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POSTGRADUATE STUDY MANAGEMENT
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CROATIAN ACADEMY OF SCIENCES AND ARTS

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INTERDISCIPLINARY MANAGEMENT RESEARCH XV
INTERDISZIPLINÄRE MANAGEMENTFORSCHUNG XV



JOSIP JURAJ STROSSMAYER UNIVERSITY OF OSIJEK
FACULTY OF ECONOMICS IN OSIJEK - CROATIA
POSTGRADUATE DOCTORAL STUDY PROGRAM IN MANAGEMENT
HOCHSCHULE PFORZHEIM UNIVERSITY - GERMANY
CROATIAN ACADEMY OF SCIENCES AND ARTS

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EFFECTIVENESS OF ACTIVE EMPLOYMENT MEASURES IN SUPPORTING SELF-EMPLOYMENT IN FEDERATION OF BOSNIA AND HERZEGOVINA

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Abstract

Active labor market policies help the unemployed to get into employment as quickly as possible and to the job that best suits their qualifications by providing them with the support, they need for a successful return to the labor market. Their main goal is to increase opportunities for employment of job seekers and to improve the matching of jobs by which these policies provide a contribution to employment and GDP growth and at the same time reducing unemployment and dependency on unemployment benefits. In 2015, the Federal Employment Institute implemented a number of active employment measures, including the active measure of self-employment in the Federation of Bosnia and Herzegovina called "Start up 2015". This measure included co-financing of costs of starting a business for 593 unemployed persons from this entity of Bosnia and Herzegovina. The purpose of this paper is to point out the effectiveness of this measure in supporting self-employment and contributing to positive macroeconomic effects. Evaluation of the effectiveness of active measure of self-employment is made on the basis of conducted primary research and analyzed through components related to sustainability of supported businesses, effects on income of beneficiaries

of the measure, the creation of new jobs through additional employment and cost-benefit analysis of the measure. The paper finishes with recommendations for improvements for further implementation of the measure.

Keywords: active labor market policies (ALMPs), self-employment, employment, public employment services (PES), Federation of BiH

JEL Classification: J08, J21

1. INTRODUCTION

According to European Commission (2016), the main goal of active labor market policies (ALMPs) is to increase the employment opportunities for job seekers and to improve matching between jobs (vacancies) and workers (i.e. the unemployed). ALMPs in this way provide a contribution to employment and GDP growth, and at the same time reducing unemployment and dependency on unemployment benefits. Most of the public employment services in the European Union but in other countries also use the similar design of ALMPs that include: counseling and job-search assistance, subsidies to employers, direct employment/job-creation schemes and training.

For EU member states, ALMPs constitute a central part of their European Employment Strategy, which defines employment as one key objective of a joint economic policy, and while such active policies have been in use for many years in most countries, there is a growing awareness of the need to develop scientifically-justified measures of the effectiveness of different ALMPs (Kluve, 2006, pg.4).

Active labor market programmes includes all social expenditure (other than education) which is aimed at the improvement of the beneficiaries' prospect of finding gainful employment or to otherwise increase their earnings capacity, and this category includes spending on public employment services and administration, labor market training, special programmes for youth when in transition from school to work, labor market programmes to provide or promote employment for unemployed and other persons (excluding young and disabled persons) and special programmes for the disabled (OECD, 2008).

In line with positive practices, the Federal Employment Institute implements a range of active employment measures that are implemented through various forms of support in employment, self-employment, preparation for the labor market and vocational education and training in accordance with the needs and requirements of the labor market as well as relevant laws and documents, es-

pecially with the Strategy for strengthening the mediation function in public employment services in Federation of Bosnia and Herzegovina.

Federal Employment Institute implemented a number of active employment measures in 2015, including the active measure of self-employment “Start up 2015” which included co-financing of costs of starting a business for 593 unemployed persons from Federation of Bosnia and Herzegovina. The results of the primary research related to the sustainability of supported businesses, effects on income of beneficiaries of the measure, the creation of new jobs through additional employment and cost-benefit analysis of the measure are used for estimation of effectiveness of the measure. The research and evaluation of the measure were implemented within the Youth Employment Project (YEP).

Evaluation of the active employment measure can be done at all stages - at stages of identification, creation, implementation, and measurement of results. The authors of this paper made an impact assessment of the measure since the evaluation was done in the stage of results measurement in order to determine the net impact of the measure. The results of the net impact of the measure for beneficiaries have been assessed in comparison with the appropriate group (control group), what enabled measurement and comparison of the achieved effects with what would happen if the measure was not implemented. For this purpose, the authors applied econometric analysis, which compares the differences in the data pairs of the beneficiaries of the measure and the selected control group members i.e. authors applied the matching method by similarity.

One of the objectives of the research are is to determine how many beneficiaries of the measure kept their businesses open six or twelve months after the end of the measure. The additional objectives of the analysis are to review the financial effect of the measure Start up 2015 through the prism of improvement of the financial situation of the beneficiaries, as well as the cost-benefit analysis of the measure from the Federal Employment Institute point of view. Ultimately, the final objective of the research but also the evaluation is to provide a contribution to improving the procedures and processes of implementing active self-employment measure by giving recommendations that are consisting part of the paper.

2. ACTIVE LABOR MARKET POLICIES

Public Employment Services exists to provide social security to unemployed persons during the unemployment period, but their primary purpose

is to link supply and demand, i.e. unemployed persons and employers, which is achieved through modern tools and active labor market measures (Markuš and Umihanić, 2014. pg.3). According to International Labor Office (2003, pg.3), active labor market policies are policies that provide income replacement and labor market integration measures to those looking for jobs, usually the unemployed, but also the underemployed and even the employed who are looking for better jobs. ALMPs typically include labor market training, job creation in the form of public and community work programmes, programmes to promote enterprise creation, and hiring subsidies. ALMPs are usually targeted at specific groups facing particular labor market integration difficulties: younger and older people, women and those particularly hard to place such as the disabled. (ILO: GB.288/ESP/2, 2003).

The success of ALMPs depends not only on expenditure levels but most importantly on the design of the measures and the way they are implemented. Counselling and job-search assistance are mostly useful for short-term unemployed and include advice combined with a range of potential interventions. Subsidies to employers are relatively costly and are typically targeted at the most disadvantaged groups for whom other measures have proved ineffective. Direct employment/job-creation schemes are typically targeted at medium and long term unemployed to avoid perverse employment effects on the short term unemployed, through participants who might otherwise have found “real” jobs, being held off the labor market during the period of participation. Training is usually found to have the strongest positive long-term effects, but it is expensive (EC, 2016, pg. 6).

Based on positive practices, the Federal Employment Institute as an authorized institution for implementation of the active employment measures in the Federation of BiH implements different sets of ALMPs including the ones intended for employers as well as for unemployed individuals. The first group of measures is implemented for the purpose of satisfying demand of employers for workers of a certain profile and occupation, while other groups of measures are implemented with the aim to improve the labor supply of the Federation of BiH. When defining the measures, Federal Employment Institute takes into account the needs and requirements of the labor market as well as of compliance with the relevant strategic documents in the area of labor and employment. Special attention is paid to the diversity and needs of cantons in the Federation of BiH, and the available funds for the implementation of the ALMPs.

Some of the active employment measures implemented by the Federal Employment Institute include: Program of co-financing of the employment and gaining the first employment experience, Program of employment program and self-employment of Roma people, Program of co-financing of start-ups, professional orientation (professional information, training program for active job search etc.), program of preparation for job (training, vocational training and specialization), public works programs and joint programs with other institutions.

3. ACTIVE SELF-EMPLOYMENT MEASURE START UP 2015.

Active employment measures in 2015, the Federal Employment Institute defined and implemented in line with the Law on mediation in employment and social insurance of unemployed persons in Federation of Bosnia and Herzegovina („Official Gazette of Federation of Bosnia and Herzegovina“, no. 41/01, 22/05 and 9/08), Strategy for strengthening the mediation function in Public Employment Services in the Federation of Bosnia and Herzegovina and 2015 Annual working plan of the Federal Employment Institute. Support was provided to target groups of unemployed people identified by the aforementioned strategic document as more hardly to employ, especially young people and women. The realization of active employment policy measures was aimed at recruiting the persons from the unemployment register in the Federation of Bosnia and Herzegovina with special social and gender sensitivity in order to strengthen their competitiveness in the labor market, to prevent long-term unemployment and to create the conditions for acquiring the first job experience. Part of the ALPMs in 2015, was Program of co-financing of self-employment named Start up 2015. Planned funds for this measure were 2.640.000 BAM, and Federal Employment Institute implemented this program in cooperation 10 cantonal public employment services.

The aim of the program was to encourage at least 600 people from the unemployment register in the Federation of BiH for self-employment as well as employment of other unemployed persons, with support to the development of social entrepreneurship.

As a target group/beneficiary of the funds were defined persons from the unemployment register in the Federation of BiH before submitting the application for the program, regardless of the level of education and age, which would upon approval of the funds, register and maintain the small business for at least 15 months.

Measure was defined in a way that Federal Employment Institute would transfer the incentive funds to the beneficiaries after registration of small business (craft or limited liability company) in the number of obligatory contributions determined depending on the field of business activity, for the duration of 15 months, after the beneficiary provide proof that he/she paid these contributions. In the case of employment of an additional person, Federal Employment Institute would transfer incentive funds in monthly payments in the number of mandatory contributions of employees' salaries. Also, for the purpose of business start-up costs (registration fees, materials, equipment etc.), Institute transferred incentive funds in the amount of 200,00 BAM. For the purpose of implementation of the measure and collecting applications, the Federal Employment Institute published a Public call through the media and the website www.fzzz.ba, which remained open until the expenditure of funds, i.e. until the signing of contracts in the value of available funds determined by cantons. Review of allocation of funds by cantons and the level of implementation of funds are presented in Table 1.

Table 1. Program Start Up 2015 - Allocation of funds by cantons and level of allocation

Canton	Participants of the control group (No of unemployed persons at the time when the call was opened)	TOTAL (Planned)	TOTAL (Allocated)	Level of allocation of funds (%)
Una Sana Canton	45.251	297.517,13	301.501,00	101%
Posavina Canton	5.378	105.478,52	112.156,00	106%
Tuzla Canton	98.215	544.642,64	560.842,00	102%
Zenica Doboij Canton	70.017	411.153,59	382.561,00	93%
Bosnian Podrinje Canton	3.797	96.329,56	43.368,00	45%
Central Bosnia Canton	42.917	276.142,86	223.011,00	81%
Herzegovina Neretva Canton	33.135	238.520,01	177.040,00	74%
West Herzegovina Canton	9.157	130.899,62	60.569,00	46%
Canton Sarajevo	70.579	415.643,27	237.464,00	57%
Canton 10	8.159	123.672,79	103.384,00	83%
TOTAL	386.605	2.640.000,00	2.201.896,00	83%

Source: Federal Employment Institute, author's creation

The total amount of allocated funds were 2.201.869,00 BAM, which is ca. 83% of the planned amount. The total planned number of beneficiaries was 600, while the actual number of beneficiaries was 593. The average cost per beneficiary was 3.746 BAM.

4. EVALUATION OF ACTIVE MEASURE OF SELF-EMPLOYMENT START UP 2015

4.1. METHODOLOGICAL FRAMEWORK

According to Corbanese & Rosas (2009) in net impact estimation, the outcomes of program participants are judged in relation to an appropriate comparison (control) group. These authors explain that measurement of net impact includes the impact on employment and earnings and that is needed in order to estimate whether the programs were adequately designed, targeted, sequenced and administered.

Econometric analysis was conducted for the purpose of net impact estimation of participation in the program. This analysis compares the differences in the data pairs of the beneficiaries of the measure and the selected control group members, more specifically, the pairing method by relatedness was applied. The general demographic characteristics of the beneficiaries were known. In order to satisfy the objectives of the analysis, a similar member of the control group was identified satisfying at least five basic criteria (PES, qualification, sex, age and period of job search/period spent at unemployment register of the Federal Employment Institute). Econometric analysis indicated the effects of participation in the program for each participant, by direct comparison of differences in data pairs of beneficiaries and carefully selected member of the control group. Thus, for each participant in the program/beneficiary of the measure, at least five potential individuals for pairing within the control group were identified. After pairing the members of these two groups, the difference between them was measured.

A qualitative part of the research, which was conducted for further accepting/rejecting defined hypotheses, was realized using the questionnaire and in the form of interviews with beneficiaries of the self-employment measure and members of the control group, with attempt to include less important, unformed

or disguised attitudes about the measure and the services provided by the PES, all based on the research objectives. The survey was conducted on a sample of beneficiaries, but also on randomly selected members of the control group, i.e. unemployed persons who were on the unemployment register of the Institute in the period when the active self-employment measure was implemented. The questionnaire of the International Labor Organization (ILO) was used as the basis for the creation of questionnaire, and additional questions from the Labor Force Survey were included, which was additionally adapted and modified in accordance with the requirements of ALMP Start up 2015. The survey questionnaire contained questions about income before 2015 and after 2015 as well as questions about subjective evaluation of the program.

In the assessment of the net impact of the measure Start up 2015 several research questions were defined:

- ✦ How many beneficiaries of the measure have retained their business after the end of the measure?
- ✦ What are the effects of the measure on the household members of the beneficiaries?
- ✦ Does the measure contribute to additional employment of other persons on the unemployment register?
- ✦ Do the benefits outstrip the costs of the measure and is the investment in the active measure justified?

Based on the methodological framework and research objectives following hypothesis were defined:

- ✦ H1: An active self-employment measure encourages employment with a significant percentage of beneficiaries who have retained small business for 6 or 12 months after the end of the measure.
- ✦ H2: Active measure of self-employment affects the income of the beneficiary's family.
- ✦ H3: Active measure of self-employment has a positive impact on additional employment.
- ✦ H4: Benefits of the ALMP overcome its costs, and investment in the implementation of the measure is justified.

H1: The starting point for the individual analysis were the data from the database of public employment services in which beneficiaries of the measure,

as well as unemployed persons, were registered and by which the trends and relevant individual changes could be identified over time or reference period. A large number of data (more than 146 variables) are stored in the public employment service databases, which measure different interactions between job seekers and service providers (bureaus). All persons in the database are marked with ID¹ numbers, so the cases (episodes) of persons who are registered or removed from the register can be tracked. In this particular case, beneficiaries of the measure have been removed from the register at the beginning of the use of the funds, and in case of eventual closure of business, were registered again. Therefore, for the purpose of accepting or rejecting H1, it was necessary to conduct an analysis of the duration of integration of the beneficiaries of the measure on the labor market.

As a first step, out of two tables “asset effects” and “passive effects” a new table was made containing the total actual episodes of unemployed persons. A real episode of unemployed persons is the time period that passes from the time of the beginning of the use of the measure until the eventual return to the register. Returning to the register is an undesirable outcome of the measure, and the share of those beneficiaries in the total number of beneficiaries was used to determine the effectiveness of the measure. To prove this hypothesis a comparative analysis of the data was used, in a way that statistical indicators were compared as the average effect of the measure for two different periods. As referent periods, indicators of beneficiaries which maintained the status of employed person 6 and 12 months after the end of the measure were used. To prove this hypothesis, the results of the analysis of the net impact were calculated using the propensity score matching - PSM.

H2: In proving this hypothesis, the results of the online questionnaire, filled out by beneficiaries of the Start up 2015 measure, were used. According to clearly defined criteria, it was necessary to assess the improvement of the overall socio-economic situation of the individuals during and after the use of a specific measure. The questionnaire was used to evaluate the subjective perception of the beneficiary about changes in lifestyle standards or quality of life, as well as to evaluate the current business situation in the case of those beneficiaries whose businesses were still active and in which beneficiaries are still employed,

¹ In order to protect personal data, a unique “key code” was generated for each person, which is monitored through all episodes and has a function of individual registration number.

providing an insight into the improvement of the socio-economic situation of each individual beneficiary. The qualitative part of the survey was implemented using a questionnaire for beneficiaries of the measure and by using the method of dubious interviews with the employees of the PESs.

H3: The indicator of the success of measure's outcome relates to whether the beneficiaries employed additional staff during the use of the measure and to what extent. So, the questionnaire contained questions related to this issue, and used statistical tool for this hypothesis was a statistical comparative analysis of the results.

H4: For the purpose of the analysis of benefits of the measure and determination in which extent the costs and investment in implementation of the measure were justified, authors used partial cost-benefit analysis, which presents determination and comparison of the cost of the measure for one individual and expense of the unemployed person which is on the unemployment register, as well as ratio of the costs of the self-employed person. Calculation included average annual costs of fees for the unemployed person and the average cost for health insurance which is different depending on a canton, so the average value of 8,00 BAM was taken into calculation.

In its original form, the database of the Federal Employment Institute contains information about people who were unemployed for a certain period of time. For the purpose of defining the database of the control group, only those individuals who were unemployed at the beginning of the certain month were selected. Conditions for the beneficiaries were defined in a way to allow monitoring of the duration of use of the measure. Creation of the input bases in this way enabled pairing with a double from the control group, which at the same month was on the unemployment register. The pairing procedure for each month referred to:

- the case of a group of beneficiaries of the measure - persons who started to use the measure in a certain month
- the case in the control group; persons who did not use the measure (with control related to participation in other measures) and at the same time which were unemployed on the first day of the given month.

In order to control variations in the labor market at the year level, exact matching at month and year levels were applied. This, besides the closest approximate values of the sum of the propensity of participation, implies the ap-

plication of the conditions under which the person in the control group must be unemployed in the same month as the person who participated in the measure to which this match-pair belongs.

Through the econometric longitudinal model, labor market outcomes were tracked for both groups. To measure the net impact of the measure, the authors applied the method that allows post hoc evaluation of the net impact of the measure based on propensity score matching – PSM method. Within the model, the probability of employment or unemployment (depending on the type of dependent variable) is simulated according to the formula:

$$e(X_i) = \Pr (z_i = 1/X_i)$$

for $z_i = 1$, for beneficiaries and $z_i = 0$ for the control group; X_i – covariance observation vector and^{te} observations.

Since the PSM is the probability model, it is defined through binary variables 0 to 1. The general logic of the model was to identify a set of variables of persons who participated in the Start up 2015 measure which affect the possibility of inclusion in this measure.

Pairing of data was based on the assumption that, at a time when the co-financed and funded persons entered in some of the ALMPs, it is possible to identify a set of their similars which, according to the selected characteristics available in the used database, could use the analyzed Start up 2015 measure but they have not done so.

4.2. RESULTS OF THE ANALYSIS

The analysis included 593 beneficiaries of the self-employment measure. In relation to gender, 41% of the beneficiaries were women, while the rest of 59% of beneficiaries were men. Only 2% has left the program. The measure included 33% of persons between 24 and 35 years old and 15% of 19 to 24 years old.

The extent of the analysis for all reference years is defined by 12 months after the nominal duration of the measure (15 months). In addition to showing the average effect of the measure on total data, paired data provided a comparison and interpretation of the average effects of the measure at the year of its implementation.

H1: *An active self-employment measure encourages employment with a significant percentage of beneficiaries who have retained small business for 6 or 12 months after the end of the measure the measure can be accepted since 52% beneficiaries retained their working status 12 months after the end of the measure. More precisely, out of 593 beneficiaries, 411 of them were still employed after 6 months and 310 of them after 12 months.*

For the purpose of the analysis, two logistic regression models were used. These two models have the same set of independent variables and various dependent variables. In each model, the dependent variable referred to the outcome of the measure - the status of a person in the labor market. Employment status is a variable used as a dependent variable. For the purposes of econometric analysis, logistic regression was used. People who were employed were assigned a binary value of 1 and a non-working person was assigned a binary value 0. In the second model, as the main independent variable, the value 1 was used for the persons who used the measure and belonged to the beneficiaries group and 0 for persons who did not use the measure and belonged to the control group.

In the estimations of the model, the indicator of belonging to the beneficiaries or control group was used as the main independent variable. Namely, the statistical significance of this variable was used to estimate the statistical significance of the effect of the measure. Other independent variables were used as control variables and were included in the model, with the aim of further testing the significance of the measure effect test.

The set of independent variables were the predictors of the outcome of the intervention previously used in the matching process, and the measure underestimation indicator (coded as 1 = beneficiaries group, 0 = control group). Systematically, on the basis of simulations implemented using the econometric model of logistic regression, β coefficients of the model from sample distribution were obtained, defined by the standard error of the logistic regression model. For each of the models, two types of simulations were performed, one for the beneficiaries group and in which the binary value of 1 was assigned for the affiliation indicator. The second simulation was performed for the control group, for which the binary value assigned was 0. For each model, other independent variables were set at the average values of the analyzed data set. The next step in the econometric analysis was to estimate the difference between the expected probabilities of employment/unemployment between the beneficiaries and control group.

In Table 2, the distribution of “scoring” was compared to similarity before pairing and after pairing between the control group and the beneficiaries group. The “total data” column shows the arithmetic mean of the scores according to the likeness of the beneficiaries of the measure and the control group which in this column implies all observations in the database that have not entered the ALMPs in the given model.

The other parameters in this column are: the standard deviation of the scores according to the preference within the control group (SD control), the difference between the arithmetic mean treated and the control group (average of the differences), and the standardized difference between the arithmetic mean of the two groups (st. average of the differences). The standardized difference of the arithmetic means was obtained as the difference between the treated and control group divided by the standard deviation of the control group and represented a sort of reduction of pair-matching bias according to the formula:

$$\text{The standardized difference of the arithmetic means TOTAL DATA} = \frac{\bar{x}_T - \bar{x}_C}{s_C}$$

\bar{x}_T = average of the aimed variable (score depending on the preference or predictor of the logistic regression model) in the beneficiaries group,

\bar{x}_C = average of the aimed variable (score depending on the preference or predictor of the logistic regression model) in the control group

s_C = standard deviation of the aimed variable (score depending on the preference or predictor of the logistic regression model) of the control group

The same set of data is also presented in the next column (paired data), with the difference that the data only concerns paired bases. The last column (reduction) offers an amount of data bias reduction after implementing the pairing algorithm. The second subset of the “reduction” column represents the reduction percentage of the standardized difference of arithmetic means after the application of the pairing procedure.

Table 2. Support to self-employment – Rating of pair-matching quality – distribution of bias scores

	Total data					Paired data					Reduction	
	Average - beneficiary	Average - control group	SD of the control group	Average - difference	SD difference	Average - beneficiary	Average - control group	SD of the control group	Average - difference	SD difference	Average - difference	SD difference of averages
2015	0,005	0,000	0,000	0,001	1,6487	0,001	0,001	0,001	0,000	0,0145	97,8746	97,1457

Source: Federal Employment Institute, Federal Tax Office, Authors' creation

As can be seen from the previous table, the pairing quality is high regarding the distribution of bias scores. Thus it can be concluded that the members of the control group within the base of all the unemployed persons at the moment of the initiation of the measure, by their characteristics, corresponding to the members of the beneficiaries group.

In each model, the standardized difference of the arithmetic means before pairing was consistently higher than after pairing. Sample distributions of these differences and 95% confidence intervals were made through simulation. Reliability intervals that do not include value 0 are statistically significant, regardless of the positive or negative sign. In case that the range of intervals at a certain moment got the value of 0, the effect of the measure was not statistically significant.

Confidence intervals were calculated for each model at the level of each of the analyzed object for 12 months after leaving the intervention. The table below shows the obtained intervals.

Table 3. Beneficiaries of the measure and members of the control group at the employment register

	Beneficiaries of the measure	Pair-matched members of the control group
Startup 2015	593	972
State on the employment register of the TAX office after six months	69%	31%
State on the employment register of the TAX office after twelve months	52%	27%

Source: Federal Employment Institute, Federal Tax Office, Authors' creation

On the basis of the final results, it can be concluded that the level of the measure's implementation is 98%, that is, withdrawal from the measure of the beneficiaries is very small, only 2%.

Distribution of the confidence intervals for the employment outcome in the sixth month after the end of the measure, reviewed in relation to total data, indicates that the impact of self-employment measure on employment rates is statistically significant at the 95% interval. The average effect in the sixth month after the end of the measure is 0.379 and the lowest limit of the interval is 0.359.

In the self-employment aspect, the average impact of the measure on employment is high and it is on the level of 52% 12 months after the end of the measure, while for the members of the control group the employment rate has remained at the approximately equal level of 27%.

H2: *Active measure of self-employment affects the income of the beneficiary's family* is accepted, although the survey showed that this impact is not significant, but that there was the certain impact on the financial situation of the beneficiaries of the measure. More in-depth analysis of the impact would include additional data from the tax office and the amount of the money invested in the business by the beneficiary. Cca. 57% of beneficiaries stated that before 2015, they had a very bad financial situation, while 50% rated the financial situation as moderate. At the same time, 25,12% of beneficiaries of the measure stated that their financial situation before 2015 was relatively good and only 35,11% said they had a good financial situation. Although the number of beneficiaries whose financial situation improved after 2015 was more than 10 %.

H3: *Active measure of self-employment has a positive impact on additional employment* is accepted since, in addition to 593 employed through the implementation of the measure, 130 other persons were employed. Besides 593 employed persons, additional 130 persons were employed by the beneficiaries of the measure, out of which 50% of those who had additional employment, employed one person, while 2% of them employed more than one person. The interesting indicator is that out of 130 additionally employed, 78% of them were employed after the end of the measure.

H4: *Benefits of the ALMP overcome its costs, and investment in the implementation of the measure is justified* is accepted since the funds for 2,6 beneficiaries should be spent in order for one beneficiary to be employed.

For the purpose of accepting/rejecting this hypothesis, the cost-benefit analysis was used. Table 4. show the cost rates per employed beneficiary of the measure Start up 2015.

Table 4. The cost rates per employed beneficiary of the measure Start up 2015

Total spent funds for implementation of the measure	2.221.584,72
Number of beneficiaries	593
Average cost per beneficiary	3.746
The net impact of PSM 12 months after the end of the measure	0,38
Absolute net (Number of beneficiaries * PSM net impact)	225
The unit cost of the measure by achieved impact, ie by employed (total spent funds, divided by absolute net)	9.873
The cost rates per employed beneficiary (how many unit costs per beneficiary should be spent to employ one beneficiary 12 months after the end of the measure)	2,6

Source: Federal Employment Institute, Federal Tax Office, Authors' creation

Table 4 shows that total funds for the measure were in the amount 2.221.584,72 BAM and that average costs per one beneficiary was 3.746 BAM. In order to compare the cost of the measure per one individual, beneficiary of the measure and cost of the unemployed person which stays on the unemployment register, and the ratio of the costs of the self-employed person, authors calculated how much the unit cost per beneficiary should be spent for one beneficiary to be employed 2 months after the end of the measure. It can be concluded that it was necessary to spend the amount of the cost of 2,6 self-employed people so that one person can be employed. To this calculation, we add the fact that the average cost of receiving certain remunerations as the unemployed person at the unemployment register is 4,632 BAM, so the Public Employment Services should have higher interest for the proactive inclusion of the unemployed persons in the use of active employment measures especially self-employment measure.

It should be emphasized that within the survey authors also conducted a certain estimation of satisfaction with the measure by the beneficiaries. The results show that 54,22% of beneficiaries stated that they were satisfied with the implementation of the measure, while 50% of them were satisfied with the reporting process. At the other hand, 82,17% of participants of the control group stated that they were not offered to use the measure. On the basis of this, it can

be concluded that Federal Employment Institute had partial success inadequate communication of the measure, which implies greater involvement of counselors in the process.

5. RECOMMENDATION FOR IMPROVEMENT OF EFFICIENCY AND EFFECTIVENESS OF THE MEASURE

Based on the results presented above, authors provide a set of recommendations which implementation would contribute to the higher effectiveness and efficiency of the start-up measure as active employment measure of the Federal Employment Institute, thereby contributing to the creation of new jobs and new employment in the Federation of Bosnia and Herzegovina.

Recommendation 1: Introduce continuous control of databases of PES and state at the employment register of tax offices.

Establishment of the regular monitoring system of the employment data within the databases of PES and tax offices would contribute to more effective monitoring and evaluation of ALMPs, while huge time-wasting on a collection of information by cantonal employment offices would be avoided. Besides this, monitoring of these data would contribute to more effective planning of new ALMPs with the final objective of providing a contribution to new employment.

Recommendation 2: Improve procedures of application, implementation, and reporting of ALMPs.

Although over half of beneficiaries of the measure stated that they were satisfied with the application procedures, implementation, and reporting related TO the implementation of the measure, 22% of respondents stated that they were not satisfied with the mentioned aspects. As it is a significant share, it is necessary to further consider the reasons for the expressed views and to improve these procedures. Special attention should be paid to the promotion of the public call and distribution of the information. Procedures of the monitoring and reporting should take in consideration the needs and requirements of the people who do not have the advanced IT skills.

Recommendation 3: *Self-employment measure should have pre and post activities in order to contribute to greater employment and survival of supported businesses in the market.*

Since only 130 additional persons were employed by the beneficiaries of the measure, as well as that the certain percentage of beneficiaries left the measure, this implies the need for continuous improvement of the measure including pre and post activities. The entrepreneurial process starts with the decision of the entrepreneur to become an entrepreneur, including the business idea generation process (Baringer & Ireland, 2008). The process continues with the validation of the business idea (through feasibility analysis and creation of a business plan) then starting a business and further development of the business. Looking from this aspect, self-employment measure covers only the step of business start-up process which implies the need for ensuring support in business idea validation process and support in development of established business, which can be done through entrepreneurial education before the financial support and mentoring services during the business start-up process but as well after registration of the business, in order to provide contribution to better entrepreneurial and managerial competencies of business owners/beneficiaries of the measure, but as well as to higher employment and sustainability of the established businesses. This would also contribute to less drop out rate of the measure.

Recommendation 4: *Parallel monitoring and evaluation of ALMPs*

Parallel monitoring of the multiple ALMPs provides opportunities to contemplate and compare effects of every individual measure, but also to measure the average cost per beneficiary, which can provide additional information about the costs of the measure and whether it was more efficient in relation to other implemented ALMPs.

6. CONCLUSION

Active labor market policies have become one of the main approaches and instruments for providing support to unemployed persons to find a job at the same time improving the matching of jobs. These policies have a significant role in providing a contribution to employment and economic development of the country. There are several forms of ALMPs focused on different groups and different outcomes. Most of the active employment measures differentiate in target

groups (youth, vulnerable groups etc.) or field (public works, self-employment etc). Based on positive practices, the Federal Employment Institute in 2015 among other active employment measures implemented active self-employment measure called Start up 2015 with the aim to support unemployed persons to ensure employment through starting their own business.

Analysis showed that this measure provided a contribution to employment since 52% beneficiaries retained their working status 12 months after the end of the measure and that additionally 130 persons were employed as a result of the implementation of the measure. Measure positively affected the income of the beneficiaries, and its benefits overcome its costs ie. investment in the implementation of the measure is justified since the funds for 2,6 beneficiaries should be spent in order for one beneficiary to be employed. These results showed that the measure was effective, but for better higher effectiveness and efficiency of the start-up measure as active employment measure of the Federal Employment Institute it is necessary to introduce continuous control of databases of PES and state at employment register of tax offices, improve procedures of application, implementation and reporting of ALMPs, introduce pre and post activities in order to contribute to greater employment and survival of supported businesses in the market and to ensure parallel monitoring and evaluation of ALMPs.

ALMPs in Federation of Bosnia and Herzegovina experience increasing interest by unemployed persons as well as employers and provide positive effects on employment. With the implementation of suggested recommendations and another improvement of the measure, their positive macroeconomic effects will be higher in the forthcoming periods.

7. REFERENCES

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