

**THE IMPACT OF EU FUNDS ON THE DEVELOPMENT
OF A BUSINESS MODEL FOR SMALL
AND MEDIUM-SIZED ENTERPRISES**

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A b s t r a c t

The increased interest in business models can be observed in the second half of the 90s of the last century. The research objective of this study is to assess the impact of grants received by companies on the formation of the business model. The study used the “Canvas” model proposed by A. Osterwalder and Y. Pigneur and covered micro, small and medium-sized enterprises based in rural areas, which received support in the form of investment grants under the Regional Operational Programmes between 2007–2013 for northern Poland. The results indicate that investment grants clearly influenced the modification of the business model elements, which are located on the left side of the “Canvas” template.

**WPLYW FUNDUSZY EUROPEJSKICH NA KSZTAŁTOWANIE MODELU BIZNESU
W MAŁYCH I ŚREDNICH PRZEDSIĘBIORSTWACH**

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Słowa kluczowe: model biznesu, mikroprzedsiębiorstwa, małe i średnie przedsiębiorstwa, wsparcie finansowe.

A b s t r a k t

Wzrost zainteresowania modelami biznesu przypada na drugą połowę lat 90. ubiegłego wieku. Celem badań prezentowanych w artykule jest ocena wpływu uzyskanego przez przedsiębiorstwa wsparcia ze środków publicznych na kształtowanie modelu biznesu. W badaniu posłużono się

szablonem modelu “Canvas”, zaproponowanym przez Osterwaldera i Pigneura. Badania obejmowały mikro, małe i średnie przedsiębiorstwa funkcjonujące na obszarach wiejskich w północnej Polsce, które otrzymały wsparcie w ramach regionalnych programów operacyjnych na lata 2007–2013. Wyniki badań wskazują, że uzyskana pomoc w wyraźny sposób wpłynęła na modyfikację tych elementów modelu biznesu, które znajdują się po lewej stronie szablonu “Canvas”.

Introduction

One of the most often mentioned market limitations, which disproportionately affects the smaller sized enterprises is the insufficient supply of financing. This problem particularly concerns small entities, which are known as subjects of “increased risk” and bear a much greater possibility of failure or collapse. This is mainly caused by barriers to investment activities due to difficulties in accessing external capital. Therefore, on the basis of twentieth century post-war economic thought, the idea of credit discrimination with regards to small businesses appeared (GALBRAITH 1957, p. 124–133). Łuczka points out that: “despite the different ways of analyzing discriminatory practices in small businesses, at its base lies a common belief that in the modern market economy, company size is an important stratification factor of economic entities, opening or limiting access to certain factors of production (capital) and creating structural prerequisites of State economic interventionism” (ŁUCZKA 2001, p. 97). Audretsch, Grilo and Thurik indicate that a lack of access to finance for small businesses is an example of a market imperfection. This is especially often presented as a factor in economic theories and empirical research (AUDRETSCH et al. 2007, p. 8). Investment grants represent financial support instruments anticipated by small entrepreneurs, which are an especially valuable type of assistance due to their non-returnable nature. Therefore, the research part of this study was limited only to this kind of support.

Methodology of research

The study covered companies that reside in rural areas, which received support in the form of investment grants within the Regional Operational Programme 2007–2013 for the northern part of Poland (warmińsko-mazurskie, kujawsko-pomorskie, pomorskie and zachodniopomorskie voivodeship). All activities involving the awarding of grants to micro, small and medium-sized enterprises were analyzed¹.

¹ According to the Central Statistical Office of Poland – rural areas are located outside the administrative borders of cities- areas of rural communes and part of the urban-rural communes (Rural areas in Poland 2011). However, in relation to the concept of micro, small and medium

The study was conducted in 2014 with the use of the direct survey method (business owners and/or managers of these entities were surveyed). Due to the fact that studies analyse the effects of the support involving changes in business models, only the entities which received the earliest support were chosen (in these enterprises the effects of the aid can be observed). According to the $n+2$ rule, entities have a maximum of two full years to implement the project to which the grant agreement was signed. Given this fact and the rule of project sustainability (three years after completing the project), companies that have signed agreements in 2008–2010 (2008 was the first year of signing the agreement) finished the entire investment process in 2014 (obviously it may have finished earlier if the agreement was signed before 2010). There were 196 records which met these criteria, which means that 196 grants for SMEs in rural areas were awarded. The intention, therefore, was to conduct the research for all such enterprises. The number of records is not the same as the number of companies, because some companies benefited from more than one grant (there are even cases of firms submitting multiple applications for the same contest and achieving more than one grant by enterprise). After excluding these types of multiple applications, the number of companies decreased from 196 to 181. The next problem was the refusal to cooperate in the survey. These studies were directly related to the economic performance of enterprises, and this is sensitive data that entrepreneurs are reluctant to reveal. Therefore, the necessity of selecting entities that had signed contracts in 2011 occurred as well (a total of 42 enterprises). These are entities whose sustainability of projects is not completed, but the investment process has come to an end. In this case, the effects of economic support could also be seen. A total number of 155 companies from northern Poland completed the questionnaire. Given the fact that the studies included rural areas, it was dominated by enterprises from Warmia and Mazury, where the relative number of urban communes is quite low. In the case of the pomorskie and zachodniopomorskie voivodeship, a large group of surveyed companies had their head-office in close vicinity to the Gdańsk and Szczecin agglomeration. A detailed list of tested enterprises by province and the nature of their projects are presented in the Table 1.

The main objective of the study was to assess the impact of grants received by the company on the development of the business model, based on the concept proposed by Osterwalder and Pigneur. These authors have drawn up a comprehensive elaboration, in which they show the elements of the business model and what types of these models occur. The starting point is to under-

entrepreneurs, a definition was adopted in accordance with the Act on Freedom of Business Activity of 02/07/2004, Journal of Laws no. 173/1807 of 06/08/2004 which is also adopted in the Regional Operational Programmes as the criteria for granting the support of this category of enterprises.

Table 1

Characteristics of the Surveyed Companies

Voivodeship	The size of the enterprise			Nature of the project	
	microenterprises	small	medium	innovative	non-innovative
Warmińsko-mazurskie	22	27	25	22	52
Kujawsko-pomorskie	8	12	10	11	19
Zachodniopomorskie	6	15	5	13	13
Pomorskie	8	10	7	15	10
Total	44	64	47	61	94

Source: Own on the base of conducted research.

stand the business model as a rational structure serving to create, deliver and capture value. The authors built a scheme – methodical model, consisting of such items that can be used in the characterization of each company (DUCZKOWSKA-PIASECKA 2013a, p. 135).

The direction of the established objectives has been marked by the following hypotheses:

1. Implementation of projects with an innovative nature favoured deeper modifications in the business model,
2. There is a positive relationship between the level of grants and changes in the business model,
3. The type of investment as part of the grant awarded, mainly caused changes in the “logic” part of the business model.

The business model – core and constituents

For the purposes of this study, the definition of a business model referring precisely to the popular “Canvas” concept established by Osterwalder and Pigneur was adopted. Quote: “The business model is a description of the premises behind the manner in which the organization creates value and benefits from the generated value”. This definition emphasizes its two major functions, i.e., creating value and capturing value.

Another theoretical problem with serious practical implications is to define and establish the relationships between specific constituents of the business model. Most frequently, one can distinguish from between a few to a dozen elements of the business model, taking into account different criteria and the logic behind the grouping of the elements. This study used the “Canvas” model proposed by the above-mentioned OSTERWALDER and PIGNEUR (2010, p. 16–19). Within their model, they distinguish the following nine building blocks of the

business model: customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partners, and cost structure.

key partners	key activities	value proposition	customer relationships	customer segments
	key resources		channels	
cost structure		revenue streams		

Fig. 1. Osterwalder and Pigneur’s “Canvas” business model

Source: Own source based on OSTERWALDER, PIGNEUR (2010).

The placement of individual elements in the model is not accidental. The right section is focused on the customer and, according to Osterwalder and Pigneur, is based primarily on emotions. The most extreme element on the right side are customer segments, these are selected groups of consumers, businesses or other organizations, on which the company focuses its activities in the range of offering and delivering value. In the lower part of the model on the right side appear the revenue streams, which can be considered the “arteries”, assuming that the “heart” is the client. Revenue streams can take different forms, i.e. sale, user fee, mediation fees, licenses, etc. The next two elements on the right side of the model are the relationship with the client, which is usually the company’s activities targeted at customer acquisition, maintenance, and distribution channels understood as a set of network elements consisting of: source, intermediate components, and the outlet of the streams of products and services. There is a value proposition in the centre of the model, represented by a set of products or services with value for a specific client. The left part of the model contains elements associated with the company that the customer does not even need to be aware of. Osterwalder and Pigneur defined it as part of a “logic” model (as opposed to the right side based on feelings). The first element from the right is key partners (primarily a network of suppliers and contractors). The next element is key resources, which is the most important asset necessary for the proper functioning of the business model. Another constituent of the model is the key activities that describe the most important steps that a company has to perform to create and deliver value, establish a relationship with the client and determine the source of revenues. The last element of the model is associated with the cost structure, which describes all of the costs which the business model generates.

The findings

The results of the research indicate that received support influenced the enterprise business model mainly in the area related to its left “logic” part. This includes key partners, key activities, key resources and cost structures. In all analyzed enterprises, at least one of these elements changed. As a result of the financial support, slightly more than 25% of enterprises had changed between 6 to 8 elements of the left side of the model (Surveyed companies could indicate more than one factor being a specific constituent of the business model). Importantly, in this group were both companies that received a relatively small financial contribution, and enterprises where the value exceeded half a million euros. It can be concluded that the grant amount has little effect on changes in the way the business model constituents were utilized (at least on the left side). In turn, significant relationships can be observed between the elements on the left side of the “Canvas” model, the innovative nature of the projects and the size of the company. Among 155 surveyed enterprises, more than 39% realized that the investment had an innovative character². Of the enterprises that changed between 6 to 8 elements on the left side of their business model, nearly three-quarters of the implemented projects had an innovative character as a result of the received support. This means that the tendency of enterprises to undertake innovative activity usually signifies changes implemented in the business model.

Only 6 of the 155 surveyed enterprises were in the group where no more than 2 constituents making up the left side of the model were changed. Within this group, only microenterprises were included, and the realized project was characterized by having a non-innovative nature. Therefore, the results of the study show that microenterprises changed the left side constituents of the “canvas” business model to a much less extent. By far, the largest group of enterprises were those with 3 to 5 changes on the left side of the business model, as a result of received grants.

Key resources represented the left side constituent of the “Canvas” business model, which was subject to the most frequent modifications as a result of support. It should be emphasized that generating value for the customer is only possible when an enterprise has a set of capabilities for creating it. This set of capabilities is referred to in different ways and formed by a plurality of components (in the academic literature one may run across terms such as critical success factors, tangible and intangible assets, skills, or resources

² In research, an innovation has been defined as implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations, used in the enterprise for the first time.

which consist of everything that the organization knows and has). The results indicate that over 90% of companies changed the quality of resources in their financial, human and physical resource areas as a result of received support. Such a state indicates the positive impact of the grant for this component of the model. Importantly, 88% of companies had changed at least three elements comprising their key resources.

The last element of the left side of the business model is related to the cost structure. The study distinguishes between fixed costs and variable costs. Respondents had to indicate whether the grant could result in the reduction of specific operating costs. The results indicate that these companies were few. Less than 12% of entities indicated a reduction in the level of variable costs and 16% in a reduction of fixed costs. At the same time, 40% of the surveyed companies reduced both variable and fixed costs, which pointed to a change in this element of the business model.

In contrast to the left side, the right side of the business model included elements such as customer relationships, customer segments, channels and revenue streams that changed under the influence of received grants to a much lesser extent. Among surveyed companies, more than 36% did not change a single element included in the right side of the model (in the case of the left part of the model at least one of its constituents had been transformed). Less than 4% of enterprises indicated more than 6 elements that had changed in the right side of the “Canvas” business model (surveyed companies could point to more than one factor being a specific constituent of the business model). Interestingly, these enterprises were also characterized by a strong degree of change in business model components placed on the left side (Out of the 6 most active companies that modified their customer relationships, two of them had transformed more than six elements on the left side of the model, and four companies from 3 to 5 elements on that side). The largest group was made up of companies which redefined no more than two elements on the right side of the business model. Such an answer indicated almost 32% of all surveyed entities.

The results of the research highlighted the fact that the outermost element in the right side of the model, i.e. customer segments was subject to very slight changes (out of 4 constituents comprising that part of the model). Only 5 companies that received grants made the decision to reshape “customer segmentation” and change that constituent of the “Canvas” business model. The impact of grants on the diversification of activities understood to handle an additional segment of customers was slightly more often emphasized by surveyed companies (29% of surveyed companies had indicated this option).

In the study, respondents had to indicate whether the existing type of relationship with the customer was strengthened or if a completely new

relationship was introduced as a result of grants. This element of the “Canvas” Business Model often corresponds with another component of the model; i.e. the distribution and sales channels. Relationships with customers and channels in certain situations conceptually overlap each other, especially where a direct distribution channel functions without any intermediate levels. The results of the research show that beyond the co-creation of products with customers, the remaining elements of the customer relationship structure were rarely indicated. This fact may seem surprising, especially when customer relations account for a very important competitive instrument (UNGERMAN, MYSLIVCOVÁ 2014, p. 179, 180).

Similar results were obtained in terms of the next component (block) of the “Canvas” Business Model, i.e. the already mentioned channels. It involves supply logistics, production logistics and distribution logistics (DYCZKOWSKA 2012, p. 19–28). On the basis of the business model, of particular interest is the distribution logistics which include flows of finished goods from point of origin to point of consumption in order to meet the needs and requirements of clients. The respondents had to indicate whether the received support affected the channels used. Only 14% of enterprises had modified or created new channels, for example in the form of the organization’s own internet sales or in the involvement of new sellers.

An even fewer number of the companies (12%) had modified contacts with partners as a result of the grant; e.g. wholesalers, affiliate shops, etc. The causes of this phenomenon should be seen not only by the grant nature, but also in the characteristics of the channels used by the surveyed companies. More than 68% of the surveyed companies operate in the manufacturing industry, mostly in low technology segments (especially in Warmia-Mazury) with the dominance of indirect channels (producer-agent-client) and long channels (large number of intermediaries). Therefore, a direct relationship with the customer may be less relevant. The last component on the right side of the “Canvas” business model is revenue streams. Changes in this component were marginal with only 3 out of all the companies surveyed indicating changes in this area. These were only medium-sized enterprises operating in the pomorskie voivodship.

The central element (block) of the model developed by Osterwalder and Pigneur is the value proposition. In the academic literature, it is the most frequently indicated component of the business model. Many authors regard it as the most salient, accepting its key role in the construction of models both at the industrial level and at the organizational level as well (e.g. KINDSTROM 2010, p. 479–490, TEECE 2010, p. 172–194, CHESBROUGH, ROSENBLUM 2002, p. 529–555). In terms of value creation for the customer, the most important aspect is to identify those actual values that someone will desire to buy, thus

leading to the purchase of a product and/or service. In the academic literature, a plethora of approaches in this area can be indicated (BOWMAN, AMBROSINI 2000, p. 1–15, CAMERON, QUINN 2015, p. 40–85, WOODALL 2003, p. 1–42, FALENCIKOWSKI 2013, p. 56–60).

Of course, it should be remembered that the very fact of producing value for the customer will not benefit the company. Only capturing value in its favour will give the firm a tangible advantage. In the market, a plethora of companies compete for customers, therefore, capturing value takes place under conditions of competitive struggle. Each party in a transaction attempts to capture for themselves the largest part of the value produced, and the resulting measure is company profit. Thus for the clients, the value added is: the product and its features, brand image, quality of service guarantees, etc. (and this is the value generated for the customer). For the companies, the importance of customer value plays a key role (the value captured by the company) which is formed by the streams the customer brought: financial flows, profit, information, image (opinions, advice, informational needs and competitor offers) (DUCZKOWSKA-PIASECKA 2013b, p. 208, 209). The respondents had to indicate which elements in the proposed values have changed as a result of financial support. The results indicated a slight advantage element of a quantitative nature, which were modified after receiving the grant. Slightly more than 65% of the surveyed companies had indicated such a response. In this group, 80% of companies emphasized technical values such as stability, efficiency and ease of use; and only 20% emphasized economic values as a result of receiving support. Elements of a qualitative nature were indicated by slightly more than 58% of the surveyed companies as a result of receiving support. What is very important is that only 28 companies had not changed their value proposition in a quantitative or qualitative nature as a result of the grant (17% of surveyed companies). Within this group, more than 89% of the companies implemented a project with no innovative character, in which the amount of the grant did not exceed 250 thousand euros. At the opposite extreme were the companies that had changed elements of both a qualitative and quantitative nature as a result of the financial support. Of all companies, 35% indicated such an option. This fact should be assessed positively; this indicates that the financial support for SMEs brings tangible benefits in the form of significant modifications in the value proposition for customers. Interestingly, the number of such enterprises was larger than those which pointed to a change of only one element in the value proposition (26% of the surveyed companies indicated only changes in the quantitative elements and 21% in qualitative elements). Among the companies that had changed both elements of the value proposition, less than 47% implemented undertakings of an innovative nature and 33% of entities received grants in the amount of more than 250 thousand

euros. In this group, a relatively large number of entities that had received a grant of less than 100 thousand euros (43%) were included. So we can risk the statement that changes in the value of the proposal offered to the customer were initially decided by the innovative nature of the project and not by the amount of financial support.

Conclusions

The results indicate that received grants clearly influenced the modification of the business model elements, which are located on the left side of the template. Key resources accounted for the component on the left side of the business model, which was by far the most frequently modified element as a result of support. The right side of the Canvas Business Model comprises elements such as customer relationships, customer segments, channels, and revenue streams that changed under the influence of grants; however, to a much lesser extent. The second hypothesis has not been confirmed, because only to a small extent did the amount of grant influence the changes in the components of the “Canvas” business model. Firms that were strongly represented included groups of companies that changed more than eight model elements, which changed between six to eight elements, which obtained less than 250 thousand euros in grants and firms which obtained significantly higher amounts. Positive changes realized by the company’s business model did not necessarily involve large financial expenditures for the purchase of technology or carrying out research and development programmes. As Chesbrough rightly observes, better business models often beat better ideas or technologies (CHESBROUGH 2007, p. 12). In turn, hypotheses number 1 and 3 have been positively verified. The tendency of enterprises to undertake innovative activity usually means changes in their business model both on the left and right side. Also the nature of the grant, mainly related to the purchase of advanced technological lines, innovative and efficient machinery and equipment or other investments for modernizing the manufacturing processes, resulted in significant changes in the realized business model.

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