Dissertation topics for academic year 2022/2023

Field of study: Economics and Management

Study programme: Business Economics and Management

INSTITUTE OF ECONOMICS AND MANAGEMENT

Supervisor:
prof. Ing. Zuzana Kapsdorferová, PhD.
Dissertation topic:

Challenges and Innovative Approaches to Sustainable and Responsible Management of Farms and Food Businesses in a Changing Environment

In the last three decades, global and Slovak agricultural and food enterprises have undergone robust changes, both in terms of socio-economic and in terms of agricultural policy, institutional environment, and the application of instruments. In the first decade, companies underwent the privatization of the entire production base, accompanied by the privatization of service industries and the food industry. After the accession of the Slovak Republic to the EU, free trade, and economic space, the food market was exposed to strong competition, which accelerated the process of reducing production space, especially in animal production. This was followed by a crisis of high food prices, a crisis of volatile price developments, which were replaced by a global pandemic, and all crises were accompanied by a negative impact of climate change on the yields of both crop and livestock production. Global food production has increased dramatically, industrialization and globalization have affected production methods and food systems, food chains have lengthened, shopping behavior has changed, food waste has increased. The expansion of food production and the growth of economic prosperity have taken a heavy toll on natural resources and the environment. These facts today seriously jeopardize the sustainability of food systems, at a time when, due to growing populations and conflicts, it is necessary to secure more food with limited resources. Global agriculture and food are facing the key challenges of the 21st century. It is a complex of environmental, geopolitical, technological-economic, and demographic-social challenges. The aim of the dissertation is to identify the global challenges facing agriculture and food enterprises and to point out trends and innovative approaches to the sustainable management of agricultural and food enterprises. Because only new approaches and tools of managerial work can lead to food production, strengthening food self-sufficiency, improving production, as well as increasing competitiveness in the agricultural sector. In order to meet the set goal, databases will be used and research will be carried out in order to obtain primary data on the situation in companies. Project: RAMONES-PL –2020-1-HU01-KA202-078738
Topic for applicants for full time and part time study.

Supervisor:
prof. h. c. doc. Ing. Natália Turčeková, PhD.
Dissertation topic:

Assessing the Potential of Digitization in Business Transformation

Digitization is more than just the acquisition of new IT equipment and systems. Openness to digital business transformation is essential to keep businesses competitiveness. The digital transformation of enterprises requires not only the implementation of digital technologies, but

also cross-cutting organizational changes, a movements in corporate culture and business models. The digital part of business transformation involves the transition from existing traditional systems to more efficient digital systems, thus improving several indicators of production, supply and other business functions such as increasing performance, cutting production and delivery cycles, increasing product quality and eliminating defectiveness, reducing waste, optimizing operating costs and more efficient supply chain management. The digital transformation varies depending on the specific requirements of each business entity and changes not only the way of operation the enterprises, but also the customer behavior. Based on the above knowledge, the main goal of the dissertation thesis is to identify the possibilities of assesing the potential of digital technologies in business transformation and based on the identification to design composite indicators to measure the extent of the digital economy and the potential of digital transformation in businesses. The solvability of the topic will be linked to various types of businesses with which the faculty will sign agreement of cooperation, so we will declare the application dimension of the dissertation thesis. The elaboration of the topic will also have a supportive educational character and will contribute to the creating of a new subject „Innovation and Innovative Economics“ at the doctoral level.
Topic for applicants for full time study.

INSTITUTE OF STATISTICS, OPERATIONS RESEARCH AND MATHEMATICS

Supervisor:
doc. Ing. Renáta Benda Prokeinová, PhD.
Dissertation topic:

Emission Production Factors and their Economic Impact on Agricultural Farms

The aim of the work is to examine the production of plant and animal production as the main producer of emissions. One of the basic preconditions for the sustainable development of the country is the reduction of air pollution. Gas emissions from agricultural activities have a significant impact on the environment. According to last year's report by the Intergovernmental Panel on Climate (IPCC), agriculture produces 23 percent of all emissions worldwide. Half of them are so-called direct emissions in the form of methane and nitrous oxide, which arise mainly as a result of livestock digestion. The rest is emissions generated by tillage, deforestation, food production and transportation, and food waste. The main producer of these gases is livestock breeding and the subsequent handling, storage, and application of organic waste - manure and liquid manure. As part of the research, a questionnaire will be conducted for agricultural enterprises focused on animal production in cooperation with the Research Institute of Animal Production Nitra in Lužianky. The research outputs will be compared with other countries where a similar survey has been conducted. Available official sources, international, national, and regional databases will be used in solving the dissertation. From the methodological point of view, econometric models, methods of multidimensional statistical analysis, and Monte Carlo simulations will be applied in the work. The dissertation will be part of the research project: "Data and knowledge support for decision-making and strategic planning systems in the field of adaptation of agricultural land to climate change and minimization of degradation of agricultural land" - acronym "URANOS"
The topic of the thesis is available for full-time and part-time applicants.