

# The perplexity of the cooperation of small and medium-sized enterprises

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**Abstract:** Cooperation of companies determines the development of the modern economy and creating innovation. Experts even recognize its superiority over the competition. The degree of cooperation is dependent on the environment, competitors, and the needs of the cooperator. Any company that operates in terms of the knowledge economy to be developed and strengthens its position in the market must be innovative, and this is possible due to acquisition of knowledge external sources. Derivative of cooperation based on mutual learning process is created in the system value innovation. The practice indicates a growing number of cooperation initiatives by external actors with small and medium-sized enterprises, in spite of the fact their cooperation is exposed to the impact of the many barriers that arise both from market conditions and internal determinants dependent on the entity.

In the first part of the article we outline theoretical aspect of cooperation. The second part of the article is devoted to the presentation of research results that show the conditions of cooperation of small and medium-sized enterprises in Tarnów and Małopolska Region. The purpose of this article is to present modern forms of knowledge from the outside. The paper attempts to identify the determinants and assess the level of cooperation of small and medium-sized enterprises, as a prerequisite for strengthening their capacity development.

**Key words:** innovation, innovative capacity, cooperation of enterprises, small and medium-sized enterprises

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## 1. Introduction

To quote Joseph Alois Schumpeter, the forerunner in the field of innovation, the main market power can be a creative entrepreneur. In his meaning enterprising was the one that used a new combination of factors of production, introduced a new product or process, has won new market or a new source of supply (Schumpeter, 1960, after: Matusiak, 2010). According to this theory, entrepreneurship has a direct impact on innovation. Schumpeter's idea was the initial base for subsequent views that are either a contradiction, or development. It should be noted that entrepreneurship, as a set of behaviours, may occur without innovation, while innovation

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cannot exist without entrepreneurship. Therefore, the ability of innovative entrepreneurship is a special resource because it goes back to him only when other resources are exhausted—easier to convert (Bal-Woźniak, 2007).

The earliest definitions of entrepreneurship (Richard Cantillon—1732 and Jean-Baptiste Say—1803) point to such owner's capital that accepts a certain level of risk-taking activity for work purposes, for profit. Entrepreneurship is understood as an economic activity transforming resources into measures to meet local needs and it is the driving force behind the expansion of mainly small and medium-sized enterprises, identified with the development of this sector (Bal-Woźniak, 2007). Further liberation of entrepreneurs with a framework of routine, repeatable business model will contribute to achievement of the goals. Today's realities are forcing entrepreneurs to adopt an active attitude, but the same disclosure act narrowly understood entrepreneurship was insufficient. Companies must shift towards innovation. This approach also provides an opportunity for small and medium-sized enterprises. In addition, it is noted that entrepreneurs have limited rationality of action, which according to the theory of Oliver Eaton Williamson (author of the theory of transaction costs) means that they do not seek to maximize profits but to achieve satisfactory profits.

Limited rationality of action stems from limited cognitive capabilities and incomplete information (Williamson, 1998 after: Gancarczyk, 2012). The reason for this is the same organization and being dependent on socio-economics. Small and medium-sized enterprises are more likely to be limited rationality in action. Therefore, the premise to establish a relationship not only benefits because of access to resources (including knowledge resources), but of the cost of obtaining them. Possessed of knowledge can be a source of inspiration, which will constitute entrepreneurial behaviour. It may be, however, not sufficient. Therefore, regardless of the adopted activity, each of the entities in a natural way will initiate the process of knowledge sharing. An innovative tool to introduce knowledge into practice is cooperation. Against the background of the available literature and numerous studies conducted in this field one can accept the idea that innovations are the result of innovative activities of the company, and this in turn is determined by its ability to innovate. Business innovation is the basis of its capacity development. Following this thesis, additional assumption is assumed that the innovative capacity can be assessed, the level of this ability depends on the innovation capacity of organizations that have an impact on certain factors. First of all, the knowledge and skills of the employees of the company and cooperation between the actors of the industry provide a degree of innovative capacity of the company.

The purpose of this article is to present the role of small and medium-sized enterprises to collaboration with external entities that is possible access to external resources and knowledge, and promote the implementation of the objectives and constraints with which the organization of the SME sector collides. In addition, an attempt is made to assess the level of cooperation of small and medium-sized enterprises in Tarnów and Małopolska Region.

## **2. Cooperation—attribute of the innovation capacity**

Open system and input to interact with the environment are network attributes. According to this, approach resources, decisions and strategic advantage businesses are dependent on

relationships with other entities (Gancarczyk, 2012). The effect of network links and cooperating companies to economies of scale and the effect of the development as well as spread of knowledge are the basis for innovative activity. The combination of relational capital is treated as a strategic resource and the basis for competitive advantage, on the other hand—provides access to other resources (Czakon, 2011).

Cooperation can be viewed through the prism of different actors, from a business partner, understood as the second company in their capacity, as suppliers through business to business customers and individual consumers, universities, research institutions and entities of R&D facilities for state and local government units (Danik and Żukowska, 2011). Increasingly, it seems more relevant than open cooperation, destructive competition (Markiewicz, 2007). Steve Radley argues that the future development of the economy, its modernity and innovation are cooperation companies (among them, as well as with entities of a scientific research), a similar position was adopted by Malory Davies, who assigns the invaluable role of cooperation in creating different types of innovation (Danik and Żukowska, 2011). Quality of the companies measured by the scale achieved synergies. Therefore, companies should participate in the chain of interconnectedness and in the process of diffusion of knowledge, primarily due to the phenomena accompanying increased synergies and created added value.

Network combining cooperative and competitive dependencies forces organizations of new model of relations (Moczała, 2005). Changes in this model may take the following character (Moczała, 2005):

- the flattening cooperative structures, changing its hierarchy and the number of degrees of cooperation;
- more and more often and more quickly are concluded alliances across national borders, industries, market spheres of activity;
- reducing the organizational units forming the network, due to the focus on wearing only the necessary skills, which in this configuration give a competitive advantage. If you need to acquire new skills, organization enters into an arrangement with the new cooperator, which will allow his/ her access to the resource sought;
- openness to outside information, new ideas and courses of action;
- the employees of these companies faced the requirement of enterprise and multi-tasking in exchange for easier ‘moving’ between organizations, where in the course of increasing their skills they can offer more and better qualified newly emerging teams.

The basic problem, still unresolved, is to determine the composition and the number of cooperating with each unit. The selection process for cooperation partners is closely associated with the order (Moczała, 2005), for the purpose of such a system which is tied. At the same time specific order is a determining factor in the selection process and criteria for analysis (Moczała, 2005). Skillfully executed selection process will inform suppliers about the possibilities of resource materials, equipped with technologies, the level of qualification of staff to ensure achieving the effect of having the value of innovation.

The issue of cooperation has not been fully exhausted; some important issues are only indicated. Due to the limited framework of the article, the in-depth analysis has not been performed. The concepts of cooperation and innovative capacity are the subject of hearings by many authors, and the study of their coexistence and mutual dependence are rare.

### 3. The results of research

The chapter presents selected results<sup>1</sup> of empirical studies conducted on a sample consisting of 316 companies and institutions operating in various industries in the province of Małopolska, especially Tarnów Region. As a research tool a multiple-choice questionnaire was used. The target group of this article are small and medium-sized enterprises, which are among the 316 companies surveyed the largest group (Figure 1).

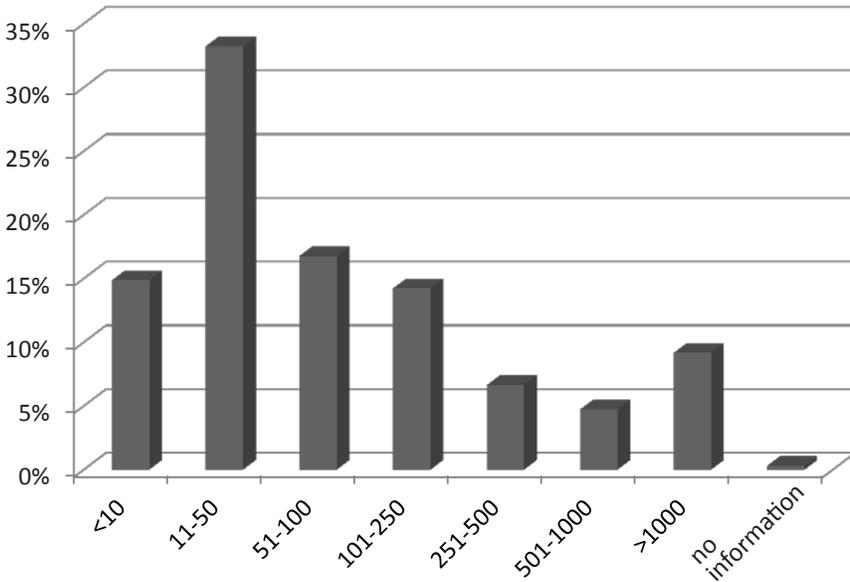


Figure 1. Number of companies surveyed varied due to the number of employees

Source: Authors' own elaboration.

The largest group (48%) were small businesses employing up to 50 employees, including micro-enterprises—up to 10 employees that was 15%. Approximately 31% are medium-sized companies (50–250 employees). Large companies (250–500) make only 7%, and very high (above 500)—represent 14%.

One of the elements that determine the process of building the innovation capacity of enterprises is competition. How freely the market game can be conducted, will result in a range of cooperation with other entities. The starting point of analysis is to evaluate SMEs competitor. Rating on a scale of 1 to 7 allowed identifying whether competition is of neutral (rating 1) or aggressive nature (rating 7).

<sup>1</sup> The research was conducted in 2010–2012 in the framework of the research project *Innovative activities of enterprises in Tarnów and Małopolska Region*, realized under the supervision of Professor Leszek Koziol and other staff of Małopolska School of Economics in Tarnów.

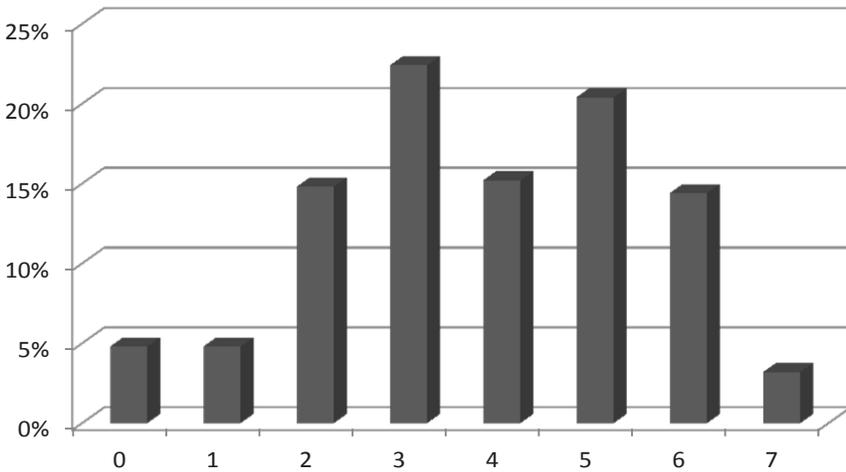


Figure 2. Competition in the SME sector

Source: Authors' own elaboration.

The small and medium-sized enterprises in Małopolska Region are characterized by considerable competition for quite a radical course of action. Nearly half of the surveyed companies considered that the competition conducted is fairly aggressive, giving an assessment greater than or equal to 4 (in the seven-point scale). Only 5% of companies stated that their competitor operated in the market in accordance with the principle of ‘Live and let live’. Increased competition compel operators to exploit their potential in a way that could be deemed as the ability to innovate. Potential for innovation, understood as competencies or resources unit, is individual for each person. It might seem that small and medium-sized enterprises, particularly micro-enterprises, can be characterized by limited or not yet defined potential (ability), therefore cooperation could open the way to reach so far resources. Despite clear evidence of the input of the networks small and medium-sized businesses do not tend to such a solution, which is reflected in the strategy to compete (Figure 3).

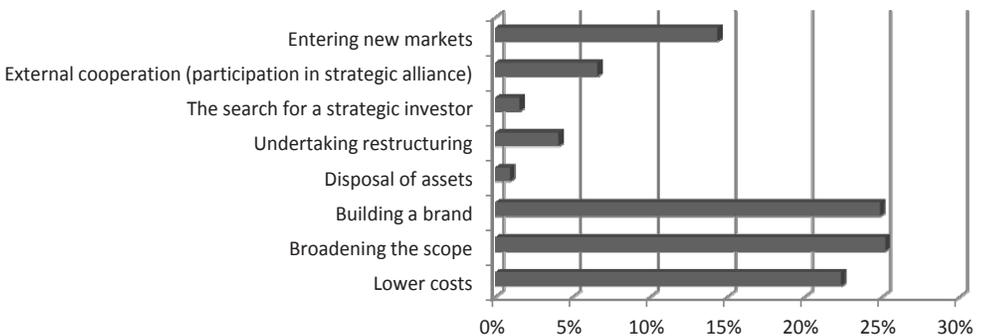


Figure 3. Type of competitive actions of SMEs

Source: Authors' own elaboration.

Small and medium-sized enterprises exposed to strong competition in order to stay on the market primarily focused on this to become recognizable. They strike the right brand for their products to be able to offer them the widest possible clientele. 25% of small and medium-sized enterprises competing in the market is through brand building and expanding its scope. Only 7% of organizations indicated in their strategy of cooperation a way to compete effectively. The collaboration gives companies access to resources to which access was limited, sometimes even impossible. The acquired knowledge in this way allows for more efficient use and multiplying the innovative potential of the individual.

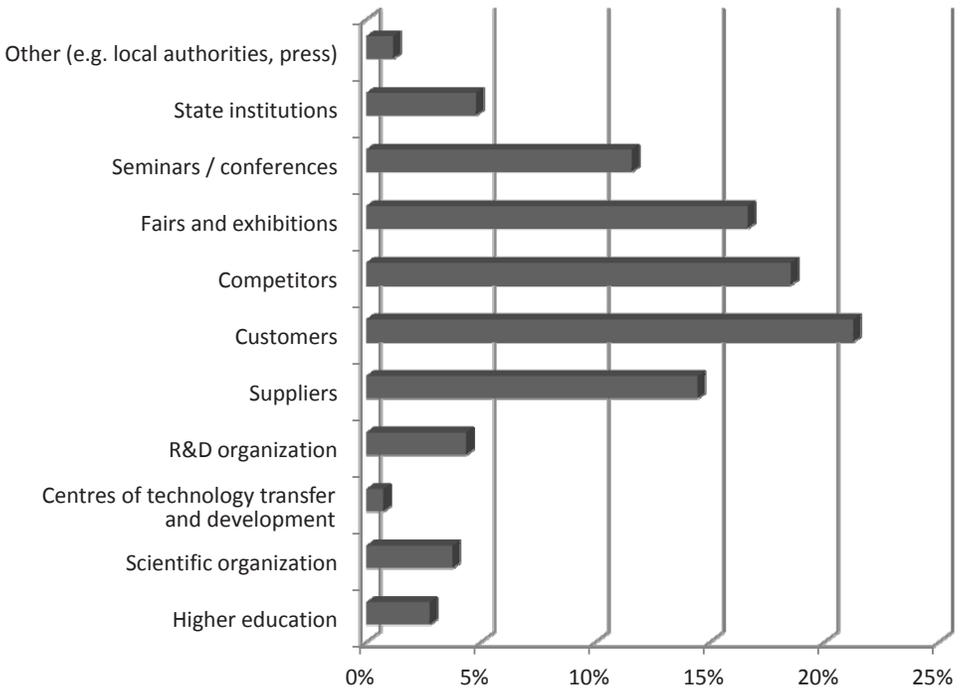


Figure 4. Sources of knowledge of SMEs

Source: Authors' own elaboration.

As shown in Figure 4 above, the most important source of information for small and medium-sized enterprises are the customers (21%) and competitors (19%). Regardless of the size of companies and the financial results they achieved, these two groups of customers will always be an important link in the whole system. Participation in trade fairs, exhibitions and conferences is for these companies as significant as the third source of knowledge. A small percentage (3%) perceive universities and other research units as a valuable source of knowledge and the entity with which it is worth to forge cooperation. Least indication as a source of knowledge was a local authority (1%). These entities have a low propensity to cooperate with enterprises due to the fact that companies (and SMEs in par-

particular) entering into such an arrangement are counting on financial support. Companies unable to fully participate in the allocation of public funds, due to high demands placed and rigor, are reluctant to establish a relationship. Any contact should contribute to the development of the region. Neither party sees clear benefits of mutual cooperation, created innovations do not generate added value in a short period of time. Thus, such cooperation is rarely taken. 27% of companies in the midst of all 250 surveyed, belonging to the sector of small and medium-sized, partnered with an external entity in order to develop new solutions, that is innovation. Most indicated the subject was another company in the industry, which reflects the hierarchy of presented earlier sources of knowledge. What difficulties limited the cooperation of SMEs with other units? (Figure 5)

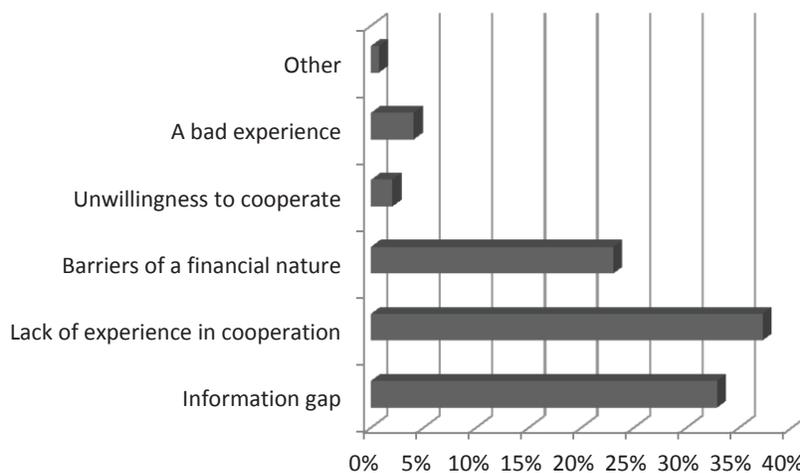


Figure 5. Difficulty limiting the cooperation of SMEs

Source: Authors' own elaboration.

Enterprises identified three main barriers to contacting and establishing cooperation with other entities (companies in the industry, academic institutions): 1) lack of experience; 2) lack of information about the offer and the possibility of a cooperator; 3) financial constraints. While overcoming financial barriers and information, possible barrier is lack of experience in cooperation that may be difficult to remove because it is associated with a system of values existing in the enterprise.

By evaluating the impact of cooperation on the innovative capacity of small and medium-sized enterprises, we see that it plays a greater role than in case of large enterprises. The undeniable fact is that the innovative capacity of enterprises, mainly shaped by managerial competencies and employees (regardless of the size of the organization), in turn determines the ability of the organization of work (Figure 6).

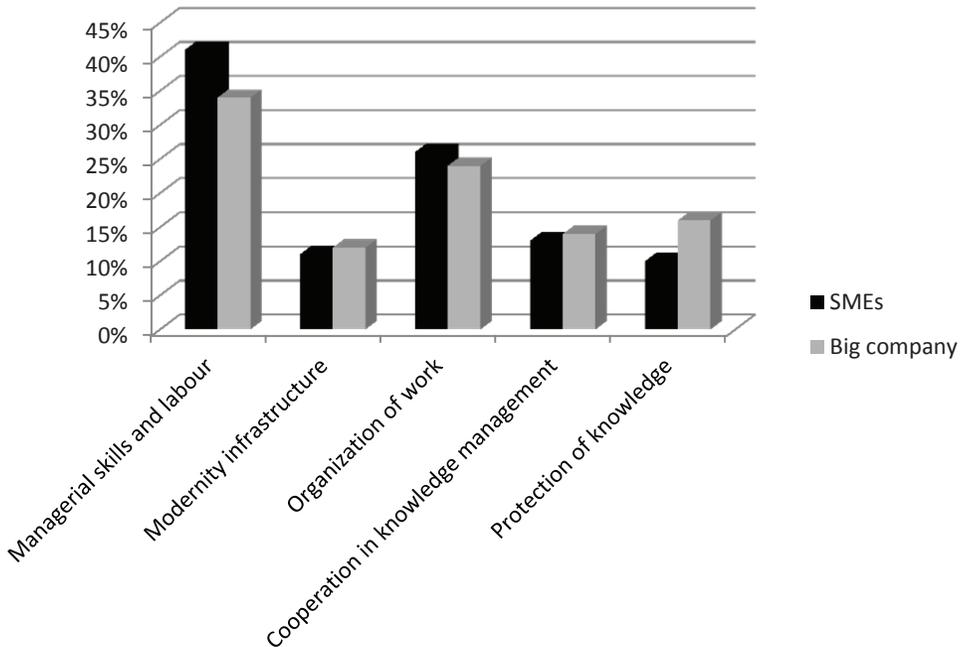


Figure 6. Decomposition determinants of innovative capacity broken down into large and small and medium-sized enterprises

Source: Authors' own elaboration.

An interesting relationship can be seen in the presented research results. For large enterprises, more important issue is the protection of knowledge and this knowledge is created and remains in the company, determining its innovative capacity. The fact is that these companies have greater opportunities in terms of access to resources, can organize their own research, so their competitive advantage on the market is built primarily on the basis of cooperation; it is rather based on internal components. Small and medium-sized enterprises attributed greater role to external cooperation rather than securing knowledge. If the knowledge possessed by the organization is not sufficient, it will look for its sources in the outside. The process of knowledge sharing is less constrained by various forms of its security, it will efficiently run. In addition, easier access for SMEs to the knowledge of external actors will make that they themselves will also be more willing to share their knowledge.

With reference to the above conclusions, questions arise: What is the current level of cooperation of small and medium-sized enterprises? Does it depend on the size of the company? In assessing the level of cooperation weight is assigned (if the company did not indicate no or only one factor in the level of cooperation of such a unit was considered low, the indications for 2 or 3 factors, the cooperation was considered average, the number of indications of 4 factors and more determine a high level of cooperation).

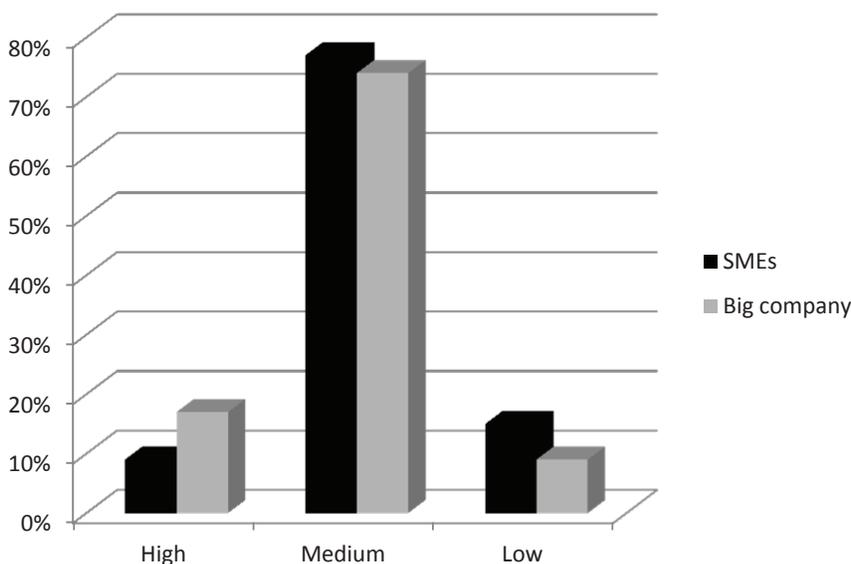


Figure 7. The current level of cooperation among enterprises in distinguishing the size of the company

Source: Authors' own elaboration.

The current level of cooperation of both SMEs (77%) and large enterprises (74%) is rated as average, which means that the adopted parameters (database of cooperators, cooperation with other entities, the number of suppliers, the scope of cooperation, sources of knowledge, the level of advancement of knowledge management and usability of the method of obtaining information) up to 3 have been met. Analyzing how many small and medium-sized enterprises are the high level of cooperation, it is definitely less of them (9%) than large enterprises (17%). The inverse relationship is in these organizations which do not indicate any or only one factor of cooperation, and they were mainly those from the SMEs sector.

#### 4. Conclusions

As it is apparent from the study and the presented results, the small and medium-sized enterprises from Tarnów and Małopolska Region still cooperate with other entities in a limited way and use the knowledge gained in this specific form. Increasingly, however, they recognize the superiority of cooperation over competition, and as a result tend to innovation. Fears of entering into cooperation on the basis of knowledge are mainly due to lack of experience in these types of activities, information gap about the possibility of cooperation and high transaction costs. Studies show that companies do not ignore the customers, suppliers, competitors and institutions as a valuable source of knowledge. This phenomenon takes on the importance of cooperation in the context of the impact on the innovative capacity of the company, where it has been shown that in the case of small and medium-size enterprises the third determinant impact is significant.

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## Dylematy kooperacji małych i średnich przedsiębiorstw

**Abstrakt:** Kooperacja przedsiębiorstw warunkuje rozwój współczesnej gospodarki i tworzenie innowacji; specjaliści uznają nawet jej wyższość nad konkurencją. Stopień nasilenia współpracy uzależniony jest od otoczenia, działającej konkurencji i potrzeb danego kooperanta. Każde przedsiębiorstwo, które funkcjonuje w warunkach gospodarki opartej na wiedzy, aby się rozwijało i umacniało swoją pozycję na rynku, musi być innowacyjne, a jest to możliwe między innymi dzięki pozyskiwaniu wiedzy z zewnętrznych źródeł. Pochodną współpracy opartej na procesie wzajemnego uczenia się jest stworzona w tym układzie wartość innowacji. Praktyka wskazuje na coraz liczniejsze inicjatywy kooperacji podmiotów zewnętrznych z małymi i średnimi przedsiębiorstwami, pomimo tego ich

współpraca wystawiona jest na oddziaływanie licznych barier, które wynikają zarówno z uwarunkowań rynku, jak i z wewnętrznych determinant zależnych od danego podmiotu.

W pierwszej części artykułu przedstawiono w zarysie teoretyczny aspekt kooperacji jako innowacyjne źródło wiedzy. Drugą część rozważań poświęcono prezentacji wyników badań, które ukazują uwarunkowania kooperacji małych i średnich przedsiębiorstw z regionu Tarnowa i Małopolski. Celem niniejszego artykułu jest przedstawienie nowoczesnej formy pozyskiwania wiedzy z zewnątrz. Podjęto próbę rozpoznania determinant i oceny poziomu kooperacji małych i średnich przedsiębiorstw jako przesłanki wzmocnienia ich zdolności rozwojowej.

**Słowa kluczowe:** innowacje, zdolność innowacyjna, współpraca przedsiębiorstw, małe i średnie przedsiębiorstwa