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***Rola inwestycji w rozwoju mikro i małych  
przedsiębiorstw w Polsce***

Streszczenie pracy doktorskiej  
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## **Abstract**

The sector of micro and small enterprises (MSE) plays an increasingly important role in the economic system of Poland. In numerous publications, micro and small enterprises are considered the driving force behind the Polish economy. Micro and small enterprises account for 99% of all businesses in Poland and create almost 40% of Gross Domestic Product. Enterprises from the MSE sector exemplify a certain ideal entrepreneurship model. They are characterized by dynamism, flexibility and innovativeness. Investments are necessary conditions for growth in the potential of this sector. Hence, the main issue analysed in the dissertation is centred on diagnosis and evaluation of the investment level in businesses from the MSE sector, taking into account the spatial diversity of factors contributing to their development.

The study examines the determinants of investment which affect the development of the MSE sector, with special focus on investment in implementation of new technologies. The significance of this issue is emphasized by the increasing role of micro and small enterprises in the social and economic development of the country, bearing in mind the regional diversity of this sector, as well as limitations to acquisition of funds for development-supporting investments, including introduction of necessary modern technologies.

In accordance with the title of the dissertation, the empirical research presented herein covers the territory of the entire country, taking into account regional diversity at the level of administrative regions, that is provinces (NUTS 2 level in the EU statistics). The structure of the dissertation comprises two main parts – theoretical and empirical, which are strongly interconnected.

The primary objective of the dissertation is to recognize the importance of investments in the development of MSE in Poland, in particular investments in modern technologies, and to determine the investment's activity factors of these enterprises.

Eight detailed goals have been formulated to enable accomplishment of the major objective. Furthermore, three research hypotheses have been proposed and verified.

The first hypothesis predicts that the factors facilitating and hampering the development of enterprises through investments differ depending on the size of an enterprise (micro or small).

The above-mentioned hypothesis has been verified negatively. As demonstrated by the results of a structural similarity analysis, factors contributing to investments (the reasons behind them and the determinants affecting investment decisions), as well as factors hampering them (reasons for avoidance of investment expenses) are relatively similar in micro and small enterprises. Nevertheless, it should be noted that the structure of external factors affecting investment decisions is more similar between the analysed size categories of enterprises than the structure of internal factors. Therefore, it can be concluded that micro and small enterprises perceive and react to changes in their environment in a corresponding way, but they differ more intensely in terms of their organizational capacity and resources. The aforementioned features can be reflected directly in the investment potential of the discussed businesses.

According to the second hypothesis, enterprises located in regions of higher level of economic growth are characterized by a larger potential for investment. This hypothesis has been verified partially positively. As demonstrated by the analyses carried out, in 2018, a correlation was observed between a growth level of a region and investment potential of enterprises located therein. Correlation coefficients between a place in the MSE investment potential ranking and GDP per capita in regions have negative values ranging from (-0.571) to (-0.497). It means that there is a moderately high negative correlation between the variables analysed. The negative direction of the correlation indicates that the higher the place of a province in the ranking (1<sup>st</sup> place is the highest, 16<sup>th</sup> place is the lowest), the higher its growth level.

The third hypothesis predicts that investments in new technologies made by small and micro enterprises are more frequent in regions of higher level of economic growth..

The hypothesis has been verified negatively. A region's economic growth level, described by GDP per capita, does not correlate significantly with any of the examined indicators of MSE innovativeness: investment in product and process innovation, creation of digital products and services, application of modern technologies in operational activity and commerce. The correlations between the above-mentioned indicators and GDP per capita are typically weak or very weak.

The dissertation has been prepared on the basis of the research methods and techniques commonly used in the social and economic sciences:

- A critical analysis of literature on the subject in the area of: theory of economics, investment, entrepreneurship and contemporary digital technologies.

- An analysis of secondary material available in databases: statistical data of the Central Statistical Office (GUS), Reports of Pekao SA Bank (*Report on the Situation of Micro, Small and Medium-Sized Enterprises in Poland in 2019*, *Report on the Situation of Micro and Small Enterprises in Poland in 2017* and *Report on the Situation of Micro and Small Enterprises in Poland in 2014*), as well as reports and expert opinions of specialist institutions.
- Statistical methods (descriptive statistics, structural comparative analysis, taxonomic method, correlation analysis, covariance analysis (ANCOVA)).

The structure of the dissertation corresponds to the research objectives and hypotheses presented above. The dissertation comprises five chapters, introduction, conclusion and a list of literature, drawings, graphs, tables and abstracts.

Chapter 1 presents the historical evolution of the categories of an enterprise and entrepreneurship, as well as the evolution of entrepreneurship theory. The meanings of an enterprise and entrepreneurship are described from the perspective of various researchers, with reference to the theories of R. Cantillon, J.B. Say, R. Griffin, J. Schumpeter, P.F. Drucker, A. Noga. Furthermore, the chapter contains an analysis of the position of an enterprise in the economic growth theories of A. Smith, D. Ricardo, J.M. Keynes, J. Schumpeter, P. Romer. The chapter is concluded with a description of a perspective on an enterprise in the regional development theories of F. Perroux, A.O. Hirschman and J. Friedmann. In this chapter, a part of the first detailed goal of the dissertation is attained (presentation of theoretical achievements of macro- and microeconomics with respect to entrepreneurship).

Chapter 2 presents investment as a tool of economic growth. The essence and types of investment are described. Next, investment is discussed from the perspective of economics as a significant category analysed both on the macroeconomic and microeconomic level. In a further part of the chapter, factors determining the level and direction of investment are classified and sources of investment financing are enumerated. The last issue discussed in this chapter is investment from the perspective of selected models of economic growth. On the basis of literature review, it is possible to achieve the second part of the first detailed goal specified in this dissertation (presentation of theoretical achievements of macro- and microeconomics with respect to investments, with special emphasis on investment in modern digital technologies).

The specific features and determinants of development of the MSE sector are presented in Chapter 3. The first part of the chapter describes the notion and features of enterprises from the MSE sector and their place in the small and medium-sized enterprise sector. Then, internal and external determinants of the sector's development are presented. The importance of modern technologies in the development of enterprises is discussed, with special focus on the potential of the internet. Next, the significance of institutions for support of the MSE sector development is described and types of business surroundings institutions operating in Poland are presented. In this chapter, the second detailed goal of the dissertation is attained – presentation of determinants and directions of development of the MSE sector from the theoretical perspective.

Chapter 4 has an empirical character and its content serves to achieve the detailed goals 4-6. At the beginning of the chapter the characteristics of the micro and small enterprise sector in Poland are presented, with special emphasis on the role of investments in the development of the sector. On the basis of available source materials, an analysis of investment level and dynamics in the Polish MSE sector is discussed. This is followed by a presentation, based on the results of the analysis, of investment structure, sources of investment financing and limitations to obtaining investment funds by the MSE sector. It is examined whether determinants of investment decisions differ depending on the size of an enterprise (micro or small) and whether a growth level of a region determines the investment potential of enterprises located therein.

Chapter 5, the final one, aims to present investment in modern technologies in the context of MSE development. The chapter discusses various dimensions of innovativeness of enterprises: investment in product and process innovation, creation of innovative solutions and the present status of using the potential of digital technologies in the current operation of MSEs. A correlation is examined between particular dimensions of innovativeness and a growth level of the regions where the enterprises are functioning. On the basis of the analyses carried out it is possible to achieve the 7<sup>th</sup> detailed goal of the dissertation. A further part of the chapter presents sources of support for investment in modern technologies and evaluation of fulfilment of investment needs among entrepreneurs from the MSE sector. Moreover, the chapter presents the EU funding programmes for investments in modern technologies. As a result of this discussion, it is possible to formulate recommendations given in the conclusion and hence to attain the 8<sup>th</sup> research goal of the dissertation.

The conclusion presents the author's synthesis of the results of the analyses carried out in particular chapters, as well as recommendations for representatives of the MSE sector, business surroundings institutions and other interested parties.

The key conclusions from the research conducted by Pekao SA Bank indicate that the micro and small enterprises make use of the market boom period, which is confirmed by a high percentage (52%) of businesses from the MSE sector implementing investment projects in 2019. This is a record indicator in the 10-year history of research on micro and small enterprises, conducted by Pekao SA Bank. The most important reason behind the implementation of innovative projects among the examined MSEs is to enhance effectiveness of their operation. The main sources of investment financing in the examined MSEs are their own funds, used by 87% of micro enterprises and 79% of small enterprises. On the other hand, lease is the most important external source of investment expenditure funding.

Such a financing structure proves that small companies first use the most accessible instruments that do not require advanced financial knowledge. On the other hand, the requirements for lessees are less stringent than for borrowers. Moreover, small enterprises, due to a short market history or small scale of their operations, may not be a reliable capital-taker and may not have the creditworthiness required by banking law. Limited access to repayable financing is one of the problems limiting the development of the MMP sector. It should be noted, however, that as part of the implementation of the policy of supporting small entrepreneurs, local and regional loan funds and credit guarantee funds were launched to facilitate access to external funds for this group of entities.

The results of the analysis of economic indicators show that along with the decline in GDP per capita, the number of enterprises per 1000 inhabitants also decreases. When assessing this saturation against the background of GDP per capita characterizing individual voivodships, it should be stated that in the regions achieving a higher than the national average indicator, there are also higher MSE saturation indicators.

With respect to investment in new technologies, 80% of the examined micro and small enterprises confirm that the expenditure on modern technologies resulted in an increased competitiveness on the market.

The examined businesses from the MSE sector do not make use of digital technologies sufficiently, which prevents their dynamic development and foreign expansion. They do

not create enough digital products or services, and do not rely on the solutions of computational cloud, big data analysis, or e-commerce. On the other hand, there are positive signs with respect to the application of digital technologies. The examined young businesses from the MSE sector (less than 3 years on the market) make use of new technologies much more eagerly and frequently than the companies with a longer history on the market, and they introduce innovative solutions from the beginning of their operation. Furthermore, 88% of the examined micro and small enterprises use online banking services, whereas 44% of MSEs use mobile banking.

This small percentage of enterprises using modern technologies may result from two issues. First, small businesses often lack the intellectual resources to find an effective application for this type of complex tool. On the other hand, these are relatively expensive solutions that do not constitute “first need” investments.

In the context of the development of innovation - as the research conducted by the author has shown - it is worth putting more emphasis on the cooperation of the MMP sector with large entities. The prospect of close cooperation of micro and small enterprises with large companies is an element that mobilizes and pushes the MMP sector to development. Possibilities of increasing innovation of micro and small companies are also possible through platform solutions. It is particularly interesting to use online platforms, e.g. sales platforms, in order to conduct direct transactions between producers, suppliers and customers, which largely reduces the costs of running a business. For the Polish market, this is a particularly promising direction, due to the large potential of the MMP sector and the difficult possibilities of financing the company's entry into the market and promoting its own innovative projects.

In order to meet the challenges of a rapidly changing market, it is necessary to increase investment activity and innovation in the activities of entities from the MMP sector. Research on the importance of investments and innovations in the development of micro and small enterprises in Poland bring many interesting conclusions and comments and should be continued.

