ELABORATION OF ANTI-CRISIS MEASURES TO SAFETY OF
TOURIST BUSINESS DEVELOPMENT ON THE BASIS OF
STATISTICAL INDICATORS

Summary. The article considers the main components and methods of forming the principles of anti-crisis management efficiency in tourism. The analysis of indices of the anti-crisis management system is carried out in tourism. The key aspects of the anti-crisis management model are investigated in tourism. Taking into account the need for the anti-crisis management compliance with the established scientific principles, we propose a methodology for assessing the efficiency of an tourist enterprise anti-crisis management based on the definition of a summarizing indicator of the efficiency of anti-crisis management in the context of analytical and expert assessment.

The methodology consists of several stages and allows to monitor the efficiency of management in dynamics, to identify weak links in the system of anti-crisis management in order to correct the management mechanism. As a
result, it should be noted that the formation of the principles of anti-crisis management efficiency should be based on the use of the method of summarizing indicator of the efficiency, taking into account the analytical and expert indicators. The proposed methodology for assessing the anti-crisis management efficiency of the tourist enterprise will make it possible to assess the ability to stable functioning or development, depending on the efficient use of available resources.

Applying the methodology described in this article will enable managers of the tourist enterprises to take effective anti-crisis solutions for enterprise development based on information on the management efficiency decline in accordance with the indicators of the anti-crisis management efficiency, which gives the opportunity to identify and implement the hidden reserves of anti-crisis management; as well as to determine the existing tools of anti-crisis management, the functioning and development of the tourism enterprise.

Key words: tourism, business, anti-crisis measures, statistics, indicators, efficiency.

Statement of the problem. The system of anti-crisis management in tourism is based on a set of knowledge and practical experience of the leader, which are aimed at optimizing the mechanisms of the economic system regulation, the discovery of hidden resources, development of potential at the complex stage of the tourism enterprise activity.

The problem of forming a system of anti-crisis management and assessing its efficiency is complex, and requires serious methodological work. During the systemic transformation of Ukraine into the world economic space, the mentioned problem became practically a key issue, which determines the functioning of enterprises in the prevailing economic conditions. In this regard, the study of the features of anti-crisis management and the development of a methodology for assessing the efficiency of the anti-crisis management system
becomes acutely updated and requires an innovative search for solution of complex economic decisions.

**Analysis of recent researches and publications.** The theoretical, methodological and practical aspects of anti-crisis management and enterprise management in unstable economic conditions are described in the works of Ukrainian and foreign scientists. Anti-crisis management is one of the areas of enterprise management, that is, according to the concept of Mescon M.H., Albert M. and Khedouri F. «...the process of planning, organization, motivation and control necessary to formulate and achieve the goals of the organization» [1, p. 74]. Tkachenko A.M. and Telin S.V. argue that it is the «survival, that is, the possibility to exist for as long as possible, is the most important task of most organizations, and therefore, anti-crisis management is undoubtedly part of the management of the enterprise as a whole» [2, p. 122-124]. However, some Ukrainian researchers, in particular: Vasilenko V.O. [3, p. 504], Ligonenko L.O. [4, p. 824], Makarenko I.O. [5, p. 104-109], Shapurova A.A. [6, p. 147-154] suggest that any management organization should be anti-crisis, that is built on the consideration of the risk and danger of crisis situations. «The ignoring of this postulate causes significant negative consequences, and the use of anti-crisis methods contributes to the smooth performing of crisis phenomena» – Pikus R., Prykaziuk N. and Balytska M. [7, p. 219-228]. «The peculiarity of anti-crisis management is not only its direction but also structural and logical construction, special tools, a separate subject of conduct, which as a whole allows to consider the anti-crisis management as a separate direction of management activity» – Malakhova Yu.V. and Malakhov A.E. [8, p. 233-242].

In our opinion, the anti-crisis management efficiency should be understood as a set of characteristics of the entity that directly affects the creation of favorable conditions for achieving high results with lower costs at a certain time.
The analysis of the concepts presented in the scientific literature made it possible to comprehensively assess the problem of anti-crisis management and conclude that the issues of assessing the anti-crisis management efficiency are the least developed theoretical issues, and therefore require a thorough research in this direction.

**The purpose of article** is to formulate methodological principles for assessing the efficiency of anti-crisis management of the tourism enterprise during the period of systemic transformation of the economy. In view of the above the **tasks of the research** are to develop the principles of anti-crisis management of the tourism enterprise, to analyze the indicators of the system of anti-crisis management of the tourism enterprise and to build an effective form of anti-crisis management.

**Results and discussion.** At each stage of the enterprise activity there are threats of various kinds of crisis phenomena. The crises can be caused not only by management personnel as a result of an error or wrongly chosen strategy, but also determined by the objective factors, such as fluctuations in market conditions, innovation policy drawbacks, outdated production technology, external causes and other economic factors.

The main task of anti-crisis management is to develop the least risky management decisions, on the basis of which the goals and results will be achieved with a minimum amount of auxiliary resources and with minimal negative consequences. The management efficiency should be characterized by the achievement of management objectives, but there are specific efficiency indicators that depend on: the manager skills; methods of risky solutions development; scientific analysis of the situation, forecasting the trends of the current situation; corporate identity, efficiency and management flexibility; the quality of anti-crisis programs; systems for crisis situations monitoring.

Figure 1 shows the model of anti-crisis management, based on the key indicators and principles of anti-crisis management.
Fig. 1. Conceptual model of anti-crisis management of the tourism enterprise

Source: developed by the authors on the basis of the conducted research

As a result of focusing on this model and use by the managers of proposed efficiency indicators of anti-crisis management, the company will be able to avoid the crisis situation, or minimize its negative consequences. Taking into account the need for the anti-crisis management compliance with the established scientific principles, we propose a methodology for assessing the efficiency of an enterprise anti-crisis management based on the definition of a summarizing indicator of the efficiency of anti-crisis management in the context of analytical and expert assessment. In our opinion, in the assessment of anti-crisis management not only the effective indicators of the economic activity of the managed system as a whole, achieved by the enterprise during the period of the introduction of anti-crisis management should be taken into account, but also the indicators of:

- management activity efficiency;
functioning of the anti-crisis management system;
- indicators of sustainability and adaptability;
- organizational structure rationality;
- manageability;
- social efficiency;
- management efficiency and its economic feasibility;
- innovation and innovative efficiency.

The proposed methodology allows to conduct an analytical and expert assessment of the anti-crisis management efficiency based on the summarizing indicator definition, to monitor the management efficiency in the dynamics, to identify weak links in the system of anti-crisis management in order to correct the management mechanism.

The method of assessing the efficiency of anti-crisis management consists of 3 stages.

Stage 1 – Information data collection and assessment: the frequency of anti-crisis management effectiveness assessment is determined; a dedicated working group is created; other resources for necessary for the assessment are determined; the necessary information is collected (in the internal and external environment); the sufficiency and reliability of the received information are estimated; a preliminary conclusion about the state of the enterprise is made. Since the enterprise in the system of anti-crisis management is simultaneously the subject and object of anti-crisis actions, the stage of collection and evaluation of information data is important in terms of identifying and analyzing the crisis conditions that depend on the external and internal environment.

Stage 2 – financial and innovation – is related to the analysis of the anti-crisis management enterprise efficiency. At this stage the weight of quantitative and qualitative indicators (Table 1), combined by means of six efficiency criteria (1-6), is determined.
Table 1

Indicators for assessing the anti-crisis management efficiency

<table>
<thead>
<tr>
<th>Criteria for efficiency assessment</th>
<th>Efficiency indicators</th>
<th>Interim efficiency Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Economic efficiency</td>
<td>The level of income and business efficiency on the basis of the profitability calculation of the enterprise; balance liquidity; financial solvency; financial stability; business activity of the enterprise and capital return; market activity and attractiveness; assessment of the bankruptcy probability</td>
<td>Indicator of the financial and economic activity efficiency</td>
</tr>
<tr>
<td>2. Adaptability</td>
<td>Financial sustainability and stability of the enterprise in time; the reaction rate of the management to environmental changes; the speed of decision-making on eliminating the problems</td>
<td></td>
</tr>
<tr>
<td>3. Innovative efficiency</td>
<td>Quality of products and services; periodicity of innovation introduction; Research, Development and Engineering expenses; innovative efficiency</td>
<td>Indicator of the efficiency of the management system of enterprise</td>
</tr>
<tr>
<td>4. Organizational rationalization of labor</td>
<td>Working conditions; lack of staff turnover; team climate; trade union work; adherence to manageability</td>
<td></td>
</tr>
<tr>
<td>5. Social efficiency</td>
<td>Average salary; the amount of social payments; labor productivity; the lead coefficient of the growth rate of labor productivity in relation to the growth rate of wages</td>
<td></td>
</tr>
<tr>
<td>6. Management efficiency</td>
<td>Competence and professionalism of management personnel; availability of regulations of enterprise activities, documents, standards; management costs</td>
<td></td>
</tr>
<tr>
<td>Anti-crisis management efficiency indicator</td>
<td>Summary indicator of the anti-crisis management efficiency</td>
<td></td>
</tr>
</tbody>
</table>

Source: developed by the authors on the basis of the conducted research

Each indicator from Table 1 has a weighting coefficient, based on its significance, while for each of the six groups of criteria, the maximum value is considered to be 1. In carrying out the assessment, the points are assigned based on the criterion values of the indicators, their changes and expert assessments. Thus, a final assessment of the efficiency of each group of criteria can be calculated as well as the final assessment of the anti-crisis management efficiency (which maximum value reaches six points).
Stage 3 – calculation and comparative – completes the process of assessing the anti-crisis management efficiency of agrarian enterprises, its purpose is to summarize the results of analysis, provide an objective assessment of the enterprise, the development of offers and recommendations for improving the enterprise efficiency and correction of the anti-crisis management mechanism. To summarize the assessment results, it is necessary to follow the algorithm (Fig. 2):

1. Assigning scores for each efficiency indicator of the enterprise
2. Calculation of some efficiency indicators under each criteria
3. Calculation of summative score for each group of criteria
4. Criteria evaluation within each group
5. Conclusions on the anti-crisis management effectiveness

Development of additional measures for correction the anti-crisis management system

Fig. 2. Block-diagram of the algorithm for assessing the efficiency of anti-crisis management of the tourism enterprise

Source: developed by the authors on the basis of the conducted research
Step 1. Point decision \((K_n)\) for each efficiency indicator by expertise, taking into account the comparison of the value of each indicator in the current period with the previous period and with the criterion value.

Step 2. Calculation of some efficiency indicators. Separate efficiency indicators of the anti-crisis enterprise management \(SEI_n\) within the efficiency criteria (six groups of criteria) characterize the share of each indicator in the general efficiency of the enterprise.

The calculation of some efficiency indicators is based on the weighting factors \((W_n)\), assigned as the indicators within each group (the sum of weighting coefficients within the group is equal to 1), and the values of these indicators in points \((W_n)\), assigned by expertise, using the formula:

\[
SEI_n = K_n \times (W_n),
\]

where: \(K_n\) – efficiency indicator; \(W_n\) – points assigned to the \(n\)-th indicator by expertise.

Step 3. Calculation of the total score for each of the six groups of efficiency criteria. The sum of \(SEI_n\) efficiency indicators under the efficiency criteria group makes the total score for the \(n\)-th group of efficiency criteria \((ECG_n)\):

\[
ECG_n = \sum SEI_n \times T = 1,
\]

where: \(T\) – number of efficiency indicators within the \(n\)-th group of efficiency criteria.

The \(ECG_n\) indicator shows the degree of management in the specific group of efficiency criteria. To assess the efficiency under the group of efficiency criteria you can use the rating scale (Table 2).

**Table 2**

<table>
<thead>
<tr>
<th>Final score for (n)-th group of efficiency criteria ((ECG_n))</th>
<th>Characteristics of management efficiency for the (n)-th group of criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 0.6</td>
<td>Highly Ineffective</td>
</tr>
<tr>
<td>0.6 – 0.7</td>
<td>Somewhat Ineffective</td>
</tr>
<tr>
<td>0.7 – 0.8</td>
<td>Somewhat Effective</td>
</tr>
<tr>
<td>0.9 – 1.0</td>
<td>Highly Effective</td>
</tr>
</tbody>
</table>
Step 4. Criteria assessment within each group. The threshold value for each group of efficiency criteria in the calculation of the final assessment of the anti-crisis management efficiency is not calculated, since all the six groups of criteria used, are equally important during the assessment and have different meanings. However, the criteria include a different number of indicators, so it is necessary to evaluate the criteria within each group.

In view of the above, we consider that the final assessment of the anti-crisis management efficiency (FAE) should be calculated by the formula:

$$FAE = \sum TSi \times n_i = 1,$$

where: $TS_i$ – total score for the $i$-th group of the efficiency criteria; $n_i$ – number of groups of the efficiency criteria.

In order to assess the efficiency of the anti-crisis management of the tourism enterprise the assessment scale with several classification groups that characterize the degree of efficiency of the indicated mechanism was developed (Table 3).

**Table 3**

Classification estimates of the level of efficiency of an tourism enterprise anti-crisis management based on scores received from the analysis of six groups of the efficiency criteria

<table>
<thead>
<tr>
<th>The final assessment of the anti-crisis management efficiency (FAE)</th>
<th>Characteristics of the anti-crisis management efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 3,0</td>
<td>Highly Ineffective</td>
</tr>
<tr>
<td>3,5 – 4,0</td>
<td>Somewhat Ineffective</td>
</tr>
<tr>
<td>4,5 – 5,0</td>
<td>Somewhat Effective</td>
</tr>
<tr>
<td>5,5 – 6,0</td>
<td>Highly Effective</td>
</tr>
</tbody>
</table>

*Source:* determined by the authors on the basis of the conducted research

Establishment the criterion boundaries for assessing the efficiency level of the anti-crisis management is a process similar to the establishment of limits for each group of the efficiency criteria.
Step 5. After conducting calculations of the final score assessment of the anti-crisis management efficiency (FAE), the conclusions on the efficiency of anti-crisis management enterprise were formulated. If there is a need to improve the system of anti-crisis management specially created by the group, together with the company management, the additional measures to correct this process have been developed.

The effect from the introduction of elements of anti-crisis management should be manifested in advance, in the process and after the acute crisis stage. This aspect emphasizes the need to implement various measures and tools for anti-crisis management at each stage of the crisis process.

The methodology for assessing the anti-crisis management efficiency proposed by us, gives the opportunity to assess the company ability to operate or develop at the stages of the crisis process, depending on the effective use of internal resources, which makes it possible to identify and implement the hidden reserves of anti-crisis management of the tourism enterprise.

**Conclusions.** In our opinion, formation of the anti-crisis management efficiency principles should be based on the use of a method of summarizing efficiency indicator, taking into account the analytical and expert indicators.

The methodology consists of several stages and allows monitoring the management efficiency in dynamics, identifying weak links in the system of anti-crisis management in order to correct the management mechanism.

The application of the proposed methodology will enable the company management to take effective anti-crisis solutions based on the information on the management efficiency decline in each of the criteria, which makes it possible to identify and realize the hidden reserves of anti-crisis management; as well as to determine the existing tools of anti-crisis management of the company activity and development.
In our opinion, the prospects for further research should be aimed at the formation of an innovative mechanism for improving of the tourism enterprise activity in the context of the economy transformation.

**Literature**