

## Topics for doctoral (PhD.) theses for the academic year 2024/2025

## Field of study: 8. Economics and Management Study program: *Finance*

no. 1	Supervisor	doc. Ing. Alena Andrejovská, PhD.
Title		CORPORATE TAX RATES IN THE CONTEXT OF TAX
		HARMONISATION IN THE EU MEMBER STATES
	ed description of	Tax harmonisation in the European Union forms a significant part of
	pic (annotation or	integration efforts that legitimately push borders and seek to attract
abstra	ct)	foreign investors. The aim of this dissertation will be to address the issue of tax harmonization of EU member states with respect to corporate tax
		rates. To ensure the main objective, the analytical part of the thesis will
		examine the levels of statutory and effective tax rates and their
		suggestiveness on the calculation of the tax base. Subsequently, the
		macroeconomic effects of changes in corporate tax rates during the tax
		harmonisation process will be analysed. Last but not least, the paper will
		quantify the impact of the different determinants on tax harmonisation,
		taking into account the structure of the tax systems of the different EU
		countries, which by their heterogeneity lead to differences and competition between each other. The contribution of the thesis lies in the
		evaluation of the implementation of EU directives in the field of tax
		harmonisation of corporate taxes in the individual national economies of
		EU member states with the intention of gradually increasing the degree of
		this harmonisation.

no. 2 Supervisor	doc. RNDr. Jozef Bucko, PhD.
Title	RESEARCH THE IMPACT OF ARTIFICIAL INTELLIGENCE ON
	THE MARKETING AND FINANCIAL PERFORMANCE OF SMALL
	AND MIDDLE ENTERPRISES
Detailed description of	The deployment of artificial intelligence tools in small and medium-sized
the topic (annotation or	enterprises implies a revolution in the analysis of data collected from
abstract)	online sales of goods and e-commerce. It is becoming the basis of modern
	marketing and knowledge economy and provides valuable information
	supporting business decision-making. How can these tools be
	systematically deployed to drive profit in SMEs? Will the effective use of
	these AI tools impact the marketing and financial performance of SMEs?
	Research in this area will seek scientifically substantiated answers to the
	above questions.

no. 3 Supervisor	doc. Ing. MVDr. Ján Buleca, PhD.
Title	IMPORTANCE OF EUROPEAN STRUCTURAL AND
	INVESTMENT FUNDS ON ECONOMIC DEVELOPMENT AND
	INNOVATION PERFORMANCE
Detailed description of	Economic development and innovation represent a central priority of the
the topic (annotation or	political agenda of the European Union, which is reflected in their
abstract)	representation in crucial initiatives such as the Green Deal and the Horizon
	Europe program. The European Structural and Investment Funds (ESIF)
	are a key EU tool for supporting economic development, innovation





performance, competitiveness and cohesion in EU regions. Their
significant share of the EU budget documents their importance in the
process of European integration, but also in the creation of regional
policies. Research on the impact of ESIF on economic development and
innovation performance contributes to evidence-based policy and
program development, and helps policymakers identify successful
strategies as well as areas with potential for improvement.
The importance of ESIF has grown even more in connection with dealing
with the impacts of the Covid-19 pandemic, primarily in the area of
supporting economic recovery and strengthening the resilience of the
economies of EU member states. However, they also play an important
role in mitigating the socio-economic impacts of the pandemic.
These facts underline the importance of examining the allocation of ESIF
funds with an emphasis on their impact on the economic development of
individual countries and regions and innovation performance, examining
innovative mechanisms and financial instruments and their effectiveness
with respect to ESIF. The results of such work will yield substantiated
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recommendations for the financial management of EŠIF in such a way as
to provide the highest possible contribution to economic development at
the level of the EU and regions.

no. 4 Supervisor	doc. Ing. MVDr. Ján Buleca, PhD.
Title	UNVEILING THE NEXUS OF CORRUPTION AND FRAUD IN
	AGRIBUSINESS: IMPLICATIONS FOR ECONOMIC
	DEVELOPMENT AND SUSTAINABILITY
Detailed description of	In the current era, which is characterized by increasing global competition
the topic (annotation or	and constant challenges, the agri-food sector plays a crucial role in
abstract)	shaping the economy and sustainability. Agriculture is among the sectors most affected by corruption due to its complex supply chains, significant financial flows, insufficient institutional capacity, and regulatory gaps. The importance of this topic increases in the context of current events, where recent cases and trends in the agri-food sector point to persistent risks of corruption and fraud. The current situation requires in-depth analysis and solutions that take into account not only economic aspects but also social and environmental contexts. The dissertation thesis will therefore focus on identifying the link between corruption, fraud, and economic development in the agri-food sector, emphasizing its topicality and urgency. Researching this topic provides an opportunity for policymakers, economists, and stakeholders to take action to mitigate these negative impacts and promote sustainable and ethical development of the agri-food sector.

no. 5 Supervisor	doc. Ing. MVDr. Ján Buleca, PhD.
Title	CARBON NEUTRALITY OPTIMIZATION: ECONOMIC
	MODELING FOR GRID TRANSFORMATION
Detailed description of	Cities, responsible for over 2/3 of global energy consumption and more
the topic (annotation or	than 70% of CO2 emissions, are at the forefront of the climate crisis. The
abstract)	transition to a decarbonized energy sector involves significant investment,
	potentially up to \$40 trillion by 2050 to add about 2,000 GW of clean
	generation capacity. To achieve net-zero goals by 2050, advanced





statistical methods and computational analytics can revolutionize urban
energy systems. Smart grids and smart meters, including the Internet of
Energy, are crucial for managing energy options effectively within
multivector energy systems. Regional energy communities based on
renewable energies can enhance economic resilience, create jobs, and
reduce energy costs. By fostering decentralized energy production, these
communities can improve energy security and reduce vulnerability to
global energy price fluctuations. Economically, well-assessed and
modeled renewable energy communities can offer attractive returns on
investment and long-term savings, improved planning for on, off-grid
systems, reducing energy poverty, with ratios varying based on the
specific mix of technologies, scale, local conditions, and stakeholder
adoption capacities. Leveraging data-driven insights, this research aims to
optimize sustainable energy solutions, emphasizing economic viability
and environmental sustainability. Challenges persist in data
interoperability, integrating economic models into local energy systems,
managing renewable energy sources, and regulatory frameworks for
decarbonization. Further exploration is needed in scenario planning,
centralized/decentralized grids, and multi-vector energetics. On the more
pragmatic side, demonstrating economic viability, the complexity of data
integration, ensuring local ownership, capacity building for solar and
energy efficiency, access to capital, building social acceptance, and
regulatory hurdles can also pose challenges.
regulatory nurtices can also pose chartenges.

no. 6	Supervisor	prof. Ing. Radoslav Delina, PhD.
Title	Supervisor	DIGITAL TRANSFORMATION OF PERONSLA FINANCES IN THE CONTEXT OF REDUCING INCOME INEQUALITY AND
		POVERTY
	ed description of pic (annotation or ct)	POVERTY In the context of global economic challenges such as inflation, rising income inequality, and economic instability, it is essential to provide families and the population with the tools and knowledge needed for effective management of their finances and minimizing the risk of poverty. In this context, the current groundbreaking development of digital technologies and AI sets a precedent for innovations in financial services and the management of financial and social stability of families, opening up new possibilities for improving their quality of life, especially those in socially vulnerable positions. Therefore, the development of fintech solutions with an emphasis on social responsibility and financial inclusion is key to addressing broader social and economic issues, such as poverty and income inequality. Hence, this work aims to contribute to the European strategy for the development of social Europe, supporting the maintenance of families above the poverty line and protecting the basic pillars of quality of life, where access to suitable AI services can help society break the vicious cycle of rising income and social inequality and contribute to more effective development of quality of life. In this context, the EU mentions in its strategies and action plans the synergy of using and developing AI and big data in the field of ensuring social equality, inclusion, and
		stability, where, for example, through the support of family finance management, it can provide new insights into consumer behavior, enable





objective financial advice, and help identify risky behavior before financial problems occur. Technologies can thus support responsible consumer behavior and sustainable household management.

no. 7 Supervisor	prof. Ing. Radoslav Delina, PhD.
Title	NEW APPROACHES IN GENERATIVE ARTIFICIAL
	INTELLIGENCE AND ITS IMPACT ON THE ECONOMY AND
	SOCIETY
Detailed description of	The exponential growth and innovations in AI, particularly in the field of
the topic (annotation or	generative artificial intelligence, including models such as GPT
abstract)	(Generative Pre-trained Transformer) and other large language models
	(LLM), represent one of the most dynamic areas of societal development.
	These technologies offer new possibilities for automation,
	personalization, and decision-making that have the potential to transform
	many sectors of the economy and society. This work contemplates critical
	development scenarios and their impacts on society and the economy,
	which is especially important in the context of rapid technological change.
	Identifying and analyzing innovative trends and solutions through AI for
	social inequality and quality of life issues is crucial for understanding how
	technology can contribute to positive social and economic development.
	However, this progress encompasses not only the technological and
	economic dimensions of AI but also its moral and ethical consequences,
	which represent a multidimensional aspect of the development of the
	economy and society. Understanding development scenarios is a critical
	foundation for the correct direction towards the development of a moral
	economy and society, as well as the quality of life of various population
	groups. This is critically important to ensure that the development and use of AI technologies are in line with the principles of fairness and good
	social welfare. One of the many areas where positive added value is
	expected, besides the classical market perspectives, are areas supporting
	quality of life and access to social and compensatory services, where the
	highly practical relevance of this technology can be identified.
	Demonstrating how these tools can directly contribute to improving
	people's lives highlights their social and economic potential, thereby
	supporting the strategy for the development of social Europe and
	inclusion.
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no. 8 Supervisor	prof. Ing. Radoslav Delina, PhD.
Title	DIGITAL TRANSFORMATION OF SOCIAL ECONOMY
Detailed description of the topic (annotation or abstract)	In the current globalized and digitized world, the social economy faces new challenges and opportunities. On one hand, increasing social inequalities and environmental crises call for a more responsible and sustainable approach to the economy. On the other hand, the development of digital technologies, such as big data, artificial intelligence, and process digitization, offers innovative tools for addressing these issues. Integrating these technologies into the social economy can significantly contribute to more efficient management, personalization of services, increased transparency, and improved measurability of social impacts.





Digitization of processes in the social economy enables social enterprises
to streamline their operations, improve services for their target groups, and
simultaneously reduce costs. The use of big data and AI opens up
opportunities for better understanding community needs, predicting trends
in social impacts, and adapting business strategies to achieve better social
outcomes. Similarly, they can significantly contribute to the transparency
and efficiency of public and commercial procurement as well as the
implementation of social criteria into these processes. Incorporating
progressive data and digital technologies into the social economy thus
represents a key step towards achieving a more inclusive and sustainable
economic model. Given the growing importance of social responsibility
and the need for innovative solutions to social challenges, both in the
context of the European and Slovak action plan for the social economy,
digitization of the social economy is not only a current but primarily an
urgent topic for research and practice.

no. 9	Supervisor	prof. Ing. Radoslav Delina, PhD.
Title	·	DATA MODELING OF BUSINESS AND FINANCIAL RISKS IN SUPPLY CHAINS FOR SPEND MANAGEMENT OF LARGE COMPANIES
	led description of pic (annotation or ct)	In the current dynamic global economic environment, large organizations are continually faced with challenges related to managing their supply chains and associated financial and business risks. The increasing complexity and interconnectedness of supply chains, high volatility, and market changes combined with unpredictable market conditions, necessitate more sophisticated approaches to analyzing and managing these risks. In this context, the ability of organizations to efficiently process large volumes of data (big data), utilize advanced analytical methods, and implement systems based on artificial intelligence (AI) and automation becomes crucial. This dissertation aims to leverage the latest technologies and methodologies in the field of big data and AI to improve the diagnostics and management of complex risks associated with supply chains and business expenditures. The central focus will be the development and validation of data models that allow for a deeper understanding of risk dynamics in supply chains, considering both long-term and short-term strategic objectives of the organization. The relevance of the topic is underscored by recent global events that have exposed vulnerabilities in the supply chains of many large companies and highlighted the importance of robust risk management and flexibility. The project will explore innovative approaches such as data diagnostics and automation of various approaches to managing expenditure risks and supply chains, including the Kraljic Matrix, ABC analysis, and various strategic models in category management. The goal is to design models that are not only reactive but also enable organizations to anticipate potential threats and adjust their strategies in real-time using data models to support decision-making.

no. 10	Supervisor	prof. Thorsten Dennin, PhD.
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Title	CAN TOKENIZATION REPLACE GLOBALIZATION? AN
	EMPIRICAL ANALYSIS OF ECONOMIC WEALTH EFFECTS OF
	DIGITALIZATION AND BLOCKCHAIN ECONOMICS
Detailed description of	Digital transformation is everywhere, and it is picking up pace. Any
the topic (annotation or	further change in today's digital world, however, is conditioned by further
abstract)	development in the area of person identification. Digitalization namely
	has led to storing personal and financial information offline and online,
	making identification a critical issue. Therefore, this chapter focuses on
	the development of person identification in the context of ongoing 4th
	industrial revolution. Particularly, the review highlights that there is
	always a trade-off between simplicity and safety, if personal identification
	is in question. Then, it discusses potential of digital ID in countries with
	weak technological infrastructures, where the mobile internet and new
	disruptive mobile technologies enable people to benefit from the digital
	economy. Of course, bio-metric technology also seems to be the very
	promising.

no. 11	Supervisor	doc. Ing. Jozef Glova, PhD.
Title		IMPLICATIONS OF INTELLECTUAL CAPITAL MEASUREMENT FOR ORGANIZATIONAL AND MARKET PERFORMANCE
	description of c (annotation or )	Intellectual capital is considered a key driver of enterprise value and performance in the knowledge era. In an economy that increasingly requires higher added value, it is essential to understand the mechanisms through which intellectual capital participates in value creation. From an accounting perspective, the existing picture of intellectual capital needs to be clarified. Moreover, the available literature also provides different insights and results about the properties of intellectual capital. It mostly states or proves its effect on increasing performance but says less about how it can be achieved. This dissertation aims to understand better and clarify the given issue. The effort will be to take a "step back" and question whether the choice of measurement and its ability to capture intellectual capital adequately may be one reason for the mixed results found in the literature. It is then possible to highlight the performance effect of IC using an alternative approach that examines the relationship between multiple aspects of performance, a wide range of intellectual capital measures and different industry sectors. In this empirically oriented work, combining highly fragmented literature from accounting and strategic management disciplines, the aim will be to explore how intellectual capital measurement and performance can be improved through an interdisciplinary approach.

no. 12	Supervisor	doc. Ing. Jozef Glova, PhD.
Title		EFFECTIVE TAX RATES, FIRM SIZE, AND ITS VALUE
	l description of c (annotation or )	The proposed dissertation on effective tax rates and their effect on business value is highly relevant and up-to-date. The topic of effective taxation of corporate profits is currently at the centre of active public and academic debate. Specifically, the debate has been focused on the extent of low-taxed profits of multinational enterprises (MNEs) in jurisdictions





with low statutory or average effective tax rates (ETRs). The proposed dissertation aims to shed light on the impact of effective tax rates on the value of a company, which is a key indicator of a company's performance and plays a significant role, especially in multinational companies. The study analyzes the impact of the effective tax rate on the company's size and considers the company's value. The empirical analysis uses panel data, while company data with the values of controlled variables are considered. In summary, the proposed dissertation is highly relevant and up-to-date, given the ongoing debate about the effective taxation of corporate profits. The study's focus on the impact of effective tax rates on a company's value is especially important in multinational companies, where value is a crucial indicator of performance. The work offers a theoretical perspective on the approaches to calculating effective tax rates, an analysis of the impact of the effective tax rate on the value of the company, as well as an analysis of the dependence of the effective tax rate on the size of the company.

no. 13 Supervisor	doc. Ing. Jozef Glova, PhD.
Title	THE USE OF ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG) FACTORS IN INVESTMENT DECISION-MAKING
Detailed description of the topic (annotation or abstract)	This thesis analyzes the impact of sustainable investing on a company's financial performance. It examines the concepts of corporate sustainability and environmental, social and governance (ESG) factors in non-financial reporting and their influence on a company's financial performance, particularly concerning its size. The theoretical section defines corporate sustainability (CS) and its connection and similarity to ESG and corporate social responsibility. It also covers topics such as the global reporting initiative. The report aims to verify working hypotheses, including whether there is a positive correlation between the level of sustainability and the financial performance of large companies and whether there is a negative impact between sustainability and the financial performance of small businesses.

no. 14	Supervisor	doc. Ing. Kristína Kočišová, PhD.
Title		MACRO-FINANCIAL ASPECTS OF CLIMATE CHANGE
	l description of c (annotation or )	Climate change represents one of the key risks to the future development of the economy and the financial sector. The importance of this issue is also highlighted by the ECB, which speaks of the need to assess how climate risks and the transition to a carbon-neutral society will affect our economy, the ECB's monetary policy and the development of the financial sector. These risks can significantly fuel the emergence of macroeconomic and financial risks that translate into weakened economic and financial sector resilience. Understanding the implications of these risks will allow to maintain the main objective of monetary policy as well as to ensure that the financial sector is stable and safe.

no. 15	Supervisor	doc. Ing. Lenka Maličká, PhD.
Title		PUBLIC DEBTS - MODERN GIANTS





Detailed description of	In the period when the economic landscape was transformed under the
the topic (annotation or	influence of the multi-crisis in connection with the COVID-19 pandemic,
abstract)	the war conflict in Ukraine, the energy crisis, and a high inflation rate, we
	witnessed a significant increase in the public debt of many countries.
	Fiscal rules known as the Maastricht criteria were exceeded by half of the
	EU countries in 2023, some for a long time, some countries even exceed
	100% of their GDP. Although the current consensus at the EU level speaks
	of the detrimental effects of high public debt and the need for its reduction,
	regarding the speed, however, there is no consensus on the pace of public
	debt reduction. We do not even expect that it would be possible to set a
	uniform procedure. The period of transformation of the economic
	environment is also characterized by increased political friction. It is
	therefore important for policymakers to know the socioeconomic and
	political determinants of public debt and the implications of public debt
	reduction (such as reduced investment in the green transition, stricter
	enforcement of fiscal compliance, etc.).

no. 16	Supervisor	doc. Mgr. Grzegorz Michalski, PhD.
Title		TREASURY MANAGEMENT AND CASH MANAGEMENT
	l description of c (annotation or )	The relevance and topicality of the dissertation topic is due to the fact that the processes associated with the topic are carried out in the company on a daily basis. Every improvement, even a small one, in the efficiency of treasure management contributes to a significant increase in the value of the wealth generated throughout the country. Hence the need for further attempts to solve scientific treasure management problems in an original way. Quite significant is the expected contribution to the state of the art, if we take into account the fact that treasury management activities are performed inefficiently all the time in the V4 countries, making our economies less effective in achieving their corporate treasury building goals.

no. 17	Supervisor	prof. Ing. Rajmund Mirdala, PhD.
Title		FUNDAMENTAL, TECHNICAL AND PSYCHOLOGICAL
		ANALYSIS OF THE CRYPTOCURRENCY MARKET
Detailed	d description of	Over the past more than ten years, the market with digital assets
the topi abstract	c (annotation or )	(cryptocurrencies) has gone through almost all stages of the development of an unconventional market from the point of view of its perception by the government, financial or corporate sectors (ignorance, contempt, adversity, regulation), which can be paraphrased by M. Gándi's statement "First they ignore you, then they laugh at you, then they fight you, then you win". The development potential of the cryptocurrency industry is often compared to the penetration and global adoption of the Internet and ICT in the 1990s. A comprehensive fundamental, technical and psychological analysis of the cryptocurrency market will provide a sound basis for clarifying the potential for further direction in the development
		of the cryptocurrency market.

## no. 18 Supervisor prof. Ing. Rajmund Mirdala, PhD.





Title	THE ROLE OF GOVERNMENT REGULATIONS IN ADOPTING
	CRYPTOCURRENCY IN GLOBAL MARKETS
Detailed description of	The adoption of cryptoassets and blockchain solutions is significantly
the topic (annotation or	limited by the absence of a regulatory framework. Especially in the field
abstract)	of finance and banking, crypto assets and decentralized blockchain
	solutions represent a potentially relevant alternative to the traditional
	centralized financial system. Fundamental analysis of crypto-assets and
	blockchain solutions indicate a significant penetration potential, which,
	however, is currently severely limited by the absence of a legislative and
	regulatory framework for the area of crypto-asset markets and
	decentralized blockchain solutions.

no. 19 Supervisor	prof. Ing. Rajmund Mirdala, PhD.
Title	ADOPTION AND IMPLICATIONS OF CBDCS AND
	CRYPTOCURRENCIES
Detailed description of	6
the topic (annotation of	r their implementation in a domestic and international context requires a
abstract)	detailed assessment of risks and opportunities. CDBCs themselves only
	strengthen the perception of the element of centralization in the traditional
	monetary system. The increase in the adoption of cryptocurrencies and, in
	this context, the growing importance of the decentralized financial system
	thus represents a potential alternative to CDBCs, the relevance of which
	naturally increases in the context of the implementation of the regulatory
	framework for the crypto-asset market in the near future.

no. 20	Supervisor	prof. Ing. Rajmund Mirdala, PhD.
Title		(DE)GLOBALIZATION, FOREIGN TRADE IMBALANCES AND
		INCOME / WEALTH INEQUALITIES
Detailed description of		The broader context of events and processes associated with specific
-	c (annotation or	demand, but especially supply manifestations of pandemic restrictions or
abstract	)	events or processes associated with them, is currently being contrasted
		with the decades-long process of internationalization and globalization of
		economic processes. The dynamization of the deglobalization process
		with impacts on a wide range of factors affecting international production
		chains will have a natural impact on the fundamental aspects of the
		formation of (global) foreign-economic imbalances and pension and
		wealth inequalities on a global scale, which have been formed for many
		years under the influence of intensifying globalization.

no. 21	Supervisor	prof. Ing. Rajmund Mirdala, PhD.
Title		LABOUR MARKET EFFICIENCY AND SOUND PUBLIC FINANCE IN THE EUROZONE
	l description of c (annotation or )	In recent years, there has been a significant deterioration in the sustainability of public finances in the vast majority of Eurozone member countries. Fiscal incentives and negative impacts of cyclical factors deepened fiscal deficits and accelerated public debts. In the context of the distorting effects of pandemic measures on the production potential of economies, but without significant impacts on labor markets, the attention of economists was naturally directed to the examination of the





interrelationship between the sustainability of public finances and the
development of labor markets.

no. 22	Supervisor	prof. Srdjan Redzepagic, PhD.
Title		INNOVATION AS AN IMPERATIVE FOR THE
		COMPETITIVENESS OF THE COMPANIES
Detailed	l description of	The research in this doctoral thesis is expected to bring results and
the topi	c (annotation or	contribution to those companies that have not yet recognized the
abstract	)	importance and importance of innovation and innovative management, in
		order to survive in the global market. Thanks to the application of
		innovations, such companies can achieve significant savings in their
		operations in the future. When they use modern technology in their
		business, the business process in them will become more economically
		profitable and will lead to numerous savings, which in the end will lead
		not only to an increase in competitiveness but also to an increase in value
		for the shareholders of such companies.

no. 23 Supe	ervisor	doc. Ing. Michal Šoltés, PhD.
Title		THE ROLE OF MICROFINANCE IN BUSINESS DEVELOPMENT
		WITH AN EMPHASIS ON SUPPORTING WOMEN
Detailed desc	cription of	This work deals with the analysis of the effectiveness of microfinance
the topic (ann	notation or	programs in supporting women's entrepreneurial activities, identifying the
abstract)		obstacles and challenges they face, and proposing strategies to improve
		their access to funds and increase their entrepreneurial potential. Using a
		combination of quantitative and qualitative methods, including data
		analysis, case studies and field research, this paper seeks to provide a
		comprehensive view of the impact of microfinance on women's
		entrepreneurship and socioeconomic development.
		The results of this work will not only contribute to the theoretical
		understanding of the role of microfinance in supporting women's
		entrepreneurship, but will also offer practical recommendations for
		microfinance institutions, government bodies and NGOs on how to
		optimize their interventions and programs in order to achieve sustainable
		and inclusive economic development.

no. 24	Supervisor	prof. Martin Užík, PhD.
Title		THE ECONOMIC IMPORTANCE OF THE PERSON
		IDENTIFICATION PROCESS IN THE INTERNET AS A PART OF
		DIGITAL BUSINESS MODELS
Detailed	d description of	Digital transformation is everywhere, and it is picking up pace. Any
the topi	c (annotation or	further change in today's digital world, however, is conditioned by further
abstract	)	development in the area of person identification. Digitalization namely
		has led to storing personal and financial information offline and online,
		making identification a critical issue. Therefore, this chapter focuses on
		the development of person identification in the context of ongoing 4th
		industrial revolution. Particularly, the review highlights that there is
		always a trade-off between simplicity and safety, if personal identification
		is in question. Then, it discusses potential of digital ID in countries with





weak technological infrastructures, where the mobile internet and new disruptive mobile technologies enable people to benefit from the digital economy. Of course, bio-metric technology also seems to be the very promising.

no. 25 Supervisor	doc. Ing. Tomáš Výrost, PhD.
Title	NETWORK ANALYSIS AND MODELLING OF
	INTERRELATIONSHIPS ON INTERNATIONAL FINANCIAL
	MARKETS
Detailed description of	The dissertation is primarily focused on exploring the relations between
the topic (annotation or	financial markets.
abstract)	The understanding of interconnectedness in financial markets is important
	for individual investors, as it is directly related to the diversification
	potential in portfolio investment. At the same time, the increasing
	interconnectedness between financial institutions, e.g. in the banking
	sector, has a strong relationship with system stability, which is important
	for regulators, supervision of financial markets and central banks.
	Network analysis presents a useful tool for studying interdependencies
	and dynamics in financial markets, which allows for capturing of the
	complex structure of relationships even between a high number of entities.
	The dissertation deals with alternative approaches to the construction of
	financial networks, identification of their determinants, as well as the
	application of network analysis in practical problems.

