

ЕКОНОМІКА ТА УПРАВЛІННЯ НАЦІОНАЛЬНИМ ГОСПОДАРСТВОМ

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ECONOMIC EFFECTIVENESS OF THE ACTIVITIES OF LOCAL SELF-GOVERNMENT UNITS IN THE LIGHT OF THE MUNICIPALITY FINANCIAL RESOURCES**ЕКОНОМІЧНА ЕФЕКТИВНІСТЬ ДІЯЛЬНОСТІ ОРГАНІВ МІСЦЕВОГО САМОВРЯДУВАННЯ ЧЕРЕЗ ПРИЗМУ ФІНАНСОВИХ РЕСУРСІВ МУНІЦИПАЛІТЕТУ**

Urgency of the research. A municipality is an autonomous and independent from other state administration institution. The process of development that is being implemented by a district is a set of qualitative and quantitative transformations aimed at increasing the satisfaction level of the collective and individual needs of its inhabitants.

Target setting. The evaluation of the action of local government should be directed at the utilization of endogenous potential. The results of the analysis should allow identifying the peripheral areas or key actions.

Actual scientific researches and issues analysis. Scientific work of M. Bilski, M. Holstein-Beck, K. Cameron, R. Griffin, A. Hamroll, M. Kachniarz, P. Dziekanskigo, B. Fllipiak, S. Owsiak, - indicate the effectiveness of the action of local self-government and the measures to evaluate it.

Uninvestigated parts of general matters defining. The process of social and economic development carried out by the municipality is a set of transformations aimed at meeting the needs of the local community. One of the fundamental factors of the development process is the economic base of individual units.

The research objective. The aim of the study is to analyze the spatial diversification of economic efficiency of municipalities in the Świętokrzyskie voivodship in 2010 and 2015. The analysis is both static and dynamic. The source of statistical information was GUS Local Data Bank.

The statement of basic materials. The synthetic measure indicates the poor financial performance of the surveyed units. Both in 2010 and 2015 the best unit turned out to be Sitkówka-Noiny 0,495 - 0,472. At the end of the ranking were respectively Dwikozy 0,239 - 2010; Bliżyn 0,257 - 2015.

Conclusions. The indicated method provides information about the category of the object under consideration. The value of the measure depends on the economic character of the region as well as financial autonomy, level of own income, local taxes or infrastructure. Data received depend on the number and type of accepted variables to be tested.

Keywords: efficiency; economic efficiency; community; financial resources; synthetic measure.

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Актуальність теми дослідження. Муниципалітет є автономною і незалежною від інших органів державної адміністрації інституцією. Процес розвитку, який втілюється районами, є комплексом кількісних та якісних трансформацій, спрямованим на підвищення рівня задоволення індивідуальних і колективних потреб його мешканців.

Постановка проблеми. Оцінка діяльності органів місцевого самоврядування має бути спрямована на використання ендogenous потенціалу. Результати аналізу мають дозволити визначення периферійних сфер або ключових видів діяльності.

Аналіз останніх досліджень і публікацій. Наукові праці М. Більські, М. Холстейн-Бек, К. Камерон, Р. Гріфін, А. Хемролл, М. Кяхняж, П. Дзєканського, Б. Філіп'як, С. Овсьяк визначають ефективність діяльності органів місцевого самоврядування і заходи для їхньої оцінки.

Виділення недосліджених частин загальної проблеми. Процес соціально-економічного розвитку, що виконується муниципалітетом, є комплексом трансформацій, спрямованим на задоволення потреб локальної громади. Одним з фундаментальних факторів процесу розвитку є економічна основа індивідуальних одиниць.

Постановка завдання. Метою дослідження є аналіз просторової диверсифікації економічної ефективності Швєнтокшицького воєводства у 2010 р. і 2015 р. Аналіз є як статичним, так і динамічним. Джерелом статистичної інформації була база даних GUS Local Data Bank.

Виклад основного матеріалу. Синтетичне вимірювання демонструє погану фінансову діяльність досліджуваних одиниць. Як у 2010 р., так і у 2015 р. найкращою одиницею виявилася Сітківка-Ноїни 0,495 - 0,472. У кінці рейтингу знаходиться Двікози 0,239 - 2010 р; Бліжин 0,257 - 2015 р.

Висновки. Зазначений метод забезпечує інформацію про категорію об'єкта, який розглядається. Цінність вимірювання залежить від економічного характеру регіону, а також його фінансової автономності, рівня власного доходу, місцевих податків та інфраструктури. Отримані дані залежать від кількості і типу змінних для тестування.

Ключові слова: ефективність; економічна ефективність; громада; фінансові ресурси; синтетичне вимірювання.

Urgency of the research. The municipality constitutes a community of local residents of a defined territory. It performs functions aimed at satisfying the needs of the inhabitants [1, p. 11], which is the

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municipality own task. The tasks of the municipality can be divided into certain categories, namely technical infrastructure, social infrastructure, public order and security, spatial and ecological order.

The process of social and economic development carried out by the municipality is a set of transformations aimed at meeting the needs of the local community. One of the fundamental factors of the development process is the so-called economic base of individual units (endogenous resources of a unit, e. g. own income, infrastructure capital, human capital). The higher the own income in the income structure is, the greater its financial autonomy in designing and executing the preceding tasks become [2, pp. 81-94]. An economically relevant location pension means potential more or less tangible benefits of the location of a given unit in space [3, pp. 34-63]. It is sufficient to note the important correctness resulting from the localization theory related to localization rent, namely the proximity of infrastructure, mainly the road network. Thus the municipalities use the basic resource, e. g. infrastructure [4].

Target setting. The basic aim of the actions taken by the municipality is socio-economic development. It is done within the qualitative and quantitative processes taking place in a given local system, taking into account the system's specific needs, preferences, endogenous resources. Local authority activities in the indicated area include administration, management or ownership responsibilities, public funds allocation and monitoring and evaluation of the unit's functioning [9, p. 71].

Economic efficiency (of the municipality) is the result of an activity or a specific project resulting from the relation of obtained effects to expenditure incurred. By analyzing the notion of efficiency in the light of the new institutional economy, we can say that efficiency means eliminating external costs with the smallest possible transaction costs while ensuring efficiency (best allocation [10]). Effectiveness in relation to the performance of self-government tasks is understood as a set of economic relations in the form of cash flows between participants in the activity for carrying out the tasks assigned by law (legal effectiveness). It depends on the appropriateness of the selection and the correctness of the construction of monetary instruments, through which the processes of division and exchange of manufactured goods and services are realized [11, p. 192]. It is understood as the development of public expenditure, including local government, which allows for the greatest social utility of allocated public funds [12, p. 6].

Actual scientific researches and issues analysis. The wide spectrum of social, economic and spatial phenomena and processes that make up JTF's activities makes their effectiveness the result of the activity of the various entities. Efficiency is the ability to adapt to changes in the environment or to the fulfillment of goals. Scientific work of M. Bilski, M. Holstein-Beck, K. Cameron, R. Griffin, A. Hamroll, M. Kachniarz, P. Dziekanski, B. Flipiak, S. Owsiak indicate the effectiveness of the action of local self-government and the measures to evaluate it. They refer to internal and external peculiar criteria for a given context and temporal or target characteristics.

Uninvestigated parts of general matters defining. The continued growth of public tasks at the level of self-governments, with limited financial resources, has prompted interest in the efficiency of public finances. Local governments should strive for financial efficiency by switching to thinking in terms of economic efficiency and cost-sharing.

The lack of budgetary mechanisms for binding public spending on their effects is often one of the main weaknesses of public finance. Therefore, efforts are desirable to measure the effects of public tasks and construct their metrics, which are often immaterial [13].

The research objective. The aim of the study is to analyze the spatial diversification of economic efficiency of municipalities in the Świętokrzyskie voivodship in 2010 and 2015. Due to the multidimensional nature of the effectiveness of the measure, a synthetic measure was built. The analysis is both static and dynamic. The basic source of statistical information was materials available in the electronic form of the GUS Local Data Bank.

The assessment of spatial diversity of municipalities began with the definition of substantive, territorial and temporal scope (Tab. 1 [5]). The next step was to evaluate the degree of variability and the inverse correlation matrix analysis (diagonal elements > 10). The normalization of attribute values (zero unitary method [6]) and the determination of the value of the synthetic measure of effectiveness (in-

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tial method) were then performed. Finally, linear alignment and 4 quartile groups, intra-group and intergroup diversity analysis, and final conclusions were formulated [7; 8].

Table 1

Variables describing the effectiveness (financial situation) of local government (per capita)

X1	Operating surplus	S
X2	Own income	S
X3	Local taxes and charges	S
X4	PIT incomes	S
X5	CIT incomes	S
X6	Capital expenditure (investment)	S
X7	Expenditure on transport and communications	S
X8	Expenditure on education and upbringing	S
X9	Property expenses for the housing economy	S
X10	Property expenditure on municipal economy and environmental protection	S
X11	Expenditure on health care	S
X12	Local debt	D
X13	Expenses on interest	D
X14	Subsidies	D
X15	Grants	D
X16	Current expenditure	D

Descriptive statistics and the inverse correlation matrix have allowed to remove variables X1, X12, X14 from further investigation; S stimulant; D destimulator;

Source: own elaboration

The statement of basic materials. The synthetic measure indicates the poor financial performance of the surveyed units. Both in 2010 and 2015 the best unit turned out to be Sitkówka-Nowiny 0,495 - 0.472. At the end of the ranking were respectively Dwikozy 0.239 - 2010; Bliżyn 0.257 - 2015 (Tab. 2).

Table 2

Synthesis of financial efficiency $S(\rho)$

	2010	2015
A Very good	Sitkówka-Nowiny 0,495 Bogoria 0,390 Mniów 0,322 Złota 0,321	Sitkówka-Nowiny 0,472 Tuczępy 0,398 Miedziana Góra 0,317 Strawczyn 0,317
B good	Michałów 0,317 Bieliny 0,316 Nagłowice 0,294 Wodzisław 0,293	Wilczyce 0,315 Wiślica 0,313 Górno 0,295 Oksa 0,295
C weak	Sadowie 0,292 Skarżysko Kościelne 0,292 Kluczewsko 0,283 Pierzchnica 0,283	Klimontów 0,294 Opatowiec 0,294 Wodzisław 0,283 Solec-Zdrój 0,282
D bad	Bejsce 0,280 Klimontów 0,279 Tartów 0,247 Dwikozy 0,239	Smyków 0,281 Ruda Maleniecka. 0,280 Imielno 0,260 Bliżyn 0,257

The table shows the 2 best and weakest units in the group;

Source: own elaboration

Sitkówka-Nowiny is a rural municipality that lost its agricultural character to industrial function. Dwikozy is characterized by a lack of extensive sewerage network and a low rate of growth of business entities and agriculture, which retains approximately 83.5% of the population (2015). Agriculture of the commune of Bliżyn is the main branch of the economy alongside forestry, which is the basis for the household maintenance.

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The level of differentiation according to the measure of financial effectiveness in 2015 compared to 2010 was slightly different according to the standard deviation (0.04-0.03), which also confirms the value of the stretch, which in 2015 was lower than in 2010 (0.256- 0.215). The coefficient of variation of 0.13-0.073 was also reduced in the study period, which can be interpreted as a reduction in dispersion (Tab. 3).

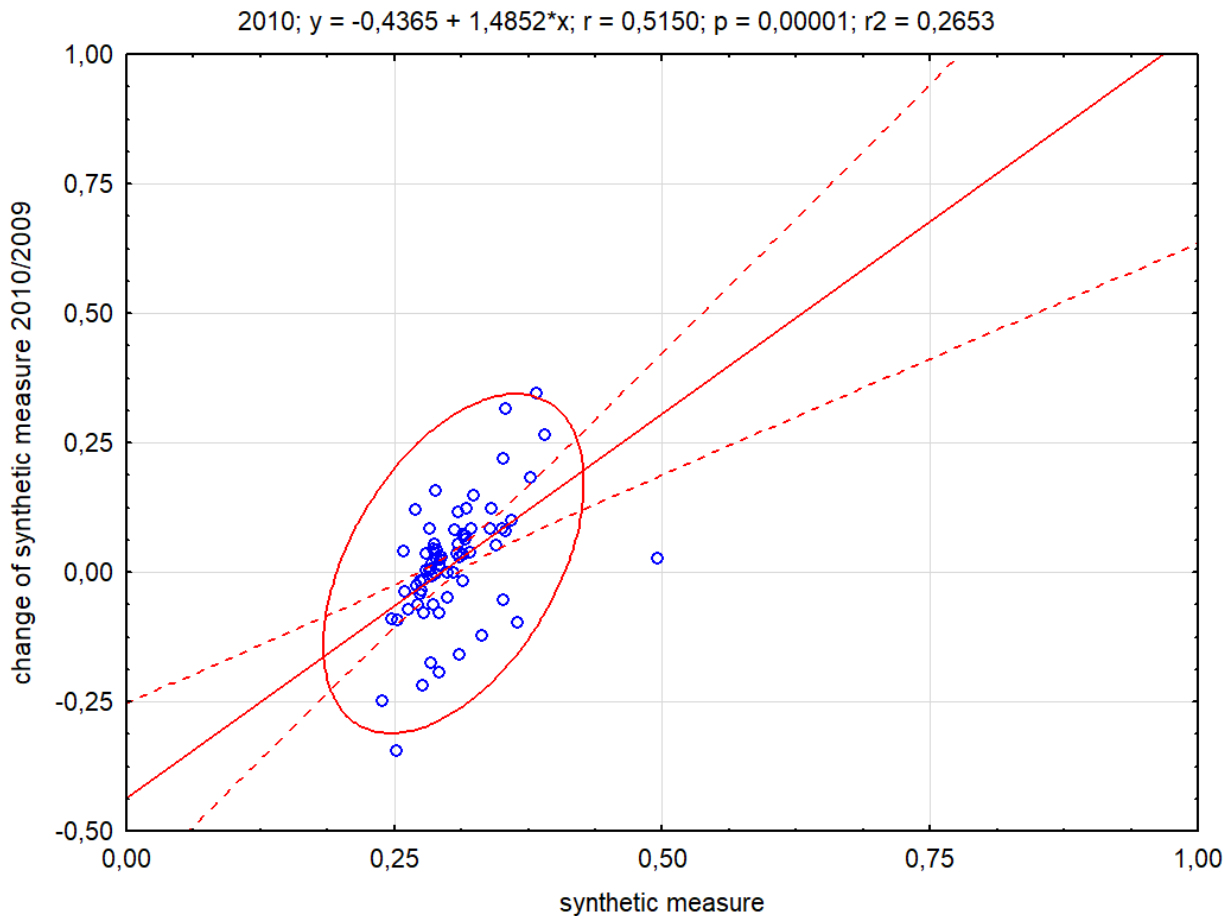
Table 3

Diversity of financial performance measures $S(pc)_i$

	2010	2015
average	0,305	0,303
standard deviation	0,041	0,034
coefficient of variation	0,133	0,113
min	0,239	0,257
max	0,495	0,472
gap	0,256	0,215
slant	1,755	2,339

Source: own elaboration

The correlation value indicates a fairly stable spatial variation in financial situation. Pearson's correlation coefficient in 2015 fell to 0.515 -0.365 from 2010, which may indicate divergence. Analysis of the scatter plot of the synthetic financial situation and its changes in 2010 and 2015 indicate a very good fit of the regression line (Fig. 1).



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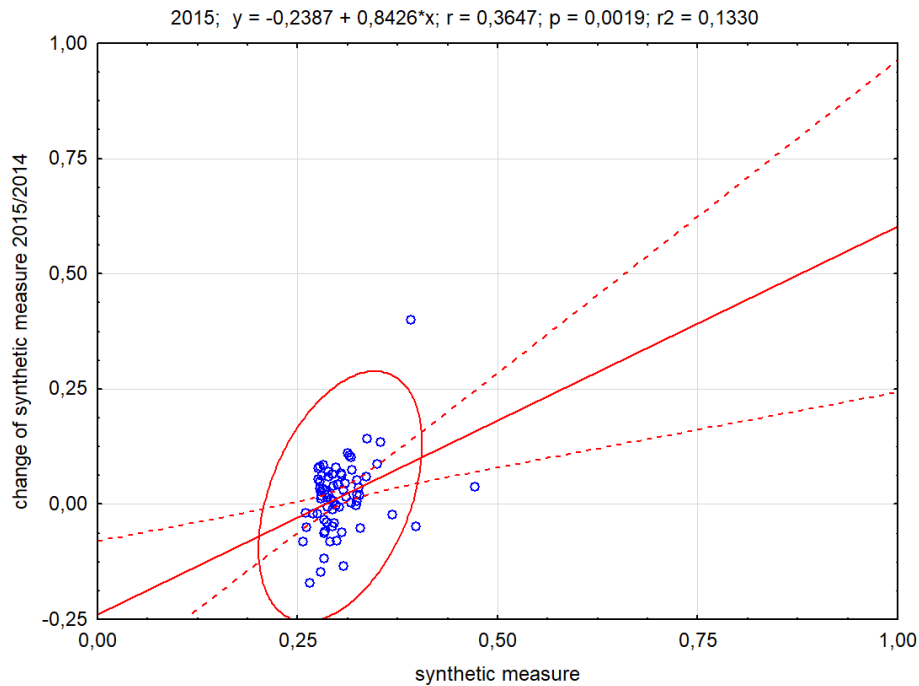
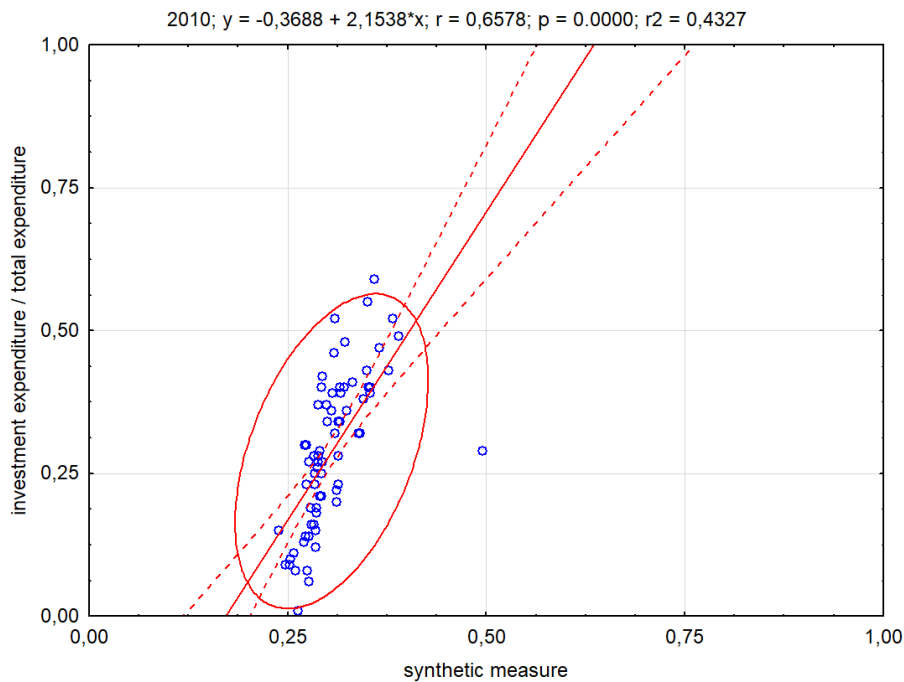


Fig. 1. Diagram of the ratio of the measure of synthetic financial effectiveness and its changes with matching regression lines in 2010 and 2015

Source: own elaboration

Investment expenditures shape the development opportunities and serve to rebuild and expand existing infrastructure as well as effective realization of tasks. From the analysis of Fig. 2, it is concluded that the synthetic measure was subject to divergence in 2010 as compared to 2015 ($r = 0.657 / r^2 = 0.432$ in 2010 and $r = 0.496 / r^2 = 0.24$ in 2015; Fig/ 2).



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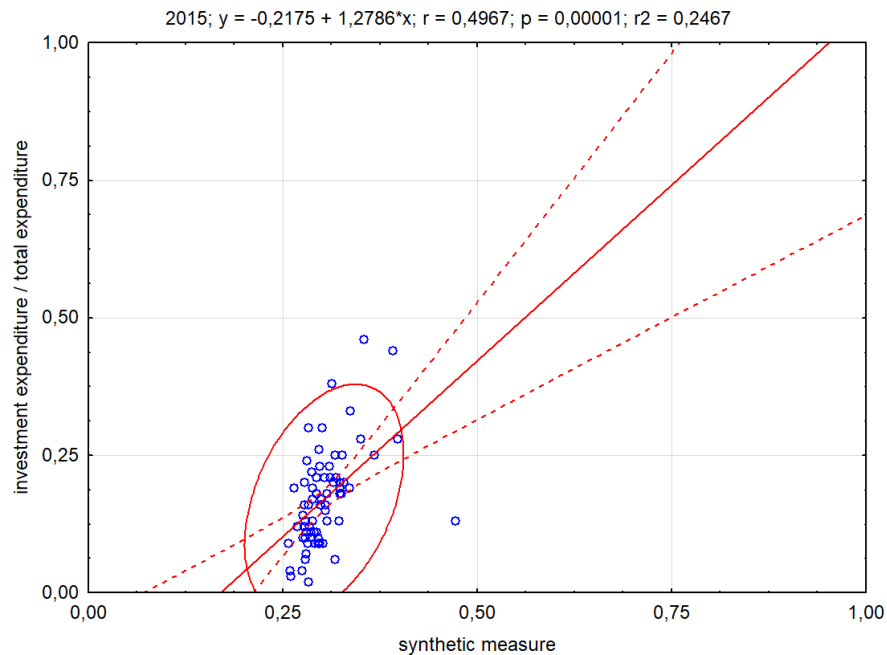


Fig. 2. Chart of financial ratio and investment expenditure / total expenditure with regression line matching

Source: own elaboration

Intra-group diversity measures indicate the low homogeneity of the separated groups both in 2010 and 2015 (Tab/ 4).

Table 4

Intra-group similarity measures for the measure of financial effectiveness (max / mean)

	2010	2015
A	4,924	5,898
B	7,532	2,673
C	8,234	2,775
D	4,548	2,997

Source: own elaboration based on GIS CSD data

Table 5 shows very clear intergroup differences. High max / min values indicate less similarity of groups. Greater max / mean values indicate low homogeneity of groups in both 2010 and 2015.

Table 5

Characteristics of intergroup diversity for the analyzed measures of financial effectiveness

		AB	AC	AD	BC	BD	CD
2010	max/min	62,703	28,524	16,403	80,174	73,467	129,213
	max/average	4,186	2,281	2,214	6,021	4,523	4,992
2015	max/min	48,693	44,253	58,154	47,453	24,942	22,635
	max/average	4,000	4,004	3,834	3,069	2,974	2,873

Source: own elaboration based on GIS CSD data

Conclusions. Municipalities play a predominant role in local government in Poland; they have the role of an active landlord, aiming to stimulate local socio-economic development. They finance areas are education, social welfare, housing, community management, transport and communication, culture. This satisfaction of the needs may not be effectively realized precisely as a result of the influence of various factors on municipal finances.

The assessment of the action of local government should be directed at the utilization of endogenous potential. The results of the analysis should allow the identification of peripheral areas or key

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actions. The indicated method provides information about the object category under consideration. It provides the basis for assessing the effectiveness of financial instruments used in the past. The value of the synthetic measure describing the effectiveness of the activity is shaped by the number of accepted variables tested. In the case of municipalities we encounter data deficits, which significantly impede the assessment and inference process.

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