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## **DEVELOPMENT POTENTIAL OF MICRO, SMALL AND MEDIUM ENTERPRISES AS EVALUATED BY "RESEARCH VOUCHER" PROJECT BENEFICIARIES**

### **MOŻLIWOŚCI ROZWOJU PRZEDSIĘBIORSTW MIKRO, MAŁYCH I ŚREDNICH WEDŁUG OCENY BENEFICJENTÓW REALIZUJĄCYCH PROJEKT „VOUCHER BADAWCZY”**

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**Streszczenie.** Istotną rolę w sferze gospodarczej odgrywa sektor MŚP, który stymuluje wzrost gospodarczy kraju poprzez m.in. tworzenie nowych miejsc pracy, aktywizację procesów innowacyjnych, unowocześnianie procesów przemysłowych. W tym celu wykorzystano ważny dla regionu program pilotażowy w województwie kujawsko-pomorskim „Voucher badawczy”, realizowany w ramach działania 5.4 regionalnego programu operacyjnego województwa kujawsko-pomorskiego na lata 2007–2013. Przeprowadzono badania wśród przedsiębiorstw, które otrzymały dotacje na współpracę z jednostką naukową z projektu „Program pilotażowy w województwie kujawsko-pomorskim Voucher badawczy”. Badano opinie beneficjentów na temat tego programu w województwie kujawsko-pomorskim w kontekście możliwości wdrażania innowacji, finansowania przedsięwzięć, oceny współpracy z uczelnią, a także uzyskania wiedzy na temat kanałów dystrybucji informacji o projekcie. Badania wskazały, że źródłem wiedzy o projekcie były informacje uzyskane z Kujawsko-Pomorskiego Związku Pracodawców i Przedsiębiorców, który jest twórcą projektu. Przedsięwzięcie badawcze było ważne lub bardzo ważne dla większości firm, które realizowały strategiczny rozwój produktów lub procesów, eksperyment w zakresie badania możliwości rozwojowych firmy lub których celem było nawiązanie współpracy z uczelnią czy innymi partnerami.

**Key words:** development, project „Resarch Voucher”, product innovation, regional policy.

**Słowa kluczowe:** rozwój, projekt „Voucher badawczy”, innowacje produktowe, polityka regionalna.

## **INTRODUCTION**

As in most EU countries, the SME sector in Poland is crucial for the country's economy, especially that SMEs account for 99.8% of the total number of enterprises in Poland. The SMEs include one-person companies, partnerships, joint-stock companies, and public limited companies. Many of the SMEs are family businesses, managed solely by the owner and, as such, cannot be considered corporate entities. However, there are also many large businesses based in the Kuyavian-Pomeranian province, and the region is predominantly industrial. It is home to food industry producers, paper mills, chemical plants, heavy machinery providers, and of course has a cultural side, with a number of libraries, archives

and museums located in the region (Analiza atrakcyjności inwestycyjnej województwa kujawsko-pomorskiego, <http://coi.kujawsko-pomorskie.pl/zalaczniki/>).

The region is also noted for its dynamic R&D activity; the Haffer (2008) research demonstrates that internal investment in R&D have placed the province in the middle of a nationwide ranking (Table 1).

Table 1. Internal investment in R&D activity [mln PLN]

| Province                    | [mln PLN] |
|-----------------------------|-----------|
| Masovia                     | 2322.8    |
| Lesser Poland               | 731.9     |
| Silesia                     | 438.5     |
| Greater Poland              | 435.5     |
| Lower Silesia               | 346.5     |
| Lodz                        | 320.5     |
| Pomerania                   | 288.7     |
| Lublin                      | 182.9     |
| Kuyavia-Pomerania           | 114.7     |
| Subcarpathia                | 111.6     |
| West-Pomerania              | 70.0      |
| Varmia-Masuria              | 66.2      |
| Podlasie                    | 61.4      |
| Lubus                       | 35.8      |
| Opole                       | 28.0      |
| Holy Cross (Swietokrzyskie) | 19.6      |

Source: own elaboration based on: Potencjał innowacyjny... (2008).

The Table 2 below presents the percentage of companies that launched product innovations in 2008.

Table 2. Percentage of industrial enterprises involved in product innovation

| Province          | [%]  |
|-------------------|------|
| Subcarpathia      | 34.8 |
| Masovia           | 34.4 |
| Varmia-Masuria    | 32.7 |
| Silesia           | 31.0 |
| Opole             | 28.3 |
| Lower Silesia     | 27.0 |
| Lublin            | 27.0 |
| Kuyavia-Pomerania | 26.8 |
| Podlasie          | 26.8 |
| Lesser Poland     | 26.7 |
| Holy Cross        | 26.2 |
| Lodz              | 26.1 |
| Greater Poland    | 26.1 |
| Pomerania         | 25.8 |
| West-Pomerania    | 18.6 |
| Lubus             | 17.7 |

Source: Own elaboration based on: Potencjał innowacyjny... (2008).

A detailed analysis of the Kuyavian-Pomeranian province enterprise innovation structure suggests that, to a large extent, innovations were mostly technology- and product-oriented, and much fewer were organizational innovations. As mentioned earlier, it could have been due to the emergence of new business opportunities upon the EU admission, access to new

markets, and, perhaps most importantly, the need to become a competitive European economy, which, in a way, necessitated modernization of existing facilities and infrastructure.

Development of the SME sector in EU countries was not homogeneous; politics, customs, culture, as well as business mentality and the spirit of entrepreneurship were different in each member state (Sytuacja konkurencyjna..., <http://www.bibliotekacyfrowa.pl/>).

Not surprisingly, the SMEs are thought to have emerged with the first (Ciepielewski 1971), second and third great industrial revolutions (Rifkin 2012). These historical changes were milestones or foundations upon which the third sector in Europe's economy developed. Define three economic sectors: extraction of raw materials (primary), manufacturing (secondary), and services (tertiary). Under that theory, the focus of economic activity, along with employment, shifts from the primary, through the secondary and, finally, to the tertiary sector, which shows a regular increase in the number of employed people (Strategie rozwoju..., <http://www.univ.rzeszow.pl/>).

Since 1989, the SME sector has been witnessing a steady growth in Poland. The first act of law of 1989 defined running one's own business as „[...] organized, individual conducting of production, building, commercial, or service activity aimed at generating income” (Ustawa z 23 grudnia 1988 r. o działalności gospodarczej), with no distinction between small and medium enterprises. This distinction was introduced by the Parliament on 2 July 2004 in the form of the Act on Freedom of Economic Activity, which was drawn up in line with the guidelines of the European Commission (Zalecenie Komisji Europejskiej z dnia 6 maja 2003 r.). The Act extended the definition of conducting business, from „[...] conducting of production, building, commercial, or service activity” (Ustawa z dnia 2 czerwca 2004 r. o działalności gospodarczej) to include „[...] exploration and mining of minerals”. The conducting economic activity was defined as a „[...] professional and continuous activity” (Ustawa z dnia 2 czerwca 2004 r. o działalności gospodarczej).

As it is the case with other European countries, the role of SMEs for Poland's economy is vital. The SMEs accounted for 68.2% of employment in 2012, and 68.8% in 2014. As mentioned earlier, the SMEs account for 99.8% of total enterprises in Poland. Unlike in other EU member states, micro enterprises are particularly popular in Poland; in 2012 they provided 37.4% of the jobs, whilst the average for the EU was 29.6%. A slight decline was recorded in 2014, with as much as 36.5% of people employed in micro enterprises (Based on data acquired from SBA 2012, 2014 Poland). Although the share of the SMEs in the total number of businesses in Poland reflects the EU average, the Polish SME sector has a bigger share of micro enterprises as compared to small enterprises. Furthermore, more people are employed in the SMEs in Poland than in the European Union. In 2014 the number of large businesses fell by 235, and there were 36 862 fewer jobs (a 0.6% decrease), as compared to 2012. The number of medium enterprises was also on the low. However, the total number of enterprises went up in comparison to 2012, resulting in employment increase. On the whole, it can be said that the SME sector is steadily growing.

## RESEARCH AIMS AND PROCEDURES

The aim of the research was to identify the beneficiaries' opinions on the "Research Voucher" pilot project implemented in the Kuyavian-Pomeranian province. Basically, the area of interest was whether beneficiaries understand the project's role in facilitating their innovation-driven undertakings, in the acquisition of necessary funds, co-operation with

higher-education facilities and stimulation of information exchange. The project was an Independent Key Project (Portal funduszy europejskich, <http://www.funduszeuropejskie.gov.pl>), executed under 5.4 Regional Operational Programme in the Kuyavian-Pomeranian Province for 2007–2013 (Regionalny program operacyjny dla województwa kujawsko-pomorskiego, <http://www.mojregion.eu/>) by the Association of Employers and Entrepreneurs of the Kujawy and Pomorze Region in Bydgoszcz, developed specifically for the province. Enhancing the competitiveness of businesses was the top priority, as outlined in point 5 of the Regional Operational Programme, and that is feasible through advancing regional research and developing new production technologies (section 5.4). Although the higher education institutions fulfil their role in the provision of knowledge required to introduce new production technologies in the region, further activities are required to bring science and business closer; hence the project launched by the Association of Employers and Entrepreneurs of the Kujawy and Pomorze Region.

Its budget amounted to PLN 8 080 6188, provided by the European Fund for Regional Development. It is expected that 8m, less the cost of office operation, will give a sizeable boost to local economy, and the funds are dedicated to tightening of the co-operation with local research centres.

The "Research Voucher" pilot project in the Kuyavian-Pomeranian province supports local businessmen by providing funds necessary for the development of enterprises through co-operation with local R&D centres.

The study was performed among 37 beneficiaries of the "Research Voucher" pilot project, with the use of a questionnaire/structured interview conducted by phone (Kaczmarczyk 2011). Only those entrepreneurs who had completed the fund application process were considered in the study, as they could provide objective and reliable information (Kaczmarczyk 2011). The questionnaire comprised of 23 questions, and 5 of them were addressed specifically at company owners.

## **RESULTS**

It was found that company owners or CEOs are usually male (96%). The SME sector is mainly composed of micro and medium enterprises; 61% and 24%, respectively. The remaining 15% were small enterprises. In terms of the line of business, respondents listed a whole spectrum of business activities, ranging from engineering, electro-engineering, power engineering (8% of respondents); IT and communications (28%); chemistry, biotechnology, pharmaceuticals, food industry (18%); construction and building supplies (28%). The remaining group operated in other fields, such as plastics industry, electronics and industrial automation, printing and publishing, aesthetic medicine, IT training, genetics, advertising, education support, second-hand items for children, furniture, hobby; fishing, electrical fitting, renewable energy sources, seeds for gardening, steel trade.

Not surprisingly, the business locations also varied considerably; however, bigger towns and cities, Bydgoszcz, Torun and Inowroclaw, had the highest number of project's applicants. Clearly, enterprises in remote areas are disadvantaged, as compared to those in close proximity to Bydgoszcz. As many as 35 out of the total 46 businesses were located in the

Bydgoszcz area or in communes located in its vicinity. In the group examined, most owners were aged 30–39 and 40–49 (29% and 37%, respectively). Those aged 50–59 and 60–69 accounted for 21% and 13% of the total number.

At the time of the study, 15% of the respondents were working for more than 40 years, 35% – between 20 and 29 years, and those with the shortest work experience (less than 9 years) accounted for 31% of the group.

As for the education background, 72% of the respondents were higher-education graduates, while 16% – secondary education diploma holders, which suggests that the enterprises are well-managed by qualified professionals, capable of generating good financial results and applying innovation. The study has also proven that the beneficiaries received information about the "Research Voucher" project from various sources. Typically, this information was provided by higher-education facilities (35% of the responses), which shows that some companies had already co-operated with those facilities. Another important source of information on the project was the Association of Employers and Entrepreneurs of the Kujawy and Pomorze Region in Bydgoszcz, and the project's office (26%), and, finally, seminars that had been held (22%). 11% of the respondents learned about the project from the media, while 6% pointed to other sources, such as the Internet or recommendation of another entrepreneur.

The authors established that innovation and research were typically sought after by company management (20%), CEOs and owners (61% of the answers). In 19% of the cases, it was the higher-education institutions that took initiative and brought innovation to companies. On two occasions, however, it was a joint effort of the academics, R&D personnel, university staff and the company's CEO.

As little as 36% of enterprises have a long-term development strategy; the other 64% do not have any such plan. Out of the former group, only 32% benefited from grants under the Research Voucher project to meet their strategic targets. Most respondents agreed that the aims of the Research Voucher project are either important (61%) or very important (29%). However, 9% of respondents claimed that the aims of the project were of little interest to them. No one described the aims as "unimportant/irrelevant". Most of the enterprises will use the funds to streamline their products and production processes (53%), and to expand their business operations (32%). The Research Voucher grant will be distributed and allocated in various forms: 58% of the businesses will receive subsidies, which will cover 75% of investment costs, 17% will benefit from a 50% support, while the remaining 17% will receive a 20% reimbursement. 32% of the respondents see the project as the beginning of a long-term co-operation with higher-education facilities, while 16% – as an opportunity to collaborate with other entrepreneurs and institutions, and/or to launch their own projects.

Only two businesses did not consider the project to be an opportunity for development, and one enterprise intends to cease existing co-operation. The prevailing 73% of enterprises will continue to co-operate with locally based academics and researchers. The respondents claimed that what inspired them to do that was the positive experience of their own staff (35% of responses), new interesting offers from higher-education facilities (26%), and other reasons (17%). However, only two companies ascribed their motivation to "innovation" and "client". The remaining 22% consider the co-operation between businesses and universities as "equal work". Most of the entrepreneurs are willing to take part in further projects.

Generally, the project's beneficiaries highly appreciated the involvement of the higher-education facilities in the project, giving it high (41%) and very high (54%) score. Few respondents felt that the academic input was average (2%) or poor (3%).

## CONCLUSIONS

The research carried out among beneficiaries of the "Research Voucher" pilot project implemented in the Kujavian-Pomeranian province examined small and medium enterprises from different industries. Most of the companies analyzed is based in the communes of Bydgoszcz, Torun and Inowroclaw. Information on the project was provided by its originator, the Association of Employers and Entrepreneurs of the Kujawy and Pomorze Region in Bydgoszcz. The study proved to be vital for most of the enterprises that seek to enhance their products and production processes, expand businesses, or embark on collaboration with academics and researchers. More than half of the enterprises will receive grants covering 50% or 80% of the new investment cost. Following the success of the project, companies wish to continue their co-operation with regional R&D units and higher-education facilities, they recognize the value and the quality of the academic service provided, are more willing to implement development strategies, and liaise with the office of the "Research Voucher" pilot project in the Kuyavian-Pomeranian province.

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**Summary.** SMEs are essential, since they act as catalysts of the country's economic growth, by i.a. creating new jobs, activating innovation processes and modernising industrial processes. For this very reason, a pilot project "Research Voucher" was implemented in the Kuyavian-Pomeranian province, funded from EU funds under the Regional Operational Programme for the Kuyavian-Pomeranian Province for 2007–2013, Measure 5.4. The study covered enterprises that were awarded grants for collaboration with R&D units and higher education institutes under the "Research Voucher Pilot Project in the Kuyavian-Pomeranian Province". The study's focus was to analyze the opinions of the Project's beneficiaries on innovation implementation potential, the financing of undertakings, and the quality of cooperation with higher education facilities. Furthermore, its aim was to explore project information distribution channels. The study has demonstrated that it was the Association of Employers and Entrepreneurs of the Kujawy and Pomorze Region, the Project's initiator, that was the source of knowledge on the project. The research project was evaluated as important or even very important for companies embarking on strategic development of their products and processes, seeking to expand their development potential or cooperate with the science sector, be it higher education facilities or other partners.

