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Study Regarding the Integration of the Innovation Management System with the Risk Management System in the Context of Organizational Change

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Abstract

Change management helps organizations to remain competitive and to address business challenges and opportunities and involves innovation by introducing new ideas or methods that bring improvements, by facilitating the development of an organization's environment, and by understanding how innovation processes are influenced by internal processes and external. Risk management involves identifying, assessing, and prioritizing risks and taking steps to manage and mitigate their effects. With the help of risk management, the implementation of innovative ideas is done in a controlled and calculated way, minimizing the potential negative effects of introducing change. The model proposed by the authors is based on the "action research model" - as a change management tool - in which the innovation management system was integrated with risk management, to improve the performance of an organization in the context of organizational change. To validate the benefits of this model, the implementation of the model was carried out within a Romanian organization in the field of construction materials production. In this paper, the authors present the partial results obtained in the implementation process. The final results will be presented in another article.

Keywords: organizational change, innovation management system, the action research model (ARM), risk management

1. Introduction

During the pandemic, more and more organizations focused their attention and resources on change management and innovation processes as key performance elements to continue their activity or to gain competitive advantages over other organizations. The role of these concepts is relevant at many levels in organizations. In a fragmented economy, strongly marked by global risks, companies are becoming more and more dependent on knowledge, communication, progress, efficiency and, the right choice of services, products and, processes, at all levels of the organization and in all areas. Globalization represents the increase in traffic of goods, services, finance, and people around the world and the global merging of the market (Marquardt et al., 2018). In this context, it is appreciated that innovation is, perhaps, the only way by which an organization can overcome its competition, regardless of the size or nature of its activity. In their

Vol. 8, No. 02; 2023

ISSN: 2456-3676

research, Kiehne&Olaru (2017) acknowledged that digitalization will not only impact the way products are being developed and produced but also how services will be rendered in the future.

Organizational development is a continuous process that requires identifying areas for improvement, implementing established strategies, monitoring, and continually reviewing to ensure improvements are achieved (Psomas et al., 2018). This may involve implementing new processes, training employees, or investing in new technologies or equipment (Milićević, 2022). On recent research, it is considered that what we are experiencing today is a revolution, and the reason is precisely that we lack the predictability of benchmarks, especially those that impact at a societal level as well as organizational (Dumitrescu et al., 2022). Effective performance improvement strategies are important for all types of organizations to mitigate risk and achieve success.

One of the ways to improve the activity of an organization is the implementation of change management tools. Depending on what needs to be changed within the organization, one or more tools of change management can be used, such as Kurt Lewin Model, Action Research Model, Action Research Adaptations Model, Systemic Approach Model or The general change planning model (Burduş et al., 2008).

2. Literature review

Change management helps the organization stay competitive and address emerging challenges and opportunities (Losada-Vazquez, A., 2022). To be successful, it is important that innovation is integrated into a wider change management process and is encouraged and supported at all levels of the organization (Dickens and Watkins, 1999).

The action research model is the tool that approaches the research and in which several processes of planning, implementation, evaluation, and improvement are involved (Wu et al., 2017). The purpose of the action research model is to facilitate organizational change (Hussain et al., 2016), to improve the activity and its results, by involving all interested parties in the research process and by correlating practical knowledge with theoretical knowledge and with acquired experience (van der Hoorn, 2016). This model can be used in research activity with a positive impact on innovation processes, in any organization.

Innovation processes refer to the methods and approaches used by organizations to generate and develop new ideas and transform them into value-adding products, services or processes or to improve existing ones (Khan et al., 2022). Also, innovation is used to expand the range of products, enter new markets, reduce labor costs or improve the quality of the organization's products or processes. Recently, organizations use innovation to reduce the consumption of materials and energy and to reduce damage to the environment, to comply with the 2030 Agenda of the United Nations - Transforming our world: the 2030 Agenda for Sustainable Development (UN, 2015).

It is important for organizations to have a well-defined innovation process to ensure that they are able to constantly generate and pursue new ideas and remain competitive in their field of activity (Fobel et al., 2019). By integrating innovation into the stages of the action research model in change management, the organization can adapt to new requirements and challenges and

Vol. 8, No. 02; 2023

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improve its organizational performance, efficiency and effectiveness. Innovation can be a key factor in change management because it provides a structured and data-driven approach to identify areas for improvement (Cragg and Chraibi, 2020).

Risk management helps ensure that innovations are implemented in a controlled and calculated way, minimizing potential negative impacts and maximizing the chances of success (Luburić, 2019). Risk management can be used in change management to help the organization address and manage the risks associated with the change process (Boak, G., 2021).

Innovation and risk management can support and improve the organizational change process by providing a structured approach to identify areas for improvement and minimize the potential negative effects of introducing change.

At the international level, there are consistent concerns for innovation management. In recent years, the International Organization for Standardization (ISO) has developed the ISO 56000 series of standards to help organizations achieve the best results in innovation processes (figure no. 1).

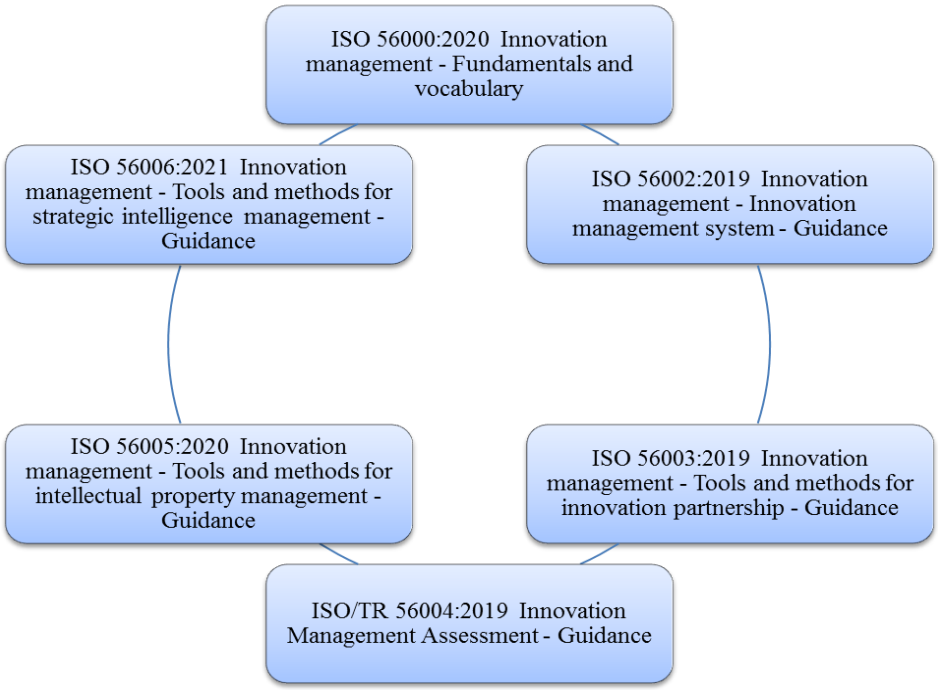

Figure 1. International standards related to innovation management
Source: Authors' own development base on
https://www.iso.org/committee/4587737/x/catalogue/p/1/u/0/w/0/d/0

At the level of the ISO/TC 279 technical committee, four more standards are under development, the most important of which is ISO/AWI 56001 Innovation management - Requirements for the innovation management system, which will contain requirements for the certification of the innovation management system.

Vol. 8, No. 02; 2023

ISSN: 2456-3676

Risk management involves the process of identifying, evaluating and prioritizing risks for an organization and implementing measures to mitigate or prevent these risks (Ciocoiu, 2008). Risk assessment is a very important part of the risk management process because it helps organizations identify potential risks and assess the likelihood of their occurrence and impact on the organization (Korshunov, 2019), with the aim of prioritizing risks and identifying appropriate actions to mitigate or prevent these risks (Ostrom and Wilhelmsen, 2019).

3. Research objectives and methodology

The main objective of the study is to define a model for the integration of the innovation management system with the risk management system, in the process of organizational change, in order to improve the performance of an organization by reducing failure rates (of the costs generated by these problems) and increasing the rate of successful innovations (of benefits). For this purpose, the relationships between innovation processes, the action research model in change management and risk management were identified.

The use of the proposed model helps organizations to achieve their business goals and realize the ultimate benefits from their research, development and innovation activities, which can be applied by any organization, regardless of its field or activity or size.

4. Research results regarding the integration of the innovation management system with the risk management system, in the process of organizational change

Regardless of the tool that will be used for change within the organization, several processes must be considered. The first process is represented by planning the change and communicating the change intention to the people involved. Next, the change managers must schedule the change by identifying the activities. After identifying and evaluating the possible risks related to each activity in the program, the process of documentation and implementation of the change follows. In the end, after evaluating and monitoring the results, a program of action to improve the results is drawn up.

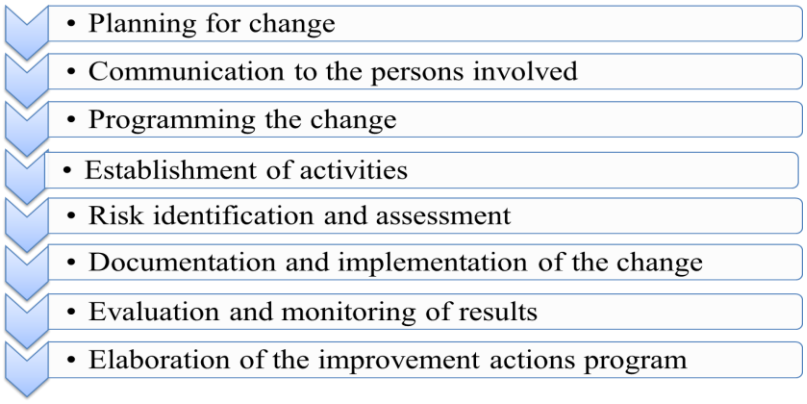

Figure 2. Organizational change processes
Source: Authors' own development

Vol. 8, No. 02; 2023

ISSN: 2456-3676

In the specialized literature, the action research model involves going through eight stages. It can be used to build a business model or even as a tool in operational processes. The goal of this model is to achieve improved results while maintaining a high level of performance at each stage.

The model proposed by the authors, for the integration of the innovation management system with the risk management system can be considered as a chain process, similar to the action research model, because the results obtained from research can represent input elements for the next research, providing a series of solutions throughout the process, which help organizations to solve their problems (fig.3).

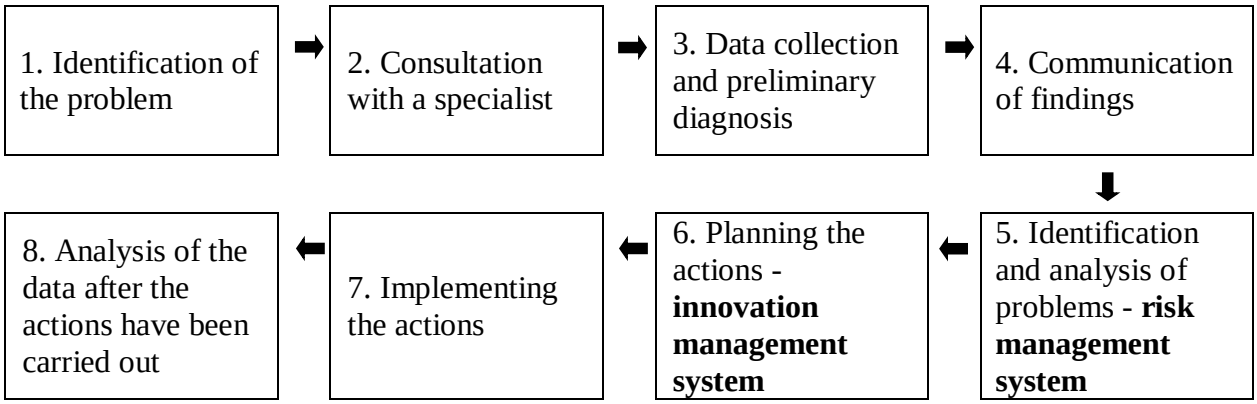

Figure 3. Integration of the innovation management system with the risk management system taking into account the "action research model"

Source: Authors' own development based on Burduş et al., 2008

1. Identification of the problem: In the first stage, the identification of the problem and the evaluation of its current stage are carried out. The problem that needs to be fixed can be reported by any employee of the organization.

2. Consultation with a specialist: In the second stage, a specialist is consulted, who can be employed within the organization or an external consultant can be contracted.

3. Data collection and preliminary diagnosis: In collaboration with the personnel involved in the process in which the problem was identified, the specialist identifies the data and issues a preliminary diagnosis.

4. Communication of the findings: In this stage, scheduled meetings take place during which the specialist communicates to the representatives of the organization what was found in the previous stage.

5. Problem identification and analysis - risk management system: At this stage, by focusing on risk assessment according to the requirements of the risk management system, the understanding of the critical points will be improved and appropriate decisions will be made about the circumstances. Thus, for each finding, the real and potential risks will be identified, the probability of occurrence and the impact of each risk will be determined, and a list of risks that

Vol. 8, No. 02; 2023

ISSN: 2456-3676

must be treated with priority will be established. The risk assessment will be carried out according to the ISO 31000 international standard or based on the organization's internal risk assessment procedure if any, and the results will be recorded and monitored until all stages are completed.

6. Planning the actions - innovation management system: For action planning, the identification of new ideas for process improvement in the sixth stage of the proposed model, the application of specific innovation techniques, including brainstorming, can be foreseen. In these activities, both the staff from the top management of the organization and the employees involved in the operational processes should be involved. A team will evaluate and analyze the ideas identified from the point of view of their relevance, the expected result, the estimated costs, the possibility of realization from a technical point of view, the organization's specifics, the legal aspects, and last but not least taking into account requirements regarding sustainability. For each of the ideas accepted as feasible by the evaluation team, objectives, actions, and responsible for achieving the objectives, deadlines, and resources are established. The development and control of the innovation process are carried out according to the requirements of the international standards regarding the innovation management system, developed by the Technical Committee ISO/TC 279, presented in figure no.1.

7. Implementing the actions: In this stage, the actions identified in the previous stage are implemented to remedy the problem identified in stage 1.

8. Analysis of the data after the actions have been carried out: The data is analyzed in the last stage of the proposed model. For this, the results obtained and the impact of the innovation process are evaluated and analyzed, and the added value of the project is analyzed from the point of view of performance indicators. Also at this stage, the conclusions regarding the impact the project had on the organization are outlined and the continuity of the process is established.

The strong point of the developed model is the integration of risk management and innovation management in the process of organizational change in the fifth and sixth stages of the action research model.

Conclusion

The model proposed by the authors is based on the "research action model" - as a change management tool - in which the innovation management system was integrated with the risk management system, with the aim of improving the performance of an organization in the context of organizational change.

The proposed model is addressed to organizations concerned with change through innovation and improvement, regardless of their size or field of activity, and does not present limitations because other management system models, defined by international standards, can be added to the integrated management systems, for example, those related to the quality management system (ISO 9000 series), to the environmental management system (ISO 14000 series), etc.

To validate the benefits of this model, the implementation of the model was carried out within a Romanian organization in the field of construction materials production. The final results of the study will be the subject of another article.

Vol. 8, No. 02; 2023

ISSN: 2456-3676

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Vol. 8, No. 02; 2023

ISSN: 2456-3676

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*** ISO 56003:2019 Innovation management - Tools and methods for innovation partnership – Guidance

*** ISO/TR 56004:2019 Innovation Management Assessment – Guidance

*** ISO 56005:2020 Innovation management - Tools and methods for intellectual property management – Guidance

*** ISO 56006:2021 Innovation management - Tools and methods for strategic intelligence management – Guidance

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