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INNOVATION PRACTICES OF ENTERPRISES LOCATED IN RURAL AREAS OF LUBELSKIE VOIVODESHIP

DZIAŁALNOŚĆ INNOWACYJNA PRZEDSIĘBIORSTW ZLOKALIZOWANYCH NA OBSZARACH WIEJSKICH WOJEWÓDZTWA LUBELSKIEGO

Key words: innovation practices, enterprises, rural areas, Lubelskie Voivodeship

Słowa kluczowe: działalność innowacyjna, przedsiębiorstwa, obszary wiejskie, województwo lubelskie

Abstract. The main objective of this paper is to evaluate the innovative behavior of enterprises located in rural areas of Lubelskie Voivodeship. The results presented and the analysis are based on the research project entitled "Intellectual Capital of Lublin Region 2010-2013." It was conducted by the Statistical Office in Lublin at the request of the Marshal Office in Lubelskie Voivodeship under Priority VIII Regional Human Resources, Measure 8.2 Transfer of Knowledge, Sub-Measure 8.2.2 Regional Innovation Strategies of the Human Capital Programme for the years 2007-2013. An analysis of research shows that the innovation of enterprises in the region of Lublin is at a very low level. An unfavorable phenomenon is the low share of foreign capital in the financing of expenditure, as well as a small degree of cooperation between research institutes and enterprises located in rural areas.

Introduction

A precursor of innovation is considered to be Schumpeter [1960], who drew attention to the introduction of significant changes in production and new combinations of means of production. Drucker [1992] was referring to innovation when he stated: "that which changes the possibilities of using the resource to create wealth is an innovation. Currently, the most commonly used pattern has been developed by the OECD and Eurostat. Following this methodology innovations are classified as: 1) product innovation, which includes the launch of new or improved products, i.e. the technical parameters of which and application differ significantly or have been largely improved compared to previously manufactured products; 2) process innovation, i.e. involving the use of new or significantly improved production methods; 3) organizational innovation including organizational changes in the sphere of organization and 4) marketing innovations [Żmija 2013].

The innovation practices of enterprises have been examined in the paper according to the division mentioned above. The main aim of the paper is to study the forms of innovation implemented by entrepreneurs, entrepreneurs' motives for introducing innovation, financial sources for innovation expenditures and the forms of cooperation with R&D units in enterprises located in rural areas of the Lubelskie Voivodeship.

According to the Innovation Union Scoreboard [Hollanders 2013] Poland, together with Latvia, Bulgaria and Romania, is among modest innovators[1] with the lowest level of innovation performance, comparing to other European Union countries. In Poland, between the years 2008-2012, the lowest positive innovation growth rate (0.4%) was recorded and the innovation index has worsened comparing to other countries. Poland has dropped from the group of moderate innovators to the worst group of modest innovators. Since the launch of the Europe 2020 strategy, Poland has recorded a negative innovation growth rate (-1.3%). Innovations of enterprises, especially small and medium ones, are a very important component of the Innovation Summary Index [Hollanders 2013].

[1] There are four groups of innovators among EU countries: Innovation Leaders, Innovation Followers, Moderate Innovators, Modest Innovators.

Innovativeness can be understood in the context of enterprise and entrepreneurship as assessing commitment and activities for the benefit of innovation at the level of companies. The task of any company should be aimed at strengthening its competitive position. Innovation determines the competitiveness of an enterprise i.e. the ability to remain on the market. [Kijek 2012, Matras-Bolibok 2014, Pomykalski 2008]. In rural areas most existing enterprises belong to the SME sector. Entrepreneurship in rural areas is growing quite slowly, as operators work in much more difficult conditions than in large urban areas [Kłodziński 2013]. However, entrepreneurs are agents of change, who recognize opportunity, mobilize resources and create value. They are key to the creation of institutions and the building of capacity that will sustain regional economic development. Entrepreneurs can transform local communities [Feldman 2014]. This was the reason for conducting this research.

Research material and methodology

The research was realized in the year 2013 on a representative sample of 650 companies from the province of Lublin, drawn from the National Official Business Register (REGON, Central Statistical Office). An additional criterion for selection was the proportion of companies registered in the province, with the division into small, medium and large companies, taking into account the specific ratio of each county.

133 companies located in rural areas of Lubelskie Voivodeship were selected from the database to be analyzed, which accounted for 20.46% of the sample test. The companies consisted of small entities, employing between 10-49 employees (51.9%), medium – employing more than 50 employees accounted for 24.1% and large above 250 – 3.8%. The share of micro enterprises was 20.3%. Most companies were involved in production (41.4%), followed by services (27.1%), trade (23.3%) and other activities (8.3%). The private sector, accounted for 89.5%. Most companies were operating in the market for over 10 years – 82%. Only 5.3% of companies were founded in the last three years. A large part of the surveyed enterprises located in rural areas declared a willingness to grow, most in the services sector. A high degree of technological advancement, according to the declaration of the surveyed firms, was present in 12.8% of companies, medium – high – 50.4%, low – 30.1% and very low in 6.8% firms.

Research results

Approximately three quarters of companies in each sector of activity – trade, services, and manufacturing did not introduce any innovation in the last year, as illustrated in Figure 1.

Among the most common implemented innovation was the introduction of new products and modernization of existing products. The service sector was the leader there (Tab. 1). Equally popular was the implementation of new technologies – 57.9% firms from the production sector

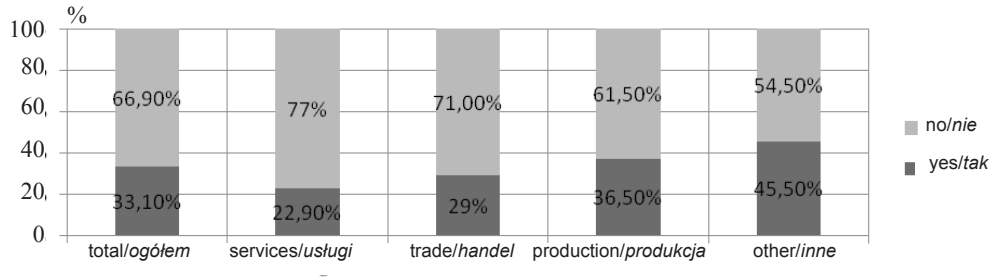

Figure 1. Implementation of innovation by a company in the last year
Rysunek 1. Wdrożenie innowacji przez przedsiębiorstwo w ciągu ostatniego roku
Source: own calculation based on a questionnaire
Źródło: opracowanie własne na podstawie badań ankietowych

Table 1. Form of implemented innovation
Tabela 1. Forma wdrażanych innowacji

Specification/*Wyszczególnienie*	Form of implemented innovation/ *Forma wdrażanych innowacji [%]*				
	total/ *ogółem*	service/ *usługi*	trade/ *handel*	production/ *produkcja*	other/ *inne*
Improvement, modernization of existing products/ *Udoskonalenie, zmodernizowanie dotychczasowych produktów*	34.1	62.5	-	42.1	20.0
Introduction of new products/ *Wprowadzenie nowych produktów*	56.8	87.5	33.3	63.2	20.0
Implementation of new technologies *Wdrożenie nowych technologii*	45.5	37.5	44.4	57.9	40.0
Introduction of new applications for existing technologies / products / services/*Wprowadzenie nowego zastosowania dla dotychczasowych technologii/produktów/usług*	13.6	37.5	6.0	15.8	-
Changing the method of distribution of products / services/*Zmiana sposobów dystrybucji produktów/ świadczenia usług*	6.8	12.5	22.2	-	-
Improvement / modernization of the organization's management process/*Udoskonalenie/modernizacja procesu zarządzania organizacją*	18.2	25.0	11.1	15.8	40.0
Improvement / modernization of the production process/*Udoskonalenie/modernizacja procesu produkcyjnego*	34.1	25.0	11.1	52.6	20.0
Introduction of a new design of manufactured products/*Wprowadzenie nowego wzornictwa wytwarzanych produktów*	9.1	-	11.1	10.5	20.0
Introduction of a new trade mark / brand on the market/*Wprowadzenie nowego znaku towarowego/ marki na rynek*	6.8	-	11.1	10.5	-
Other/*Inne*	4.5	-	-	-	40.0

Source: own calculation based on a questionnaire
Źródło: opracowanie własne na podstawie badań ankietowych

implemented this kind of innovation. Much less popular was the introduction of new applications for existing technologies, products and services as shown in Table 1. The research showed a very low interest in marketing innovations such as changing the method of distribution of products or the introduction of a new trade mark, brand on the market.

An important motive for implementing innovation was to maintain or increase market share as well as the acquisition of new markets (Tab. 2). The surveyed companies often reported a desire to improve the quality of goods and services. There was not much interest in reducing the costs of providing the services or products. There was a lot of interest in increasing labour productivity. Companies had very low motivation to support sustainable rural development such as for example reducing the harmful effects of company activities on human health. Among respondents in the trade sector there was no motivation to improve safety at work or to keep formal and legal requirements.

The surveyed companies benefited very little from different types of external financing, mainly relying on their own capital. This is not a favorable situation because innovation requires large financial outlays. European Union Funds supported the implementation of innovation in the manufacturing sector to a great extent (Tab. 3).

Table 2. Motives of introduction of innovation
Tabela 2. Motywy wprowadzania innowacji

Specification/*Wyszczególnienie*	Motives of introduction of innovation/*Motywy wprowadzania innowacji [%]*				
	total/ *ogółem*	service/ *usługi*	trade/ *handel*	production/ *produkcja*	other/ *inne*
Improving the quality of goods and services/ *Poprawa jakości towarów i usług*	68.2	87.5	77.8	52.6	40.0
Maintaining position on the market/*Utrzymanie pozycji na rynku*	54.5	87.5	44.4	47.4	100.0
Increase in market share/ *Zwiększenie udziału w rynku*	45.5	62.5	22.2	57.9	60.0
Acquiring new markets/ *Zdobycie nowych rynków zbytu*	54.5	50	55.6	63.2	40.0
Reducing the costs of providing the services / products/*Zmniejszenie kosztów świadczenia usług/ produktów*	29.5	25	22.2	31.6	4.0
Increasing labour productivity/ *Zwiększenie wydajności pracy*	36.4	25	33.3	42.1	4.0
Reducing the harmful effects of the company's activities on human health and the provision of services/*Ograniczenie szkodliwego wpływu działalności przedsiębiorstwa na ludzkie zdrowie oraz świadczenie usług*	6.8	12.5	-	10.5	-
Improving safety at work/*Zwiększenie bezpieczeństwa pracy*	13.6	25.5	-	21.1	-
Formal and legal requirements/ *Wymogi formalno-prawne*	11.4	25.5	-	10.5	20.0

Source: own calculation based on a questionnaire
Źródło: opracowanie własne na podstawie badań ankietowych

Table 3. Sources of innovation expenditure
Tabela 3. Źródła nakładów na innowacje

Specification/*Wyszczególnienie*	Sources of innovation expenditure/ *Źródła nakładów na innowacje [%]*				
	total/ *ogółem*	service/ *usługi*	trade/ *handel*	production/ *produkcja*	other/ *inne*
Equity capital, earnings/*Kapitał własny, zysk*	84.1	100	77.8	89.5	6.0
Bank loan/*Kredyt bankowy*	29.5	12.5	33.3	36.8	20.0
Bank loan with guarantee fund/*Kredyt bankowy z funduszu poręczeniowego*	-	-	-	-	-
Loan fund/*Fundusz pożyczkowy*	-	-	-	-	-
Leasing/*Leasing*	6.8	12.5	11.1	5.3	-
Issue of shares, bonds/*Emisja akcji, obligacji*	-	-	-	-	-
The programme financed from national funds/ *Program finansowany ze środków krajowych*	4.5	-	-	5.3	-
EU funds/*Środki UE*	27.3	12.5	33.3	31.6	20.0
Other/*Inne*	2.3	-	-	-	-

Source: own calculation based on a questionnaire
Źródło: opracowanie własne na podstawie badań ankietowych

In the Lublin Region there are important research and development centres and science and technology parks such as: the Centre of Innovation and Research Results Commercialization of Maria Curie-Skłodowska University in Lublin, Centre for Innovation and Advanced Technologies of the Lublin University of Technology, Foundation of the Polish Academy of Science – Branch in Lublin, Central Instrument Laboratory of the University of Life Sciences and Centre for Innovation and Technology Transfer [Betlej, Grabczuk 2013].

The vast majority of companies surveyed (80.5%) did not cooperate with R&D institutions. In business sectors, the best co-operation with R&D was observed in the manufacturing sector (30.8%). In the trade sector, only 11.1% of respondents declared cooperation with R&D institutions and just 8.6% in services.

Among forms of cooperation with R&D units the most popular was the ordering of expertise. In trade and service sectors 100% of companies asked experts for cooperation of highly qualified personnel (Tab. 4).

Table 4. Forms of cooperation with R&D units
Tabela 4. Formy współpracy z jednostkami B+R

Specification/*Wyszczególnienie*	Forms of cooperation with R&D units/ *Formy współpracy z jednostkami B+R [%]*				
	total/ *ogółem*	service/ *usługi*	trade/ *handel*	production/ *produkcja*	other/ *inne*
Participation in consultation/*Udział w konsultacjach*	23.1	33.3	-	18.8	40.0
Order of expertise/*Zamówienie ekspertyzy*	53.8	100.0	100.0	50.0	20.0
Outsourcing developing new products or technologies/*Zlecanie opracowania nowych produktów lub technologii*	19.2	33.3	-	18.8	40.0
Using the research equipment/*Korzystanie z aparatury badawczej*	15.4	-	-	25	-
Outsourcing of technology audits/*Zlecanie audytów technologicznych*	19.2	-	-	25	20.0
Other/*Inne*	11.5	-	-	6.3	20.0

Source: own calculation based on a questionnaire
Źródło: opracowanie własne na podstawie badań ankietowych

Conclusions

Conclusions from the research may be drawn. Firstly, enterprises located in rural areas of the Lubelskie Voivodeship showed very little interest in innovativeness. Secondly, a very low degree of cooperation between enterprises and research institutes was observed, despite the considerable potential of these institutions in the Lublin region. Thirdly, small and medium-sized enterprises, which dominated the survey sample, primarily used equity capital. External financial funds, were used to a lesser extent. The reasons for this are that on the one hand there may be a reluctance to take risks among SMEs, on the other hand, there is a weakness of financing institutions in the region.

Enterprises can have an aversion to risk because most of them have been functioning on the market for more than ten years. Companies may believe that their ongoing method of operation will be sufficient in the future. Paradoxically, it must be stated that it is the lack of innovation that can constitute a threat to the development of an enterprise.

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Streszczenie

Celem badań była ocena zachowań innowacyjnych przedsiębiorstw zlokalizowanych na obszarach wiejskich województwa lubelskiego. W analizie wykorzystano wyniki badań kwestionariuszowych przeprowadzonych przez Urząd Marszałkowski w Lublinie w ramach projektu „Kapitał intelektualny Lubelszczyzny 2010-2013" PO „Kapitał Ludzki" współfinansowanego przez Unię Europejską z Europejskiego Funduszu Społecznego, priorytetu 8. „Regionalne kadry gospodarki", działania 8.2. „Transfer wiedzy", poddziałania 8.2.2. „Regionalne Strategie Innowacji". Analiza wyników badań wskazuje, że innowacyjność przedsiębiorstw regionu Lubelszczyzny była na bardzo niskim poziomie – niewiele przedsiębiorstw zadeklarowało wprowadzenie innowacji w 2013 roku. Niekorzystnym zjawiskiem był niski udział kapitału obcego w finansowaniu wydatków inwestycyjnych, mały stopień współpracy instytutów badawczych z przedsiębiorstwami zlokalizowanymi na obszarach wiejskich.

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