https://doi.org/10.31410/ERAZ.2024.225

The Development of a New Model of Risk Management in Territorial Administrative Units

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Received: August 29, 2024
Revised: March 8, 2025
Accepted: March 11, 2025
Published: April 5, 2025

Keywords:
Risk management model;
Public administration;
Territorial administrative units;
Risk management

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Abstract: *The risk management model represents a decision-making process to identify, control and minimize the consequences of extraordinary incidents through various management techniques that vary according to the specifics of the entity.*

Public sector organizations are currently facing unprecedented challenges in how to tackle complex issues such as poverty, global warming, tax fraud, and global security. Combining the poor functioning of the public administration with the effects generated by the manifestation of risk, there is a need to develop a predictive management process to reduce the risk and increase the chances of performance.

The objective of this paper is to develop a risk management model in order to improve the public system and increase the efficiency and performance of the factors that increase citizens' trust in the public administration.

The result of the research activity consists, both in the identification, adaptation and development of a new risk management model, as well as in its fictitious application and testing during the normal development of the activities of territorial administrative units.

The developed model helps the organization by streamlining the procedures to be followed, determining a strong impact on the level of absorption of European funding, including the increase in the standard of living.

1. INTRODUCTION

Risk management requires changing the management style used by entities, and involves dealing with the consequences of certain events, increasing the degree of achievement of objectives. If we are talking about a performing entity, it is strictly necessary that it is not limited to reactive management, as it is essential to identify risks, respectively, to establish and implement a risk management model.

The need to create a risk management model in the public sector is driven by many external and internal pressures. Some of the external pressures are common to all institutions and relate to audit bodies, institutional investors, and government regulators around the world. Other external pressures come from regulators and legislators who want to ensure that investors, as well as the financial system as a whole, are protected from undue risk.

The concern for risk management is not a new aspect nowadays. Each organization, but also each individual, that aims to achieve certain objectives, establishes the activities that lead to the achievement of the proposed goals and, at the same time, seeks to identify as many of the "threats"

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that would prevent it from doing this work, to take the necessary measures in time. In other words, even if we are not familiar with the concepts of risk and risk management, we act countless times, consciously or not, in this sense.

Although intuition based on past experiences will never lose its importance, it proves to be completely insufficient when management must lead to performance. Therefore, the acquisition of a risk management model based on concepts and rules, unanimously accepted at the organizational level and approved at the international level, becomes an indispensable practice at the level of a current organization in the public sector.

The research methodology used to carry out the work and fulfill the objectives is bibliographic and analytical research, respectively empirical research being carried out and analyzed using qualitative or quantitative methods.

Risk management is nothing but the process of finding, controlling and minimizing (if not completely eliminating) the consequences of extraordinary incidents. It is essentially a decision-making process and consequently an action. Once a risk is observed, its analysis initiates procedures to minimize its negative effects through various management techniques that vary by scope.

2. IDENTIFICATION OF THE MAIN CONCEPTS INVOLVED IN THE ANALYSIS OF A RISK MANAGEMENT MODEL IN TERRITORIAL ADMINISTRATIVE UNITS

A management model can be established as a chain of decisions that are in a direct relationship and that are in a conditioning relationship. The decision-making process established within a management requires rationality, intelligence, respect for the decision-making method and collaboration with different specialists so that the decision taken promptly responds to the problem. The good running of the organization does not depend only on the technical equipment, but an important element is the needs and expectations of the staff. Also, motivation is a factor that conditions the performance of an institution, which means that it can represent a risk factor if for the management of the organization how it influences its employees is not a permanent concern.

Internationally, the main models identified for the organization of the internal control system in close connection with risk management are (Felício et al., 2021):

- The COSO model is the abbreviation for the Treadway Commission Organization Sponsorship Committee. At the initiative of Senator Treadway, in the USA, in 1985 based on research on internal control and its role in the life of organizations, he proposed and established a Commission directly responsible for this aspect, also known as the National Commission Against Fraudulent Reporting.
- The COCO model was developed in 1995 by the Canadian Institute of Chartered Accountants (CICA), and is made up of the same elements as the COSO model, but grouped differently.

To develop the management model, I. Ansoff's Model was also analyzed, which allows the simultaneous use of several strategies and is based on the premise that the most appropriate strategy for intensive sales growth can be determined by the decision to sell existing or new products on existing or new markets. I. Ansoff's matrix is intended to describe the possible strategies of an enterprise in a growing market, to make a decision on the choice of strategy and to serve as a diagnostic tool.

The term model refers to a quantitative method, system, or approach that applies statistical, economic, financial, or mathematical theories, techniques, and assumptions to process input data to obtain a series of estimates of future events and situations. According to the definition, there are three main components of a model: the inputs represented by data and assumptions, the procedures and methods used in data processing, and the resulting information (including the way of reporting and using this information in the organization's activity).

A risk management model must provide for five main aspects:

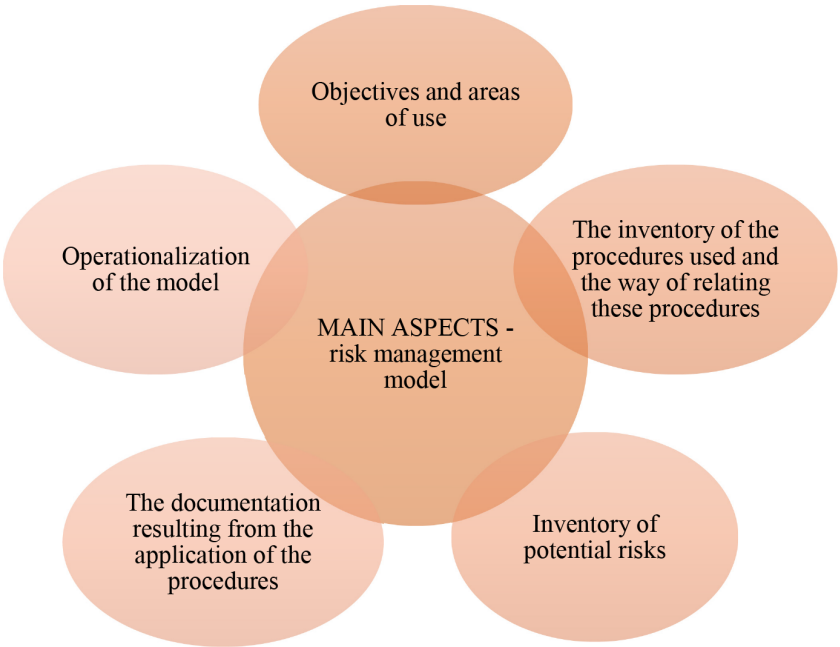

Figure 1. The main aspects of a risk management model.
Source: Own processing

The specific objectives that were the basis of the design and structuring of the risk management model are:

- identification of the model used by territorial administrative units for risk management;
- establishing the areas at which risk management is implemented (typology of risks);
- determining the type of person in charge who implements risk management in the organization;
- establishing the level at which the risk manager implements risk management in the organization;
- determining the types of information sources used to collect data regarding the identification and updating of risks;
- establishing the level of performance registered by UATs in 2023 compared to the previous year (Areia, 2012);
- identification of the types of operational risk effects faced by the UATs;
- establishing the risk profile related to the activity at the level of the three specific components - human resource, process, and system.

Thus, a Territorial Administrative Unit can monitor and improve its performance level regardless of the structure and complexity of the processes, by:

- identifying ways of exploiting opportunities in the business environment;
- avoiding/minimizing negative events;
- identification of activities that do not generate value for the process.

Along with the analysis of the models, a focus group report was made in a meeting made up of 7 people, employees of a public institution with an average size of 12,000 inhabitants. The discussion at the meeting was aimed at gathering information from experts within a territorial administrative unit to clarify issues related to the methodology for developing and applying a risk management model. In the focus group, moderator carried out a qualitative analysis, based on the knowledge and experiences of people in different roles within a territorial administrative unit.

We proceeded to expose some conceptual elements, in the form of a list of theoretical components used in understanding the concept of a risk management model based on the following characteristics:

- The purpose of developing a risk management model is to increase the performance level of a territorial administrative unit. This general objective is realized by quantifying the degree of achievement of specific objectives.
- The processes of the risk management model are: risk identification, risk assessment, risk attitude, risk control, risk monitoring and review, and risk reporting.
- The resources used in the application of the risk management model are: human resources: employed staff; time resources, information and communication technology resources.
- Factors of influence: parliament, government, laws and other regulations, economic conditions, international context.
- Environment: tutelary organization, subordinate organization, partner organizations, other incidental organizations

After the presentation and discussion of these elements, the moderator of the focus group discussed a series of questions. At the end of the discussions, the participants were given a questionnaire to accumulate as much information as possible.

Following the focus group carried out within the present research, it was found that the entities need a risk management model, a model that starts from the specific analysis of the entity to identify the needs and up to the stability and performance monitoring.

It has also been found that it is very difficult for this attribution to be the responsibility of a person within the entity, given the lack of staff. The existence of an external, specialized person would be indicated.

3. DEVELOPMENT OF A NEW RISK MANAGEMENT MODEL IN TERRITORIAL ADMINISTRATIVE UNITS

Based on the research of previous models, an operational risk management model was created with applicability in the Territorial Administrative Units from Romania and exemplified in the following Figure 2. The model presented in Figure 2 establishes the risk management process in component elements, positioned in a logical order of this process, but in reality, these components blend harmoniously to create a whole. Noting that risk management is a linear process, but its components interact. Also, the model tries to suggest that risk management does not consider an isolated organization but, as it happens in reality, an organization integrated with its environment of existence, often called context and establishing elements such as:

- the requirements of UATs regarding the risk management process;
- related activities and information flow;
- the resources needed to implement this process;
- those responsible for the process.

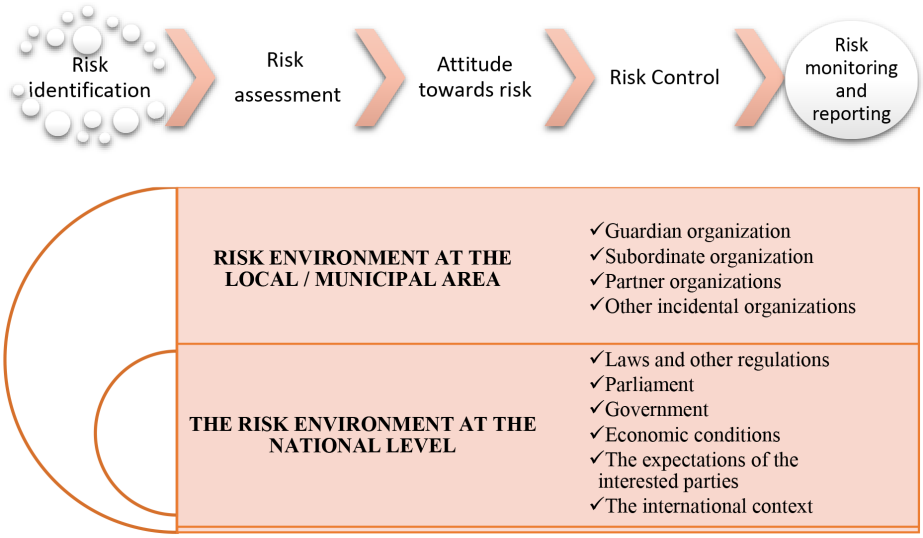

Figure 2. Risk Management Model in the Territorial Administrative Unit

Source: Own processing

In other words, the application of the risk management model is effective only if you take into account the risk environment at the local level, in our case at the commune level, which assumes that there are influences from the subordinate, partner, guardian organizations, at the national level where the risk can be influenced by parliament, government, legislative changes and the international context.

Looking at a smaller scale, in an organization at the level of UATs, it is mainly necessary for a person designated with the application and management of a risk management model.

Therefore, the model is developed on 2 levels of representation, through which the interdependence of the elements related to the risk management system, as well as the process on which the risk management model is applied, is highlighted. Level 1 representation is presented in Figure 2 and level 2 is represented in Figure 3. The figure shows the model related to level II representation, respectively the flow of subprocesses.

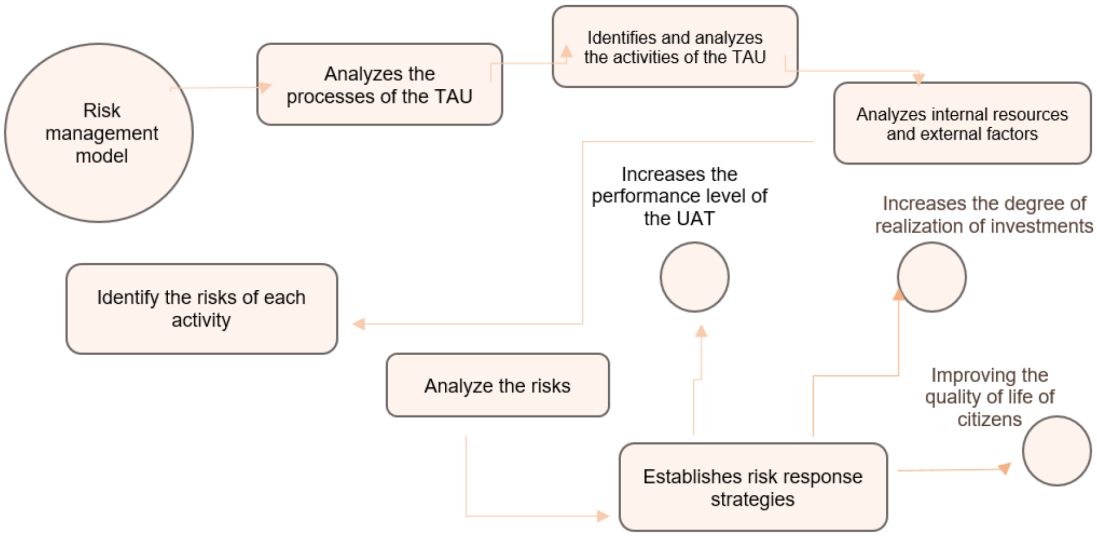

Figure 3. Level 2 of representation

Source: Own processing

The proposed model is an approach to the risk management process, which implies first of all that a territorial administrative unit carries out a rigorous analysis of the processes it carries out. The process is initiated by the "Compliance Audit" trigger, an event through which the entity's need to implement an integrated and transparent risk management model is established.

Considering the two ways of representing the model proposed in this paper, the person responsible for the implementation of risk management in order to apply the model must follow the following 5 steps.

Stage 1 - Identification of Risks - involves a thorough analysis of the UAT's processes and internal and external resources, external factors, more precisely a detailed knowledge of the entity. These aspects substantiate the results of the model and often the causes of the manifestation of risks are identified.

Stage 2 - Risk Assessment - Considering the potential of the risks to be harmful to the company, they are evaluated taking into account the probability of occurrence, respectively the estimated impact. At the end of this stage, the risk is classified on a scale from low to high based on the risk analysis criteria and taking into account the degree of their materialization.

Stage 3 - Attitude towards Risk - indicators are established for each risk identified and evaluated in the first two stages. These indicators are included in three tolerance ranges:

- Tolerance interval:
  - Includes values below the minimum threshold of the indicator,
  - In this interval, no actions related to the event in question are required.
- Warning interval:
  - It includes the range of values between the minimum threshold and the warning threshold,
  - It is the interval that attracts the attention and increases the vigilance of the risk manager,
  - The indicator will be closely monitored taking necessary precautions.
- Intervention interval:
  - ***It includes the values above the warning threshold and which require the immediate application of the intervention measures necessary to improve this risk factor.***

Stage 4 Risk Control - involves identifying the causes that lead to the emergence and manifestation of a risk. The person responsible for implementing the risk management model centralizes and analyzes all identified risks, their degree of occurrence and the impact caused.

Stage 5 - Risk Monitoring and Reporting - in this step, solutions and causes of the risk manifestation are identified, the aim being to improve their impact in the future. In the last stage, that of risk reporting, the monitoring commission must draw up a periodic report that includes the relevant information regarding the risks that have arisen.

4. FUTURE RESEARCH DIRECTIONS

The plan of the research activity is designed and carried out in such a way as to allow the identification, adaptation and development of a new risk management model, as well as its application and testing during the normal development of the activities of territorial administrative units.

In order to consider whether the developed model can be tested, validated or not, depending on the situation, it was found that it is necessary that after the stage of identification of needs and subsequent adaptation of

the model and risk management techniques, a simulation that consists in their application at the level of each activity. A relevant comparative analysis will be carried out to justify and demonstrate the benefits that a Territorial Administrative Unit can obtain as a result of the implementation of such a mechanism.

Regarding the proposals as a result of the research:

- we will initiate an approach at the level of the UATs to ensure the evaluation of the effectiveness of the measures taken in the event of the manifestation of a risk, as well as the monitoring of their effectiveness from the perspective of achievements.
- we will propose the development, approval and implementation of a crisis management strategy in the context of the manifestation of risks, at the level of the communes, as a strategic document for the definition of problems and the stability of strategic and specific objectives, including directions of action.
- we will proceed to improve how the entity's objectives are met, which refers to the decisions issued by the management regarding: the organization of the forms of internal control, the approved organizational structure, the subordinate entities, the accounting and internal control system, the performances and the degree of using computer systems.

5. CONCLUSION

The risk-quality correlation is based on the convergence of risk management systems. The implementation of an integrated model of risk management, within the territorial administrative units that offer services in the field, will allow:

- the existence of a competitive advantage over other organizations, a fact that will make the difference in the medium and long term in terms of business continuity.
- obtaining and keeping the citizens' trust;
- protecting and keeping professionals in the field;
- encouraging employees in order to improve the current situation by developing communication, organization and recognizing effort.

The clear definition of a risk management model, to be adapted to the specifics of the activities within the UATs, is a first step in order to increase the capacity to identify possible risks, to quantify and evaluate the effects they can generate in relation to the assumed objectives.

Taking into account the fact that risk can at any moment become an extremely serious obstacle in the development and implementation of proposed activities at the level of a public entity, we consider the application of a risk management model to be one of the most important tools for organization, control and management that can be available to the manager at the level of an organization being a viable solution.

As can be seen, the proposed solutions focus on the idea of achieving the objectives at a high-performance level by employing a modern risk management process. The latter would generate, in accordance with the studies carried out, a relaxation and streamlining of the procedures to be followed and would determine in a short time a strong impact on the level of absorption of the European funding available in Romania, including the increase in the standard of living in Romania.

As a result of the actions undertaken in this work, it was concluded that the main challenges in implementing a management model are closely interconnected with the concept of risk and can be effectively controlled only through the application of a specific management approach.

References

Areia, N. P. (2012). *Office of the Comptroller of the Currency (OCC) and Board of Governors of the Federal Reserve System (FED).*

Felício, T., Samagaio, A., & Rodrigues, R. (2021). Adoptarea sistemelor de control al managementului și performanța în organizațiile din sectorul public. *Journal of Business Research, 124*, 593–602. https://doi.org/10.1016/j.jbusres.2020.11.053

Additional reading

Brans, M., & Coenen, L. (2016). The Europeanization of public administration teaching. *Policy and Society, 35*(4), 333–349. https://doi.org/10.1016/j.polsoc.2016.10.002

Chakabva, O., & Tengeh, R. K. (2023). The relationship between SME owner-manager characteristics and risk management strategies. *Journal of Open Innovation: Technology, Market, and Complexity, 9*(3), 100112. https://doi.org/10.3390/joitmc9030112

David, S., Zinica, D., Bărbuță-Mișu, N., Savga, L., & Virlanuta, F.-O. (2024). Public administration managers' and employees' perceptions of adaptability to change under "the future of work" paradigm. *Technological Forecasting and Social Change, 199*, 123088. https://doi.org/10.1016/j.techfore.2023.123088

Durst, S., Hinteregger, C., & Zieba, M. (2019). Legătura dintre managementul riscului de cunoștințe și performanța organizațională. *Journal of Business Research, 105*, 1–10. https://doi.org/10.1016/j.jbusres.2019.08.002

Matei, A., & Băieşiu, R. (2014). Good administration and performance of local public administration. *Procedia - Social and Behavioral Sciences, 109*, 684–687. https://doi.org/10.1016/j.sbspro.2013.12.523

Monarcha-Matlak, A. (2021). Automated decision-making in public administration. *Procedia Computer Science, 192*, 2077–2084. https://doi.org/10.1016/j.procs.2021.08.212

Motta Zanin, G., Barbanente, A., Romagnoli, C., Parisi, A., & Archetti, R. (2023). Traditional vs. novel approaches to coastal risk management: A review and insights from Italy. *Journal of Environmental Management, 346*, 119003. https://doi.org/10.1016/j.jenvman.2023.119003

Pashkov, P. (2021). Improving the effectiveness of the risk management system. *Vestnik Universiteta*.

Sitnikov, C., Bocean, C. G., Berceanu, D., & Pîrvu, R. (2017). Model de management al riscurilor din perspectiva implementării standardului ISO 9001:2015 în cadrul companiilor de servicii financiare.

Valtonen, E., Falkenbach, H., & van der Krabben, E. (2017). Risk management in public land development projects: Comparative case study in Finland and the Netherlands. *Land Use Policy, 62*, 246–257. https://doi.org/10.1016/j.landusepol.2016.12.021

Yun, J. (2023). The effect of enterprise risk management on corporate risk management. *Finance Research Letters, 55*(Part B), 103950. https://doi.org/10.1016/j.frl.2023.103950