

Rachunkowość w zarządzaniu jednostkami gospodarczymi



» » » Magdalena Kogut-Jaworska

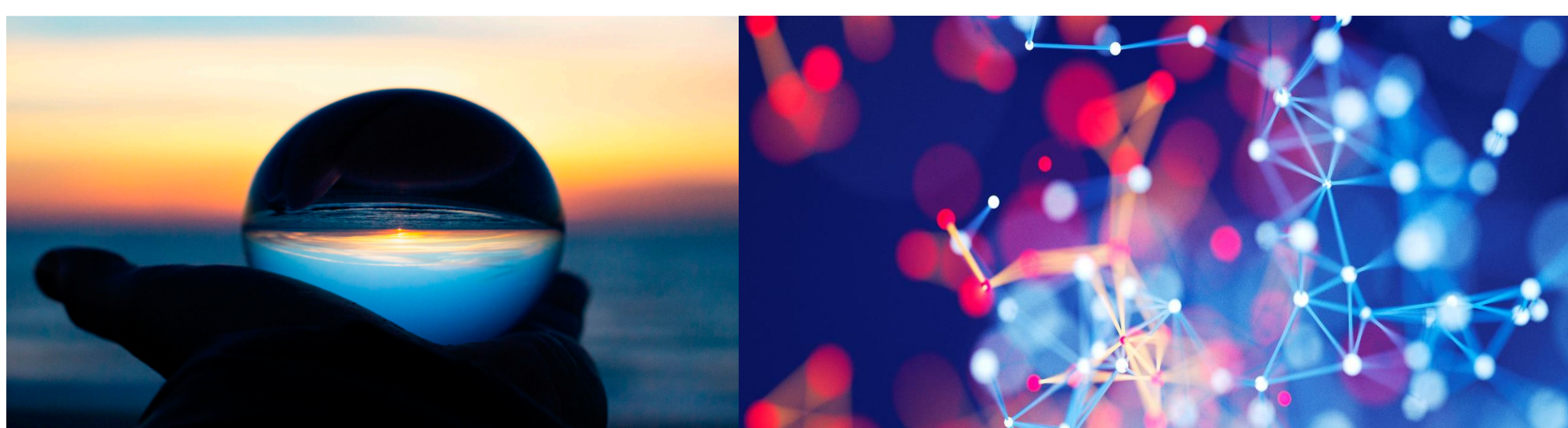
» Instruments for financing renewable energy technologies within the framework of smart specialisation (RIS)

Introduction

The current structure of public support under regional financing instruments for renewable energy technologies focuses most of its efforts on the system of financing enterprises under operational programs. The financial support system for the purchase of new technologies by enterprises is becoming insufficient in the context of the need to build an entire ecosystem of links between enterprises, public administration, and business environment institutions. Public measures should create a favorable environment for innovation, stimulate research and development, and promote rapid technological challenges. In light of the above, it is interesting to analyze key forms of enterprise financing, which, using the example of enterprises in the renewable energy technology sector, will highlight the most important decision-making challenges in the near future.

Purpose and need for research

The study identifies and analyzes the forms, effects, subject matter, and scope of the existing financial support system in terms of its impact on the development of renewable energy technologies. The aim of the study is to formulate conclusions and provide knowledge on current decisions regarding measures taken in the regions to develop new technologies, with particular emphasis on the importance of building innovation potential (RIS strategies). Changes taking place in the environment of modern enterprises, related to constant competitive struggle, force a change in the way we look at existing standards of public management and generate new challenges in this area. In the context of the defined research objective, which is to assess the importance of public decisions and actions in the development of innovation in enterprises implementing RES technologies within the framework of so-called smart specializations, it should be noted that enterprises implementing new technologies recognize the need for continuous verification and updating of existing financial support instruments.



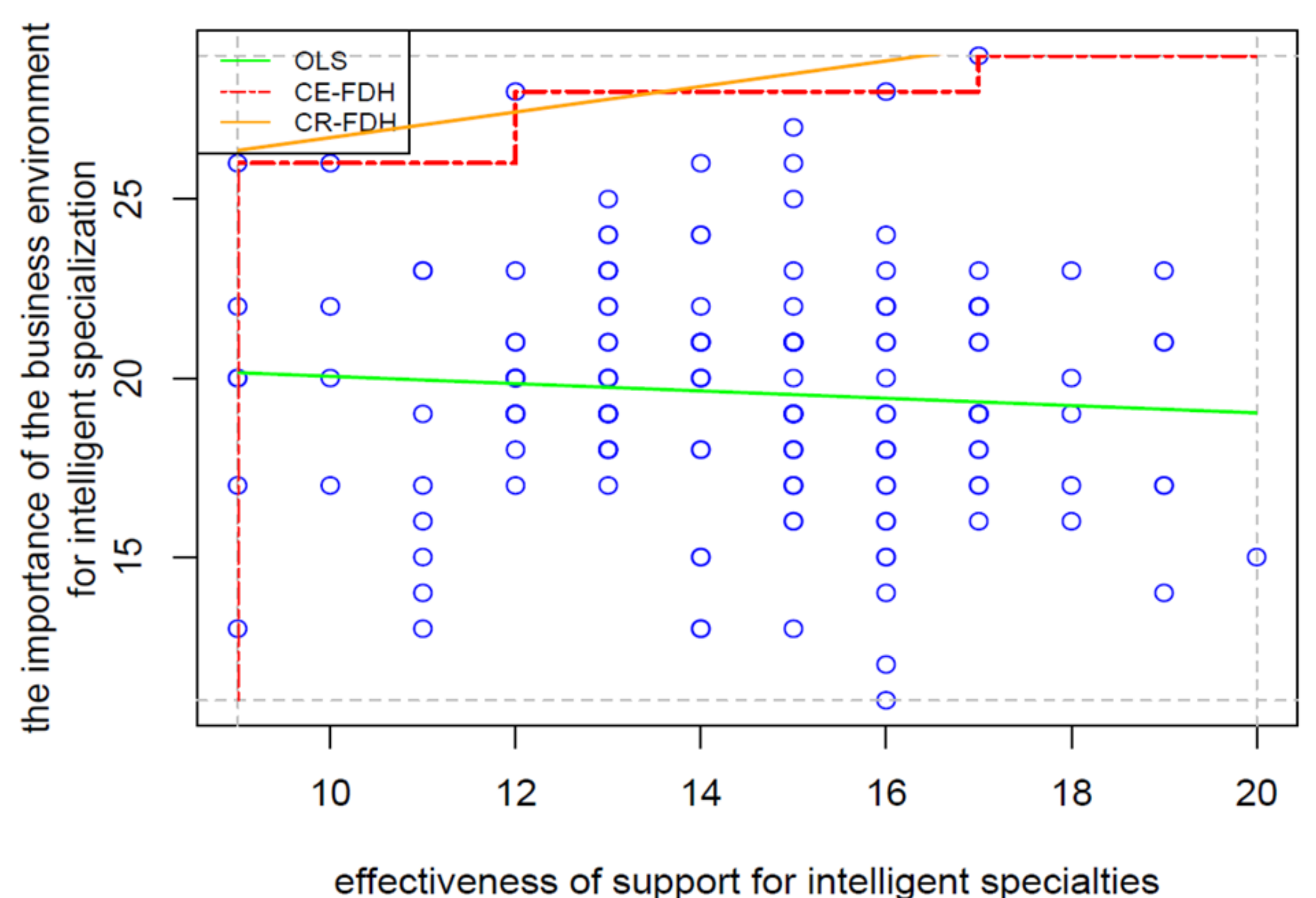
Methodology

The study used logistic regression, which is a statistical analysis method used to model the probability of a binary event occurring. The purpose of using this type of regression was to identify and assess the significance of the conditions affecting the results of the companies surveyed. The data was collected during a study using CATI (Computer-Assisted Telephone Interview) and CAWI (Computer-Assisted Web Interview) techniques. The survey consisted of a total of 12 closed and semi-open questions, which were either single or multiple choice. The database was created for the purposes of the study and contained 200 records. During the survey process, it was expanded by 50 records in order to achieve the desired number of respondents, i.e., n=150 business entities representing the energy sector (according to PKD) operating in industries related to hydrogen technologies. The research sample was selected from data contained in the Kompas International and Business Navigator databases (the databases indicated contained data on companies from all over Poland).

Results

The assessment of the effectiveness of the forms of support offered within smart specializations from the point of view of meeting the needs of the enterprise was the subject of the study. Visualization of the results of the effectiveness of support for smart specializations (X1) vs. the importance of the business environment for smart specializations (Y) with fit lines using the OLS, CE-FDH and CR-FDH methods is presented below.

The survey shows that subsidies, financial instruments and expert and advisory services are perceived as moderately effective (average 3.00), with some enterprises rating them as more effective (upper quartile of 4.00). However, vouchers for specialised services seem to be perceived as less effective (lower quartile at 1.00), suggesting that some enterprises may experience difficulties in effectively using these support instruments in their activities.



Source: own work

Conclusions

It should be noted that there is moderate satisfaction with the current forms of financing RES technologies, and in particular significant variability in the perception of their effectiveness, which may indicate the heterogeneity of companies' needs and expectations. Further analysis is needed to identify and understand the reasons why some companies consider certain tools to be very effective, while others have a different opinion on the matter. For example, vouchers for specialized services are considered ineffective by companies in the hydrogen technology sector, while in other sectors vouchers are perceived quite positively. The quartile values presented in the study indicate the possibility of obstacles to accessing or using support, which may also require special attention in order to increase the effectiveness of the instruments offered. In order to increase effectiveness, organizations managing aid programs need to conduct a thorough review and adapt their tools to the specific needs of different groups of entrepreneurs.

KONTAKT

University of Szczecin, Institute of Management, Faculty of Economics Finance and Management; magdalena.kogut-jaworska@usz.edu.pl

Acknowledgements:

Co-financed by the Minister of Science under the "Regional Excellence Initiative"

