

Financial institutions, when determining the criteria for assessing the risk of transactions, select entities by excluding entities that do not meet the requirements specified by them from the availability of financial services. In turn, entities fulfilling the criteria, depending on the assessment of the level of transaction risk, conditioned by the degree of implementation of the criterion, are differentiated by financial institutions in terms of terms of service (including price, range of services, level of monitoring, legal repayment security, etc.). Criteria for assessing the risk of transactions change under the influence of economy changes. This is particularly evident in the conditions of "greening" the economy and social inclusion. These two phenomena referring to the environmental and social pillar of sustainable development strongly weigh on the necessity of extending the risk assessment criteria by financial institutions for the ESG risk (environmental, social, corporate governance). The demand for extending the risk assessment methodology with ESG components is emphasized by the Environmental Program Financial Initiative (UNEP FI), and the state of implementation of this postulate by financial institutions, depending on the country and institutions, remains at different levels of advancement.

The project aims to assess the decision criteria adopted by financial institutions in the process of transaction risk valuation in terms of the presence of ESG criteria and to diagnose the impact of including these criteria in the risk assessment process by financial institutions on business decisions, leading as a consequence to building new value in the form of a sustainable business model. Financial institutions, respecting ESG criteria, may take various actions affecting entrepreneurs, including completely excluding certain sectors from cooperation (e.g. dirty business representatives), diversify the cost of the service (most often the cost of obtaining financing), require additional security measures, or increase the frequency and scope of transaction monitoring. As a result of these activities, entrepreneurs may decide to carry out adaptation changes to allow better matching of the business model to the ESG criteria and thus increase the availability of financial services. As a result of the project, a multi-stage fuzzy control model will be designed to plan adaptation processes in enterprises in terms of increasing the sustainability of business models of enterprises and their coherence with the assumptions of the concept of sustainable development and ESG risk valuation used by financial institutions in the assessment of transactions. As a result, business models of enterprises will take into account the three-dimensional approach to creating value (economic, social and environmental value) and companies implementing such models will offset their exposure to ESG risk.

Applied research method / methodology: The diagnosis of the presence of ESG criteria in the process of transaction risk valuation and financing decision-making by financial institutions will be implemented using a cognitive map (planned participation of seven international experts). Dependencies illustrating the impact of including ESG risk in the decision-making process of financial institutions and the impact of this activity on building sustainable value in business models and adaptation processes on the part of enterprises will be diagnosed using meta analysis and panel data analysis. Business models will be analyzed in the extended Business Model Canvas layout. A survey using the interview technique (CATI) will diagnose the relationship between incorporation of ESG factors into financial institutions' decisions and the creation of sustainable business value (a survey for financial institutions and enterprises). Quantitative methods will be used to find the impact of the studied relationships. The project also assumes using multi-criteria methods (MCDA) to make decisions to assess financial institutions' decisions in terms of their inclusion of ESG risk in the process of risk evaluation and the effect of these decisions on the part of enterprises. The adaptation process in enterprises will be described using multi-stage fuzzy modeling. The research will cover banks, funds and rating agencies (on the side of financial institutions) and medium-sized enterprises on the side of the enterprise sector. Both financial institutions and enterprises will be selected in terms of fulfilling the CSR (Corporate Social Responsibility) criterion and experience in financing and implementing SRI (Socially Responsible Investments). The study is planned for a group of developed and developing countries.

The impact of the expected results on the development of science: The project is in line with the interests of economics and finance as well as management and quality sciences. The research will strengthen the theoretical achievements of both disciplines, particularly by defining the relationship between poorly recognized theories and the influence of financial institutions on entrepreneurs' decisions in the context of their business models. The research will allow us to discover the decision mechanism (financial institutions, entrepreneurs) determined by changes in the economy and the mechanism of building a balanced value initiated by impulses from the financial sector. The project will influence the understanding of the adjustment mechanisms triggered by changes in the assessment process and risk assessment. The result of the project will be a new theoretical and methodical framework showing the relationship between the ESG risk valuation at the level of financial institutions and the adjustment processes at the level of enterprises resulting in the creation of sustainable value in business models of enterprises.