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DETERMINATION OF THE LOCAL DEVELOPMENT INDEX OF THE REPUBLIC OF MOLDOVA IN THE CONTEXT OF THE CREATION OF INNOVATIVE HUBS

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Abstract

Enterprises in their classical form are complex and inflexible structures, unable to respond quickly to the environmental changes. At the same time, the existing national and international regulations and procedures limit their agility and velocity of work but are necessary for the existence of business settlements. We all know that such structures do not stimulate the creation and promotion of innovations that we all need, and that can lead not only to competitive advantage but also to the development of country indices. In this respect, the article aims to determine the influence of the Republic of Moldova economic development index by the joint ventures and state-owned enterprises' investments. In the research, we use the documentation methods of statistical data and two linear regression unifactorial econometric models and the statistical procedure Least Squares Method. Investigation and description of this topic allow the author to generalize the main findings of the major influence of the enterprise's investments on the economic and social development of the Republic of Moldova.

Keywords: Local Index, Development, Economic, Innovative Hubs, Econometric

1. Introduction

Awareness of the importance of innovation factor for the economy of the Republic of Moldova is a positive change in the field of socio-economic policy and is defined in the Innovation Strategy of the Republic of Moldova for 2013-2020 "Innovations for Competitiveness" (Innovation Government Decision, 2013). The Strategy aims at achieving three specific objectives of the Government Activity Program: technological development of enterprises; development of support infrastructure for innovation activity; providing conditions for building a knowledge-based economy. These findings raised the question of investment requirements; the readiness of companies to invest in innovation such as innovative hubs and the use of private and public resources allocated to innovation. The innovation hub is a compelling opportunity to build capacity, concentrate investment, and stimulate business. An innovative hub consists of a system of connections bringing together people, businesses, start-ups, incubators, and accelerators to turn innovative ideas into technologically feasible solutions.

High economic growth is an indicator of development success in developing countries. In the absence of economic growth, the development process is considered failed to improve the

welfare of the community (Amri, and Nazamuddin, 2018). Therefore, the importance of this article is primarily reflected in the fact that we carried out an econometric study, which aimed to capture the evolution of local economic development and the impact on it of joint ventures and state-owned enterprises. In the case of a positive dynamics of the local economic development index, it can be concluded that enterprises can expand the scope of their investment, namely the implementation of investments in innovation activity, especially the opportunity to participate in innovation hubs.

The study is predicated on the annual time series data on various indicators of economic growth dynamics of the Republic of Moldova economic development index. The rest of the paper is organized as follows. Section 2 presents the methodology and data analyses with the wording of the main study hypothesis. Section 3 reflects a documentary analysis within the case study about the dynamics of the number of enterprises with public and joint ownership in the period 2009-2018, the efficiency of the public- and mixed-ownership enterprises during 2009-2018, to verify the extent to which economic variables influence the local economic development, and the readiness to invest in innovation hubs creation. Section 4 discusses the results, and the major finding of the study followed by the conclusion in Section 5 (Vyas, 2020).

2. Methodology and data

Till present, a large number of methods have been developed for assessing the economic situation of countries and regions. Together with the economic growth assessment, there are attempts to evaluate objectively the economic development of territories (Tikunov and Chereshnya, 2015). The local development index takes into account the experience of similar techniques and has the goal to minimize the used indicators in order to concentrate on the most important of them and facilitate the interpretation of the results for decision-makers.

In the present study, two hypotheses have been formulated: the first is the null hypothesis H_0 which is often tested, compared to the alternative hypothesis H_1 which is considered true, if the null hypothesis is false. In this sense, the scientific approach is based on two hypotheses, as follows:

H_0: Investments in joint ventures and state-owned enterprises do not have a significant impact on the local economic development index.

H_1: Investments in joint ventures and state-owned enterprises significantly influence the local economic development index.

The above hypotheses were tested using unifactorial linear regression econometric models. Regression analysis is a statistical modeling tool, used to determine a model of the relationships that are established between pairs of numerical data (Farrar and Glauber, 1967).

The linear econometric model form has the following general formula:

$$Y_i = \alpha + \beta_1 x_{1i} + \beta_2 x_{2i} + .. + \beta_{mi2} X_{mi} + e_i \quad (1)$$

where $x_1, x_2 .. x_m$ express the independent variable, also called the variable of influence, or causal, explanatory, effort variable, etc., Y_i – dependent variable (resulting, explained, or effect); α, β_1, β_2 – parameters of the regression model that we estimate based on *x* and *y*; e_i – significance error (random variable).

Several methods are used to estimate the parameters of the regression model. In this study, one of the most commonly used methods for processing experimental data obtained in the course of investigations was applied, called the Least Squares Method (LSM), which must satisfy the condition that the sum of squares of the deviations of empirical values from theoretical values is minimal (Biji *et all.* 2002).

The results of the regression model are associated with several fundamental hypotheses to obtain specific desired properties for model parameter estimates (estimators). In statistics, only maximum likelihood estimates are used, which are obtained only in the context of satisfying

certain conditions. The determination of the model hypotheses is carried out in order to obtain some estimates of the high-quality model parameters, these hypotheses are (Verbeek, 2008):

H_1. The functional form is linear;
H_2. Random errors have a zero average: $E(e_i) = 0, i = 1,2..,n$
H_3. Homoscedasticity of random errors: $Var(e_i) = \sigma_e^2 = \sigma^2, i = 1,2..,n$
H_4. Random errors are not autocorrelated: $cov(e_{i,}e_j) = 0,\ for i \neq j$
H_5. Non-correlation between regressor and random errors: $cov(e_{i,}x_i) = 0,\ for\ each\ i\ şi\ j.$
H_6. Random errors have normal distribution: $e_i \sim N(0, \sigma^2)$.
H_7. Lack of a linear relationship between two or more exogenous variables of the regression model (multicollinearity hypothesis, is specific to the multifactorial model).

3. Statistical description of data

Documentary analysis within the case study was aimed at documenting the evolution of local economic development. The source for this study was statistical data taken from the website of the National Bureau of Statistics. In the regression model, it was proposed to analyze statistical data as a causal variable, using: *the number of SMEs with a joint form of ownership, the number of employees of SMEs with a joint form of ownership, sales revenues, and investments of SMEs* that contribute to the development of innovations in the Republic of Moldova; we used annual data from 2009 to 2018. IDEL was used as a result variable (Magnus *et al.* 2004).

IDEL shows us the dynamics of growth after the global economic crisis of 2007-2009. In 2010, the index had a value of 47.25 units, which was 5.53 units more compared to the previous period, but in the following year, it has decreased by 4,69 units compared to 2010. From 2011 to the end of 2018, this indicator increased, respectively, an average annual increase of 2.28 units or an average annual relative change of 4.66% from year to year. The positive dynamics of the local economic development index during the period 2009-2018 shows that enterprises can continue their development in order to keep up with the rapid changes in technology and the influence of factors in the business environment.

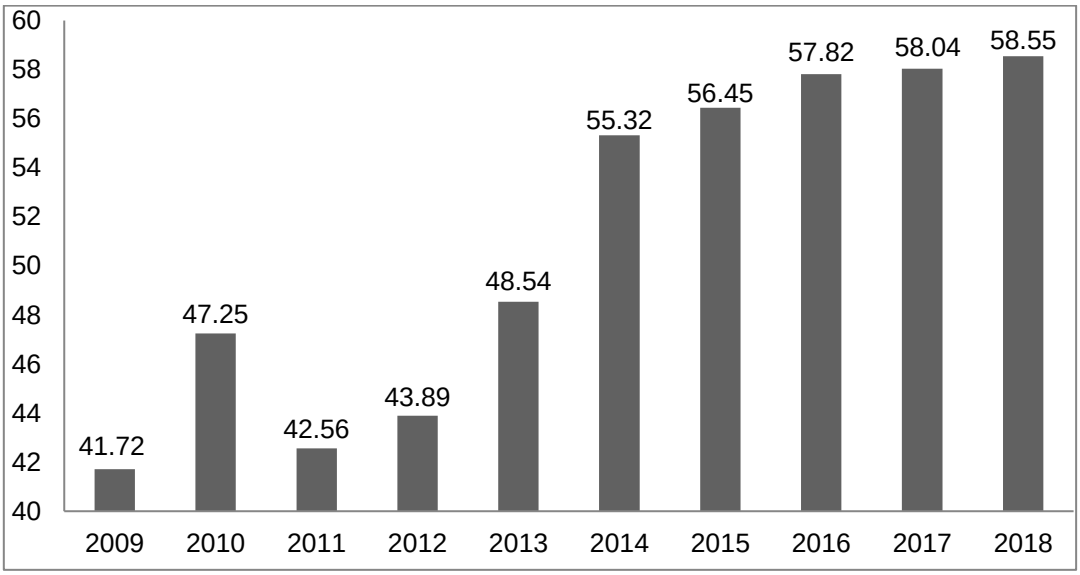

Figure 1. Dynamics of the local economic development index in the period 2009-2018
Source: Developed by the author based on the National Bureau of Statistics (2020)

Analysis of the evolution of SMEs number (Figure 1), joint ventures, and state-owned enterprises, shows that the number of small and medium-sized enterprises with state ownership increases from year to year during the analyzed periods. In 2009, there were 656 public-owned

enterprises, and in 2018 there were 966 units, while the number of mixed-ownership enterprises has been steadily declining, from 215 in 2009 to 34 in 2018. The number of enterprises with mixed ownership was 28 times lower than the number of state-owned ones in the last analyzed period. This does not diminish their importance and contribution to local economic development.

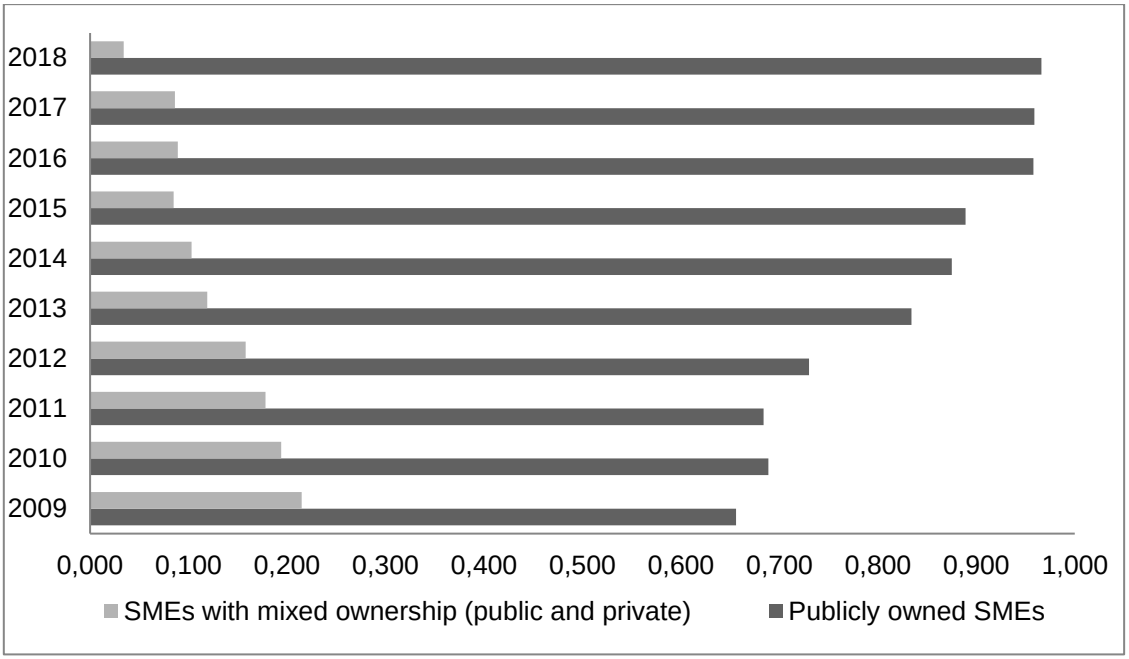

Figure 2. Dynamics of the number of enterprises with public and joint ownership in the period 2009-2018 (thousand units)

Source: Developed by the author based on the National Bureau of Statistics (2020)

The number of employees in public-ownership enterprises (Figure 2) made up a 10.43% share of the total number of employees in SMEs in the Republic of Moldova in 2018 and comprised 34,2 thousand employees, which is one thousand employees less compared to 2017. The share of employees from mixed-ownership enterprises was 0.47% compared to the total number of employees, which is 1,534 employees registered in the last period of study, which is 1,540 employees less than in the previous period.

Sales revenues for both categories of enterprises over the entire analyzed period registered significant growth. At public-ownership enterprises revenues from sales in 2018, compared to 2009, increased 2.4 times or by 2 520.4 million Lei. During the same analyzed period, sales revenues of SMEs with mixed ownership comprised 704.1 million Lei, increasing in absolute values by 238 million Lei or by 51.1% compared to 2009.

Within the period analyzed so far, state-owned enterprises held top positions concerning all analyzed indicators. However, there is one economic indicator - the efficiency of economic activity, which makes the connection between the resources allocated for carrying out an action and the results obtained (Pelinescu *et al.* 2019). Considering the following graph (Figure 3), it can be highlighted that mixed-ownership enterprises last year, with all negative trends concerning the number of enterprises and the number of employees, were twice as efficient as publicly-owned enterprises during the whole period.

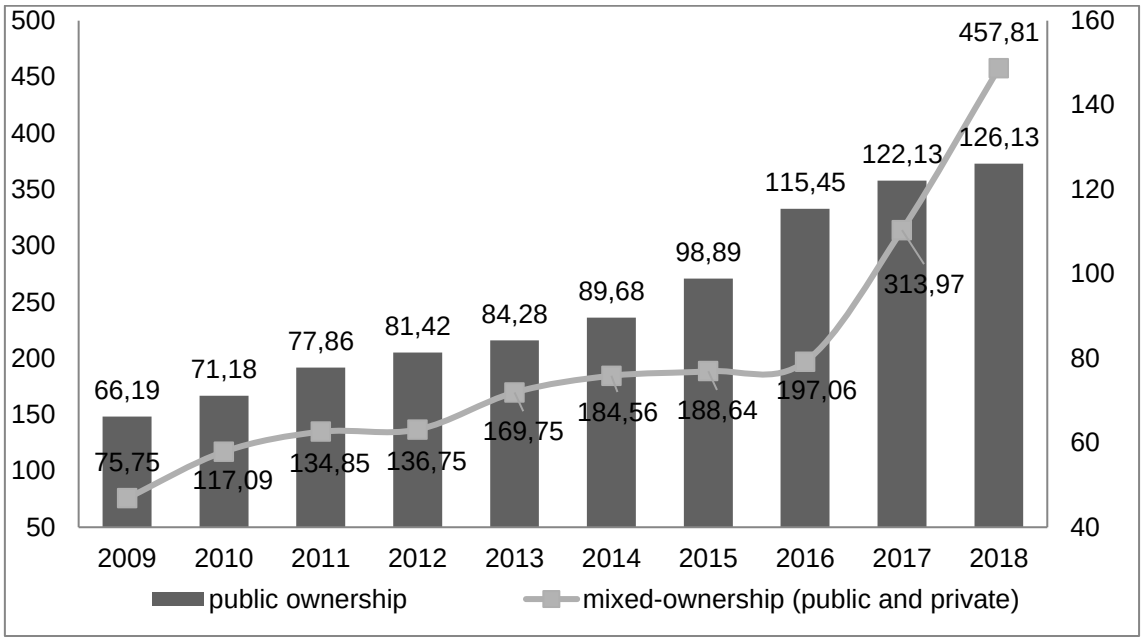

Figure 3. The efficiency of the public- and mixed-ownership enterprises during 2009-2018 (thousand lei/employee)

Source: Developed by the author based on the National Bureau of Statistics (2020)

During the analyzed period the average annual increase of labor productivity in mixed-ownership enterprises amounted to 42,45 thousand Lei/employee per year, and meanwhile, in enterprises with the state capital, this value increased by 6,66 thousand Lei/employee per year. In 2018, mixed-ownership enterprises had 3.63 times higher efficiency that public enterprise. This indicates the opportunity for joint ventures to create or join an innovation hub that can help them speed up the process and focus on innovation, thus maintaining or enhancing their effectiveness.

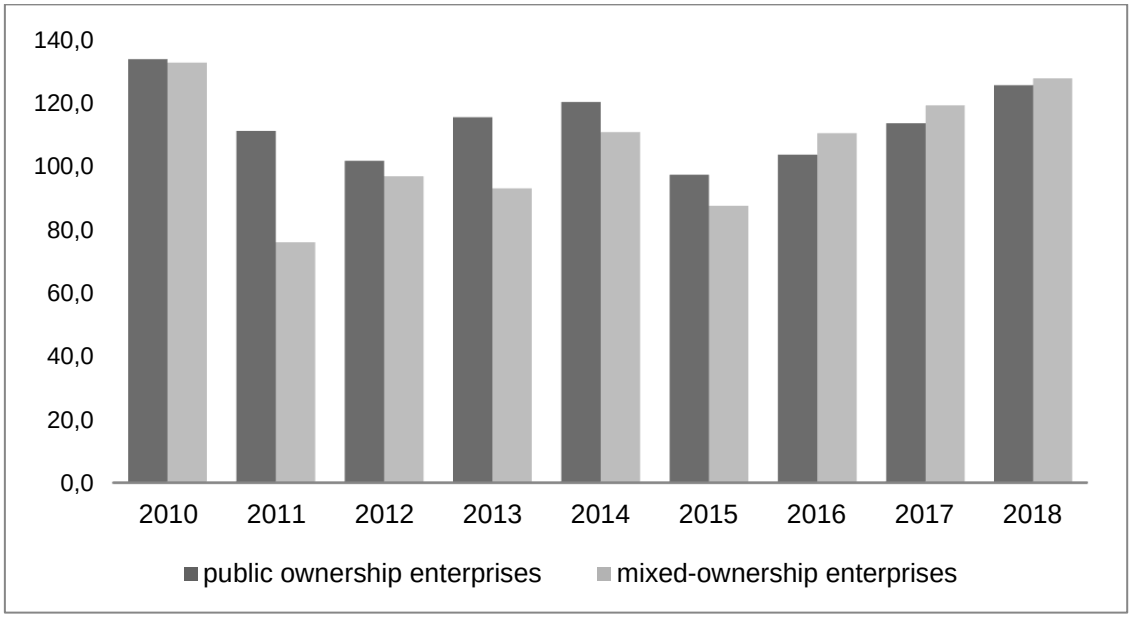

Figure 4. Dynamics of investment of public- and mixed-ownership enterprises during 2009-2018

Source: Developed by the author based on National Bureau of Statistics (2020)

During the period from 2011 to 2015 (except for 2014), the dynamics of investments in mixed-ownership enterprises significantly decreased in 2011, compared to 2010, due to the economic crisis of 2009, but, beginning with 2016, one can see a positive dynamics which also prevails in publicly owned enterprises.

4. Results and findings

The analysis of considered data series, as well as the estimation of regression model parameters, was performed employing specialized software, such as Eviews and Excel. To verify the extent to which economic variables influence the local economic development, the respective estimates were obtained using several models (Durbin, 1969). In this regard, parameter estimation through LSM is presented in Table 1.

Table 1. Estimation of parameters using LSM

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	24.57994	10.29006	2.388706	0.0439**
INVEST mixt	0.012422	0.004769	2.604869	0.0314**
R-squared	0.458924	Mean dependent var		51.01400
Adjusted R-squared	0.391289	S.D. dependent var		6.907787
S.E. of regression	5.389451	Akaike info criterion		6.383620
Sum squared redressed	232.3694	Schwarz criterion		6.444137
Log-likelihood	-29.91810	Hannan-Quinn criteria		6.317233
F-statistic	6.785341	Durbin-Watson stat		1.537177
Prob (F-statistic)	0.031379			

Note: The table documents present the estimation results using Least Squares method and the dependent Variable: IDEL, for the period 2009-2018. Included observations: 10. **p < 0.05; *p < 0.1.

4.1. The regression Model 1

The regression model has the following equation:

$$IDEL = 24.579 + 0.0124 * Invest \quad (2)$$

The regression coefficient β_1 shows us that there is a direct link between the two variables. And it can also be stated that a 1 million Lei increase in investments would bring an average IDEL increase by 0.0124 units. The value of free term α would reflect the mean level of the dependent variable if the level of the independent variable was equal to 0 units.

When testing estimators (Godfrey, 1988), it is important the probability that their evolution will be in a range, in which the frequencies are symmetrical around the average, and verify the significance of the parameters using the test *t* (Student):

$H_0: \alpha = 0;\ \beta_1 = 0$ (the parameters are not significant);
$H_1: \alpha \neq 0; \beta_1 \neq 0$ (the parameters are statistically significant).

Since $|t_{calc}| > t_{tab}(1,86)$, for each of the 2 parameters, we reject $H_0 \Rightarrow$ and accept H_1 all parameters are statistically important at the significance threshold of 5%. This is also confirmed by the very low Probability values for each model parameter (0.0439 and 0.0314 respectively). Knowing that $\alpha \ and \ \beta_1$ are normally distributed, the confidence interval of their parameters was estimated. It should be noted that this model has coefficients significantly different from 0, as indicated by the calculated Student's coefficients, which are higher than the theoretical value in the Student's table, P-values, which are less than 5%, and the confidence intervals of the coefficients, which do not change the sign from lower to an upper limit, therefore, do not contain the value 0 (Table 2).

Table 2. Confidence intervals of parameter estimates (estimators)

Variable	Coefficient	90% CI Low	90% CI High	95% CI Low	95% CI High
C	24.57994	5.445067	43.7148	0.8510	48.308
Investments	0.012422	0.003554	0.02129	0.0014	0.0234

Note: The table documents present confidence intervals of parameter estimates and include 10 observations. **p < 0.05; *p < 0.1.

The evaluation of the linear regression model quality is provided by the analysis of variance (Harvey, 1976). Analysis of variance is a statistical procedure for testing the quality of the model, starting from the decomposition of the total variance into the variance due to the regression factor and the variance due to the action of unregistered factors.

H_0: the model is not statistically valid (MSR=MSE)
H_1: the model is statistically valid (MSR>MSE)

Table 3. Results of applying the ANOVA method

	df	SS	MS	F	Significance F
Regression	1	197.0882	197.0882	6.785341	0.031379
Remnant	8	232.3694	29.04618		
Total	9	429.4576			

Note: **p < 0.05; *p < 0.1.

According to the Table 3, we can say with confidence that the model is statistically significant after the F test (F_{calc} = 6.785 > F_{critic}=5.32, therefore, hypothesis H_0 is rejected and H_1 is accepted), being valid for a Probability level of significance (F-statistic)=0.031379, less than 5%.

The Pearson linear correlation coefficient was used to measure the intensity of the relationship between the two IDEL variables and investment. The value of the Pearson correlation coefficient which is r = 0.68, is positive, which means that there is a direct linear relationship of average intensity between the two variables. Another indicator for measuring the intensity of the relationship between variables is the correlation coefficient R = 0.68 showing that there is a strong relationship between the two variables, a relationship highlighted by the regression model. For the simple linear regression model, between the correlation coefficient R and the Pearson linear correlation coefficient r, they must be equal, in which case the given condition has been satisfied.

The coefficient of determination, R^2, shows the proportion of variation of the dependent variable explained by the regression model and is used to evaluate the quality of the adjustment (model selection). The result obtained for this indicator is R^2=0.4589, which means that investments affect the local economic development index in the amount of 45.89%, the remaining 54.11% is due to factors not included in the model.

To test the hypothesis of normality of the distribution of random errors and their mean, the Jarque-Bera test was used (Figure 5), with the hypotheses:

H_0: random errors have normal distribution;
H_1: random errors do not have a normal distribution.

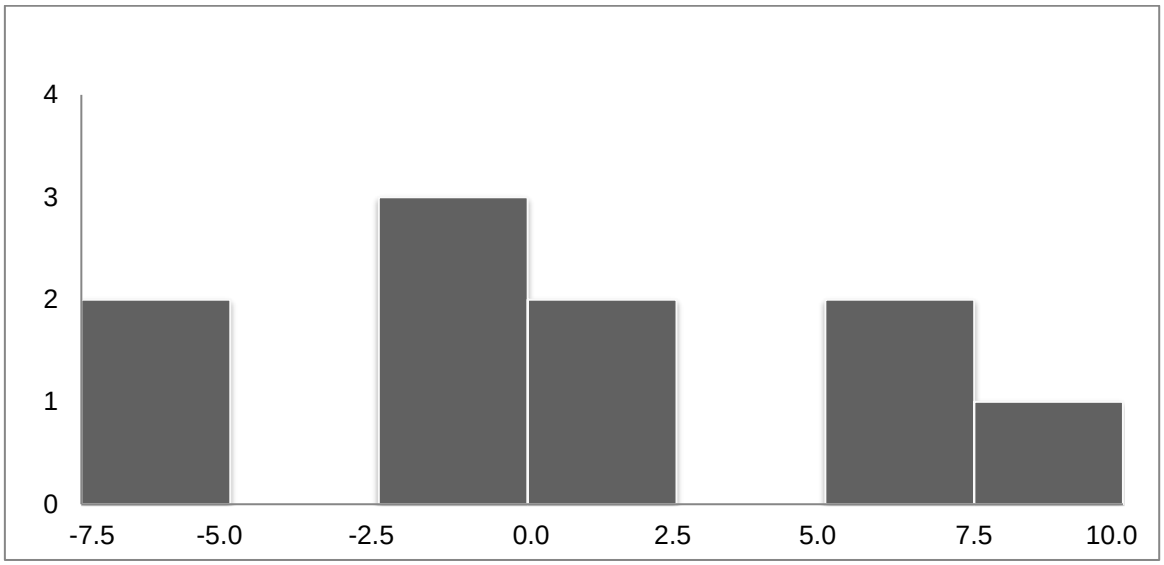

Figure 5. Jarque-Bera asymptotic test

Hypothesis H_0 of a given distribution is distributed χ^2 with a level of significance and two degrees of freedom. Test probability represents probability so the Jarque-Bera statistic is bigger than the observed value or the null hypothesis. A low probability leads to the rejection of the null hypothesis (of normality) (Suslov, 2005). The probability associated with this test is 0.7967, which tends to 1, so, hypothesis H_0, will be accepted, random errors having a normal distribution; it is seen that the average of random errors is 1.79e-15, being very close to zero.

The Ljung-Box Q test (Magnus et. all, 2004) is a statistical test designed to determine the autocorrelation of time series. Rather than randomly testing each coefficient, check the difference from zero of several autocorrelation coefficients simultaneously (Talpos and Ludosean, 2002). Therefore, the probability associated with the Q-Statistical test (according to Tabel 4) is lower than the 10% significance level, so if the null hypothesis is accepted, there is no autocorrelation phenomenon (Diebold, 2007).

Table 4. Correlogram of Q-Statistics residuals

Nb	AC	PAC	Q-Stat.	Prob.
1	0.115	0.115	0.1770	0.674
2	0.240	0.230	0.0444	0.593
3	0.064	0.017	1.1142	0.774
4	-0.084	-0.156	1.2546	0.869
5	-0.463	-0.507	6.4101	0.268
6	-0.085	0.025	6.6265	0.357
7	-0.185	0.130	7.9982	0.333
8	-0.162	-0.067	9.5686	0.297
9	0.060	0.000	9.9955	0.351

The Breusch–Godfrey test is a test for autocorrelation in the errors of a regression model. It makes use of the residuals from the model being considered in a regression analysis, and test statistics are derived from these. The null hypothesis denotes that there is no serial correlation of any order up to p (Godfrey, 1996). Breusch-Godfrey test was applied assuming that the gap value is p = 2. In our case, there are two ways of applying the Breusch-Godfrey test:

- Fisher – Snedecor test applied to verify the existence of missing (omitted) variables within the model;
- LM test.

Comparing the results obtained for both (Fisher – Snedecor and LM) tests with theoretical values of given distributions (Asteriou and Hall, 2011), a 95% probability indicates that the errors are not autocorrelated (Table 5).

Table 5. Verification of autocorrelation errors within the Breusch-Godfrey test

F-statistic	0.8973	Prob. F(2,6)		0.4561
Obs*R-squared	2.3024	Prob. Chi-Square(2)		0.3163
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	24.75541	22.3152	1.1093	0.3098
INVEST	-0.011604	0.0105	-1.1094	0.3097
RESID(-1)	0.715493	0.6853	1.0439	0.3367
RESID(-2)	0.614654	0.5028	1.2223	0.2674
R-squared	0.2302	Mean dependent var		1.78E-15
Adjusted R-squared	-0.1546	S.D. dependent var		5.0812
S.E. of regression	5.4560	Akaike info criterion		6.5219
Sum squared redressed	178.8687	Schwarz criterion		6.6429
Log-likelihood	-28.6097	Hannan-Quinn criteria		6.3892
F-statistic	0.5982	Durbin-Watson stat		1.3627
Prob(F-statistic)	0.6392			

Note: The table documents present the RESID dependent variable and include 10 observations for the period 2009-2018. Pre sample missing value lagged residuals set to zero.

In terms of heteroscedasticity, developed by Glejser (1976), the given test regresses the residues on the explanatory variable, which is believed to be related to the heteroscedastic variation. The test is based on the relationship between the estimated errors following the application of the LSM for the initial model and the explanatory variable (Godfrey, 1996), presumed to be the cause of heteroscedasticity.

The test applies to the following hypotheses:

H_0: $\beta_0 = \beta_1 = 0$ (there is homoscedasticity)
H_1: $\beta_0 \neq \beta_1 \neq 0$ (there is heteroscedasticity)

It results from Table 6 that there are statistically insignificant coefficients of slope parameters, the significance level being higher than 10% (0.6519, respectively 0.6053), so we accept H_0, random errors, being homoscedastic.

Table 6. Heteroscedasticity Test: Glejser

F-statistic	0.2195	Prob. F(1,8)		0.6519
Obs*R-squared	0.2671	Prob. Chi-Square(1)		0.6053
Scaledexplained SS	0.2053	Prob. Chi-Square(1)		0.6504
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.6607	5.999099	1.1103	0.2991
INVEST	-0.0013	0.002780	-0.4685	0.6519
R-squared	0.0267	Mean dependent var		3.8887
Adjusted R-squared	-0.0949	S.D. dependent var		3.0027
S.E. of regression	3.1420	Akaike info criterion		5.3044
Sum squared redressed	78.979	Schwarz criterion		5.365
Log-likelihood	-24.522	Hannan-Quinn criteria		5.2381
F-statistic	0.2195	Durbin-Watson stat		2.7012
Prob(F-statistic)	0.6519			

Note: The table documents present the Heteroscedasticity Test: Glejser based on the RESID dependent variable and include 10 observations for the period 2009-2018.

If the sample extension by new statistical data does not significantly change its value, then there is a stable regression coefficient. This process is verified, however, not only through adding new data but also through appropriate statistical tests, employing stability tests.

Table 7. Estimation of parameters by LSM for the regression equation of IDEL and Investments in public enterprises

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Public Investments	0.0036	0.0006	5.3754	0.0007***
C	30.761	3.9191	7.8490	0.0001***
R-squared	0.7831	Mean dependent var.		51.014
Adjusted R-squared	0.7561	S.D. dependent var.		6.9078
S.E. of regression	3.4117	Akaike info criterion		5.4691
Sum squared redressed	93.117	Schwarz criterion		5.5297
Log-likelihood	-25.346	Hannan-Quinn criteria		5.4028
F-statistic	28.895	Durbin-Watson stat		1.1253
Prob(F-statistic)	0.0006			

Note: The table documents present estimation of parameters by LSM for the regression equation of IDEL and include 10 observations for the period 2009-2018. ***p < 0.01; **p < 0.05.

Regression model parameters (Table 7) are statistically significant, the results are guaranteed by a 99.9% probability. The regression model is valid, and, respectively, when increasing investments by one million Lei IDEL will increase by 0.0036 units, and compared to investments made by mixed-ownership enterprises, the average influence was 0.012 units, which shows that it has higher efficiency for IDEL (Brown *et all.* 1975).

At the same time, the H_1 hypothesis is accepted: investments in mixed- and public ownership enterprises significantly influence the local economic development index.

4.2. The regression Model 2

Hereinafter, according to Table 8, the author will estimate the parameters by LSM for the regression equation of IDEL and the number of enterprises with mixed capital.

Table 8. Estimation of parameters by LSM for the regression equation of IDEL and the number of enterprises with mixed capital

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	148.8138	28.5209	5.2177	0.0008***
NUM_INTR	-54.5605	15.8900	-3.4336	0.0089***
R-squared	0.5957	Mean dependent var		51.014
Adjusted R-squared	0.5452	S.D. dependent var		6.9078
S.E. of regression	4.6584	Akaike info criterion		6.0921
Sum squared redressed	173.6073	Schwarz criterion		6.1526
Log-likelihood	-28.4604	Hannan-Quinn criteria		6.0257
F-statistic	11.7898	Durbin-Watson stat		1.0862
Prob(F-statistic)	0.0089			

Note: The table documents present estimation of parameters by LSM for the regression equation of IDEL and include 10 observations for the period 2009-2018. ***p < 0.01; **p < 0.05; ***

$$IDEL = 148.814 - 54.5606 * NUM\_INTR \quad (3)$$

According to the obtained equation, the regression coefficient is negative, which indicates that when the factorial variable value increases, on average, by 1000 enterprises, IDEL will decrease by 54.56 units. Under the given model, the null hypothesis is rejected and by a 99% probability the estimators are significant, also the F test used in the regression analysis leads to the conclusion that analyzed data allow the identification of a valid linear model, thus the

regression equation is in line with the purpose proposed. The R-squared determination coefficient shows the share of variance of the dependent variable explained by the estimated equation, so the number of enterprises influencing the IDEL is 59.57%.

Table 9. Correlation between IDEL variables and the number of mixed capital enterprises

t-Statistic	IDEL	NUM_INTR
IDEL	1.0000	
NUM_INTR	-0.7718	1.0000
	-3.4336	-----

Note: The table documents present the correlation between IDEL variables and the number of mixed capital enterprises for the 2009-2018 period and include 10 observations.

As shown in Table 9, f the regression equation demonstrates an inverse relationship, the linear correlation coefficient simply indicates that there is a strong and inverse link between these two variables, and there is a 99% probability that the value of the coefficient is significant.

Table 9. Heteroscedasticity Test: White

F-statistic	1.4160	Prob. F(2,7)	0.3045
Obs*R-squared	2.8803	Prob. Chi-Square(2)	0.2369
Scaledexplained SS	3.6989	Prob. Chi-Square(2)	0.1573

A White test (Table 9) is a statistical tool that determines whether the regression model has homoscedasticity or not (Machado José and Santos Silva, 2000). By employing Fisher - Snedecor test (Verbeek, 2008), as well as the LM test, with a significance level of 1%, the hypothesis H_0 was verified, and it was found that model errors are homoscedastic - with constant variances. Hypothesis H_1 under which the number of mixed capital enterprises significantly influences the local economic development index is accepted.

Following the obtained results for the evaluated goal - the influence of investments within mixed- and public-ownership enterprises upon local economic development index through econometric models, the basic hypothesis indicating that they significantly influence the local economic development index was verified and validated.

5. Conclusion

This paper explored two unifactorial models that provided us with information about that both investments and the number of employees have a medium-intensity influence on IDEL. Acceptance of this hypothesis shows that investments of enterprises have a major influence on the economic and social development of the Republic of Moldova. In this respect, companies can guide investment activity toward the development of innovations. However, despite measures taken by state authorities in this area, the innovative activity of public and private sectors remains quite low and practically had not undergone significant changes during the last 10 years. Organizational rigidity and bureaucracy of Moldovan enterprises often inhibit the innovation process that is essential for enterprises to exist.

For future research, we can consider the development of the multifactorial models to determine how the correlation of the investments, number of employees, and annual sales revenues of public and joint ownership enterprises within the Republic of Moldova influences on economic development.

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