

BUCHAREST UNIVERSITY OF ECONOMIC STUDIES

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**INCREASING THE COMPETITIVENESS OF THE COMPANY BY RATIONALIZING
THE PROCESS OF MANAGING AND ENSURING THE SUPPLY OF MATERIAL
RESOURCES**

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SUMMARY

This thesis primarily aimed to investigate how the management of material resources can contribute to increasing a company's competitiveness through the use of emerging technologies. Through a rigorous and systematic analysis, I explored both the theoretical and practical foundations of material resource management within the context of a globalized market, employing emerging technologies to streamline internal processes and maximize the performance of organizations in Romania. This work offers a significant contribution to understanding the role of material resources as well as how emerging technologies directly influence competitiveness.

Building on foundational concepts, the research was based on the premise that material resource management is a central element for the success of organizations in a dynamic and digitalized environment. In the introduction, the concept of competitiveness was addressed, alongside how it can rapidly and efficiently respond to market demands. In relation to this approach, I emphasized the necessity of integrating technological solutions into the internal processes of Romanian companies to increase efficiency and reduce operational costs. Subsequently, this research explores the evolution of the concept of competitiveness and the economic theories that have significantly influenced the management of material resources. Through a critical analysis of the specialized literature, this research addresses a series of classical theories of competitiveness as well as modern approaches that combine technological innovation with sustainability.

Chapter 2 presents the integration of emerging technologies, such as Blockchain and the Internet of Things (IoT), from both a theoretical perspective and in terms of how these technologies influence competitiveness at the organizational level. These technologies are presented as revolutionary, having the capacity to decentralize various processes, ensure security, and provide transparency in organizational transactions. From a systemic perspective, Blockchain technology is analyzed as an innovative solution that brings traceability and a high level of control to the management of supply chains. To support the theoretical conclusions, I conducted a detailed case study on Romanian SMEs, focusing on the analysis of how these companies have adopted digitalization to improve competitiveness.

Based on the collected data, I conducted a series of comparative analyses regarding the impact of emerging technologies on the organizational performance of SMEs in Romania. This analysis focuses on evaluating performance indicators such as productivity, operational efficiency,

cost reduction, among others. The goal is to demonstrate that digitalization has a significant impact on enhancing the competitiveness of Romanian companies. Another innovative aspect of the research is the proposal of a model for evaluating and monitoring organizational performance in the form of a matrix called V.E.C.T.O.R., which integrates a series of economic, technological, and organizational variables. This matrix offers Romanian companies the ability to monitor their performance in real-time, allowing them to rapidly adjust strategies according to market dynamics. To validate the utility of the matrix, I conducted a pilot study in a small and medium-sized enterprise (SME) in Romania to highlight the main benefits of its application.

The final part of the thesis synthesizes the major contributions of the research, emphasizing the importance of efficient management of material resources in a globalized and dynamic economy. The integration of emerging technologies is identified as a crucial factor in enhancing organizational performance, and the V.E.C.T.O.R. matrix represents an innovative and practical tool for companies aiming to optimize their performance. Finally, the thesis opens new directions for future research, proposing the extension of the matrix's applicability to other sectors. Therefore, it is essential that future research in the field of smart technologies addresses both the ways in which companies can streamline processes and explores their willingness to invest in digitalization to fully leverage the advantages offered by modern applications and tools.

Keywords: Material resource management, organizational competitiveness, emerging technologies, Blockchain, Internet of Things (IoT), digitalization, operational efficiency, organizational performance, SMEs, evaluation matrix, technological innovation, sustainability, supply chains, cost reduction, transaction transparency.