older unemployed [15]. In a review of studies focusing on the sustainability of the program, the unemployed in middle and younger age have a higher survival rate of self-employment [18], also in the long term [17]. In research in Slovakia, education has no effect on sustainability [17].

In general, previous experience has a positive effect on the rate of self-employment in the labor market [14]. The supported unemployed also have different previous work experiences. The supported unemployed mostly have previous experience in skilled and

low-skilled occupations such as: worker, craftsman, trader, technician, repairman and others [17][8]. The field of business varies slightly from country to country. In the Czech Republic, the supported unemployed most often engage in business: sale of goods, cosmetic services, exhibitions of residential buildings, carpentry, and others [9]. In Germany they start a business in construction, business-related services [15] and in France construction (manufacturing industry, building industry), trade and services [8].

In Slovakia, the highest sustainability is among the supported unemployed with work experience in craft and skilled production [17]. For this reason, the research focuses on qualified construction worker, craftsman, worker in metallurgy, mechanical engineering and others supported by work experience.

Financial support associated with the support of self-employment reduces the imbalance in the market at the start of a business [3][6][15]. If the supported unemployed remain self-employed or employed, so the amount of financial support is an important factor [17]. The length of registration in unemployment has an impact on the sustainability of the program. Those supported with longer registered unemployment have a lower survival rate in self-employment and employment than those with a shorter number of days in registered unemployment [16].

Self-employment support has been used in Slovakia for a long time. The highest number of applicants for the allowance for self-employment was in 2012. In the following years, interest in self-employment allowance among the unemployed decreases [21]. The applicant for allowance must meet several conditions, such as registering unemployment for at least 3 months, submitting a business plan, establishing a trade license and others [20]. One of the important conditions is continuous business activity. In 2012, the supported unemployed had to be self-employed for at least 2 years [21]. Since of May 2013, the self-employment condition has been increased to 3 years [22]. If supported unemployed person does not fulfill the condition, he or she must return part of the financial support [20].

3   Methodology

In the research, we focus on analyzing support recipients with work experience in subcategories 71 and 72 of the ISCO code. These are qualified construction workers, craftsmen, workers in metallurgy, engineering and similar workers. We are looking for candidates with qualified work experience. We assume higher sustainability of employment and self-employment than those supported without experience with lower qualifications. Researches analyzing sustainability often uses regression models. Researches or parts of researches use probit estimation [5], probit [15] and logit model [8] multivariate ordered logistic regression models [9] [17] or use multivariate logit analysis [19]. In our research, we use a probit model with a dependent variable monitoring the sustainability of self-employment or employment in the short and long term.

$$Y = \Phi(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9)$$

In the research, we use data on a selected sample of supported unemployed between 2012 and 2016 from the database of the Ministry of Labour, Social Affairs and Family of the Slovak Republic (MLSFSR). These are recipients of the allowance for self-employment. The research work focuses on sustainability in four basic groups. Four different dependent variables are used. In the sustainability of self-employment and employment, we monitor the state of the supported unemployed after the end of receiving financial support.

Table 1. Description of binary dependent variables

The name of dependent variable	abbr	Description of the dependent variable
self-employment in the short time	SEMP (short time)	If the supported person was self-employed, the value of the variable is 1. If the supported person was employed, the ALMP instrument or unemployed, the value of the variable is 0. Time period is 6-30 months after the end of receiving support.
self-employment in the long time	SEMP (long time)	If the supported person was self-employed, the value of the variable is 1. If the supported person was employed, the ALMP instrument or unemployed, the value of the variable is 0. Time period is 36-48 months after the end of receiving support.
employment and self-employment in the short term	EMP (short time)	If the supported person was employed or self-employed, the value of the variable is 1. If the supported person was unemployed or in the ALMP, the value of the variable is 0. Time period is 6-30 months after the end of receiving support.
employment and self-employment in the long term	EMP (long time)	If the supported person was employed or self-employed, the value of the variable is 1. If the supported person was unemployed or in the ALMP, the value of the variable is 0. Time period is 36- 48 months after the end of receiving support.

Source: own processing with data from MLSFSR

In the first and second rows of Table 1, we monitor the dependent variable of sustainability of self-employment in the short and long term. In a short term, it analyzes subsidized self-employed persons who remained in business between half a year and 2.5 years after the end of receiving support. In the long term, we monitor the sustainability of self-employment from 3 to 4 years after the end of receiving support. In the third and fourth rows, we monitor the dependent variable of employment sustainability in the short and long term (table 1). The time interface for monitoring the sustainability of employment and self-employment is the same.

In the research work, we use socio-demographic variables: gender, age, family status and education. We divided the age of the supported unemployed into three

groups. The first group is supported unemployed people under the age of 26, the second group is supported unemployed people from 27 to 40 years old and the third group is over 40 years old.

As part of the research, we created a binary workmatch variable based on self-assessment of the match between work experience (ISCO) and self-employment area (NACE). We created a match between work experience and the field of business (workmatch=1) on basic of own reflection, e,g.: unemployed with work experience of auto mechanic (ISCO_7231001), who decided to start a business in the field of motor vehicle repair (NACE_45200), retail sale of vehicle parts (NACE_45320), car sales (NACE_45110), car rental (NACE_77110) or unspecified wholesale (NACE_46900). If the unemployed supporter did not indicate the field of business or his work experience did not correspond to the field of business, workmatch has the value 0. The independent variable fin shows the amount of financial support provided in euros. The last independent variable dbs (daysbeforesupport) tracking the length of previous registration as a supported unemployed person in days.

Table 2. Independent variables used in model

The name of independent variables	Description of the independent variables
gender (X_1)	binary variable: gender (men=1; women=2)
ageunder26 (X_2)	supported persons who were under 26 years of age at the time of support
age27to40 (X_3)	supported between the ages of 27 and 40 at the time of support
ageover40 (X_4)	supported over the age of 40 at the time of support
familystat. (X_5)	family status (single=0; married, divorced, widower=1)
education (X_6)	level of the highest education achieved (0-unidentified, 1-primary education, 2-lower secondary vocational education, 3-higher secondary vocational education, 4-university education)
workmatch (X_7)	binary variable: match between work experience and field of business=1, mismatch between work experience and field of business=0
fin (X_8)	amount of financial support in euros
dbs (X_9)	length of previous registration as unemployed in days.

Source: own processing with data from MLSFSR

In the research paper, we use the characteristic features of the supported unemployed supplemented by monitoring the sustainability of only a selected group of supported unemployed with similar work experience and their compliance with the field of business (self-employment).

4 Sustainability of self-employment and employment

The research work focuses on monitoring the sustainability of supported unemployed with work experience in the subcategories of ISCO (71 and 72). The total examined sample is 1054. The percentage of men is 99.72%. The higher percentage of supported unemployed are married, divorced, or widowed (70.30%), single (29.70%). The average age in the studied group is 38 years. Of the total number, younger than 26 make up 13.76%. In the age category of 27 to 40 years, the number of supported is 48.48%. The number of supported over 40 years is 37.76%. The greatest interest in support is among selected middle-aged unemployed people. The highest percentage of those supported has lower secondary vocational education (56.93%) followed by has higher secondary vocational education (39.18%), primary education (2.56%) and university education (1.23%). We noted the agreement between the field of work experience and the field of business in 77.80%. The minimum number of days of previous registration as unemployed was 104 and the maximum number of days is 588. The largest percentage decided to do business in less developed district (61.29%).
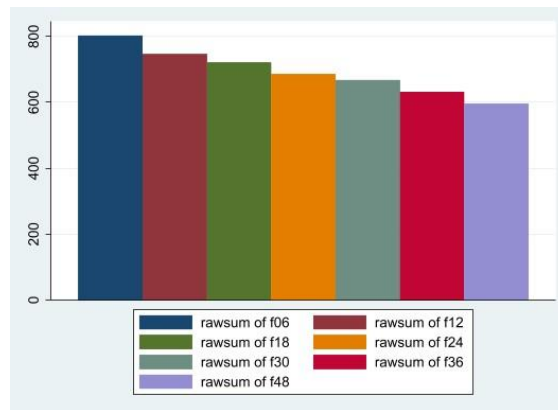

Fig. **1** The number of self-employed persons from 6 months to 4 years after the end of receiving financial support

The number of supported unemployed who remain self-employed decreases every year (fig. 1). After 6 months from the end of receiving financial support, 71.16% remained self-employed. After the first year, only 60.72% of all examined supported unemployed remained self-employed. After three years, it was 56.17% and after four years 53.19%.
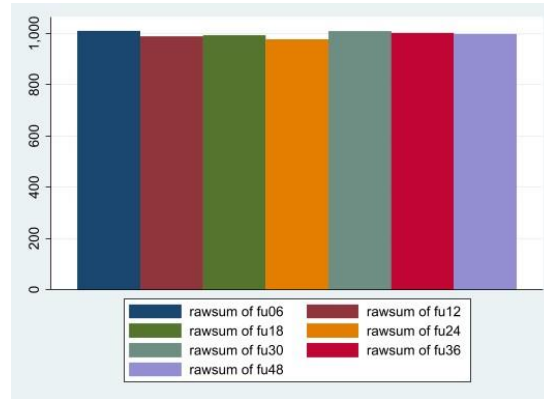
Fig. **2** The number of supported active on the labor market from 6 months to 4 years after the end of receiving financial support

After 6 months from the end of receiving financial support, 89.85% remained active on the labor market. After the first year from the end of receiving financial support, the percentage of those supported who remained active on the labor market is 87.86%. After two and a half years since receiving the support, we have seen an increase in the number of people active on the labor market in the amount of 89.56%. In the third and fourth year, it was 89.28% and 89.13% (fig.2). Depending on the type of work experience, the degree of sustainability of self-employment and employment can be different.

Table 3. Results of sustainability of self-employment and employment

	SEMP (short time)	SEMP (long time)	EMP (short time)	EMP (long time)
gender	0	0.182	0	0
	(.)	(0.24)	(.)	(.)
ageunder26	-0.132	-0.224	**0.702***	0.173
	(-0.85)	(-1.52)	**(2.08)**	(0.72)
age27to40	**0.317****	0.0996	**0.569*****	0.231
	(3.24)	(1.12)	**(3.45)**	(1.83)
ageover40	0	0	0	0
	(.)	(.)	(.)	(.)
familystat	0.185	0.158	0.205	-0.174
	(1.71)	(1.58)	(1.08)	(-1.12)
education	-0.0389	0.0870	0.0964	0.146
	(-0.50)	(1.22)	(0.70)	(1.34)
workmatch	0.170	**0.229***	0.128	-0.0179
	(1.68)	**(2.43)**	(0.75)	(-0.13)
fin	0.0000108	0.0000584	**-0.000289***	**-0.000198***
	(0.18)	(1.07)	**(-2.46)**	**(-2.27)**
dbs	**-0.000251*****	**-0.000194*****	**-0.000267*****	**-0.000302*****
	(-4.77)	**(-3.84)**	**(-3.61)**	**(-4.84)**
_cons	**0.628***	-0.498	**2.374*****	**2.164*****
	(2.01)	(-0.60)	**(4.04)**	**(4.74)**
N	1046	1049	1046	1046

The results in the sustainability of self-employment are different for those supported. The variable age is statistically significant, when monitoring the sustainability of self-employment and employment in the short term. In the sustainability of self-employment, the support is most effective for the unemployed between the ages of 27 and 40 with a lower number of days in registered unemployment during a short period after the end of receiving financial support. In the long term, we observe a positive effect on the compatibility between the field of business and previous work experience. Supported unemployed, who have decided to start a business in the field in accordance with work experience in ISCO subcategories 71 and 72 have a higher probability of sustainability of self-employment in the long term. In the sustainability of employment, we observe a positive impact on young unemployed people under the age of 26 and unemployed people between the ages of 27 and 40. The allowance for starting self-employment for the unemployed has a positive effect on the return to the labor market of the unemployed, who are middle-aged and younger and have work experience in subcategories ISCO 71 and 72. The amount of financial support is a tool for reducing the initial barriers at the beginning of self-employment. If the amount of financial support increases, the probability of maintaining employment in the short-term and long-term decreases. If the number of days of unemployment increases, it has a negative impact on the probability of sustaining employment and self-employment. Self-employment support is more effective for the unemployed with work habits and a lower number of days of unemployment.

5   Conclusion

The main aim of the research work is to analyze the sustainability of self-employment and employment through the monitoring of selected factors in the short and long term among the supported unemployed in the years 2012-2016. The monitored unemployed received an allowance for self-employment in Slovakia. The research work focuses on monitoring the sustainability of self-employment and employment, among those supported with work experience in subcategories ISCO 71 and 72 in Slovakia.

After the first year of support, the sustainability of employment is 87.86%. In the fourth year after the end of receiving support, the employment rate is 89.12%. There are lower percentages in the sustainability of self-employment. In the first year after the end of receiving support, 60.72% of all supported unemployed were self-employed. In the fourth year, it was 53.19%. In foreign researches, overall sustainability is higher. In Germany, the self-employment rate is 70%, after three years from the end of receiving financial support [4]. In France the survival rate is 59.4%, after five years [8].

If the length of previous registration as unemployed in days before support increases, the probability of sustainability of self-employment and employment decreases in both the short and long term. Self-employment support for the qualified unemployed should not be intended for those who have lost work habits due to long-

term unemployment. From the point of view of the sustainability of self-employment, the self-employment allowance for unemployed middle-aged people is more effective only in the short term. From the point of view of the sustainability of employment, the allowance is a suitable tool for the younger unemployed and the unemployed in the middle age. Previous experience in the field of construction, metallurgy, engineering, and craftsmanship with the aim of opening self-employment in the same field increases the probability of sustainability of self-employment in the long term for the supported unemployed in the long term. The amount of financial support is negatively statistically significant in the sustainability of employment in the short and long term. As the amount of financial support increases, the probability of sustainability decreases. Financial support is perceived as a means to remove barriers when starting a business [5], not as a temporary means for applying to the labor market. Therefore, if the amount of financial support increases, the probability of maintaining employment decreases. In the analyzed group of supported unemployed there is a large number of men, the gender variable is zero in most of the results. The independent variables gender, family status, education, and age over 40 are not statistically significant for the selected supported unemployed with work experience ISCO 71 and 72.

Several policy recommendations can be formulated from our results. In other countries, we observe a higher sustainability of the program than in Slovakia, therefore it would be appropriate to consider the use of other additional tools to support unemployed persons, such as additional business training. The selection of supported unemployed with ISCO 71 and 72 qualifications should be primarily oriented towards people with a lower number of days in registered unemployment and in middle age. The amount of financial support is considered an important factor, which is slightly negatively statistically significant in the research when examining the sustainability of employment. In the future, it would be appropriate to focus on changing the method of paying financial support to increase the sustainability of self-employment and employment.

The research focuses on examining the sustainability of self-employment and employment among those unemployed who received self-employment allowance for the unemployed in Slovakia. In the research, we analyze supported unemployed with work experience in subcategories ISCO_71 and ISCO_72. For this reason, the investigated number of supported unemployed is lower, the number of men is high. In the future, research can help in the effective selection of supported unemployed people with selected work experience in qualified fields.

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