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ECONOMETRIC MODELING, EVALUATION AND FORECASTING OF THE RURAL WORKFORCE SITUATION IN THE REPUBLIC OF MOLDOVA

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Abstract

A very actual problem for the Republic of Moldova represents the migration processes of rural population, expressed by workforce flows in this region. Along with the free circulation of the workforce to more prosperous countries, migration flows provoke economic imbalances in country development. In this paper, the authors have set the objective to determine the key factors that influence the migration level in the Republic of Moldova, especially that of the rural sector, through the prism of econometric methods. The typology of econometric methods used by economic sciences is extremely vast. The more and more often use of these models in economic phenomena investigation are due to significant progresses made in the field of estimation methods of models' parameters and that of verification tests, on which these are based on and, last but not least, that of the use of electronic calculators that allow the operative solving of the most complex economic problems. In conclusion, the authors propose a model of econometric regression between the selected variables that have a maximal level of influence on the rural migration situation in the Republic of Moldova, justified by elasticity coefficients values.

Key words**:** *econometric model, rural migrants, rural sector, unemployment rate*

INTRODUCTION

Modeling represents the main instrument of econometric investigation of economic phenomena. Models are representations of systems that can be studied without them being physically, socially or economically touched. An econometric model represents a formal expression, inductive of an economic regularity – represents a way of knowing an economic object, at the same time an econometric model is a method that leads to obtaining new knowledge and information about the state, structure (connections between elements) and evolution of a process or economic system [1, 2, 5].

The generated model represents an intermediate link between theory and reality. It represents a way of confrontation between theory and practice, the only way of experimentation on which the economic science can ground its hypotheses, as the object of investigation can be only observed, but not isolated and studied in laboratory.

Econometrics represents the totality of methods and techniques of modeling and analysis of economic variables dynamics, and of connections between them. Econometrics uses o large part of statistical inference techniques offered by mathematical statistics.

When particularizing the econometric bonds with some of the economic disciplines, it's necessary to highlight the correspondence between econometric modeling and forecasting. Macro or microeconomic forecasting represents a domain that largely uses the results of simulation and those of econometric forecasting. The forecasting activity in economics "offers" a set of elements useful for model development, especially regarding its specification phase. At this stage, the forecasting defines endogenous (resulting) variables and the exogenous variables package corresponding to the established objectives depending on existent statistical information [3]. Econometrics, in turn, contributes to obtaining economic variants, offering information regarding

endogenous variables behavior in different alternatives of acting the economic levers.

Models identification consists in the chosen function or group of mathematical functions, which help to approximate the endogenous variable y values according to the exogenous variables variation x_i, i = 1, 2, …, n. The range of mathematical linear or nonlinear functions, that can be used in this regard, is large. The choice of one mathematical function, as a regression function of an econometric model, is made based on real or empiric values of economic phenomena, systematized, either in chronological series or space series.

A first appreciation on variables distribution x_i, i = 1, 2, …, n and y is made using the diagram of values spreading, actually a representation of points on an axis system with x_i and y coordinates. The visual analysis of organization and form of the obtained cloud of points offers important indices about the relation between variables. Statistical data will support the association hypothesis between variables if the form of the cloud of points is approaching to a functional curve identified with a specified precision. Thereby, the associations can be appreciated by linear, curvilinear and other analytical expressions. If in the points cloud can't be distinguished a tendency, then the variables are not related. By choosing the tendency of the curve that approximates the function in the best way possible, we can identify the equation (R2 – coefficient of determination – must be a value as close as possible to 1).

MATERIALS AND METHODS

The parameters of an econometric model are represented by the coefficients of the accepted regression function at its identification stage. These parameters are unknown and must be estimated on the basis of experimental data, systematized in statistical series of those two variables y and x, via their respective values y_i, x_i, i = 1, 2, …, n. The regression functions of an unifactorial model may be linear functions, or nonlinear functions expressed by a power function, exponential nonlinear function but that can be linearized through such procedures like: logarithm zing, switching variables and arbitrary fixation of a value of some parameters [7].

The selection process of the best regression takes place in the context in which exists a dependent variable y and a multitude x of possible independent variables. In order to select the best regression, some stages should be followed:

- identifying all possible independent variables (specifying the maximal model);
- specifying selection criterion of the best regression;
- specifying a strategy for independent variables selection;
- performing the model estimation and analysis;
- evaluating the chosen model of reliability;
- analyzing R2 values and retaining that subset of variables for which is fulfilled the accepted compromise between the number of variables and the size of the determination coefficient R2.

In this context, selection methods of independent variables are econometrically defined.

Prospective selection, that starts with including into the model the independent variable with the greatest correlation coefficient with the y variable. At each next step, every variable, which is not included into the model yet, should be analyzed with a sequential F test and the model is expanded by including that variable that gives a maximal contribution (critical probability in the F test is the lowest). The process stops when the model cannot be extended anymore, the usual criterion is that of fixating an entry verge (P_{in}) and accepting only those variables for which critical probability in sequential F test is lower or equal with this verge. This procedure has limits like the fact that certain variables won't be ever included in the model, so their importance won't be determined. On the other hand, an included variable at a certain step remains in the model forever, even if by a further including of other variables, its importance will decrease.

Retrogressive selection starts with estimating

the complete model after which, in a successive number of steps, the insignificant variables are removed from the model. At each step, on basis of a partial F test, the variable with the greatest critical probability is eliminated. The process stops when there isn't any variable that can be eliminated. The usual criterion is that of fixating an elimination verge (P_{out}) and taking into account just those variables that have the critical probability higher than that of this verge.

Step by step selection. It's a combination of those two previously described methods. At a subsequent step of the prospective regression, the elimination of a variable is allowed, like in the retrogressive selection. A variable eliminated from the model becomes a candidate for including into the model, while a variable included into the model becomes a candidate for excluding out of the model. For preventing the process to enter an infinite cycle, a condition should be fulfilled: $P_{in} \leq P_{out}$.

In order to identify the trend of some econometric indices that characterize rural workforce, the authors used SPSS and Maple packages and the official statistical database of Republic of Moldova for the identification of the respective econometric models, based on which one could make their forecasting in the nearest future.

These selected official statistical data are presented in Table 1.

Table 1. The average annual rate of rural unemployment based on Genders in the Republic of Moldova, 2010-2017

Rural sector	2010	2011	2012	2013	2014	2015	2016	2017
Both genders	5.0	5.4	5.2	3.9	4.1	2.7	3.5	2.6
Men	6.3	6.7	6.5	6.5	5.0	3.2	4.8	3.2
Women	3.6	4.1	3.9	2.8	3.0	2.2	2.2	1.9

Source: http://statbank.statistica.md/pxweb/sq/ba2142a6-e905-4ffe-b76c-f9384353a6e6, NBC

However, it is considered that, regardless of how suited for reality an econometric model would be, obtained estimations are probabilistic, and they cannot fully guarantee the true values that could be obtained, in case of being possible the exhaustive observation.

RESULTS AND DISCUSSIONS

Initial data were processed with standard statistical package SPSS and Maple in the period 2010-2017 [7, 8].

Thus, the average annual rate of rural unemployment based on both genders, noted as $y(t)_{R.s.r.a.s.}$ was identified as being described by the formula 1:

$$y(t)_{R.s.r.a.s.} = 7.1585 \cdot \exp(-0.0801 \cdot t) + 0.9713 \cdot t \cdot \exp(-0.0801 \cdot t)/(1+t^2) \quad (1)$$

Based on the formula (3.1) for the year 2017, with t = 8, we received $y(8)_{R.s.r.a.s.}$ = 3.8813, and for the year 2018, it will be equal to 3.5780. The graph of $y(t)_{R.s.r.a.s.}$ evolution is represented in Fig. 1.

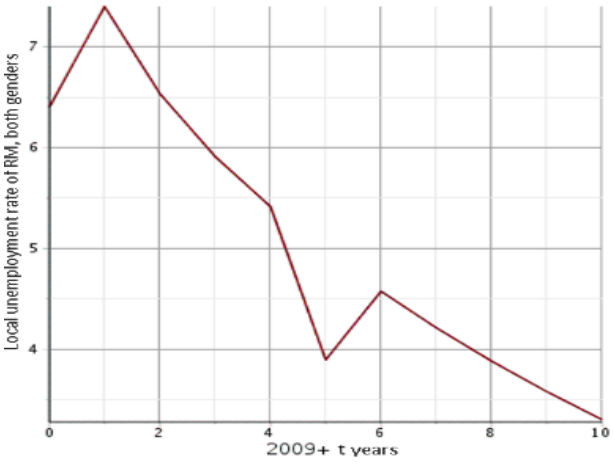

Fig. 1. The rate evolution of rural unemployment based on both genders in the R. Moldova, 2010-2017, %
Source: Own calculation based on data the of NBS.

Similarly, the annual average rate of men's unemployment rate, noted with $y(t)_{R.s.r.b.}$, was identified as being described by the formula 2:

$$y(t)_{R.s.r.b.} = 7.0053 \cdot \exp(-0.1016 \cdot t) + 0.01 \cdot t^2 \cdot \exp(-0.3047 \cdot t)/(1+0.01t^2) \quad (2)$$

Based on that formula (2) for the year 2017, with t = 8, we received $y(8)_{R.s.r.b.}$ = 3.2250, and for the year 2018, it was equal to 2.9070. The graph of $y(t)_{R.s.r.b.}$ for the period 2017-2018 is represented in Fig. 2 and confirms its decrease.

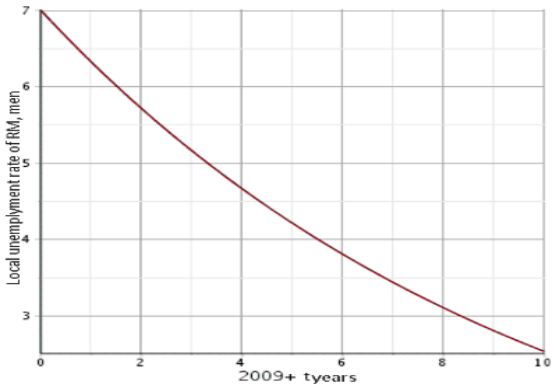

Fig. 2. The rate evolution of rural unemployment based on the male gender in the R. Moldova, 2010-2017, %
Source: Own calculation based on data of the NBS.

The annual average rate of women's unemployment rate, noted with $y(t)_{R.s.r.f.}$, was identified using the formula 3:

$$y(t)_{R.s.r.f.} = 4.1987 \cdot \exp(-0.1099 \cdot t) - \\ - t \cdot \exp(-0.0108 \cdot t)/(1+t^2). \quad (3)$$

Based on that formula (3) for the year 2018, with t = 8, we received $y(8)_{R.s.r.f.}$ = 1.8858, and for the year 2019, it will be equal to 1.6611. The graph of $y(t)_{R.s.r.b.}$ evolution is represented in Fig. 3.

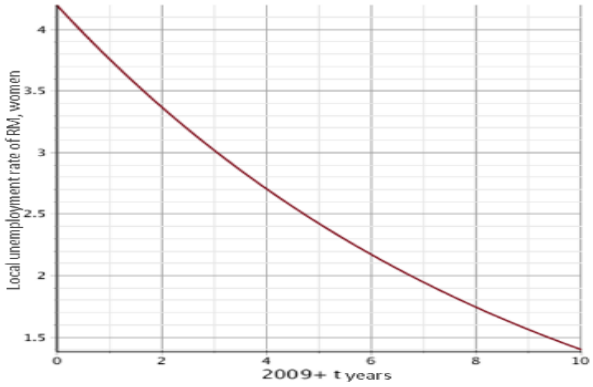

Fig. 3. The rate evolution of rural unemployment based on female gender in R. Moldova, 2010-2017, %
Source: Own calculation based on data of the NBS

In the same context, the authors identified the econometric models of rates evolution of rural unemployment depending on the sales incomes of the Small and Medium-sized Enterprises (SMEs) sector of the Republic of Moldova, in billion MDL, represented in the Table 2.

Table 3. The population consisting of 15 years old and more, working or in search of work abroad (Age, Gender and Average), 2010-2017 (thousand people)

Population by Gender	2010			2011			2012			2013		
	Average in republic			Average in republic			Average in republic			Average in republic		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Both Genders	69,9	12,2	57,7	69,7	12,3	57,3	71,2	15,1	56,1	72,1	11,9	60,2
Men	51,1	8,9	42,4	51,8	10,9	40,9	51,8	10,9	40,9	53,8	8,9	45,0
Women	18,8	3,3	15,5	19,5	4,2	15,2	19,5	4,2	15,2	18,3	3,0	15,2

Population by Gender	2014			2015			2016			2017		
	Average in republic			Average in republic			Average in republic			Average in republic		
	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural
Both Genders	69,1	11,0	58,2	72,3	11,0	58,2	60,6	12,2	48,4	58,1	10,2	42,9
Men	50,1	7,3	42,9	54,4	7,6	46,8	44,8	8,2	36,6	43,6	7,7	35,9
Women	19,0	3,7	15,3	17,9	3,1	14,8	15,8	4,0	11,8	14,5	2,5	12,0

Source: Own calculations based on data of the NBS,http://statbank.statistica.md/pxweb/sq/ba2142a6-e905-4ffe-b76c-f9384353a6e6.

Regarding the impact on labor markets of origin countries, the specialized literature highlights negative effects through modifications of workforce size and structure, depending on educational level and some positive effects through the reduced pressure generated by high unemployment rate that means low workforce occupation.

In order to highlight these effects in case of the panel of origin countries, in developed models were used endogenous variables: unemployment rate (total and by educational

levels), employment rate, workforce (total and by educational levels), participation rate of men and women on labor markets, work conditions expressed through a variable regarding the medium number of weekly worked hours (total, men, women).

From the statistical data presented in Table 3 using the program package were identified the following econometric models that express the trend of medium number of migrants from the rural sector of the Rep. of Moldova within the range 2010 + t, t = 0, 1, ..., 10.

Thus, the evolution of the average number of migrants of both genders from the rural sector of Republic of Moldova, noted as $y_{N.m.a.s.}$, was identified as being described by the formula 7:

$$y(t)_{N.m.a.s.} = 61.4203 \cdot \exp(-0.0338 \cdot t) + t \cdot \exp(-0.0108 \cdot t)/(1+t^2) \quad (7)$$

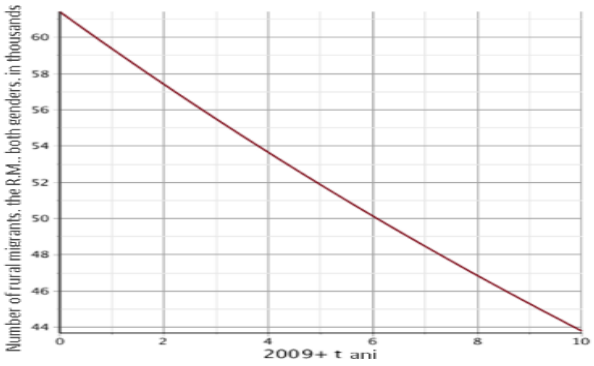

Fig. 7. The number of rural migrants – both genders, from the Republic of Moldova, 2010-2017, thousand people
Source: Own calculation based on data of the NBS.

Based on the formula (7) for the year 2017, with t = 8 we obtained = 46.9811, and for the year 2018 it will be equal to 45.4102. The evolution graph is represented in Fig. 7.

The evolution of the average number men-migrants from the rural sector of the Republic of Moldova, noted as $y(t)_{N.m.b.}$, was identified as being described by the formula 8:

$$y(t)_{N.m.b.} = 43.6859 \cdot \exp(-0.0162 \cdot t) - t \cdot \exp(-0.0108 \cdot t)/(1+t^2) \quad (8)$$

Based on that formula (8), for the year 2018, with t = 8, we obtained $y(8)_{N.m.b.}$ = 38.2628, and for the year 2019 it will be equal to 37.6594. The evolution graph of $y(t)_{N.m.b.}$ is represented in Fig. 8.

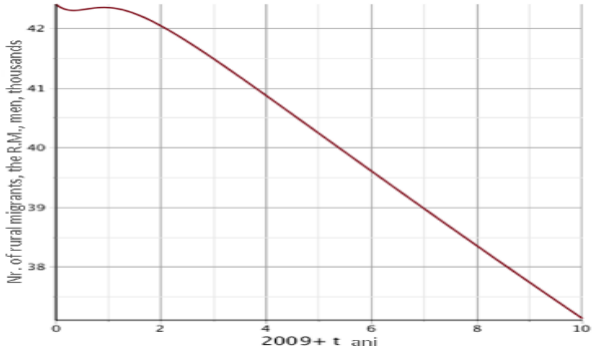

Fig. 8. Number of rural migrants – men, Republic of Moldova, 2010-2017, thousand people.
Source: Own calculation based on data of the NBS.

The evolution of the average number of women-migrants from the rural sector of the Republic of Moldova, noted as $y(t)_{N.m.f.}$, was identified as being described by the formula 9:

$$y(t)_{N.m.f.} = 16.2889 \cdot \exp(-0.0373 \cdot t) - t \cdot \exp(-0.0108 \cdot t)/(1+t^2) \quad (9)$$

Based on that formula (3.9), for the year 2018, with t = 8, we obtained $y(8)_{N.m.f.}$ = 11.9735, and for the year 2019 it will be equal to 11.5443. The evolution graph of $y(t)_{N.m.f.}$ is represented in Fig. 9.

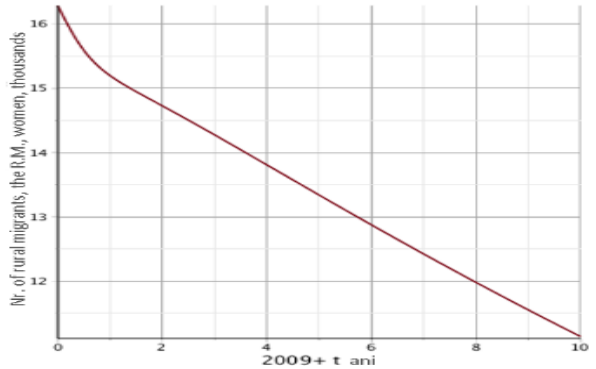

Fig. 9. Number of rural migrants – women, Republic of Moldova, 2010-2017, thousand people.
Source: Own calculation based on data of the NBS.

In the same context, the authors identified the econometric models of evolution of the average number of migrants– men and women from rural sector of the Republic of Moldova depending on the unemployment rate.

Thus, the econometric model of evolution of migrants medium number (both genders) from rural sector of the Republic of Moldova depending on unemployment rate $y_{R.a.s.}$, noted $z_{N.m.a.s.}(y_{R.a.s.})$, was identified using the formula 10:

$$z_{N.m.a.s.}(y_{R.a.s.}) = 34.7195 \cdot \exp(0.1043 \cdot y_{R.a.s.}) - 8y_{R.a.s.} \cdot \exp(-0.0108 \cdot y_{R.a.s.})/(1+y_{R.a.s.}^2) \quad (10)$$

Based on that formula (10) for rate $y_{R.a.s.}$ = 2.6 % for the year 2017, we obtained $z_{N.m.a.s.}(2.6)$ = 42.9340 thousand people, that is in concordance with the official statistical data presented in Table 1, therefore, for this year, the number of migrants (both genders) in rural sector was $z_{N.m.a.s.}^{official}(6)$ = 42.9 thousand people. According to this model, in the year 2018, $y_{R.a.s.}$ = 3.8813 %, the number of migrants will be equal to 50.1933 thousand people. The evolution graph of $z_{N.m.a.s.}(y_{R.a.s.})$ is represented in Fig. 10.

Fig. 10. Number of rural migrants – both genders and rural unemployment rate in the Republic of Moldova, 2010-2017
Source: Own calculation based on data of the NBS

Following the same approach, the econometric model of evolution of the average number of men-migrants from the rural sector of the Republic of Moldova, depending on the respective unemployment rate $y_{R.b.}$, noted as $z_{N.m.b.}(y_{R.b.})$, was identified as being described by the formula 11:

$$z_{N.m.b.}(y_{R.b.}) = 39.6785 \cdot \exp(0.0193 \cdot y_{R.b.}) - 20y_{R.b.} \cdot \exp(-0.0125 \cdot y_{R.b.})/(1+y_{R.b.}^2) \quad (11)$$

Based on that formula (11) for the rate $y_{R.b.}$ = 3.2 % of the year 2017, we obtained $z_{N.m.b.}(3.2)$ = 36,7356 thousand people, that is in concordance with official statistical data presented in Table 1, which for this year the number of migrants (men) in rural sector was $z_{N.m.a.s.}^{official}(3.2)$ = 35.9 thousand people. The evolution graph of $z_{N.m.b.}(y_{R.b.})$ is represented in Fig. 11.

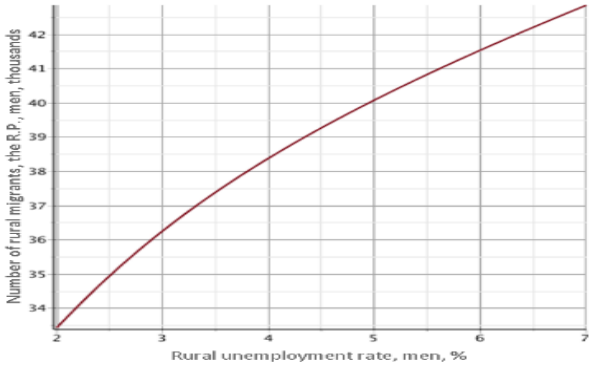

Fig. 11. Number of rural migrants – men and rural unemployment rate in the Republic of Moldova, 2010-2017
Source: Own calculation based on data of the NBS

The econometric model of evolution of the average number of women-migrants from the rural sector of the Republic of Moldova depending on unemployment rate $y_{R.f.}$, noted $z_{N.m.f.}(y_{R.f.})$, was identified using the formula 12:

$$z_{N.m.f.}(y_{R.f.}) = 9.7090 \cdot \exp(0.1258 \cdot y_{R.f.}) - 2.5y_{R.f.} \cdot \exp(-0.0013 \cdot y_{R.f.})/(1+y_{R.a.s.}^2) \quad (12)$$

Based on that formula (12) for rate $y_{R.f.}$ = 2.2 % for the year 2017, we obtained $z_{N.m.f.}(2.2)$ = 11.8663 thousand people, that is in concordance with the official statistical data presented in Table 1, which for this year, the number of migrants (women) in rural sector was $z_{N.m.f.}^{official}(2.2)$ = 11.8 thousand people.
According to this model, in the year 2018 $y_{R.f.}$ = 1.90 %, this number of migrants will be equal to 11.3032 thousand people. The evolution graph of $z_{N.m.f.}(y_{R.f.})$ is represented in Fig. 12.
It is difficult to observe the migration based on the official statistical sources because national legislation doesn't stipulate citizens' obligation to announce the authorities in case

of leaving the country. For migration, the existent data from administrative sources don't cover the entire phenomenon of migration existing a severe under-evaluation of migrants' number. The lack of information regarding the exact number of migrants leads to the necessity of a new statistical thinking, based on fuzzy estimating methods, which will allow the national institutes of statistics to use, within the procedure of statistical data processing, some "well documented methods of statistical estimation, based on advanced scientific methods".

Fig. 12. Number of rural migrants – women and rural unemployment rate in the Republic of Moldova, 2010-2017

Source: Own calculation based on data of the NBS.

The data sources used for estimating the dynamic of migrants' stock are the following:

- an econometric model based on estimation techniques by small domains, that ensures the determination of migrants' stock in rural sector (at the national level);
- migrants' flows determined by the national office of statistics, which ensures the structure based on age and genders of migrants' stock.

The official statistical data were used regarding available flows of migrants from the rural sector in the period 2010-2017.

The estimation method of migrants' stock consists in the application of some econometric models of estimation by small domains. It involves the production of some estimations for which the range of selective statistical research includes a small number of statistical units, or – in some cases – these don't exist. The conceptualization of the expression „estimation by small domains" is a little confusing, because this technique refers to domains that support detail/division levels, for which the number of selected statistical units is reduced. The estimation by small domains „borrows" relevance and accuracy by combining the obtained data from selective researches, with complementary information from other data sources (statistical or exhaustive administrative sources).

In order to ensure the representativeness by small domains, the estimators must have the property to not be moved (the estimated medium of the variable of interest has to represent all statistical units from the entire collectivity).

Taking into account the mentioned above and for the purpose of describing more clearly the migration process from the rural sector of the Republic of Moldova, the authors identified some econometric models of the logarithm of the respective number of migrants $\ln(Y_s^t)$, s ∈ {both genders, men, women}expressed as a multifactorial linear regression model in logarithmic form within a panel on the range of years 2010 + t, that has the following form:

$$\ln(Y_s^t) = \beta_{0,s}^t + \sum_{i=1}^{2}(\beta_{i,s}^t \cdot \ln(X_{i,s}^t)) + \sum_{i=3}^{5}(\beta_{i,s}^t \cdot \ln(X_{i,s}^t)) \quad (13)$$

In which were included as regresses the following independent variables (each of them expressed in logarithm form and interpreted as migration elasticity):

- $X_{1,s}^t$ – employment rate of the rural population in the Republic of Moldova, %;
- $X_{2,s}^t$ – unemployment rate of the rural population in the Republic of Moldova, %;
- $X_{3,s}^t$ – the share of SMEs sector in total per country, %;
- $X_{4,s}^t$ – sales incomes of SMEs sector, million MDL;
- $X_{5,s}^t$ – the average salary per country, MDL.

Table 4 presents the elasticity coefficients of the independent variables influence, specified in relation (13), on the evolution of migrants' number of both genders of the rural sector of the Republic of Moldova, identified on the basis of processing using the SPSS software package of the respective statistical data.

Table 4. the elasticity coefficients of the independent variables influence, specified in relation (13), on the evolution of migrants' number of both genders of the rural sector of the Republic of Moldova

Model		Unstandardized Coefficients		Standardized Coefficients	t
		B	Std. Error	Beta	
1	(Constant)	30.111	12.905		2.333
	ocup_rate_of_work_field_ln	-1.513	.773	-.704	-1.958
	unempl_rate_ln	-.173	.168	-.867	-1.030
	smes_per_country_ln	-4.156	3.188	-.291	-1.303
	sales_incomes_ln	.079	.292	.482	.270
	gross_average_salary_ln	-.041	.473	-.196	-.087

Source: Own calculation based on data of the NBS.

The econometric model in [13] form for s = both genders (bg), identified on the base of these elasticity coefficient has the following ratio:

$$\ln(Y_{bg}^{t}) = 30.111 - 1.513\cdot\ln(X_{1,bg}^{t}) - 0.173\cdot\ln(X_{2,bg}^{t}) - 4.156\cdot\ln(X_{3,bg}^{t}) + 0.079\cdot\ln(X_{4,bg}^{t}) - 0.41\cdot\ln(X_{5,bg}^{t}) \quad (14)$$

The main hypotheses formulated for simple regression models are based on general hypotheses of regression models (13), being expressed as:

-correct defining (specifying) of the model;

-data series are not affected by the measure errors;

-residual error are random variables of specified medium. The property reflects the fact that the other unregistered factors, with the exception of the exogenous characteristic, don't have a systematic influence on the medium of endogenous characteristic;

-residual variable is constant over time. This hypothesis is restrictive within the developed model, because the statistical data are published officially;

-residual variables are not auto-related.

By hypotheses validation is ensured a high degree of precision for developed models and, implicitly, the parameters' robustness, estimated through those two main methods (the method of least squares and the maximum fidelity method), used in case of models with random effects (RE) and those with fixed effects (FE). The testing of statistical meaning of model coefficients and validation of formulated hypotheses for its substantiation, were achieved by:

-differentiation of results and estimated coefficients via those two categories of models with random and fixed effects performed with the help of *Hasuman* Test;

-validation of hypothesis of relations absence at residual variables level, undertook through *Wooldridge – Lagram Multiplier* Test;

-homoscedasticity hypothesis was validated on base of *Breech – Pagan Lagrangian Multiplier* Test for models with random effects, respectively of modified *Wald* Test for group homoscedasticity for models with fixed effects;

-multicollinearity absence hypothesis validated through the *Correlation matrix of exogenous variables*, as well as through performing auxiliary regressions, while the individual and common influence validation of explanatory variables over the endogenous one is performed through *Fisher* and *t-statistical* Test, as well as through variation analysis (ANOVA).

The model and associated data were processed with the help of SPSS econometric package (Figure 13), using variables with respective statistical data and a time variable - *dummy* (1...7) – over the period 2010-2017.

The main objective of used regression analysis is the best possible explanation of dependent variable variation (a specific index of emigration process) through explanatory variables used within associated models.

The results of developed models processing based on migrant's flow logarithm (men, women and both genders) from the rural sector of the Republic of Moldova for the main countries of destination from the EU and Russian Federation show, in general, the same tendencies.

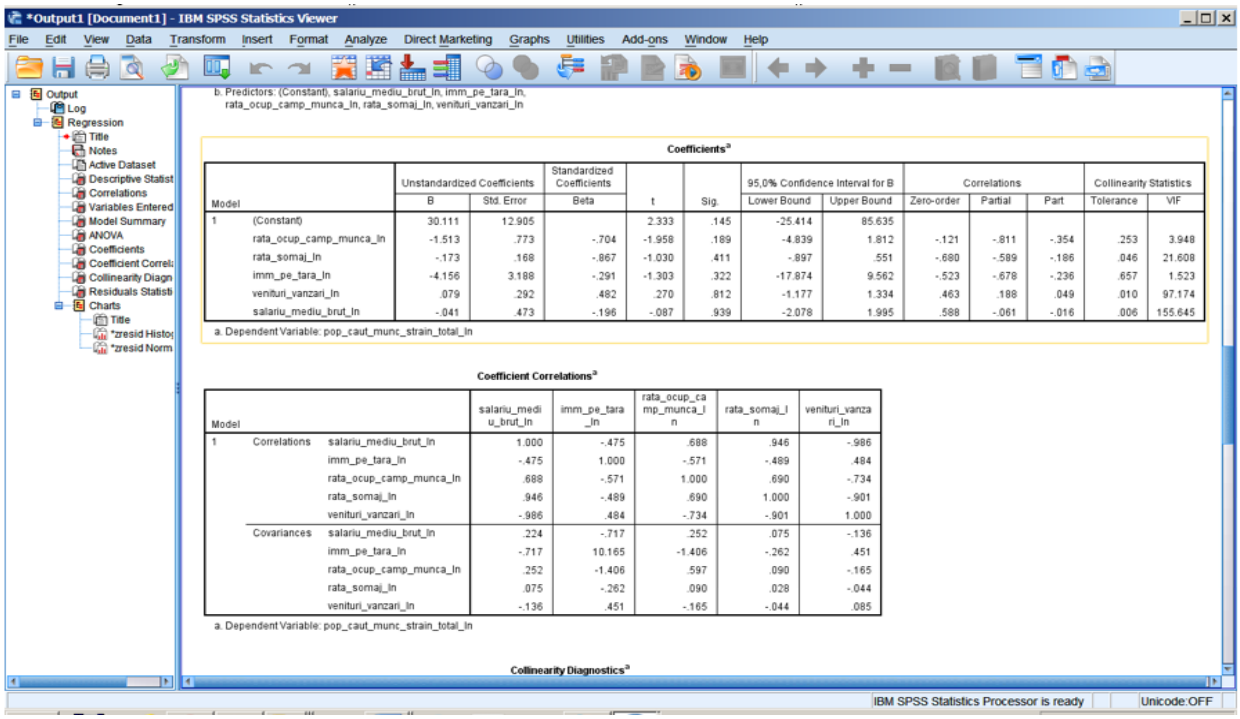

Fig. 13. The graphic interface of the SPSS
Source: Own calculation based on data of the NBS.

These aspects being also underlined by the flows' trend of men and women migrants at panel level, in the reference period of 2010-2017. The relative positive impact of migration on the labor market level, manifested through a light growth of employment rate and a decline of unemployment rate, is countered by the significant negative effects on the workforce size and structure, respectively, on the participation degree in the labour market depending on gender.

CONCLUSIONS

The small business development in rural environment represents a priority way of adjusting the labor market, which contributes directly to creating new work places in rural areas.

Nowadays, less than a third of the total small business enterprises activates in the rural areas. Sociologic researches highlighted the bureaucratic obstacles and financial means insufficiency as facts preventing the development of the small business in the rural areas.

1. Another priority way of adjusting the labour market in rural environment is the economic and social infrastructure development. This paper analyzes the grave situation in the field of transport and roads infrastructure, rural tourism, providing rural population with drinking water, canalization, natural gases, as well as the insufficient development of social infrastructure.

The development of public-private partnership in rural environment represents a high priority in adjusting the labour market and creating new work places in rural settlements. This paper analyzes the forms, conditions of creating and models of functioning of the public-private partnership in different countries and the possibility to apply them in the rural environment of the Republic of Moldova.

The work reward and motivation system is also a priority way of adjusting the labour market. The authors analyzed unfavorable situation in the rewarding of rural employees work in the Republic of Moldova and the insufficient degree of employees' motivation in the work activity and are formulated some proposals of improvement for the situation in this sector.

For the R. Moldova, the migration of a part of the total rural workforce has large (positive and negative) consequences, because it

modifies the number and the structure of the workforce, influences the consumption and investments in the country economy, as well as the behavior of the rural households on the labor market.

The research results underline the negative impact of migration on the size of workforce in the Republic of Moldova analyzed in the panel, but attenuated by the relaxation of pressures generated by the persistence of the high degree of unemployment. Thus, the process intensification of the workforce migration determines the decline of the unemployment rate for people with primary and secondary education. This can be due to additional investments in education performed by people who remained to improve the employment perspectives, as well as losing a part of this workforce category through migration, this people being ready to accept work places that were refused by the natives of host countries because of salary differences.

Regarding the positive effects induced by the relaxation of pressures generated by the persistence of unemployment high degree are countered by the negative impact on the workforce size, especially on that highly qualified (with tertiary education).

The main limitation of the performed research is reflected by the lack of objective data regarding rural workforce unofficial migration. Also, the performed research allowed the identification of new future opportunities and directions of research, by extending the analysis of determinant factors and moderators of rural workforce migration, as well as evaluating the economic consequences of this process.

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