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MANAGEMENT

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CONTEMPORARY STUDIES IN ECONOMIC AND
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**DIGITAL TRANSFORMATION,
STRATEGIC RESILIENCE,
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MANAGEMENT**

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FOREWORD



The book innovatively enhances several advanced researches performed to provide accurate solutions to the on-going challenges faced worldwide that have brought digital transformation, cyber security and risk management into a fierce debate and at the core of comprehensive resilience strategies.

The current ongoing challenges faced at the global level have brought digital transformation, cyber security and risk management into a fierce debate both scientists and public discourse rendering global the keen need for strategic resilience through new innovative measures and coordinated risk management approaches. The current COVID-19 pandemic has an outburst on the global economy, making digitalisation even more relevant and a key milestone to overcome these challenges and enhance sustainable economic development. Digitalisation notably shapes the world economy, impacting individuals, businesses, industries, labour markets, education systems and governments. On the one hand, digital transformations and technological progress are transforming the skills needed by individuals to actively engage in the world of online work in a modern economy and, especially, post-pandemic crisis. On the other hand, digital technologies have become an important enabler for innovation, thus bringing value added for companies and broad industries, along with numerous opportunities and capabilities for growth and increased performance. However, these are also associated with risks and deterring factors that must be managed wisely to ensure an effective digital environment, strategic resilience and sustainability.

Digitisation of economic and management processes allows for new value delivery and higher efficiency in implementing their strategic goals. However, it involves the need to reconfigure, reconstruct or build new business models. This is due to the inclusion of digital technologies in the existing rules of functioning among partners involved in the flow of resources and their readiness for digital transformation. Maximising the benefits of digitising processes can be achieved when data and information from multiple sources within cyber security are

analysed and shared. In this way, it is possible to increase the transparency of flows, reduce costs from a global perspective and reduce uncertainty and risks arising both within the processes and in their environment. Such solutions may also counteract the negative effects of crises caused by unforeseen circumstances like the COVID-19 pandemic.

A significant challenge, in practical, organisational and scientific terms, is to understand the opportunities and threats resulting from digital transformation, to identify optimal strategies for the development of business entities in new economic and management conditions, taking care to adopt collateral and proper management of new risks and to attempt to set further directions of their evolution.

For this reason, it is important to present a book like this, in which very important issues are addressed in this contemporary social and technological context.

Addressing this challenge to the readers – in this book, the authors of the chapters indicate the latest theoretical and practical achievements in the above-mentioned scientific areas. The proposal book is a synthetic look at the complex digital transformation processes of the modern world both in terms of the underlying causes and the vast effects of the transformations and digitisation of social and economic life.

The book covers important topics such as ESG integration as a risk management tool for the financial decision-making process, multimedia sustained benefits for financial services and unveiling the potential of blockchain technology in the domain of research. Education is another important section of this book including the potential of the Romanian market in the adoption of blockchain technology, strategic leadership attributes for adopting digital technology, adapting information security policy, the liquidity position of the banking sector during the COVID-19 pandemic of western Balkan countries, the impact of COVID-19 on the stock market in BRIC countries, fiscal deficit, shift in paradigm and the financial education under the influence of digital transformation.

Moreover, it leaps into technologies including the Internet of Things (IoT), artificial intelligence (AI), Big Data analytics and blockchain, and the book also shows how enterprises can take advantage of them and ultimately beat the competition.

This book is an invaluable resource for postgraduate and undergraduate students of digital business, innovation and transformation. Showing how to initiate digital transformation across an organisation will prepare business owners, directors and management of small- and medium-sized businesses to take strategic advantage of new and emerging technologies to stay ahead of their competition.

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CHAPTER 1

TRENDS IN ENTERPRISE RISK MANAGEMENT RESEARCH: A BIBLIOMETRIC ANALYSIS

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ABSTRACT

The need for an efficient enterprise risk management (ERM) has never been greater than today when organisations face complex and interconnected risks targeting their business models. Macroeconomics and geopolitical uncertainties, digital transformations of industries and sectors, cybersecurity, and climate change, among other trends, present significant uncertainties. This article aims to analyse the scientific papers on research specific to ERM and review the links between the researched area and market or corporate governance topics. Risk management is underdeveloped in many organisations; the current standard for risk management is a reactive approach. It is usually treated in isolation rather than as a core competency and a strategic asset. As a result, risk management processes are ineffective and seen as adding value to decision-making and responding to uncertainties. Based on the literature, the scope is to set up the framework for future research on ERM by building a bibliometric analysis and examining articles collected from the Web of Science Core Collection database. The study identified the essential research on this topic based on the citations of the papers and the author's countries with the highest

number of publications and citations. VOSviewer software analysed the ERM system based on keywords, citations, geographical distribution, and authorships. The research proves a strong connection between the ERM and corporate governance topics considering the stage where most countries are regarding this subject.

Keywords: Enterprise risk management; bibliometric mapping; VOSviewer; corporate governance; market; trends

JEL classifications: M40; D81; G32

1. INTRODUCTION

The continuous development of technology induces the need for companies to control all the risks that could negatively affect a company. From this idea, more and more entities have implemented a risk management system, aiming to maintain a balance against the negative influences that may appear during the life of an enterprise.

The current topic represents an area that has not yet been fully explored, nationally and internationally. The state of the economy today provides us with an unpredictable environment, which is why so many managers focus on implementing an appropriate risk management strategy. In other words, risk management involves using various techniques and methods to reduce possible future risks. A good risk management strategy starts with a good knowledge of the business environment. It is also necessary for those charged with corporate governance to understand the entity's risk management capacity and to identify challenges that may arise at the financial assessment and reporting stage.

Regardless of whether it is a small business or a 'global player', each company can be affected by the occurrence of possible risks if there is a process to manage them. Risks can be very different; therefore, their effects can be more or less damaging to the company. Sometimes the consequences can be, in the worst scenario, existential. It is reasonable for a company to consider which risk is tolerable and which is not systematic. This systematic consideration is called risk management. Risk is frequently defined as a combination of damage capacity and appearance probability. In the process of minimising risks, there are two options:

- a) To reduce the extent of the prejudice.
- b) To reduce the probability of happening.

The goal is not to eliminate all risks because this is impossible but to achieve an optimal ratio.

The concept of ERM has undergone numerous interpretations and studies, creating the foundations for a process that can significantly influence a company's performance. Although the concept has been highly debated over the years, it is

only seen as an asset in organisational management. As we will demonstrate later in this paper, North America and Europe are the pillars on which the foundations of the ERM concept were formed. The ERM idea has always been linked to studies such as sustainability, corporate governance, growth of the MSME sector, etc. Emerging countries have also begun investing time and research in this field. In a highly globalised corporate world, the consequences of various risks keep hampering businesses.

Risk management at the organisational level implies a universal vision of the business environment and the company's capabilities, which aims at strategic research to identify the most promising areas of activity.

Top management and CEOs must pay considerable attention to ERM practices, as this can lead to competitive advantage and, why not, increased company profits.

Undoubtedly, every business organisation is inclined towards making a profit. To this end, every small, large, or medium-sized company strives to gain an advantageous position in the market and, therefore, better performance. To achieve this goal, a firm may need enormous resources that can lead to high risks. The ERM process will never get results until the top management is fully aware of your financial issues and policies (Inder, Sood, & Grima, 2022).

The debate of this paper is done in two stages. In the first part of this article, we describe the concept of risk management and ERM. Based on the literature review, this concept is presented through the lens of its objective. These aspects are approached from several perspectives regarding the purpose of implementing such a process. In the second part of this article, we find a bibliometric analysis regarding the concept of ERM, followed by conclusions and personal opinions.

The objective was to establish the conceptual map for future research on the subject and examine the articles considered in constructing the bibliometric analysis.

The study identified essential research based on the number of citations of the works and the authors who significantly impacted the analysed field. For the case study, we used the VOSviewer software, which analysed the concept of ERM based on the relationship between the keywords used in the literature, citations, geographical distribution, as well as the working connection created by researchers from all over the world.

2. LITERATURE REVIEW

In Bernardi and Pincus's view (1996), every company should start from the premise that risks have a strategic basis for developing a risk management programme. Strategic threats are related to the organisation's future, with specific issues that are not current. It is necessary to distinguish between strategic risks for approximately stable periods of crisis and those that may arise unexpectedly throughout life. Brodeur et al. (2010) suggest that the relationship between the company's growth direction and the risk management system is reflected in the idea that they complement each other. Such a relationship suggests the likelihood of taking

risks into account and taking steps to manage them. Second, that risk management is an essential component of overall corporate governance. In the face of uncertainty, risk management decisions must be compatible with decisions about the operation of a company.

Fabbian (2020) believes that when an organisation's financial position is assessed, resources are analysed, thus prioritising various strategies to manage the possible risks. The main task of an entrepreneur in this field is to find an option that offers the optimal combination of risk and income for a particular project. The characteristics of the risk management system are established by the relationship between its growth vision and the market in which the company operates. The company's growth strategy could be establishing a new niche business or maintaining a stable financial position.

Risk management does not refer to risk reduction but its control. Management must decide what risks to take beyond the settled tolerability of the implemented risk strategy. There is a single risk management option for the entire company. This aspect depends very much on the cultural climate of each entity according to studies conducted by Adibah, Mohamat, and Norman (2020).

A growing company approaches the implementation process of a risk management system at all levels of management. Risk management is not annexed to the general management structure of the organisation but is its central feature. Implementing the planning process involves an anti-risk strategy to mitigate the negative phenomena (Schmitz & Wittenberg, 2012). The further the training goes, the more inaccurate the data. Therefore, strategic planning translates into risk planning, considering the impact of risks on achieving the organisation's objective. Also, changes in the external environment, such as political nature or changes in consumer behaviour, can significantly impact a company's risk management strategy. Those who run a company need to know the 'business language' very well, according to a study by Tyagi (2021). As in many other professions, those involved in corporate governance often develop a language to communicate with others. Conversations about likelihood, impact, inherent and residual risk, degree of risk, and risk tolerance have become commonplace among risk management leaders. However, they may not be fully understood by all people and may not be well understood by other staff Sood, Seth, and Grima (2022).

Some risk management leaders forget the importance of using a language with a low level of difficulty so that the communication in the organisation is as good as possible. Some executives rethink their language to ensure business leaders hear and understand them. Learning and then using the business language used in an organisation can contribute to the involvement of business leaders in important risk management tasks.

Holland and Sylvis (2021) studied the complexity of business and concluded that it could exceed a person's ability to assess risk. Geopolitical events, cyber threats, disruptive innovation, and regulatory change are only a few issues that can pose significant risks to an organisation. Any of these risk factors is complex in itself.

Each of the above factors can trigger a chain reaction, causing other risks to arise, which adds to the complexity of the risk management challenge. In many cases, the number of factors that need to be assessed to analyse the likelihood of a risk impact accurately may exceed the ability of any individual.

The relationship between the strategy and the risk monitoring process must be as stable as possible. Unfortunately, [Mashaal \(2020\)](#) noted a connection between an organisation's risk management and strategic planning activities in many organisations. In many organisations, risk management is seen as a mandatory regulatory activity that must be done to meet the demand outside the company.

This aspect often means that the risk management process is degraded to a lower, non-strategic position, which addresses critical issues, but does not address issues related to the strategy for addressing possible risks. According to [Karnes's \(2017\)](#) studies, an organisation's efforts in terms of risk management are inadequately correlated with the company's strategic plan. This is partly how risk managers have focused their efforts on identifying and assessing risks.

The perspective on ethical culture can lead to one of the most significant risks for an organisation. The business culture varies from organisation to organisation, and it is essential to understand how it can affect the organisation's risk management efforts. Although most organisations have a set of defined business values, there are situations where management's behaviour and decisions do not reflect those values.

In this case, [Seshagiri \(2021\)](#) concludes that risk management can contribute by recognising situations where ethical values are not respected and implicitly drawing attention to this fact. Of course, this can be a significant risk for risk managers if there is little support from those with crucial governance roles such as the board. As the risk management process is integrated into the organisation, communication between the entity and the board becomes efficient and meaningful. External pressure is causing boards to become increasingly involved in risk oversight activities. The risk management process positively and significantly influences a company's performance. Organisations that integrate ERM into strategic planning benefit from the characteristics of the risk management process in several areas. Some of the advantages of this process are presented in [Table 1](#).

Following the literature review, it can be stated that risk management policy is the art of risk management in an unpredictable economic situation. The approach to risk management in the development policy of organisations should be systematic. Based on progressive changes, the risk management strategy focuses on long-term research to reduce risks. A mixture of values improves the efficiency of decisions in practice ([Yerpudee et al., 2022](#)).

Strategic risk preparedness is the management mechanism that creates and manages strategic communication between the organisation's mission, priorities, future opportunities, and threats. Each organisation establishes the risk preparation activities according to the object of activity of the entity. Implementing a company's risk policy consists of two stages (the strategic risk planning and management processes).

Table 1. The Advantages of Implementing a Risk Management Process

Financial benefits	Infrastructure benefits	Market advantages	Reputation benefits
Cost reduction	Reducing operating costs	Maximising business opportunities	Compliance with regulatory requirements
Increasing the company's profitability.	The risk management process helps organisations stay effective and provides a competitive advantage.	Better customer satisfaction.	Advantages of advertising – The public notices effective implementation, which helps to establish public confidence in the company.
Accuracy in the reporting process of the organisation's financial risks.	The risk management process helps organisations stay efficient and provides a competitive advantage.	Adverse effects can be reduced.	Structured risk identification and remediation approach; regular monitoring and communication ensure customer confidence.

Source: Author's creation.

Moldovan and Neamțu (2016) concretise the idea that a well-developed risk management process can increase the level of performance, thus contributing to:

- Creating greater security in the business process
- More efficient provision of products and services
- The efficiency of the management process in terms of the environment
- Decreasing the degree of pollution
- Efficient use of resources in the organisation, including financial ones
- Loss reduction

Halil (2012) mentions that good risk management involves identifying the risks specific to each objective and evaluating and establishing the means of control to mitigate their occurrence.

Lamptey and Singh (2018) considers that the management policy of an organisation should be aimed to adopt the best practices for identifying and assessing the risks associated with specific objectives to reduce them to a level as acceptable as possible that does not affect the quality of products, the quality of services provided, or even the well-being of the entire organisation.

Risks need to be known and managed as efficiently as possible. This phase is the first step in building a risk profile (the direction they are heading). This stage can only occur if we assume that in the previous stage, different objectives related to the environment or the qualitative nature corresponding to the field of the organisation were established. In that case, various activities or actions will be documented to achieve these objectives and the risks during the development.

According to [Moshesh, Niemann, and Kotzé \(2017\)](#), each identified risk can have significance for several objectives. The possibility of this risk being realised differs depending on the importance of each objective. Once the objectives are identified and found in the organisation's strategy, they must be closely correlated with the activities in each department and complemented by the associated risks.

[Branson \(2015\)](#) indicates that risk assessment is done through a thorough analysis. The probability of materialisation of the risks and, at the same time, the influence that they may have on the previously established objectives are evaluated.

The hierarchy of risks is established according to the level of specialised departments and tolerance towards risk. Various ways of dealing with risks and the people responsible for managing them will be implemented.

The review process assures that all aspects of the risk management process are reviewed at least annually. According to the authors of [Agrawal and Chadha \(2005\)](#), the risks must be reviewed with an appropriate frequency; this process must be in accordance with the fluidity of the circumstances and the different procedures to be put into operation.

[Nichita and Vulpoi \(2016\)](#) mention in their studies the existence of two categories of research methods that consider financial reporting, namely:

1. The annual financial statements shall be used as a source of analysis for risk reporting.
2. Analysis of internal reports specific to management.

As mentioned above, the risks are subject to specific objectives. They form a well-defined system, interdependently linked to the overall objectives so that activity levels can support each other. Risk management aims to manage events that could harm the organisation's objectives and implicitly on its resources of any kind.

Therefore, we can say that the implementation of risk management in an organisation comes from the following three scenarios:

- A. Uncertainty is a daily reality = the reaction to uncertainty becomes a constant concern of management.
- B. The analysis of the consequences does not remedy the causes = the materialised risks will occur in the future more quickly.
- C. Regular risk review = the organisation's efforts focus on what is essential, and the resources are not used in areas irrelevant to its purposes.

The uncertainty created by the evolution of the COVID-19 virus has triggered a complex area of risk that affects virtually all aspects of most entities. According to [van der Meulen \(2020\)](#), only now people in charge of organisations have realised the implications of being less prepared to deal with a situation caused by an event as significant as the COVID-19 pandemic.

Pandemic risk has long been recognised as central to risk management in practice. However, the COVID-19 pandemic has shown that generic pandemic risk

has been underestimated in terms of its size and potential impact. The role of ERM is to assess and define risks that may affect an organisation's success in achieving its strategic objectives. ERM does this by helping the board and managers understand the organisation's risk appetite, identifying risks, assessing their impact, and developing a risk response. Ultimately, ERM is about helping management and the board create and sustain value.

The COVID-19 pandemic has shown that adverse effects are difficult to estimate reliably. At the same time, it is challenging to analyse such an event's persistence level. In this sense, pandemic risk should be perceived as a severe threat to an entity's strategic objectives. With this phenomenon, many companies have substantially re-examined their risk management approaches. Unsurprisingly, the COVID-19 pandemic has become a focus for risk management professionals and will likely remain a focus for businesses, governments, and universities as it has unleashed challenges across the board.

In response to the pandemic crisis, organisations across the globe have reviewed their risk identification, analysis, and assessment processes to minimise negative impacts on organisational performance. Shareholders communicated with managers and investors to better connect risk management with the company's development strategy. Furthermore, the crisis highlighted the importance of treating the subject of ERM not just as a mandatory regulatory requirement but as an integral part of the strategic process.

The initial response to the pandemic was more of a short-term action to stabilise the organisation through the first wave of the crisis. Also, the initial response to the pandemic required ensuring the safety of employees but also ways to communicate policies and critical information between associates and third parties. In the second phase, the risk assessment was carried out ensuring compliance with emerging legislation and protocols and examining risk recurrence. In the last phase of responding to the unforeseen, organisations should examine and implement changes to ensure the sustainability and continued success of the organisation. An initial response that organisations should consider in the third phase is examining their risk identification process (Sood, Kaur, & Grima, 2022). Risk identification methods are a fundamental part of ERM implementation. Many organisations have been surprised by the depth and severity of the pandemic has had on their organisations.

With this in mind, it is vital for organisations to develop possible scenarios that describe the types of events the world is facing today in terms of pandemic situations as a result of demographic, economic, operational, and strategic risks. It is necessary to examine the risk scenarios, especially how the organisation's most valuable assets are affected to maintain the value factors in future crises to support its viability.

Company management oversees and monitors the corporation's operational viability, legal compliance, and financial performance. They should monitor the impact of COVID-19 regularly and understand how management assesses it, taking into account the acceptability of managers' responses to the pandemic.

In this regard, the ERM process can be strengthened through more effective communication and establishing a risk culture. Due to this, we might say there is