

**Summary of the doctoral dissertation entitled:**  
*Effectiveness of financing innovation of enterprises*  
*with public funds in Poland on the example of the Łódź region*

The main purpose of the dissertation is to identify, analyze and evaluate the sources of financing innovations of enterprises with public funds in terms of their effectiveness. In addition to the above, the author also focuses on defining the concepts, assumptions and efficiency indicators in the aspect of financing innovation and their impact on the competitiveness of enterprises, as well as assesses the innovation policy in Poland in terms of the implementation of innovation support programs under strategic assumptions and available financial and non-financial instruments. The dissertation in question also includes the identification and analysis of public institutions financing and promoting innovation of enterprises in the Łódź region and determines the methods and sources of financing them, showing the level of their availability in the surveyed geographical area.

The doctoral thesis contains a basic hypothesis taking into account the assumption that the effectiveness of financing innovations in enterprises in the Łódź region is determined by the level of public funds. The author aims to verify the thesis decided in this way by means of auxiliary and partial hypotheses, relating to, among others, to the size, diversity, availability and effectiveness of financing innovativeness of enterprises and the impact of these factors on the development of competitiveness of the financed entities. The result of the dissertation is the verification and confirmation of the posed research theses.

The research problems outlined in this way were related to the questions formulated by the author as follows: 1) Do innovation support programs increase the competitiveness of innovative enterprises at various levels of public funding? 2) Do financial instruments and innovation support initiatives of Polish institutions effectively influence the increase in the level of innovation of enterprises? 3) Do the sources of public funding effectively affect the overcoming of barriers to the implementation of innovations by enterprises? 4) Does the innovativeness of enterprises in the Lodz region depend on financing innovation from public funds?

The result of the research and analyzes carried out in the dissertation positively verified the main research hypothesis and other detailed hypotheses, which allowed the author to determine that the effectiveness of financing innovation of enterprises in the Łódź region is determined by the level of public funds. In addition, it was confirmed that 1) the innovativeness of enterprises from the Łódź Voivodeship in the period 2006-2021 depended on public national funds, 2) the dynamics of the innovation index of service enterprises is higher than the dynamics of industrial enterprises, 3) based on the analysis of the level of innovation of service and industrial enterprises in the voivodeship different types of public funds on their innovation are visible, 4) the size and variety of sources of public financing for innovation of enterprises in the region of Lodz affect the increase in their innovation and competitiveness, 5) high diversity and availability of public funding instruments affect the scale of innovative activities in enterprises in the region 6) the level of use of public funds by innovative enterprises in the Łódź region depends on the possibilities and methods of institutional support.

The dissertation consists of an introduction, six chapters and a conclusion.

The first chapter presents the theoretical foundations of enterprise innovation. In this part, the author characterizes and differentiates the main concepts used in the dissertation, points to the typology and features of innovation and describes the risks, barriers and stimulators of innovation. This part also defines the innovative capacity, innovativeness of enterprises and its indicators. The chapter also addresses the issue of models and strategies of enterprise innovation based on the available literature and research.

In the second chapter, the author focuses on characterizing efficiency as an economic category, presenting methods for measuring the efficiency of public spending and methods for assessing financial and economic efficiency. This chapter also examines the relationship between the degree of effectiveness of financing innovation in enterprises and the factor of competitiveness.

The third chapter covers the general characteristics and objectives of enterprise innovation support programs. This part of the dissertation also contains a description of the basic assumptions of the European Union framework programs in the field of supporting innovation of enterprises and a detailed description of national programs in this field. The author also analyzes the regional and local policy related to the financing of enterprise innovation.

The fourth chapter presents institutions and financing mechanisms supporting innovation in enterprises, in relation to public and non-public bodies, units and entities whose main objective is to support innovation. As part of the matter outlined in this way, the author undertook to indicate the main directions of assistance for innovative activities of enterprises in Poland.

The fifth chapter concerns the sources of financing innovations of enterprises, taking into account the role and importance of own and external funds in their financing.

In the sixth chapter the author verifies the hypotheses using the research methods described in detail. The introduction to the above is the characteristics of enterprises and innovativeness of enterprises in the Łódź region. Subsequently the author undertakes an empirical analysis of the effectiveness of financing innovations of Polish enterprises in the Łódź region in the years 2006-2021. Furthermore research on the effectiveness of public funds for innovation of enterprises in the Łódź region and the results of the research survey conducted by the author are presented. The last part of this chapter includes an analysis of the opinions of public institutions supporting innovations of enterprises in the Łódź region.

The conclusion of the doctoral thesis includes a summary of the research carried out by the author and the verification of the resulting conclusions that have a direct impact on the research hypotheses. In this part, the author also presents recommendations based on the analyzes carried out in the field of supporting innovativeness of enterprises in the Łódź region.

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