

Risk management as a condition of regional development

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Abstract—The present article deals with the main economic problems of socio-economic development of the region in the context of regional risk management. The place of risk management in the socio-economic development of the region — its real sector and the sphere of intangible production — is emphasized. Also the authors substantiate the underestimated role of risk management by all business entities in solving various problems of regional development

Keywords—regional economy, eco-socio-economic system, economic reality, risk management, socio-economic development

I. INTRODUCTION

The dominant feature of the territorial development is the reliable functioning of a regional eco-socio-economic system, which has a threefold purpose: equilibrium, stability, growth/development [1]. Stability is the ability of a system to withstand negative impacts, which is achieved through risk management.

In this aspect, the regional economic system is universal, since it affects all aspects of the functioning of both the real sector of the economy and the sphere of intangible production [2]. However, at the same time, the regional economy is under the influence of many risks.

Risk is a potential event in economic activity that causes certain damage [3]. Risks generally result from entropy – the uncertainty of the system due to the presence of emergence, i.e. only those risks that stem from the objective properties of economic activity are dealt with. Risks are treated or minimized through an effective management.

II. RESEARCH METHODS

The probability of risk occurrence can be determined on the basis of the regional information, where the human factor plays the main role. At the level of business entities, human errors and shortcomings of personnel arising from insufficient qualification can not be considered risks: in this case, an employee must be replaced. Various other internal

and external issues which need to be addressed in the managerial decision-making process affect the probability of risk occurrence. Only those risks that are legal, i.e. risks that are in line with current state or local laws, commercial rules and customs, are taken into account in economics.

Generally, all business entities operating in the relevant region should know the risks in their activities and how probable they are. In this regard, risks become objects of management. The purpose of such management is to minimize or even completely eliminate each specific risk.

Any management, including that of risks, objectively provides for the following functions to be performed: planning; regulation; accounting; control; analysis [4]. All management functions are interrelated, forming a system to reach a common goal. The quality of handling risks depends on how qualified, i.e. strictly according to science these functions are performed.

Insufficient level of qualification is the main cause of risks in management - management risks [5]. All risks considered are distributed by functions. In general, they affect the level of economic security from micro- to meso-levels. It should be borne in mind that risk is a probabilistic concept: the occurrence of a risk event is determined by the degree of probability of a given risk.

Risk management as a means of effective socio-economic development of the region is presented in the diagram (Fig. 1). The main content of functions and types of support of the risk management system are presented in Table 1 and Table 2.

To successfully implement the management process specific types of support are required.

Support providing subsystems of the management system, or types of support, include the following types [6]: scientific, information, technical, labor, legal, financial, organizational.

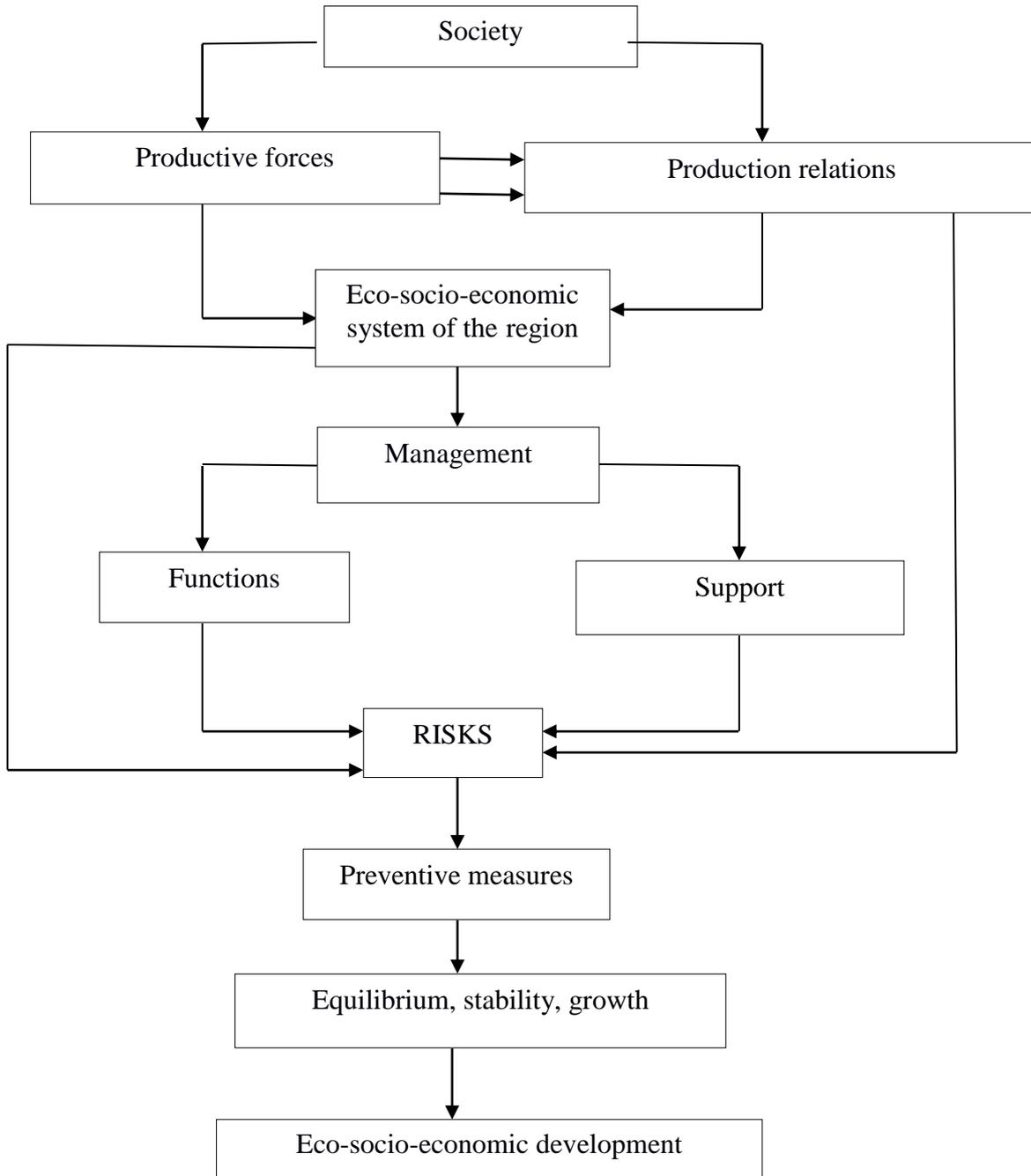


Fig. 1. Risk management in eco-socio-economic development of the region

III. RESEARCH RESULTS

The types of support or support providing subsystems mentioned above are characterized by a very complex content, which also includes certain risks.

Components of the management system (Table 1 and Table 2) should be adapted to risks for each position in the organizational structure.

In economic reality, there is clearly insufficient risk management, in particular, the activities to identify potential risks, their accounting and determination of the likelihood of occurrence of the risk event followed by the assessment of the impact of the risk are not satisfactory. It is also relevant to note that the invented discipline "riskology" is mainly descriptive, non-specific, and therefore not related to the real economy [7].

TABLE I. MANAGEMENT RISKS

No.	Management functions	Management risks characteristics
1	<p style="text-align: center;">PLANNING</p> <p>Causes of risks:</p> <ul style="list-style-type: none"> - underestimation of the importance of the planning function; - insufficient qualification; - inadequate planning methods; - lack of necessary economic estimates 	<ul style="list-style-type: none"> - insufficient accuracy of the plan; - violation of the comprehensive – systematic planning; - unreasonable planning horizon; - insufficient connection with reality; - loss of relevance of planned activities by increasing the duration of planned works (calculations, coordination, approval).
2	<p style="text-align: center;">REGULATION (execution of the plan)</p> <p>Causes of risks:</p> <ul style="list-style-type: none"> - lack of necessary consistency in the implementation of the plan; - preference for "manual control". 	<ul style="list-style-type: none"> - slow delivery of the plan to the executors; - incomplete or inadequate understanding of the nature of the plan; - distorted implementation of the plan; - irrational adjustments during the implementation of the plan.
3	<p style="text-align: center;">ACCOUNTING</p> <p>Causes of risks:</p> <ul style="list-style-type: none"> - insufficient information support of the management process; - outdated accounting methods; - unprofessional staff. 	<ul style="list-style-type: none"> - software flaws; - distortion (inaccuracy) of the data reported; - impromptness (bad timing); - limited accounting: incomplete coverage of indicators; - disorder of the indicators considered; - inconvenient reporting forms: low information content; - uncertainty in targeting the data reported.
4	<p style="text-align: center;">CONTROL</p> <p>Causes of risks:</p> <ul style="list-style-type: none"> - inaccurate separation of internal and external control; - surface (formal) control; - deliberate evasion of control; - cooking. 	<ul style="list-style-type: none"> - incomplete composition of the controlled data (objects and processes); - insufficient data for selection control; - weak "feedback" between the "plan" and the "fact" to adjust the plan; - inadequate response of the control system to deviations of the "fact" from the "plan"; - reasons for the deviation of the "fact" from the "plan" are not revealed.
5	<p style="text-align: center;">ANALYSIS</p> <p>Causes of risks:</p> <ul style="list-style-type: none"> - insufficient level of analytical activity; - lack of understanding of the dependence of planning accuracy on the level of analytical work; - cause-and-effect relationships between plan indicators and facts are not established. 	<ul style="list-style-type: none"> - insufficient connection between the methodology and objects of analysis and planning; - lack of analysis of threats and hazards of the functioning of economic processes (procurement, sales, stocks, transportation, production); - incomplete analysis of the factors of economic security; - no recommendations to ensure economic security by neutralizing threats and hazards; - insufficient level of connection between the results of the analysis and the requirements of a new planning cycle.

TABLE II. RISKS OF SUPPORT PROVIDING SUBSYSTEMS OF THE MANAGEMENT SYSTEM

No.	Types of support	Risk characteristics
1	<p style="text-align: center;">SCIENTIFIC</p> <p>Main content:</p> <ul style="list-style-type: none"> - economic theory: micro and macro; - econometrics; - applied economic disciplines: functional and subject-matter. 	<ul style="list-style-type: none"> - insufficient knowledge of economic theory; - inadequate application of economic knowledge in practice; - ignoring the achievements of economic science (at the level of Nobel laureates in Economics); - low level of application of economic and mathematical methods and models;
2	<p style="text-align: center;">INFORMATION</p> <p>Main content:</p> <ul style="list-style-type: none"> - market condition; - prices and tariffs; - bank interest; - analytics; - statistics. 	<ul style="list-style-type: none"> - incomplete source data array; - unreliability (distortion) of the data; - impromptness: untimely delivery of information to the control system; - lack of risk monitoring and occurrence of risk events.
3	<p style="text-align: center;">TECHNICAL</p> <p>Main content:</p> <ul style="list-style-type: none"> - productive and non-productive assets; - material resources. 	<ul style="list-style-type: none"> - physical and moral depreciation of fixed-capital assets; - insufficient technical equipment of economic activity – low level of capital-labor ratio.
4	<p style="text-align: center;">LABOR</p> <p>Main content:</p> <ul style="list-style-type: none"> - professional structure; - the scope of qualification level; - training and development of personnel 	<ul style="list-style-type: none"> - insufficient level of qualification, professionalism and competence; - unclear job instructions (duties, rights and responsibilities); - understaffing of economic structures with necessary personnel; - inadequate stimulation of labor: material and moral; - violation of safety and labor protection rules.

5	<p style="text-align: center;">LEGAL</p> <p>Main content:</p> <ul style="list-style-type: none"> - legislative acts; - legal norms and regulations; - legal support of transactions; - arbitration practice. 	<ul style="list-style-type: none"> - violation of legal norms of civil legislation, including breach of contractual obligations on supplies; - criminal offences (loss of property, theft, corruption, etc.); - inadequate legal registration of documents and document flow.
6	<p style="text-align: center;">FINANCIAL</p> <p>Main content:</p> <ul style="list-style-type: none"> - availability of necessary financial resources; - relations with banks. 	<ul style="list-style-type: none"> - financial deficit; - cost overruns; - loan defaults; - violation of the rules of financial transactions.
7	<p style="text-align: center;">ORGANIZATIONAL</p> <p>Main content:</p> <ul style="list-style-type: none"> - formation of the management structure. 	<ul style="list-style-type: none"> - inconsistency between the structure and functions of management; - unclear Provisions on structural units.

Eventually, risk events cause damage to the triad of the regional system mentioned above - equilibrium, stability and growth. Such a situation is expressed in the deterioration of economic parameters and indicators of the entire eco-socio-economic system of the region [8], namely:

- 1) reduction of regional domestic product and regional income;
- 2) economic slowdown;
- 3) the appearance of imbalances in public production;
- 4) increase in costs at both the micro and macroeconomic levels;
- 5) decrease in productivity of social labor;
- 6) financial deficit increase;
- 7) surge of inflation;
- 8) reduction of income and purchasing power of the population, etc.

IV. CONCLUSION

Almost all the problems in the functioning of the economy are caused by risks having occurred in real economic processes [9]. That is why the primary attention should be paid to risks [10]. An integral part of the duties of the relevant officials should be risk management, which ensures a continuous development of all spheres of life of the region and the person [11]. Taking into account that in Russia many subjects of Federation have a pronounced resource specialization within the framework of extraction and mineral resources processing, issues of a regional risk management in the context of rational subsoil use in the relevant territory are of particular relevance [12, 13, 14, 15].

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