

**Woman Entrepreneurship as a Form of Employment in the European Union**

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**Abstract**

This paper examines the position of women in the labor market and especially at the business field. Initially we define the concept of entrepreneurship and we distinguish this concept based on the sex of the entrepreneur. Then we present the conditions of women entrepreneurs and women unemployment in several countries of the European Union. We refer to the discrimination at the work place between the two sexes (vertical and horizontal). We present the value and need for women entrepreneurship, the differences between men and women regarding this concept, some characteristics of women entrepreneurs in the European Union and finally we present the European legal framework regarding this issue and the initiatives that the European Union offers to its member states to promote this concept among their women work force.

**Keywords:** Women Entrepreneurship, Discrimination, Unemployment, European Union

**Entrepreneurial Ecosystem**

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**Abstract**

The entrepreneurship ecosystem analysis represent the relationships between various factors which help or hold back the economic development, like leadership, human capital, or culture which influence entrepreneurship to the same extent finance and markets do. Economic macro-research findings show that a solid entrepreneurship ecosystem employs trusted leadership, financial and non-financial support to entrepreneurship, prospective international markets, capitalization of human resources and a strong culture of entrepreneurship. The interplays between all these domains determine people to take risk of becoming entrepreneurs and make regions and countries competitive on the global markets. Work objective is using Endeavour methodology to analyze the maturity of the ecosystem by assessing to what extent the entrepreneurs are inspired, financially and non-financially supported, mentored by others and also to what extent they trust and find incentives to invest in other businesses. To answer these questions we first created a tool (method) based on five pillars: Inspiration (source of inspiration for starting own business), Consultancy (source of consultancy / advice for starting own Business), Working Experience (years of work experience before starting own business), Mentorship (mentorship provided to other potential entrepreneurs), Investment (investment in new businesses). The study provides a general overview of the matter on how entrepreneurship continues to grow in Romania. The analysis undertaken in this study allows for subsequent inquiries into the matter and should be followed by more data interpretation and strategies to address the current inhibitors of the entrepreneurial ecosystem. The low value of the index shows that the entrepreneurial ecosystem hasn't reached yet its maturity during its evolution in the context following the fall of communist-led government in 1989. The entrepreneurs dissatisfaction with the quality of education and the sporadic and inefficient entrepreneurial education are slowing down the change, as the very low economic value added of micro-enterprises indicator show. Lacking entrepreneurial education and financial support, people choose to look for opportunities or employment abroad and therefore, inhibit the ecosystem development.

**Keywords:** Entrepreneurship, Ecosystem, Endeavour Methodology, Maturity of the Ecosystem

**RISK MANAGEMENT**

**Room:** SR 127 (3rd Floor)  
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**Fuzzy Multi-Period Optimization Models for Selecting an Institution's Project Portfolio Inclusive of Risks and Corporate Social Responsibility<sup>1</sup>**

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**Abstract**

The objective of this research is to develop the fuzzy multi-period optimization models for support of decision making while selecting a project portfolio in terms of strategic development program of an institution. In an increasingly uncertain environment the application of fuzzy-set approach seems to be promising. The approach implies the conversion of a verbal expert

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assessment of possible project impacts and emerging risks into fuzzy sets, followed by formulation and solution of fuzzy optimization problems. The institution's corporate social responsibility is manifested while objectives are set consistent with all stakeholders' interests. The allowance for risks is made under the portfolio theory by H. Markowitz using the scenario-based approach. Author uses a general per-unit utility function as a target function where fuzzy arguments are levels of the institution's strategic goals achievement as results of the project implementation over periods with allowance for the significance of objectives and the amount of present expenditures in the project. The utility of the project is assumed to depend on the manner in which levels of attaining strategic objectives increase across periods, while different objectives would preferably require a different pace of increase in their levels. It is also assumed that different structures for resource investment across periods will be preferred, therefore additional fuzzy resource constraints are introduced in models for each time period. The explicit definition of the fuzzy objective function is based on the previously proposed universal method for constructing the utility functions of an arbitrary number of variables (criteria) under any interrelations between criteria. All problem constraints are fuzzy. Fuzzy optimization problems are reduced to the crisp optimization problems that can be solved using standard methods. The use of the models introduced is illustrated on the example of the University.

**Keywords:** Program for an Institution's Strategic Development, Project Portfolio, Corporate Social Responsibility, Utility Function, Scenario-Based Approach, Fuzzy Models

### Barrier Option and Floating Barrier Option - Analysis of Delta Risk

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#### Abstract

High volatility of market conditions accounts for the increase in the risk of running a business, which, in turn, causes the rise in the demand for new financial instruments which insure the investors against the unfavorable price change of the underlying instrument. Barrier options are a unique instrument in risk management. Barrier options are a path-dependent options where the final value depends on whether the underlying instrument's price reaches a certain level to expiration time of option. There are two types of barrier options: knock-in and knockout barrier options. Knock-in options become activated if the underlying instrument's price crosses the barrier. Knock-out options become extinguished if the underlying instrument's price crosses the barrier. The objective of the paper is present the analysis of the impact of modification the payoff function (floating barrier) on the price and the delta risk of barrier options. The delta coefficient determines the effect of a change in the price of the underlying instrument on the option price. Therefore, analysis of the development of the values of the delta is of key importance in option risk management. This paper presents the properties of the floating barrier option: the instrument's structure, pay-off functions, the pricing model, the effect of a change in the value of selected factors (price of the underlying instrument, volatility of the price of underlying instrument, time to maturity and floating barrier) on the price of option and the value of the delta coefficient. The article also contains a comparative analysis of the properties of barrier options and floating barrier options. The empirical illustration included in the paper is concerned with the pricing simulations of the currency barrier options on EUR/USD. The floating barrier is factor that significantly influence on the option price and its sensitivity. The floating barrier options allow you to increase the precision of the security of the investment being implemented to the expected volatility of the price of the underlying instrument.

**Keywords:** Risk Management, Measures of Risk, Options, Derivatives

### Investment and Institutional Risks by Pension System

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#### Abstract

Institutions - a list of specific rules, requirements and practices. Institutional risks for pension institutions are the risks affecting the list of rules, laws and requirements, which is organized by the pension system. In this article we will consider the impact of institutional factors (in particular, management, and quality control) on the investment yield as a factor affecting the main indicators of funded pension systems. Problems of institutional factors are widely regarded in the academic economic literature, affecting the financial system, including the pension system. The analysis of the various approaches to the problem of institutional risks in the economic literature, revealed the terms and features of various points of view. When measuring the institutional factors which have an impact on pension systems, can be used special codes, directly or indirectly characterizing the legal systems of individual countries. The study analyzes these key points: analysis of existing approaches to the assessment of institutional risks; assessment of the value of institutional risks; and impact assessment of institutional risks on the pension system.

**Keywords:** Institutional Risks, Financial System, Pension System