

Anti-Crisis Management of Rural Areas Under Conditions of Decentralization (By the Example of Ukraine)

Nataliia Antoniuk

PhD, Associate Professor, Rivne Regional Institute of Postgraduate Pedagogical Education, Ukraine
<http://orcid.org/0000-0001-8848-262X>

Marlena Piekut

PhD, Warsaw University of Technology, Poland
<http://orcid.org/0000-0001-6449-5143>

Oksana Perkhach

PhD, Associate Professor, Lviv Polytechnic National University, Ukraine
<http://orcid.org/0000-0003-4452-4685>

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Abstract

Purpose: The main aim of this paper is to investigate the present state of anti-crisis management of rural areas under conditions of decentralization (by the example of Ukraine) and to formulate a model of integration of the public, rural communities, business and science on the basis of a public-private partnership.

Design/methodology/approach: In this research, we used the following methods: cluster analysis, correlation analysis, economic analysis and forecasting, inductive method. The authors worked out a comprehensive programme-targeted approach to rural areas development based on a public-private partnership.

Findings: The main concepts of the topic are considered and the authors' definition of the concept of "anti-crisis public-private partnership in rural areas" is proposed. Anti-crisis public-private partnership in rural areas is interpreted as a form of anti-crisis cooperation between state, social and private sectors, based on the recognition that all parties benefit from the pooling of resources, innovations and managerial decisions for the purpose of realization of anti-crisis principles and socio-economic development of rural areas.

Correspondence address: Rivne Regional Institute of Postgraduate Pedagogical Education, Department of Philosophy, Economics and Management of Education, Rivne 33000, 74 Viacheslava Chornovola St., Ukraine; Warsaw University of Technology, 17 Łukasiewicza St., 09-400 Plock, Poland; Lviv Polytechnic National University, Department of Administrative and Financial Management, Lviv 79013, 12 Stepana Bandery St., Ukraine; e-mail: marlena.piekut@pw.edu.pl; Oksana.L.Perkhach@lpnu.ua.

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Research limitations/implications: The stages of anti-crisis management of rural areas under conditions of decentralization are developed, which clearly define the directions for structural socio-economic transformations in rural areas. The results are evaluated on a differentiated scale. Based on the results of the research, a model was developed for identifying the crisis situation in rural areas in conditions of decentralization. It takes into account the availability of potential (resource, labour), social, ecological and economic components of the development of territories, the risk factor for crisis and the overall coefficient of decentralization.

Originality/value: The model of integration of the public, rural communities, business and science on the basis of public-private partnership is developed. It will allow the development of rural areas, increase the efficiency of agriculture and lead the country out of crisis.

Keywords: anti-crisis management, rural areas, decentralization, crisis process, public-private partnership.

JEL: O11, O57, D78

Zarządzanie antykrzysowe obszarami wiejskimi w warunkach decentralizacji (na przykładzie Ukrainy)

Streszczenie

Cel: zbadanie obecnego stanu antykrzysowego zarządzania obszarami wiejskimi w warunkach decentralizacji (na przykładzie Ukrainy) oraz sformułowanie modelu integracji społeczeństwa, społeczności wiejskich, biznesu i nauki na zasadach partnerstwa publiczno-prywatnego.

Projekt/metodologia/podejście: w badaniu wykorzystano następujące metody: analiza skupień, analiza korelacji, analiza i prognozowanie ekonomiczne, metoda indukcyjna. Opracowano kompleksowe programowo ukierunkowane podejście do rozwoju obszarów wiejskich w oparciu o partnerstwo publiczno-prywatne.

Wnioski: rozważono główne koncepcje tematu i zaproponowano autorską definicję pojęcia „antykrzysowe partnerstwo publiczno-prywatne na obszarach wiejskich”. Antykrzysowe partnerstwo publiczno-prywatne na obszarach wiejskich jest interpretowane jako forma współpracy antykrzysowej między sektorem państwowym, społecznym i prywatnym, polegająca na uznaniu, że wszystkie strony korzystają na łączeniu zasobów, innowacjach i decyzjach zarządczych w celu realizacji antykrzysowych zasad i rozwoju społeczno-gospodarczego obszarów wiejskich.

Ograniczenia/implikacje badawcze: rozwijane są etapy antykrzysowego zarządzania obszarami wiejskimi w warunkach decentralizacji, które jasno określają kierunki strukturalnych przemian społeczno-gospodarczych na obszarach wiejskich. Wyniki oceniane są na zróżnicowanej skali. Na podstawie wyników badań opracowano model identyfikacji sytuacji kryzysowej na obszarach wiejskich w warunkach decentralizacji. Uwzględnia on dostępność potencjalnych (zasobów, siły roboczej), społecznych, ekologicznych i ekonomicznych składników rozwoju terytoriów, czynnik ryzyka kryzysu oraz ogólny współczynnik decentralizacji.

Oryginalność/wartość: opracowano model integracji społeczeństwa, społeczności wiejskich, biznesu i nauki na zasadach partnerstwa publiczno-prywatnego. Zaproponowany model może wspomóc rozwój obszarów wiejskich, wpłynąć na podniesienie efektywności rolnictwa i wyprowadzenie kraju z kryzysu.

Słowa kluczowe: zarządzanie antykrzysowe, obszary wiejskie, decentralizacja, proces kryzysowy, partnerstwo publiczno-prywatne.

1. Introduction

The current state of economic development in Ukraine is characterized by expanding crisis processes that are affecting all spheres of life. A particularly critical situation becomes apparent in the countryside: production is being

reduced, massive labour migration is taking place to big cities and other countries, and infrastructure is on the decline. Under these circumstances, the Ukrainian government is implementing new reforms. Now it is important to use anti-crisis management taking into account the decentralization reform for the purpose of overcoming the situation in rural areas.

As is well known, decentralization is defined as one of the key principles of the development of democracy in the states of the European Union and the Council of Europe, the basis of their regional policy, along with the principles of subsidiarity, concentration, complementarity, partnership, and programme approach. This principle is enshrined in the European Charter of Local Self-Government and the European Charter for Regional Democracy. It concerns the redistribution of powers to regions in order to effectively use internal potential, encouraging regional initiatives and differentiating functions and powers between different levels of government. Decentralization is a prerequisite for candidate countries for accession to the EU, and it is based on all sectoral policies that are being developed and implemented within the EU.

1.1. Objectives

The purpose of the article is to explore the anti-crisis management of rural areas in conditions of decentralization, to formulate a definition of its concept.

The main goals are:

- giving a definition of the anti-crisis management of rural areas in conditions of decentralization;
- implementation of stages of anti-crisis management of rural areas in conditions of decentralization;
- development of a comprehensive programme-targeted approach to rural areas development based on a public-private partnership;
- cluster analysis used to identify the most critical areas in the country;
- formulating a model of integration of the public, rural communities, business and science on the basis of a public-private partnership.

1.2. Methodology

The breadth and ambiguity of various aspects of the problem under study, its significance in the concept of sustainable development of agriculture determined the choice of the research topic, purpose, tasks and structure. Numerous publications of both domestic and foreign scientists are devoted to problems of crisis management (Asaul, 2007; Ligonenko, 2005; Bonyar, 2013; Romeo, 2012, and others).

The timeliness of decentralization and management in a crisis conditioned the wide activity of scientists in discussing and finding approaches to

solving problem issues. Researchers (Averyanov, 2002; Hritsiak, 2005; Myronova, 2006; Nyzhnyk, 1997; Tkachuk, 1997; Shapoval, 2002; Kramon-Taubadel, 2014; Danylyshyn, 2016; Oates, 2008) investigate the essence and content of decentralization as a phenomenon, analyse and diagnose the directions of government reform, analyse foreign experience, make proposals for improving the efficiency and effectiveness of government and crisis management in Ukraine. Although the work of scientists does not pay enough attention to the approaches to crisis management, the factors of decentralization and their impact on the development of rural areas are not taken into consideration.

Management of rural development is being studied from the point of view of rural areas and agriculture identification, which determines the limited scope of the search for measures to ensure the economic development of rural areas, taking into account growing crisis manifestations. In our opinion, it is necessary to study rural areas as subjects of economic, social and political relations. It should be noticed that in many cases the consequences of decentralization are unpredictable.

The methods used in the article include: study of phenomena (object, subject), analysis and synthesis, method of ascent from the abstract to the concrete, identification and analysis of the correlation between factors and results (anti-crisis management in conditions of decentralization). Various approaches are explored in the article to timely prevent and overcome crises, including: methods of economic analysis (studying the economic condition of rural areas), forecasting (revealing the factors of rural areas development), social technologies (aggregating the directions of professional impact on social objects in rural areas for the purpose of improvement and ensuring the optimal their usage under different influence of the decentralization process) and the development of anti-crisis programmes and complex investment projects, plans for restructuring and reorganization (methodical approach to the management of projects). In our opinion, it is worth using the inductive method in the case of a study of anti-crisis management in Ukraine because the purpose of anti-crisis management of rural areas in the conditions of decentralization is the growth of state economy in consequence of development of territories including rural areas.

2. Results

Agriculture was considered as the basis of development of Ukraine for many years in the past. Nowadays, the agrarian branch of economy is less developed and even unprofitable due to different reasons.

Agriculture is the third most important sector of the Ukrainian economy, with a GDP share of 14.4% as of 2016, as compared to industry (26.3%) and services (59.3%) (CIA US, n.d.). The Ukrainian government appears to see

agriculture as the most important sector in terms of growth and investment opportunities. Agriculture is much more responsible for GDP performance in post-Soviet Ukraine than in the European Union on average: the EU share of agriculture has consistently been lower than 2% during most of the last 20 years, while in Ukraine its share was slightly more than 20% at the time of independence, although it has had a strong tendency to decline. However, in Ukraine this tendency has been reversed and the share of agriculture in GDP has been rising since 2007, first gradually and then more rapidly.

Ukraine faced considerable difficulties, namely: problems of uneven territorial development, significant differences in economic districts development, an imbalance in relations between central executive power and institutions of local government (Antoniuk, 2019). It became necessary to solve these and other problems by reforming the public administration system and introducing decentralization policies.

At present, Ukraine does not have effective approaches to anti-crisis management of rural areas. Today, there are many worldwide approaches and methods of decentralization and management of rural areas in conditions of crisis phenomena. But at the same time, none of them in its pure form can be used in Ukraine. We offer our own vision of the stages of crisis management of rural areas in conditions of decentralization (Table 1). The implementation of these stages will contribute to the strategic development of the anti-crisis management process in rural areas in the context of decentralization.

№	Stages
1.	Elaboration and confirmation of the anti-crisis management plan for rural areas in conditions of decentralization
2.	Identification of financing sources for anti-crisis management of rural areas in conditions of decentralization
3.	Carrying out a typology of rural areas, estimation of available potential and other calculations
4.	Creation of a commission on the study of rural areas development problems
5.	Working out the state strategy of rural areas management in conditions of decentralization (including by types of rural areas)
6.	Elaboration and implementation of a legislative framework for the development of rural areas in conditions of decentralization
7.	Formation of a system of training and retraining of personnel for anti-crisis management of rural areas in conditions of decentralization
8.	Development and implementation of regional and local rural areas development strategies
9.	Basic structural socio-economic transformations and ecologization in rural areas. Anti-crisis management of rural areas in conditions of decentralization

Tab. 1. Stages of anti-crisis management of rural areas in conditions of decentralization. Source: Elaborated by authors.

An anti-crisis public-private partnership is one of an effective crisis responses and leads to the socio-economic development of rural areas.

In complicated modern political, economic and social conditions of Ukraine, public-private partnership is one of the best ways to implement long-term, capital-intensive and socially significant projects in rural areas. In our opinion, private-public partnership can become an effective tool for the development of rural areas. Based on the programme-targeted method, we have elaborated a comprehensive approach to the development of rural areas, which allows a synchronized combination of the priorities of national projects in model rural areas (Figure 1). The result of implementing of this approach is the effective use of the potential of state support and self-development of rural areas.

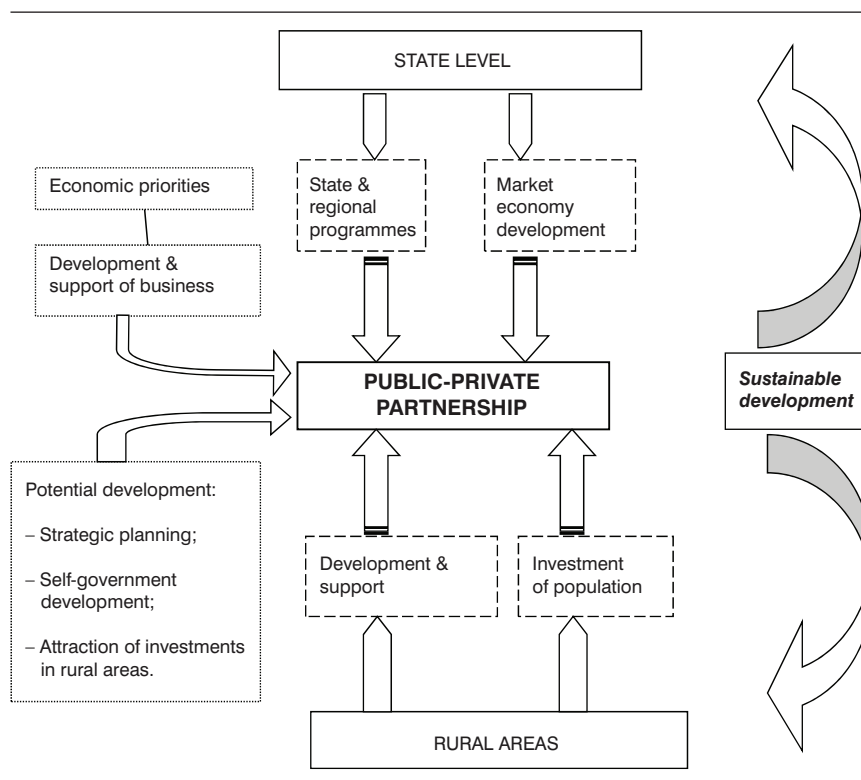


Fig. 1. Comprehensive approach to rural areas development based on a public-private partnership. Source: Elaborated by authors.

We consider defining the term “anti-crisis public-private partnership in rural areas” as a form of anti-crisis cooperation between the public, social and private sectors, based on the recognition that all parties benefit from the

pooling of resources, innovations and managerial decisions for the purpose of realization of anti-crisis principles and socio-economic development of rural areas.

There is a very slow transition in Ukraine from the predominantly public administration to public-private partnership based on the principles of multilateral social, economic and environmental trends and the transfer of a part of the functions of public administration to the communities. In case of necessity for management in the conditions of a crisis and decline of rural areas in Ukraine, the usage of public-private partnership will contribute to improve the quality of life of peasants.

The most important feature of public-private partnership is functioning in a crisis economy, based on the interaction of state and private property, forming the specificity of appropriation relations. Such partnership provides the choice of the most effective ways of using both state and private property as their transformation takes place. As a result, a combined form of ownership is created that provides a synergistic effect.

The use of public-private partnerships should affect the main factors hampering the entry of businesses into rural space with innovative ideas due to financial problems, inadequate government support for innovation development, and low qualifications of staff. The methodical approach for the integration of the state, territorial communities, business and science on the basis of public-private partnership in the countryside with the objective of rectifying the situation is proposed (Figure 2).

The proposed model will contribute to sustained demand for innovation in agriculture through financing of the integration of science and business. However, in Ukraine, the demand for technological innovations remains extremely low as compared with developed countries – the percentage of domestic industrial enterprises purchasing intellectual development for the purpose of implementation is less than 3% (Stepaniuk, 2015). The application of the proposed model will allow the development of rural areas, increase the efficiency of agriculture and bring the country out of crisis.

Decentralization is a process of division of functions, power, people or things between authorities (Stepaniuk, 2017). This issue is especially important for rural areas with a significant imbalance in development and low socio-economic assessment. The usage of anti-crisis management is important under conditions of reform.

Anti-crisis management of rural areas under decentralization involves taking managerial decisions. It is often pursued where there is a high level of uncertainty, lack of time, limited financial resources, and the development of crisis processes in rural areas, taking into account new approaches to reform.

Anti-crisis management provides for the presence of two necessary components – the subject of management (component exerting managerial influence) and the object of management (part of the system to which managerial influence is directed).

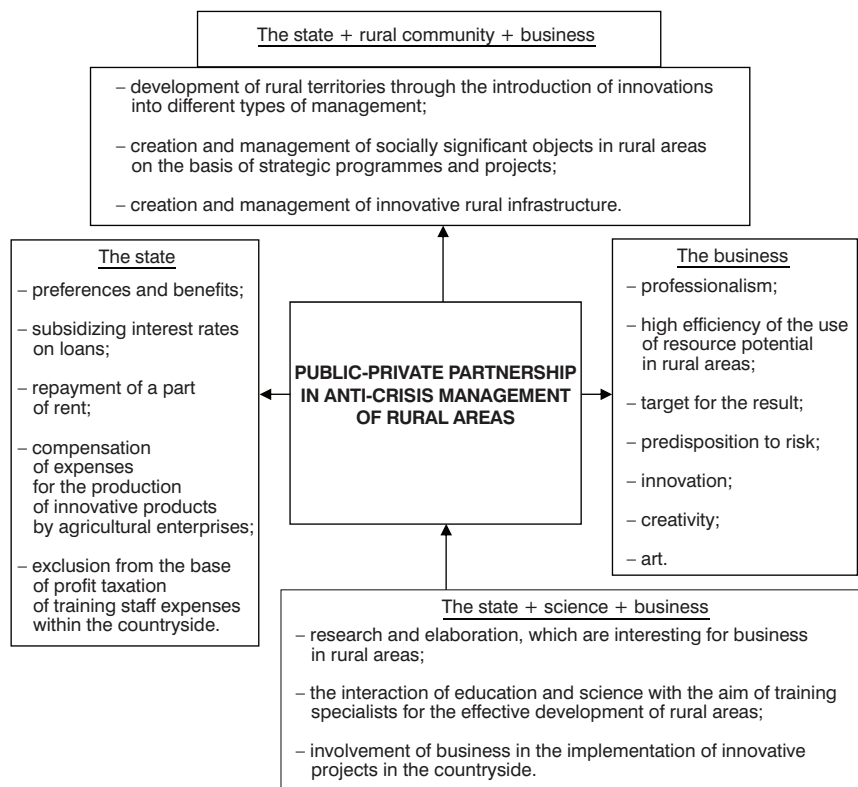


Fig. 2. Model of integration of the state, rural communities, business and science on the basis of public-private partnership. Source: Elaborated by authors.

In the conditions of decentralization, management of rural areas is provided by local government. This is a system of authority organized at the local level, whereby local communities gain a real possibility to solve problems related to organization of their life in different ways, independently and regardless of the state. At the heart of local authority is territorial community (initial subject) – population, which, in consequence of natural resettlement, lives in a certain territory and has the right to pursue their interests at the local level (Law of Local Government in Ukraine, 1997). One of the objective reasons why local governance must exist in a modern state is the theoretical likelihood of having differences between national and some local communities' interests. Therefore, a local government mission is called upon to reasonably coordinate these differences. The state government cannot regulate all problems appearing in rural areas.

Therefore, the authors consider the necessity of realization of a well-planned and carefully thought-out reform of decentralization in Ukraine.

In these circumstances, it will ensure appropriate conditions for bringing power closer to the population, forming a flexible management system, assessment of the existing potential of rural areas, investigation of the crisis sides of development, taking initiatives for the development of civil activity of rural residents.

In the proposed study, we suggest analysing the developmental process of macro- and meso-level objects. Therefore, we consider it appropriate to analyse the location of objects using cluster analysis. In this case, clusters of territorial entities, which should be constructed on the basis of available statistics, will serve as objects of the analysis.

The cluster analysis methodology, based on the concepts of object similarity, allows building clusters based on partial and common integral indicators of the object functioning and the ability to escape from the crisis due to targeted orientation (Fedosieiev et al., 1999).

To identify the crisis situation of territories under decentralization, we propose to supplement the model with a risk factor (K_p) that characterizes the ratio of a probable magnitude of the maximum possible loss (Z_{\max}) to the normative value of a socio-ecological and economic component of the territories (K_{0j}), calculated according to the formula (1):

$$K_p = \frac{Z_{\max}}{K_{0j}} 100\% \quad (1)$$

As a result of determining the coefficient, the obtained values are estimated on a scale:

- up to 10% – favourable state;
- from 10% to 30% – optimal state;
- from 31% to 69% – alarming state;
- from 70% – a crisis condition.

At the same time, it is appropriate to take into account the total decentralization factor in decision-making (K_d), which allows assessing the degree of decentralization in a particular management system and is calculated by the formula (2):

$$K_d = \frac{r_i}{R_i} 100\% \quad (2)$$

r_i – the number of decisions taken at the lower levels of the hierarchy in the i -th period;

R_i – the total number of decisions in this period.

Scale for calculating:

- 0.0–0.1 – the minimum degree;
- 0.1–0.3 – insignificant degree;
- 0.3–0.5 – middle degree;
- 0.5–0.8 – a significant degree;
- 0.8–1.0 – high degree.

The coefficient of less than one means a higher degree of decentralization. But the number of decisions is insufficient, because it does not take into account the importance of the decisions taken at the lower levels of management and the degree of their independence, therefore, the definition of this indicator is of a general nature.

The initial data for the definition of this ratio was the data of the assessment of the financial capacity of the combined territorial communities operating in the regions, based on the results of the monitoring of implementation of local budgets for 2017 and the following indicators, which reflect: own income per capita; the level of subsidization of budgets (the share of basic/reverse subsidies in income); the specific weight of expenditures on maintenance of the management staff in the community's own resources (without transfers from the state budget); capital expenditures per inhabitant.

According to the results of the research, we propose a model for identifying the crisis situation of rural areas in conditions of decentralization, taking into account the availability of potential (resource, labour), social, ecological and economic components of the development of territories, the risk factor for crisis and the overall coefficient of decentralization:

$$N = E_s^y + d_i + K_p + K_d. \quad (3)$$

N – the identification of the crisis state of the territories in conditions of decentralization;

E_s^y – aggregate potential;

d_i – taxonomic index of the investigated cluster configuration;

K_p – risk factor;

K_d – total decentralization factor in decision-making.

In order to ensure correct determination of the aggregate (performance ratio) of the capacity utilization (E_s^y), it is appropriate to use the following equation:

$$E_s^y = \frac{P^y}{V_s^y} = E_n \cdot d_n + E_l \cdot d_l + E_k \cdot d_k, \quad (4)$$

d_n, d_l, d_k – the specific gravity of the natural, labour and stock potentials in the aggregate potential;

E_n, E_l, E_k – the potential of natural resources, the potential of labour resources and the potential of fixed capital.

For each territorial entity, the efficiency standard will have a differentiated character due to structural differences in the component composition of the aggregate potential of the territory. It allows substantiating the sources of cluster differentiation in the costs of social work.

One of negative decentralization effects on the development of the rural areas is strengthening interregional and intra-territorial differentiation of

development. This is related to different potential of territories' development and opportunities to accumulate financial resources, attract investors.

In practice, a significant part of rural settlements does not provide constitutionally guaranteed public goods. As a result of insufficient diversification of production, many settlements (monofunctional villages) are in a stagnant stage.

The areas helping to make a choice of the strategy are defined on the graphical matrix for each of the clusters (Figure 3):

- cluster I covers two zones H and L, which indicates the feasibility of developing and implementing basic crisis prevention strategies;
- cluster II – two zones G and H, which proves the necessity for implementation of action strategies;
- cluster III – zones D, F and K, which is related to the importance of focusing on development strategies;
- cluster IV – zones B, C, D, determines the implementation of basic crisis exit strategies;
- cluster V – two zones A and B, indicating the necessity to develop resource providing strategies.

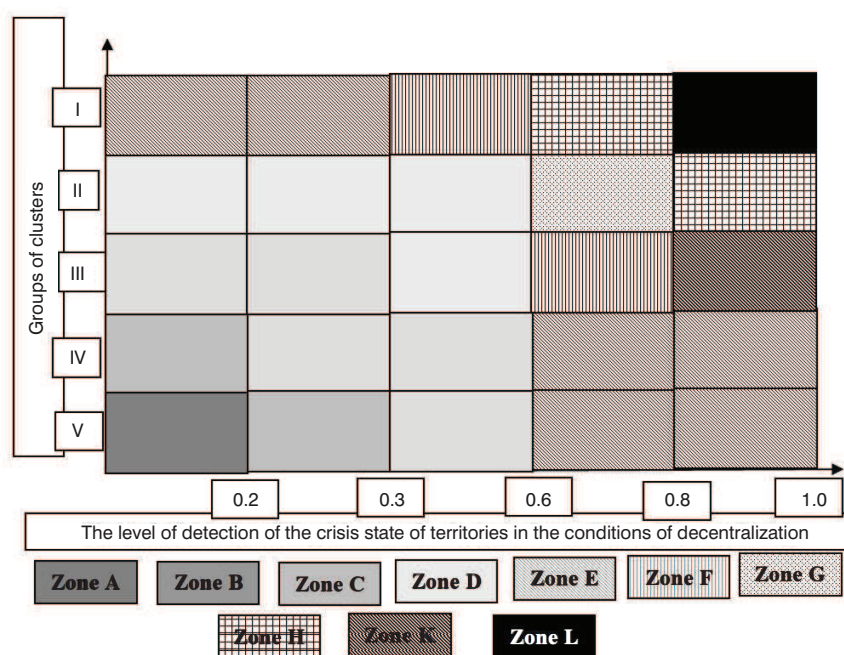


Fig. 3. Graphical matrix for determining the type of anti-crisis strategy. Source: Elaborated by authors.

The performed calculations allow justifying the necessary anti-crisis strategies in the fixed territories within the clusters defined.

The results of calculating indicators were the base for ratings of possible configurations and clusters were made for the territory of Ukraine. As a result of cluster ranking by the level of factor macroeconomic indicators and factors taken into account, the administrative regions of cluster I, with the belonging Dnipropetrovsk and Zaporizhzhya regions, are the closest to the standard; their indicator of a crisis state of territories in terms of decentralization is the lowest among all administrative regions of Ukraine.

Cluster II includes eight administrative regions. Cluster III comprises four regions. Clusters IV and V include five regions. The risk factor for the onset of crises or the onset of crisis phenomena is determined within the limits of favourable and optimal states. Moreover, all clusters of the country are characterized by a minimal and insignificant degree of decentralization, which indicates slow movement in this direction. The results of calculations made it possible to move on to determining the type of anti-crisis strategy that is appropriate for each of the selected clusters. It was done using a graphical zoning method. As a result of calculations, a rating of possible configurations for the designated clusters was constructed.

Calculations of the existing potential of rural areas of the country, the priorities of future development in the context of decentralization indicate the importance of crisis forecasting and modelling. A probable picture of the main trends of further changes over time is obtained, focusing on initial values. Developing an effective strategy for managing crisis processes in different clusters requires a comprehensive approach to solve the economic, social and ecological problems that directly affect and determine their status and future prospects.

3. Conclusions

The result of the study is the introduction of the authors' approach to crisis management in rural areas under decentralization. The basis of this is public-private partnership, such as the integration of the state, rural communities, business and science.

Considering the large-scale crisis processes in Ukraine, significant potential in rural areas has already been lost. It is possible to stop this process only with a prudent state policy. Therefore, the calculation of the decentralization factor will significantly affect the quality of the decisions taken in anti-crisis management.

Based on a methodical approach to public-private partnership, the authors developed their own approach that takes into account the specific conditions of rural areas. The implementation of the authors' recommendations will lead to positive changes, namely: the growth of rural population, the renewal

of productive capacity in rural areas, increasing the interest of employees in self-dependent production activities or in being employed to increase their incomes and therefore improve family living standards in villages. The decentralization reform is aimed at the development of territories, including rural ones. The authors' vision encompasses an integrated approach and is aimed at the gradual implementation of decentralization in rural areas under the current conditions of crisis phenomena.

The situation of anti-crisis management of economy under conditions of decentralization is considered with the help of simulation. The result of a simulated example is the decision to apply anti-crisis measures to overcome crisis phenomena. Cluster analysis was used to identify the most critical areas in the country. On the basis of this analysis, it was suggested to use an algorithm of grouping territorial entities according to the level of improvement in anti-crisis management by the national economy of Ukraine under the conditions of decentralization.

In the context of decentralization, the anti-crisis measures are carried out by the participation of the territorial community, taking into account the content of regional conditions, potential, and choice of priorities in the course of their implementation.

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