

List of approved dissertation topics 2024/2025

Advisor (Department)	Title and dissertation topic annotation	Study form
<p>1. Emília Duřová Spiřáková, doc. Ing., PhD. (Department of Economics and Management)</p>	<p>The European Union in the context of the targets of the Europe 2020 strategy and the 2030 Agenda for sustainable development</p> <p>The dissertation deals with the evaluation of success, or the failure of the member countries of the European Union in achieving the targets of the Europe 2020 strategy in the areas of education, employment, poverty, research and development, climate change and energy sustainability, and assesses the reality of setting new target values to which the countries have committed themselves as part of the 2030 Agenda for sustainable development.</p>	FTS/PTS
<p>2. Barbora Gontkovičová, doc. Ing., PhD. (Department of Commercial Entrepreneurship)</p>	<p>Flexible work arrangements as essential components of dynamic and inclusive labour markets and their impact on human resources in enterprises</p> <p>The labour market is constantly changing, the significant changes have taken place and are taking place in so-called standard forms of employment in many European countries. To increase their competitiveness, the enterprises are trying to respond to these changes as quickly as possible, which also increases the requirement for work flexibility. Standard forms are increasingly being replaced by other ways of work, linked to the fulfilment and performance of the necessary tasks. The tendency to increase the use of flexible forms of work and work organization has been powered by the COVID-19 pandemic. The main goal of the dissertation is to analyse, compare and evaluate the use of flexible forms of work in Slovakia and in selected countries of the European Union and assess the impact of the COVID-19 pandemic on the demands and changes in labour flexibility. However, the perception and requirements for flexibility may differ from the point of view of the employer and the employee, therefore the work will also include an evaluation of the advantages or disadvantages for both sides to flexible employment relationships.</p>	FTS/PTS
<p>3. Jozefína Hvastová, doc. Ing., PhD. (Department of Economics and Management)</p>	<p>Creative Procedures in Accounting and their Impact on Financial Performance Indicators of Companies</p> <p>The accuracy and reliability of financial statements is crucial in making stakeholder decisions. Therefore, financial performance indicators should also reflect the same level of accuracy. However, the actual phenomenon is the "game with numbers", the use of which in the accounting practice of companies results in distorted outputs. The dissertation therefore finds out which creative accounting procedures find application in the practice of selected companies and presents their impact on accounting data. Following this, it analyzes and evaluates the impact on selected indicators of the financial performance of companies, as there is no broader discussion on this problem.</p>	FTS/PTS
<p>4. Silvia Megyesiová, doc. Ing., PhD. (Department of Quantitative Methods)</p>	<p>The impact of COVID-19 pandemic on the production and productivity of Slovak companies</p> <p>The dissertation is devoted to a detailed analysis of production and productivity of companies in Slovakia during and after the crisis associated with the COVID-19 pandemic. The dissertation will focus on the quantification of the impact from the point of view of enterprises and companies according to the NACE classification.</p>	FTS/PTS

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<p>5. Cecília Olexová, doc. Ing., PhD. (1) (Department of Economics and Management)</p>	<p>Competency model as a tool for the sustainability of the silver generation in the labour market</p> <p>The dissertation solves the problem of employability of the Silver Generation (age group 50+) in the labour market and at the same time addresses the issue of the lack of workers with the necessary competences related to the ageing of the population, by adapting the competences of the Silver Generation to the current profile of jobs resulting from the needs of Industry 4.0.</p>	FTS/PTS
<p>6. Cecília Olexová, doc. Ing., PhD. (2) (Department of Economics and Management)</p>	<p>Digital transformation of human resources management</p> <p>The dissertation focuses on digitalisation, robotisation and automation in human resource management and the implementation of innovative methods and tools such as HR cloud technology; the use of artificial intelligence; and the automation of key functions of human resource management (such as talent acquisition, onboarding, and work performance management) from the point of view of the effectiveness of HR strategies and policies. The result is an assessment of the relationship between the digital transformation of human resource management and the selected company's efficiency index.</p>	FTS/PTS
<p>7. Michal Stričík, doc. Ing., PhD. (Department of Commercial Entrepreneurship)</p>	<p>Economic and environmental aspects of the use of fuel made from waste in the Slovak Republic</p> <p>The Slovak Republic is for long time not able to meet the objectives for material and energy utilization of waste and it is within the European Union countries at the last places in waste recovery. The dissertation identifies the possibilities of treatment of waste in the form of the solid fuel and its subsequent utilization as an energy source in the production sphere of Slovak enterprises. The output of the dissertation will be a model that would help to intensify the energy recovery of waste in Slovak conditions.</p>	FTS/PTS
<p>8. Michal Tkáč, doc. Ing., PhD. (1) (Department of Corporate Financial Management)</p>	<p>Purchasing and supply management transformation to Industry 4.0</p> <p>The thesis will be focused on the possibilities of using Industry 4.0 tools in procurement processes and in supply chain processes.</p>	FTS/PTS
<p>9. Michal Tkáč, doc. Ing., PhD. (2) (Department of Corporate Financial Management)</p>	<p>The analysis of public procurement in Slovak republic</p> <p>The dissertation will deal with the analysis of public procurement processes in Slovak republic. Special focus would be devoted to analysis of the parameters of these processes, as well as to the impact of these settings on procurement performance.</p>	FTS/PTS
<p>10. Michal Tkáč, doc. Ing., PhD. (3) (Department of Corporate Financial Management)</p>	<p>Implementation of machine learning to improve business performance</p> <p>The dissertation deals with the problem of improving the performance of a selected enterprise process by using machine learning tools. The aim of the thesis is to analyze the current state of the process, identify its weaknesses and propose possible solutions using machine learning methods. The thesis consists of a theoretical and a practical part. In the theoretical part, the author defines the terms machine learning, process, performance and describes different types and techniques of machine learning suitable for process optimization. In the practical part, the author focuses on a specific selected enterprise process, which is characterized using quantitative and qualitative indicators. The author then applies the selected machine learning methods to the data obtained from the process and compares their impact on its performance. Based on the results obtained, the author formulates conclusions and recommendations for further improvement of the enterprise process.</p>	FTS/PTS

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11. Michal Tkáč, doc. Ing., PhD. (4) (Department of Corporate Financial Management)	The impact of ratings as a trust building tool to support business transactions The dissertation deals with the issue of ratings as tools for assessing the quality of entities operating on the market. The aim of the thesis is to assess the impact of ratings on the promotion of business transactions between different types of actors (e.g. consumers, suppliers, investors, lenders). The theoretical part of the thesis analyses existing theories and models of rating and their applications in different areas (e.g. financial markets, e-commerce, public administration). The empirical part of the thesis focuses on quantitative and qualitative research on the relationship between rating and business activity of selected entities.	FTS/PTS
12. Michal Tkáč, Dr. h. c. prof. RNDr., CSc. (1) (Department of Quantitative Methods)	Economic aspects of Slovakia's energy self-sufficiency The requirements of carbon neutrality in the period of the energy crisis caused by the cessation of supplies of cheap energy from Russia create many questions in the regions of Slovakia, bordering on concerns about the possibility of their sustainable economic development.	FTS/PTS
13. Michal Tkáč, Dr. h. c. prof. RNDr., CSc. (2) (Department of Quantitative Methods)	Performance and efficiency of medical facilities The performance and efficiency of medical facilities is directly determined by the performance and efficiency of their most expensive processes. In technical practice, there are a number of successfully implemented performance measurement models, or efficiency of processes. However, using these models in the field of health care generally requires a substantial modification of the relevant technical model.	FTS/PTS
14. Robert Verner, doc. PhDr. Ing., PhD. MBA (1) (Department of Quantitative Methods)	The impact of macroeconomic variables on prices of corporate bonds The dissertation focuses on a comprehensive analysis of the impact of macroeconomic variables on the prices of corporate bonds. In the context of a rapidly changing global economic environment, it is important to understand how macroeconomic changes affect financial markets. The paper examines the relationships between key economic indicators such as inflation, interest rates, gross domestic product (GDP) and the unemployment rate, and their impact on the value of corporate bonds.	FTS
15. Robert Verner, doc. PhDr. Ing., PhD. MBA (2) (Department of Quantitative Methods)	Differences in Yield between Green and Traditional Corporate Bonds The work deals with the analysis of yield differences between green and traditional corporate bonds. Green bonds, which have become increasingly popular in recent years due to their focus on financing environmentally sustainable projects, bring with them questions about their yield potential compared to traditional bonds. The work tries to identify the main factors influencing these differences and examines how these factors affect investment decisions and the market value of bonds. The aim is to provide a comprehensive view of the yield profile of green bonds and their potential in the context of sustainable investing.	FTS

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<p>16. Robert Verner, doc. PhDr. Ing., Ph.D. MBA (3) (Department of Quantitative Methods)</p>	<p>The Impact of Regular Equipment Review on Business Performance</p> <p>The work deals with the important aspect of the maintenance of company assets and its impact on the overall performance of the company. In the context of increasing competition and an ever-changing market environment, it is imperative that businesses keep their equipment in optimal condition. This work will examine how regular equipment review contributes to increasing efficiency, reducing repair costs and extending the life of equipment. Various maintenance strategies and their impact on the operational performance of the enterprise will be analyzed, with an emphasis on quantitative and qualitative evaluation methods. The work will also provide recommendations for businesses on how to optimize their equipment maintenance processes to achieve better economic results.</p>	PTS
<p>17. Robert Verner, doc. PhDr. Ing., Ph.D. MBA (4) (Department of Quantitative Methods)</p>	<p>Risk management of the construction company in the context of rising prices of construction materials</p> <p>The dissertation focuses on the identification and analysis of risks that affect construction companies due to the instability and rise in prices of construction materials. The work aims to provide an in-depth view of the current challenges faced by construction companies and to propose effective strategies for managing them and minimizing negative impacts on projects. The thesis analyzes the main factors leading to the growth of material prices, such as global economic trends, political events, environmental restrictions, as well as specific challenges related to the supply chain. Based on these analyses, recommendations are proposed for construction companies that include diversifying supply chains, using alternative materials and technologies, developing flexible contractual agreements, and using advanced tools to predict price trends.</p>	PTS
<p>18. Robert Verner, doc. PhDr. Ing., Ph.D. MBA (5) (Department of Quantitative Methods)</p>	<p>The Impact of Inflation on Corporate Bond Markets in Emerging Economies</p> <p>The work focuses on investigating the impact of inflation on corporate bond markets in emerging economies. The work analyzes historical data, current trends and theoretical models regarding the relationship between inflation and profitability, prices and liquidity of corporate bonds. The work further identifies the main factors influencing this relationship, such as monetary policy, fiscal stimulus and macroeconomic indicators. The aim is to provide a comprehensive view of the mechanisms that shape corporate bond markets in the context of changing inflation and to suggest strategies for investors to minimize the risks associated with inflation.</p>	FTS
<p>19. Erik Weiss, doc. Ing., PhD. (1) (Department of Commercial Entrepreneurship)</p>	<p>Development of sustainable consumer behavior through artificial intelligence tools</p> <p>The dissertation focuses on analyzing the effectiveness of artificial intelligence within selected applications - from personalized marketing to intelligent systems that can contribute to positive changes in consumer behavior.</p>	FTS
<p>20. Erik Weiss, doc. Ing., PhD. (2) (Department of Commercial Entrepreneurship)</p>	<p>Building a brand as a competitive advantage</p> <p>From a market point of view, it is important to build brands. A comprehensive description of the issue of brands, their development, functions, building principles, value, analysis and measurement method can be implemented in the market environment as a competitive advantage.</p>	FTS/PTS

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<p>21. Erik Weiss, doc. Ing., PhD. (3) (Department of Commercial Entrepreneurship)</p>	<p>The impact of organizing the European Under-21 Football Championship on the economy and the development of sports infrastructure in Slovakia</p> <p>The dissertation focuses on a quantitative and qualitative analysis of the benefits associated with organizing such a significant sporting event and its impact on infrastructure development in Slovakia.</p>	PTS
<p>22. Roland Weiss, doc. Ing, PhD. (Department of Corporate Financial Management)</p>	<p>The crowdfunding as financial resource of company</p> <p>The dissertation deals with the issue of financing a company with capital. Based on theoretical knowledge, we describe the financing of small and medium-sized enterprises with capital from private investors and the possibilities of how to achieve this. In this work we want to briefly point out the development and current state of crowdfunding use in the world and in Slovakia.</p>	FTS/PTS
<p>23. Jozef Zuzik, doc. Ing., PhD. (Department of Commercial Entrepreneurship)</p>	<p>The impact of companies' earnings announcements on their value</p> <p>The dissertation deals with the analysis of the impact of companies' earnings announcements on companies' value. It focuses on studying the market reaction and evaluating how these announcements affect the stock price and market capitalization of the companies. The aim is to identify the factors and mechanisms behind this impact. The methodology of the work includes a combination of quantitative analysis of market data and qualitative research. The results of this work can serve as a useful tool for investors, managers, and academics in understanding market reactions to companies' earnings announcements and their impact on the companies' value.</p>	FTS/PTS
<p>24. Radoslav Delina, doc. Ing., PhD. (External supervisor)</p>	<p>Behavioral determinants of public and private procurement efficiency within supply chain</p> <p>By utilizing progressive methods of artificial intelligence, data mining, and econometric methods, the aim is to analyze the effects of various supplier behaviors with an emphasis on identifying and analyzing signals that negatively impact the performance of procurement strategies in both public and commercial procurement. Modeling will be conducted on extensive data, with a priority use of the Python programming language and interpretable machine learning algorithm approaches for predicting procurement outcomes based on identified behavioral signals.</p>	PTS
<p>25. Renáta Turisová, doc. Ing., PhD. (External supervisor)</p>	<p>Quality 4.0 in the conditions of Slovak companies</p> <p>Quality 4.0 is an integral part of Industry 4.0, the principles and procedures of which are gradually applied in the conditions of Slovak companies. and can be defined as the digitization of TQM and its impact on quality technology, processes and people. It is becoming an important part of organizational innovation, but it also has its economic implications, which are the subject of the focus of this dissertation.</p>	PTS