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What works and what does not work in local entrepreneurship support policy?

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ABSTRACT

Objective: The article aims to determine the influence of specific entrepreneurship support instruments in each type of municipality on the increase entrepreneurship level as measured by the number of newly established companies in the area.

Research Design & Methods: A survey was conducted among 896 Polish municipalities, asking about four areas of entrepreneurship support: cooperation of the commune with entrepreneurs; finance, tax, and administration support; attracting investors, granting external funds by the commune; and supporting non-governmental organizations. To determine the relationship between the type of commune, the instrument used, and the effectiveness of the tool used, we used a generalized reduced gradient non-linear algorithm.

Findings: The study results proved that there is no one universal area or instrument that would guarantee with high probability success in the form of an increase in the level of entrepreneurship in a municipality, regardless of its type. It was shown that in specific types of municipalities, it is possible to identify tools that are more effective than others.

Implications & Recommendations: This knowledge can and should provide important guidance to decision-makers at the local level, showing tools that may work better in their type of municipality.

Contribution & Value Added: The identification of specific tools that work for a particular type of municipality is an important stimulus in the discussion on strengthening the effectiveness of Polish municipalities' policies.

Article type:	research article
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INTRODUCTION

Entrepreneurs are key actors in the process of stimulating development, because they introduce new technologies, creatively combine resources, and commercialize innovations, thus creating jobs, stimulating economic growth, and generating tax revenues (Lombardi & Sforzi, 2016; Müller, 2016 after Audretsch & Keilbach, 2005; Fritsch & Mueller, 2008; Isenberg, 2019; OECD, 2019; Rodrigues & Franco, 2021). There is a common view in the literature that local communes should play a key role in supporting the development of entrepreneurs in their jurisdictions (Bjørnå & Aarsæther, 2010; Madzivhandila & Musara, 2020; Municipal Role in Private Sector Development, 2004; Thekiso, 2016) while supporting selected directions, *e.g.* those related to sustainable development (Srinivas, 2022). Communes are the regulators and creators of the framework for the functioning of business entities, as they have a specific catalogue of instruments to support entrepreneurship.

At the same time, a kind of repetitiveness can be noticed in the activities of communes, which remain unchanged, despite the fact that researchers question whether local decision-makers analyze

the effectiveness of the solutions they implement or whether they apply them only because they are in the portfolio of forms of support available to local governments (Brooks *et al.*, 2019; Skica & Rodzinka, 2021). The literature review shows a multidimensional approach to the issue of supporting entrepreneurship at the local level. Publications concerning countries other than Poland treat the local context with reference to specific types of areas, such as small and medium-sized towns, comparing them to the conditions of creating entrepreneurship in the metropolis (for more, see Audretsch *et al.*, 2015, Naldi *et al.*, 2020, Pagano *et al.*, 2020, Audretsch & Feldman, 2004).

Researchers identify differences between local development initiatives and their employment effects depending on the type of commune (Olsson *et al.*, 2020). Audretsch *et al.* (2015) emphasize that policymakers identify the relationship between entrepreneurship and economic development, but little is known about how this relationship changes over time in cities with different market sizes. Olsson *et al.* (2020) justify that urban communes may have more resources for entrepreneurship management than rural communes, because they have been developing much faster for a longer period.

Brooks *et al.* (2019) show that in the case of Poland, there are aspects of the entrepreneurial ecosystem that go beyond the direct scope of public policy, undermining the view that the entrepreneurial ecosystem framework is an easy-to-implement public policy solution to stimulate entrepreneurship and business growth.

Although theoretical considerations of entrepreneurial support instruments used by communes are quite common in the literature, these studies do not present a cause-and-effect approach that could provide a basis for inference for policymakers at the local level. Thus, we have identified a research gap related to the need to assess the effectiveness of the use of these tools in communes, taking into account the type of commune. The three-level structure of Poland's territorial division (16 voivodeships, 314 powiats, and 2477 communes, including 302 urban, 66 cities with powiat rights, 662 urban-rural, and 1513 rural communes) translates into a diverse number and scope of public tasks (more in Mickiewicz *et al.*, 2016; Skica & Rodzinka, 2020). The specific gap is determined by the belief that depending on the type of commune and the predominant nature of activities in the area (agricultural, production, services), there are different possibilities and infrastructural, organizational, and financial needs to address in the development processes. This is consistent with, for example, the views of Thurik (2008), according to whom a properly selected instrumentalization of support has a chance to strengthen development effects, which will allow for reducing unnecessary expenses for activities that do not translate into support for entrepreneurship, and finally will contribute to highlighting local competitive advantages. Reviewing the measures taken and their effects seems particularly important in the face of rapid technological progress and the change in the way both the public and economic sector entities operate due to the Covid-19 pandemic.

On this basis, we designed a survey that covered 896 Polish communes (36% of all the communes in Poland). The study aimed to determine the impact of the application of specific activities lying on the side of entrepreneurship support instruments in the various types of communes on the increase in the level of entrepreneurship as measured by the number of newly established companies in their areas.

We assessed the activities carried out by communes in the field of local entrepreneurship development in four areas:

1. Cooperation between the commune and entrepreneurs (informing communes interested in setting up a company about available forms of financial support, organizing trainings, cooperating with local business environment institutions, outsourcing of municipal services).
2. Finance, taxes, and administration (the use of lower rates in local taxes, as well as the introduction of reliefs, exemptions, and tax remissions for people starting a business).
3. Attracting investors and external funds by the commune (marketing activities, advertising the commune outside, assistance in finding free land or premises, assistance in recruiting and training employees, promoting the commune's offer at foreign fairs, setting up a unit in the office for servicing foreign investors).
4. Supporting non-governmental organizations (providing free premises for statutory activities, providing materials and equipment, promoting non-governmental entities operating in the field

of public benefit, providing assistance to non-governmental organizations in establishing national and international contacts).

Showing specific relationships between the type of commune, the entrepreneurial support tools it uses, and its level of entrepreneurship can provide important implication material. On this basis, representatives of communes of a given type, can choose instruments to be implemented. The analysis will also expose whether these so-called 'soft' instruments chosen by communes affect the level of local entrepreneurship.

To study the dependence, among others, generalized reduced gradient (GRG) non-linear algorithm was used, which made it possible to arrange communes in terms of supporting entrepreneurship in a way that ensures obtaining the maximum value of the tau-Kendall coefficient. Furthermore, Kruskal-Wallis test was conducted, which at the same time enables to assess the degree of influence of individual areas of a communes' activity on supporting local entrepreneurship.

This article is comprised of the following sections. The first section will focus on the theoretical background. The second section will delineate the methodology for the quantitative empirical analysis. This will be followed by the key section of the study, which will detail the obtained research results. The study will end with a section devoted to the discussion, practical implications, limitations, and future research on the subject.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The literature review was divided into two complementary sections. Their layout aims to provide substantive argumentation necessary to formulate research hypotheses. The first section will refer to the relationship between the generic category of a commune and the establishment of companies. Similarly to cities, rural communes are places of business location (Bański, 2016), but their specificity affects the different characteristics of companies established in their area (Bosworth, 2012; Henderson, 2002) and affects the differences in the forms of supporting entrepreneurship (Naldi *et al.*, 2020). As a result, business creation in rural and urban areas has different characteristics (Henderson *et al.*, 2007; Renski, 2008). Municipalities are much better equipped with infrastructure for business (Korsgaard *et al.*, 2015), supporting the creation of a network of cooperators, which allows them to consume the benefits of location (Frenkel, 2001; Van Geenhuizen & Nijkamp, 2009). Location decisions are therefore crucial from the perspective of establishing companies and well-chosen instruments to stimulate them can significantly strengthen this potential (Skica & Rodzinka, 2021; Porter & Stern, 2001). The condition is entrepreneurial intentions, which are expressed in effect (Sarasvathy, 2008), which is in line with the idea of bricolage (Baker & Nelson, 2005). This relationship is also indicated by Rod and Rod (2020). The demonstrated diversification of commune features and patterns of establishing companies specific to them justifies the study of the relationship between entrepreneurship and the type of commune. Although Bosma and Sternberg (2014) prove that entrepreneurship (particularly motivated by opportunity) is usually higher in urban areas, Renski (2008) shows that rural areas are also characterized by high rates of entrepreneurship. However, they differ in the nature of entrepreneurship (Westhead, 1988). New knowledge-intensive companies are established more often in cities (Andersson *et al.*, 2016) and rural areas (except agriculture), companies from the trade and automotive, industrial processing, and construction sectors are established the most often (Szmit *et al.*, 2017). The reasons for setting up businesses in rural and urban areas are also different. In the case of the former, they go beyond economic benefits and include lifestyle (Hollick & Braun, 2005), culture (Hustedde, 2007), social improvement (Dees, 1998), and the opportunity to build something (Sarasvathy, 2006). In rural areas, informal networks are much more important (Bosworth & Atterton, 2012; Escandón-Barbosa *et al.*, 2019). Simeoni and Testa (2018) explore and explain the so-called unconventional entrepreneurship precisely through the prism of its relationship with the type of commune, and the processes of setting up companies in rural areas are associated with social factors (Granovetter, 1985). The role of institutions in supporting entrepreneurship in rural and urban areas is also different (Vesala & Vesala, 2010; Klofsten *et al.*, 2020), which also refers to the effectiveness of incentives for starting new businesses (Naldi *et al.*, 2020). Thus far, the research findings allow for the formulation of the following hypothesis:

H1: The dynamics of the number of newly established enterprises in Poland is significantly dependent on the generic category of communes.

The second section will focus on the relationship between the type of commune and support instruments used and their effects on the creation of new companies. Inglot-Brzęk and Skica (2017) indicate that infrastructural (hard) instruments are appropriate for rural communes, while soft instruments (promotion, information, and planning) work better in urban and urban-rural communes. Budget instruments in relation to cities are studied by Poniatowicz and Wyszkowska (2014) who prove that the scope of local fiscalism (*e.g.* the space for applying tax instruments) increases with the size and wealth of the commune. Off-budget (soft) forms of support are analyzed by Chomiak-Orsa and Flieger (2012), showing their diversity, unequal effectiveness, and the need to adapt to the specificity (also type) of communes. Mickiewicz *et al.* (2021) prove that the effectiveness of forms of support is conditioned by the type of supported economic activity. Commercial activity is effectively supported by advisory instruments, services related to hospitality (financial instruments and attracting external investors), the construction and processing industry (stimulating social self-organisation), and modern services creating conditions for locating investments from outside the commune. Although the authors emphasize the importance of non-financial ('soft') instruments, Young and Kaczmarek (2000) showed that they are still poorly developed in Poland. These weaknesses are mainly visible in voivodship cities and municipal communes. Satoła (2014) supports this narrative and points directly to the ineffectiveness of tax instruments. Fazlagic *et al.* (2021) and Mickiewicz *et al.* (2021) checked the effectiveness of municipalities in supporting various forms of entrepreneurship but only in cities. They estimate the costs of these policies and emphasize the need for a separate approach (compared to other municipalities) to support the creation of new businesses in urban areas. This is confirmed by Naldi *et al.* (2020) on a sample of small and medium-sized cities. Brooks *et al.* (2019) went a step further and examined the role of public policy in creating entrepreneurial ecosystems in Polish cities. Their results show that these attempts were only partially successful, as entrepreneurship ecosystems have not yet been established in their areas. The presented research results allow us to conclude that the knowledge on the relationships between the type of commune and the instruments appropriate for it and the impact of the type of commune on the effectiveness of the instruments used needs to be deepened. Therefore, based on the literature review, two complementary hypotheses were formulated:

H2: The type of commune determines the use of instruments supporting entrepreneurship included in individual areas of supporting entrepreneurship.

H3: The type of commune affects the effectiveness of individual groups of instruments supporting entrepreneurship.

RESEARCH METHODOLOGY

The research was carried out between June and October 2019. The selection of local government units (LGUs) for the research sample was two-stage, in the first stage purposive sampling was used, accepting 735 communes participating in the Polish edition of the Global Entrepreneurship Monitor research project in 2015. In the second stage, dependent sampling was used, selecting 347 communes from the database of all communes in Poland in such a way as to provide the sample with the same structure as the actual structure of communes in Poland by type. The communes were surveyed using the CAWI/CATI method. The CATI method supplement the CAWI method in the case of all communes from the pool of 735 that did not return correctly completed questionnaires (352 communes in total), it was also the basic tool for examining the randomly selected communes (347 communes).

The assessment of activities introduced by communes in the field of local entrepreneurship development was carried out in four areas:

1. Cooperation between the commune and entrepreneurs (26 questions in the survey concerning a specific tool used by a given commune in this area).
2. Finance, taxes, and administration (22 questions).
3. Attracting investors and external funds by the commune (28 questions).

4. Supporting non-governmental organizations (eight questions). The list of questions concerning individual areas of cooperation between the commune and entrepreneurs and the numbering assigned to the individual instruments questions is presented in Appendix No. 1. Since these questions were dichotomous, the answers obtained on their basis were recoded to binary form in accordance with the principle: if the surveyed commune answered that it does not use the tool described in a given question in its activity, the variable describing this question received value '0,' while if it indicated that a given tool is used to support entrepreneurship in a given commune, the variable received value '1.'

We determined the impact of individual activities on the growth of newly established companies performed by municipalities using the GRG non-linear algorithm.

$$z_j = \sum_{i=1}^{m} \omega_i \cdot x_{ij} \tag{1}$$

In which:

m - is the number of tools included in a given area of supporting entrepreneurship by the j commune (number of questions in the survey related to a given area of supporting entrepreneurship);

x_i - is a dummy variable, the value of which depends on whether the given tool uses the i-*th* tool in its activity (whether the answer to a specific question was 'YES' or 'NO');

ω_i - is a weight defining the importance of the i-*th* tool in terms of supporting the development of entrepreneurship.

The procedure for estimating the values of the weights ω_i was as follows:

1. Surveyed communes were sorted in terms of entrepreneurship development, from the commune with the highest increase in the number of newly established enterprises in 2020 compared to 2011 (per 1000 inhabitants) to the commune with the largest decrease in this matter.
2. Taking into account the survey results based on the formula (1), the value of the synthetic variable z_j was determined for each commune, evaluating the commune's degree of involvement in the promotion of entrepreneurship in its area in each of the discussed j areas. It was initially assumed that each of the tools included in a given area of supporting entrepreneurship by a commune has the same meaning (the value of all weights $\omega_i = 1/m$).
3. On the basis of the obtained values of variable z_j, the communes were sorted in terms of supporting local entrepreneurship, from the commune with the highest z_j value to the commune with the lowest z_j value.
4. Using the tau-Kendall coefficient (Abdi, 2007), an assessment was made of the compatibility of the ordering of communes in terms of the development of entrepreneurship and in terms of supporting local entrepreneurship.
5. Using the GRG non-linear algorithm, the ω_i weights were modified in such a way that the obtained values of the z_i variable enabled the ordering of communes in terms of supporting entrepreneurship in a way that ensured obtaining the maximum value of the tau-Kendall coefficient. It was assumed that the weight values obtained on this basis meet two basic assumptions related to the weights of diagnostic variables, namely positivity $(w_i > 0)$ and summability to unity $\left(\sum_{i=1}^{m} w_j = 1\right)$.

As a result of the applied procedure, such values of ω_i weights were finally obtained, which ensured the greatest degree of linking the tools used by communes to support local entrepreneurship with the actual change of newly established enterprises in its area. This allowed for an objective assessment of the importance of activities undertaken by communes for the development of local entrepreneurship.

RESULTS AND DISCUSSION

Based on the preliminary Kruskal-Wallis test, it can be concluded that changes in the number of newly established enterprises in communes in Poland significantly depend on the type of commune. How-

ever, a deeper analysis of the numerical characteristics describing the formation of the discussed phenomenon in particular types of communes (Table 1) shows that only rural communes differ significantly from other communes. Practically only in this group of communes, both on the basis of the arithmetic mean and the median, an increase in the number of newly established economic entities per 1000 inhabitants could be observed. Comparing 2020 and 2011 data, in the remaining groups of communes, this indicator practically deteriorated affecting urban communes the most.

Table 1. Numerical characteristics of changes in the number of newly established enterprises per 1000 inhabitants in individual groups of communes in Poland in 2011-2020

Type of commune	N	Mean	Median	Min	Max	1. quartile	3. quartile	St. dev
Rural commune	476	20.84%	10.61%	-63.82%	337.77%	-6.26%	35.08%	44.56%
Urban commune	113	-6.42%	-11.39%	-38.89%	75.08%	-18.53%	1.82%	20.16%
Urban-rural commune	195	0.32%	-3.18%	-47.82%	73.51%	-12.79%	10.63%	19.63%
City with powiat rights	15	-4.84%	-8.41%	-26.20%	22.28%	-14.06%	2.36%	11.77%

Source: own elaboration.

Taking into account the diversified nature of the above-mentioned changes, the procedure of weighing the tools included in individual areas of supporting entrepreneurship in communes was carried out separately for each type of commune. This allowed us to additionally indicate possible differences in the 'importance' of these tools between particular groups of communes.

In the area of cooperation between communes and entrepreneurs, regardless of the type of commune, it was of no importance whether there were chambers of commerce or their branches in the commune (C3.1) and features of various crafts (C3.3). In the case of rural communes, this factor had a significant impact on the development of entrepreneurship in their area (tau-Kendalla=0.0749, p-value=0.0145), and the most important was whether the communes participated in the establishment of a loan fund (ω=0.2046), a technology park (ω=0.1977), and the investor service centre (ω=0.1795). Apart from the two previously mentioned tools, the following elements did not affect the development of entrepreneurship among rural communes: informing the commune about available sources of financing through brochures available in offices (C1.2), at meetings organized for this purpose (C1.3) and training (C1.4), organization of training by the commune on starting and running a business (C2), functioning of employers' organizations (C3.4), regional and local development agencies (C3.5), and technology parks (C3.7). In the case of urban communes (tau-Kendalla=0.0496, p-value=0.4361), the most important in the development of entrepreneurship was the establishment of a business incubator (ω=0.1331), participation in the process of creating strategic documents of entrepreneurs from the commune (ω=0.1302), investments in the public-private partnership formula (ω=0.1216), establishing a loan fund (ω=0.1171), or operating a regional or local development agency in the commune (ω=0.1105). In the case of urban-rural communes (tau-Kendalla=0.0814, p-value=0.0920), the five most important tools for supporting entrepreneurship in the area of cooperation with entrepreneurs were: location in the commune of a service point for entrepreneurs offering legal, financial and accounting advice, etc. (ω= 0.1259), participation of the commune in the establishment of a loan fund (ω=0.1259) and an information centre for business (ω=0.1246), organization of meetings by the commune informing about available sources of financing activities (ω=0.1230) and operation of industrial parks, technology parks in the commune business incubators, etc. (ω=0.1130). Among the cities with powiat rights, five most important tools for supporting entrepreneurship in the area of cooperation with entrepreneurs were (tau-Kendalla=0.2571, p-value=0.1815), the meetings organized by the commune informing about the available possibilities of co-financing activities (ω=0.1333) and brochures available in offices in this regard (ω= 0.1325), the functioning of incubators, technology and industrial parks in the commune (ω=0.1325), as well as the establishment of a credit guarantee fund (ω=0.1257) and a loan fund (ω=0.1025).

Detailed information on the shaping of the weights of individual tools included in the area of cooperation between the commune and entrepreneurs is presented in Table 2.

Table 2. Values of weights for tools supporting entrepreneurship in particular types of communes

Type of commune	C1.1	C1.2	C1.3	C1.4	C2	C3.1	C3.2	C3.3	C3.4	C3.5	C3.6	C3.7	C4	
Rural	0.0474	0	0	0	0	0	0.1284	0	0	0	0.1614	0	0	
Urban	0.0031	0	0	0	0	0	0	0	0	0.1105	0	0	0.0473	
Urban-rural	0.0957	0	0.1230	0	0.0305	0	0.0888	0	0	0	0.0108	0.1130	0.1259	
City with powiat rights	0	0.1325	0.1333	0.0207	0	0	0	0	0.0877	0.0175	0.0292	0.1325	0	
Type of commune	**C5**	**C6**	**C7**	**C8.1**	**C8.2**	**C8.3**	**C8.4**	**C8.5**	**C8.6**	**C8.7**	**C8.8**	**C8.9**	**C8.10**	
Rural	0	0.0500	0	0.0066	0.0140	0.1795	0	0.204599	0	0.0079	0.1978	0	0.0024	
Urban	0.0963	0.1216	0.1302	0.0786	0.1331	0.1015	0.0485	0.1171	0.0006	0	0.0034	0.0082	0	
Urban-rural	0	0.0004	0.0405	0.0002	0.0720	0	0	0.1259	0	0.0488	0	0.1246	0	
City with powiat rights	0.0975	0.0998	0	0	0	0	0	0.1025	0.0212	0	0	0	0.1257	
Type of commune	**D1**	**D.2.1**	**D.2.2**	**D3**	**D4**	**D5.1**	**D5.2**	**D5.3**	**D5.4**	**D5.5**	**D5.6**			
Rural	0.1806	0	0.0884	0.0833	0.0562	0.1804	0	0	0	0	0			
Urban	0.1393	0.0602	0.0245	0.0027	0	0.0146	0.0916	0.1382	0	0	0.1114			
Urban-rural	0	0	0	0.1399	0	0	0.0680	0	0	0	0.1332			
City with powiat rights	0.1060	0	0.1073	0.0000	0.0942	0.0957	0.1041	0	0.1051	0	0.0950			
Type of commune	**D5.7**	**D5.8**	**D5.9**	**D5.10**	**D5.11**	**D6**	**D7.1**	**D7.2**	**D7.3**	**D7.4**	**D7.5**			
Rural	0	0.1276	0.0001	0	0.1665	0.0008	0	0.1161	0	0	0.0000			
Urban	0.0146	0.1318	0.1084	0	0.0000	0	0.0025	0.0051	0.1355	0	0.0194			
Urban-rural	0.1258	0	0.0114	0	0.0229	0	0.0704	0.0674	0.0960	0.1302	0.1348			
City with powiat rights	0	0	0	0	0.0990	0.0872	0.0713	0.0352	0.0000	0	0			
Type of commune	**E.1.1**	**E.1.2**	**E.1.3**	**E.1.4**	**E.1.5**	**E.1.6**	**E.1.7**	**E.1.8**	**E.1.9**	**E.1.10**	**E2**	**E4.1**	**E4.2**	**E4.3**
Rural	0	0.0616	0.0605	0.0309	0.1204	0	0.0002	0.0262	0.0449	0.1306	0.0023	0.0300	0	0
Urban	0.0805	0.0183	0	0	0.1217	0	0.1236	0.0391	0.0032	0	0.1281	0	0.1218	0
Urban-rural	0.1168	0.1235	0	0.0351	0.1266	0	0	0	0	0	0	0.1001	0	0
City with powiat rights	0.0774	0.0784	0.1130	0.1122	0	0.0819	0.0761	0.1122	0.0536	0	0.0547	0	0.0425	0
Type of commune	**E4.4**	**E4.5**	**E4.6**	**E4.7**	**E5.1**	**E5.2**	**E5.3**	**E5.4**	**E5.5**	**E6.1**	**E6.2**	**E6.3**	**E6.4**	**E6.5**
Rural	0	0.0171	0	0.1297	0.1262	0	0	0	0.0124	0.0975	0	0	0	0.1097
Urban	0	0.0062	0.0022	0	0	0.0090	0.1023	0.0035	0.0061	0.1310	0.0098	0.0357	0.0074	0.0505
Urban-rural	0.0396	0.0080	0.1222	0	0	0.0090	0.0496	0	0.0261	0.0837	0	0.1076	0.0496	0.0027
City with powiat rights	0.0283	0.0654	0	0	0.0059	0	0.0608	0	0.0012	0.0365	0	0	0	0
Type of commune	**F1.1**	**F1.2**	**F1.3**	**F1.4**	**F1.5**	**F1.6**	**F1.7**	**F1.8**						
Rural	0.1923	0.1923	0.0831	0.1879	0	0.1537	0.1906	0						
Urban	0	0	0.1801	0.2283	0.2280	0.1696	0.1941	0						
Urban-rural	0.2438	0.1508	0.0042	0.1820	0.2153	0.0058	0.1981	0						
City with powiat rights	0	0.2291	0.0703	0.1320	0.0712	0.0689	0.2244	0.2042						

Source: own calculation.

The obtained variables z_i describing the scales of the tools used in individual areas also enable the assessment of the degree of impact of individual areas of communes' activity on supporting local entrepreneurship. On the basis of the estimated weights determining the link between individual areas and the rate of increase in the number of newly established enterprises in communes, it can be concluded that in the case of rural communes, almost 50% of the importance in the development of local entrepreneurship were tools describing the cooperation of the commune with entrepreneurs. In the case of urban communes, activities in the area of attracting investors and funds from outside were of the greatest importance (62%), in urban-rural communes almost 40% of small tools included in the area of finance, taxes and administration, while in cities with powiat rights, activities in the area of finance, taxes and administration, attracting investors and funds from outside, supporting non-governmental organizations were practically of the same importance. At the same time, in the case of rural communes, actions taken in the field of supporting non-governmental organizations were of no importance in this regard, and in the case of rural communes, actions in the area of cooperation with entrepreneurs were of no importance (Table 3).

Table 3. Values of weights for individual areas of communes' activity in the field of supporting local entrepreneurship

Type of commune	Area of cooperation between the commune and entrepreneurs	Area of finance, taxes and administration	Area of attracting investors and funds from outside	Area of supporting non-governmental organizations
Rural	0.4859	0.2325	0.2815	0.0000
Urban	0.0000	0.2032	0.6177	0.1790
Urban-rural	0.3054	0.3880	0.2792	0.0274
City with powiat rights	0.1141	0.3101	0.2813	0.2944

Source: own elaboration.

Taking into account the importance of individual areas and the importance of tools used by their governments, among all the previously indicated 84 tools, in the case of rural communes the most important activities in terms of stimulating local entrepreneurship was whether the commune participated in the establishment of an entrepreneurship support centre (9.94%), provided information for business (9.61%), established local development agencies (8.72%), and whether there are associations and foundations supporting entrepreneurship (7.84%) or craft chambers (6.24%) in the commune. In the case of urban communes, such activities included promoting investment values via the website or public information bulletin (8.09%), operating a special economic zone (791%), providing a website in a foreign language (7.64%), disseminating information on financing activities (7.53%), and providing individual service when registering business activity (7.52%). In urban-rural communes, the most important were the granting of tax reliefs by the commune to new private entrepreneurs (5.43%), conducting an appropriate policy of sale (perpetual usufruct) or exchanging commune real estate in the process of supporting entrepreneurship (5.23%), providing financial support by the commune in the form of sureties and guarantees (5.17%), and developing detailed rules for using commune property in the process of supporting entrepreneurship (5.05%). In cities with powiat rights, tools that are part of supporting non-governmental organizations were of particular importance, including informing such organizations about sources of extra-budgetary funds (5.23%), taking such organizations under the patronage of the commune (5.21%), or appointing a responsible person in the office for contacts with non-governmental organizations (4.73%). Detailed information on the final shaping of the weights of individual tools is presented in Table 4 (Annex 2).

CONCLUSIONS

Based on research conducted, the first hypothesis that the type of commune affects the increase in the number of newly established enterprises turned out to be true, which was confirmed by the Kruskal-Wallis test analysis. However, after deepening the inquiry, it was concluded that the number of newly established enterprises increased only in rural communes. This could be due to the fact that in these specific types of communes, the saturation with enterprises was the lowest, hence, they were somehow

catching up with other types of municipalities, where these indicators decreased in the analyzed period. A possible explanation for the increase in the number of new entities in villages compared to cities may be the relocation of the seats of already existing enterprises from cities to villages (especially those located near the cities) caused, for example, by lower fees and taxes applied in rural communes. Hypothesis 2 turned out to be true. The analysis of the importance of activities carried out by communes in the development of local entrepreneurship, broken down by support areas, showed that communes used various instruments. This is in line with the research of Brzozowska *et al.* (2018) who believe that the policy of economic, institutional, and infrastructural incentives dedicated to economic entities is feasible through enterprise support instruments used by communes. This issue was also analysed by, among others, Mickiewicz *et al.* (2016). The phenomenon of instrumentalization of entrepreneurship support in Poland, Estonia, and Slovakia is described in more detail in the book (Skica & Rodzinka, 2020).

Our research also showed, which is consistent with (Skica & Rodzinka, 2021 after Prange, 2008; Porter & Stern, 2001), that it is impossible to indicate one instrument in any of the areas that would be of great importance in all types of communes. Therefore, governors managing different types of communes should choose a different set of instruments to support entrepreneurship. A different set of instruments should be used in rural communes, another in urban communes, and yet another in urban-rural communes. The exact list of the most effective tools depending on the type of commune is indicated in the results part.

The third hypothesis also turned out to be true: the type of commune is important in the context of the effectiveness of individual groups of instruments supporting entrepreneurship. In the case of urban-rural communes and cities with powiat rights, instruments in the area of finance turned out to be the most effective, while for rural communes instruments in the area of cooperation with entrepreneurs were important. In the case of urban communes, attracting investors and funds from outside had the greatest impact.

Somewhat surprising were the results of research on the poor growth of start-ups in urban areas. However, given a deeper analysis, slower growth in cities than outside them may indicate the convergence effect. In communes with a high saturation of economic activity, this increase is lower, and in communes with a lower number of operating entities, new registrations grow faster. In addition, different types of communes determine the effectiveness of different instruments. According to the analysis, these instruments are not distributed randomly. Various instruments correspond to the different potential of supporting entrepreneurship in communes (*e.g.* rural and urban). For example, the importance of a technology park will not work in most rural communes, where the technological infrastructure is at a lower level than in urbanized communes. Similarly, with a good base for entrepreneurship in urban-rural communes, counselling turns out to be crucial. The results of our research confirm the previous data presented by the Supreme Audit Office (NIK, 2018).

A thorough analysis of the research results allows to determine which tools give better results and which do not bring the desired ones. Based on the obtained results, the authorities of communes can shape the policy of support for the development of entrepreneurship. This seems to be justified, because despite the fact that many authors have tried to advise practitioners on the effectiveness of the tools used to support entrepreneurship, such as the already quoted Olsson *et al.* (2020), Audretsch *et al.* (2015), and Brooks *et al.* (2019), none of the authors presented the situation in such a comprehensive way. None gave such an unambiguous and accurate answer on the effectiveness of using so many instruments supporting entrepreneurship.

However, our research has its limitations. The biggest of them concerns the fact that only Polish communes were surveyed, so the results of the research can be directly applied only among communes in this country. Differences between countries and the organization of local government systems largely limit the possibility of applying the solutions postulated in the study to communes operating in other countries. Some instruments may even be inapplicable elsewhere because they are unavailable. Nevertheless, the cognitive value of the research is undeniable, and its implementation in other systems is possible after making the necessary adjustments.

The results of the study proved that there is no one universal area or instrument that would guarantee with high probability success in the form of an increase in the level of entrepreneurship in a

commune, regardless of its type. It was shown that in specific types of communes, it is possible to identify tools that are more effective than others.

Nevertheless, each entity has its own specific conditions, which make some tools more effective than others.

The conclusions of this study show that the impact of soft measures taken by communes on the level of entrepreneurship is negligible. Therefore, in the next stages of the study, it is possible to focus on the remaining local conditions that may determine these values. Infrastructure investments seem to be an important direction, so the next stage of the work will undertake the analysis, scope, extent, and effects of infrastructure investments and their impact on the level of local entrepreneurship.

REFERENCES

Abdi, H. (2007). Multiple Correlation Coefficient. [In] N.J. Salkind (Ed.), *Encyclopedia of Measurement and Statistics* (pp. 648-651). Sage, Thousand Oaks, Newbury Park.

Andersson, M., Koster, S., & Lavesson, N. (2016). Are start-ups the same everywhere?: The urban–rural skill gap in Swedish entrepreneurship. [In] E.A. Mack (Ed.), *Geographies of entrepreneurship* (pp. 122-142). Routledge, London.

Audretsch, D., & Feldman, M.P. (2004). Knowledge spillovers and the geography of innovation. [In] *Handbook of Regional and Urban Economics* (pp. 2713-2739). Elsevier. Retrieved from https://econpapers.repec.org/bookchap/eeeregchp/4-61.htm on December 5, 2022.

Audretsch, D.B., & Keilbach, M. (2005). Entrepreneurship capital and regional growth. *The Annals of Regional Science, 39*, 457-469. https://doi.org/10.1080/00343400420002809 56

Audretsch, D.B., Kuratko, D.F., & Link, A.N. (2015). Making sense of the elusive paradigm of entrepreneurship. *Small Business Economics*, *45*, 703-712. https://doi.org/10.1007/s11187-015-9663-z

Baker, T., & Nelson, R.E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly, 50*(3), 329-366. https://doi.org/10.2189/asqu.2005.50.3.329

Banski, J. (2016). Development of entrepreneurship in rural areas - diagnosis and challenges. *Studies of the National Spatial Development Committee of the Polish Academy of Sciences,* (167), 274-284.

Bjørnå, H., & Aarsæther, N. (2010). Local government strategies and entrepreneurship. *International Journal of Innovation and Regional Development*, *2*(1-2), 50-65. https://doi.org/10.1504/IJIRD.2010.029854

Bosma, N., & Sternberg, R. (2014). Entrepreneurship as an urban event?. Empirical evidence from European cities. *Regional Studies, 48*(6), 1016-1033. https://doi.org/10.1080/00343404.2014.904041

Bosworth, G. (2012). Characterising rural businesses-Tales from the paperman. *Journal of Rural Studies, 28*(4), 499-506. https://doi.org/10.1016/j.jrurstud.2012.07.002

Bosworth, G., & Atterton, J. (2012). Entrepreneurial in-migration and neoendogenous rural development. *Rural Sociology, 77*(2), 254-279.

Brooks, C., Vorley, T., & Gherhes, C. (2019). Entrepreneurial ecosystems in Poland: Panacea, paper tiger or Pandora's box?. *Journal of Entrepreneurship and Public Policy, 8*(3), 319-338. https://doi.org/10.1108/JEPP-04-2019-0036

Brzozowska, K., Gorzałczyńska-Koczkodaj, M., Kogut-Jaworska, M., & Szaja, M. (2018). Financial determinants of local and regional development. Krakow-Legionowo: edu-Libri.

Chomiak-Orsa, I., & Flieger, M. (2012). Stimulating local economic development. An attempt to assess the effectiveness of extra-budgetary activities of communes. Scientific Notebooks/Higher School of Land Forces Officers Gen. T. Kosciuszko, 177-185.

Dees, J.G. (1998). Enterprising nonprofits: What do you do when traditional sources of funding fall short. *Harvard Business Review, 76*(1), 55-67.

Escandón-Barbosa, D.M., Urbano, D., Hurtado-Ayala, A., & Dominguez, A.Z. (2019). Formal institutions, informal institutions and entrepreneurial activity: A comparative relationship between rural and urban areas in Colombia. *Journal of Urban Management, 8*(3), 458-471. Retrieved from http://www.journals.elsevier.com/journal-of-urban-management on October 10, 2022.

Fazlagić, J., Szulczewska-Remi, A., & Loopesko, W. (2021). City policies to promote entrepreneurship: A cross-country comparison of Poland and Germany. *Journal of Entrepreneurship, Management and Innovation, 17*(2), 159-185 https://doi.org/10.7341/20211726

Frenkel, A. (2001). Why high-technology firms choose to locate in or near metropolitan areas. *Urban Studies, 38*(7), 1083-1101. https://doi.org/10.1080/00420980120051666

Fritsch, M., & Mueller, P. (2008). The effect of new business formation on regional development over time: The case of Germany. *Small Business Economics*, *30*, 15-29. Retrieved from s11187-007-9067-9.pdf (springer.com) on October 10, 2022.

Granovetter, M. (1985). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology, 91*(3), 481-510. Retrieved from https://www.jstor.org/stable/2780199 on October 10, 2022.

Henderson, J. (2002). Building the rural economy with high-growth entrepreneurs. *Economic Review-Federal Reserve Bank of Kansas City, 87*(3), 45-75.

Henderson, J., Low, S., & Weiler, S. (2007). The drivers of regional entrepreneurship in rural and metro areas. [In] N.Walzer (Ed.), *Entrepreneurship and Local Economic Development* (pp. 81-102). Lexington Books.

Hollick, M., & Braun, P. (2005). Lifestyle entrepreneurship: the unusual nature of the tourism entrepreneur. *Proceedings of the Second Annual AGSE International Entrepreneurship Research Exchange, Swinburne Press, Melbourne, 10*(11), 1-17.

Hustedde, R. (2007). What's culture got to do with it? Strategies for strengthening an entrepreneurial culture. Entrepreneurship and local economic development. [In] N. Walzer (Ed.), *Entrepreneurship and local economic development* (pp. 39-58). New York: Lexington Books.

Inglot-Brzęk, E., & Skica, T. (2017). Differentiation of the effects of the use of entrepreneurship support instruments by the local government due to the criterion of the generic category of the commune. *Territorial Self-Government, (6)*, 24-53.

Isenberg, D. (2019). The Key to Economic Growth? Local Entrepreneurship. Babson Thought & Action. Retrieved from https://entrepreneurship.babson.edu/the-key-to-economic-growth-local-entrepreneurship/ on December 5, 2022.

Klofsten, M., Norrman, C., Cadorin, E., & Löfsten, H. (2020). Support and development of small and new firms in rural areas: a case study of three regional initiatives. *SN Applied Sciences, 2*, 1-9. https://doi.org/10.1007/s42452-019-1908-z

Korsgaard, S., Müller, S., & Tanvig, H. (2015). Rural entrepreneurship or entrepreneurship in the rural—between place and space. *International Journal of Entrepreneurial Behavior & Research, 21*(1), 5-26. https://doi.org/10.1108/IJEBR-11-2013-0205

Lombardi, S., & Sforzi, F. (2016). Chinese manufacturing entrepreneurship capital: Evidence from Italian industrial districts. *European Planning Studies, 24*(6), 1118-1132. https://doi.org/10.1080/09654313.2016.1155538

Madzivhandila, T.S., & Musara, M. (2020). Taking responsibility for entrepreneurship development in South Africa: The role of local municipalities. *Local Economy, 35*(3), 257-268. https://doi.org/10.1177/0269094220922820

Mickiewicz, T., Rodzinka, J., & Skica, T. (2016). *Local and regional entrepreneurship support factors. Clustering, promotion, consulting and local social capital*. Warsaw: C.H. Beck.

Mickiewicz, T., Skica, T., Sauka, A., & Timofejevs, A. (2021). The role of local government instruments and economic and social self-organization in generating entrepreneurship in Poland and Latvia. *Territorial Self-Government, 371*(11), 10-25.

Müller, S. (2016). A progress review of entrepreneurship and regional development: What are the remaining gaps?. *European Planning Studies, 24*(6), 1133-1158. https://doi.org/10.1080/09654313.2016.1154506

Naldi, L., Larsson, J.P., & Westlund, H. (2020). Policy entrepreneurship and entrepreneurial orientation in vulnerable Swedish municipalities. *Entrepreneurship & Regional Development, 32*(7-8), 473-491. https://doi.org/10.1080/08985626.2020.1798557

OECD. (2019). OECD SME and Entrepreneurship Outlook 2019. OECD. Retrieved from https://www.oecd.org/industry/oecd-sme-and-entrepreneurship-outlook-2019-34907e9c-en.htm on December 5, 2022.

Olsson, A.R., Westlund, H., & Larsson, J.P. (2020). Entrepreneurial Governance and Local Growth. *Sustainability, 12*(9), 3857. https://doi.org/10.3390/su12093857

Pagano, A., Petrucci, F., & Bocconcelli, R. (2020). Passion-driven entrepreneurship in small and medium-sized towns: Empirical evidence from Italy. *Journal of Business & Industrial Marketing*, ahead-of-print(ahead-of-print). https://doi.org/10.1108/JBIM-05-2019-0259

Poniatowicz, M., & Wyszkowska, D. (2014). Stimulating the development of local entrepreneurship and tax competition of municipalities. *Financial and Tax Aspects of Regional Enterprise Development, 73*, 73-93.

Porter, M.E., & Stern, S. (2001). National innovative capacity. The global competitiveness report, 2002, 102-118. Retrieved from https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=b334b58a35aec2b52253c6de9de1d1218e564004 on December 12, 2022.

Prange, H. (2008). Explaining varieties of regional innovation policies in Europe. European *Urban and Regional Studies, 15*(1), 39-52. https://doi.org/10.1177/0969776407081276

Renski, H. (2008). New firm entry, survival, and growth in the United States: A comparison of urban, suburban, and rural areas. *Journal of the American Planning Association, 75*(1), 60-77. https://doi.org/10.1080/01944360802558424

Rod, M., & Rod, G. (2020). Reviewing Effectuation and Bricolage in the Context of Social Entrepreneurship Multisector Collaborations. *International Journal of Business and Management Research, 8*(3), 52-63. https://doi.org/10.37391/IJBMR.080301

Rodrigues, M., & Franco, M. (2021). Digital entrepreneurship in local government: Case study in Municipality of Fundão, Portugal. *Sustainable Cities and Society, 73*, 103115. https://doi.org/10.1016/j.scs.2021.103115

Sarasvathy, S.D. (2006). Effectuation. Cheltenham: Edward Elgar Publishing.

Sarasvathy, S.D. (2008). Effectuation: Elements of entrepreneurial expertise. [In] S.D. Sarasvathy (Ed.) *Effectuation*. Cheltenham: Edward Elgar Publishing.

Satoła, Ł. (2014). The impact of the tax policy of municipalities on the level of entrepreneurship (on the example of real estate tax). *Social Inequalities and Economic Growth, 40,* 238-247.

SCC. (2018). Supporting entrepreneurship by communes. Supreme Chamber of Control. KAP.430.018.2017, No. 201/2017/P/17/004/KAP Retrieved from https://www.nik.gov.pl/plik/id,17394,vp,19963.pdf on December 5, 2022.

Simeoni, F., & Testa, F. (2018). Unconventional Entrepreneurship and the Municipality: The Role of Passion and Competences. [In] S. Cubico, G. Favretto, J. Leitão, & U. Cantner, (Eds.) *Entrepreneurship and the Industry Life Cycle. Studies on Entrepreneurship, Structural Change and Industrial Dynamics* (pp. 341-358). Springer, Cham. https://doi.org/10.1007/978-3-319-89336-5_16

Skica, T., & Rodzinka, J. (2021). Local government policy towards the financial instruments supporting entrepreneurship. *Entrepreneurial Business and Economics Review, 9*, 135-147. https://doi.org/10.15678/EBER.2021.090309

Skica, T., & Rodzinka, J. (Eds.). (2020). Instrumentalization of entrepreneurship support in Poland, Estonia and Slovakia: Local government, central administration and public institutions. London: Scientific Publishing House IVG.

Srinivas, H. (2022). The Role of Local Governments in Fostering Business Partnerships for Environmental Sustainability. GDRC Research Output E-076. Retrieved from https://www.gdrc.org/sustbiz/bizpartnerships.html on January 22, 2022.

Szmit, A., Szmit, M., & Lisiak-Felicka, D. (2017). Survival studies of companies established as part of projects implemented under the Human Capital Operational Program An empirical study for the Incubator Foundation. Lodz: Lodz University of Technology Publishing House.

Thekiso, L.E. (2016). The role of local government in supporting entrepreneurship and SMME development: The case of Mangaung Metropolitan Municipality. Retrieved from http://scholar.ufs.ac.za/xmlui/handle/11660/4800 on March 3, 2022.

Thurik, A.R. (2008). Entrepreneurship, Economic Growth and Policy in Emerging Economies. ERIM Report Series Research in Management (ERS-2008-060-ORG; ERIM Report Series Research in Management). Retrieved from https://ideas.repec.org/p/ems/eureri/13318.html on March 3, 2022.

van Geenhuizen, M., & Nijkamp, P. (2009). Place-bound versus footloose firms: wiring metropolitan areas in a policy context. *The Annals of Regional Science, 43*, 879-896. https://doi.org/10.1007/s00168-009-0298-3

Vesala, H., & Vesala, K. (2010). Entrepreneurs and producers: Identities of Finnish farmers in 2001 and 2006. *Journal of Rural Studies, 26(*1), 21-30. https://doi.org/10.1016/j.jrurstud.2009.06.001

Westhead, P. (1988). New manufacturing firms and new firm founders in rural and urban areas in Wales: are they really different? SWP 30/88, 1-30. Retrieved from https://dspace.lib.cranfield.ac.uk/bitstream/handle/1826/576/SWP3088.pdf?sequence=2 on October 2, 2022.

Young, C., & Kaczmarek, S. (2000). Local government, local economic development and quality of life in Poland. *GeoJournal, 50*, 225-234. Retrieved from https://www.jstor.org/stable/41147472 on October 5, 2022.

Appendix A: Groups of tools describing the cooperation of the commune with entrepreneurs and questions numbering

Group describing the cooperation of the commune with entrepreneurs

Among the tools describing the cooperation of the commune with entrepreneurs, the subject of the study was whether:

1. the commune informs residents and entrepreneurs about the available funding opportunities:
   a. on the website of the municipality (C1.1);
   b. through brochures available at the office / through advertisements in the mass media (C1.2);
   c. at meetings organized for this purpose with stakeholders (C1.3);
   d. by organizing or supporting training on how to apply for such funds (C1.4);
2. the commune is involved in the organization of trainings preparing to take up and run a business (C2);
3. in the area of the commune, there are:
   a. chambers of commerce or their branches (C3.1);
   b. chambers of crafts (C3.2);
   c. characteristics of various crafts (C3.3);
   d. employers' organizations (C3.4);
   e. regional or local development agencies (C3.5);
   f. associations or foundations supporting entrepreneurs (C3.6);
   g. industrial and technological parks, business incubators (C3.7)
4. business service points offering legal, financial, and accounting advice, etc. are located in the commune (C4);
5. municipal services in the commune are provided by private companies (C5);
6. the commune has implemented or is implementing investments in the form of a public-private partnership (C6);
7. entrepreneurs from the commune participated in the process of creating strategic documents (C7);
8. the commune participated in the establishment of:
   a. credit guarantee fund (C8.1);
   b. business incubator (C8.2);
   c. investor service centre (C8.3);
   d. local development agencies (C8.4);
   e. loan fund (C8.5);
   f. business support centre (C8.6);
   g. industrial park (C8.7);
   h. technology park (C8.8);
   i. business information centre (C8.9);
   j. an association or foundation supporting entrepreneurs (C8.10).

Group describing the area of finance, taxes, and administration

The second group of tools describing the support of local entrepreneurship by communes were tools included in the area of finance, taxes, and administration. In this area, the subject of the analysis was whether the commune:

1. is involved in financial support for entrepreneurs (guarantees, guarantees, loans) (D1);
2. introduces facilitations for enterprises conducting business activity through:
   a. preferential rates of tax on means of transport (D2.1);
   b. preferential property tax rates (D2.2);
   c. grants tax relief to new private companies (D3);
   d. shares/sells the municipal property to private companies (D4);
3. uses economic and financial tools such as:
   a. preferential (lower than maximum) tax rates (D5.1);
   b. tax credits for entrepreneurs (D5.2);
   c. tax exemptions for entrepreneurs (D5.3);
   d. write-off of tax arrears (D5.4);
   e. payment of tax or tax arrears in instalments (D5.5);
   f. tax deferral (D5.6);
   g. preferences in determining the fees paid by entrepreneurs to the commune budget (D5.7);
   h. financial support in the form of sureties and guarantees (D5.8);
   i. financial support in the form of loans (D5.9);
   j. actions assuming the inclusion of investment areas in the SEZ (D5.10);
   k. price policy instruments related to utilities (D5.11);

4. analyzes the financial consequences for the budget of the entrepreneurship support policy (D6);
5. in the process of supporting entrepreneurship, it uses such tools of the commune's property management policy as:
   a. fees for the use of land, facilities and equipment owned by the commune (D7.1);
   b. pricing systems for the use of land and facilities owned by the municipality (D7.2);
   c. benefit payments (D7.3);
   d. detailed rules for the use of municipal property (D7.4);
   e. sale (perpetual usufruct) and exchange of municipal property (D7.5).

Group describing the area of acquiring investors and funds from outside by the commune

The analysed group of factors were tools in the area of attracting investors and funds from outside by the commune. In this group, the subject of the analysis was whether:

1. the commune conducts activities aimed at attracting new investors through:
   a. marketing activities, advertising the commune outside (E1.1);
   b. assistance in finding vacant land or premises (E1.2);
   c. assistance in the recruitment and training of employees (E1.3);
   d. advice, including legal and financial (E1.4);
   e. individual service when registering business activity (E1.5);
   f. websites (E1.6);
   g. websites in a foreign language (E1.7);
   h. information and promotion materials in a foreign language (E1.8);
   i. promoting the commune's offer at foreign fairs (E1.9);
   j. separation of an organizational unit or position for servicing foreign investors (E1.10);
2. there is a special economic zone (E.2) in the commune;
3. as part of cooperation with entrepreneurs, the commune uses:
   a. advice and consultation (E4.1);
   b. dissemination of information on financing activities (E4.2);
   c. dissemination of information necessary to run a business (E4.3);
   d. assistance in setting up business associations (E4.4);
   e. support in staff recruitment (E4.5);
   f. support in staff training (E4.6);
   g. promotion and dissemination of good practices (E4.7);
4. the form of advice provided to entrepreneurs in the field of running a business was:
   a. electronic guide published on the website of the office (E5.1);
   b. organization of thematic training (E5.2);
   c. running a permanent point of advice and service for entrepreneurs (E5.3);
   d. meetings or fairs involving, inter alia, NGOs (E5.4);
   e. guide or information materials in paper version (E5.5);
5. the form of promotion of the commune's investment values carried out by local government authorities is:
   a. website of the commune or public information bulletin (BIP) (E6.1);
   b. publications on the commune (brochures, albums, advertising folders) (E6.2);
   c. participation in rankings and competitions organized for municipalities (E6.3);
   d. participation in fairs and exhibitions (E6.4);
   e. running a consultation/information point (E6.5).

A group describing the area of supporting non-governmental organizations

The last, fourth group of researched tools were the activities of municipalities in the field of supporting non-governmental organizations. In this area, the subject of interest was whether:

1. municipal offices supported such organizations by:
   a. free access to premises for statutory activities (F1.1);
   b. provision of materials and equipment (F1.2);
   c. informing non-governmental organizations about the sources of obtaining extra-budgetary funds (F1.3);
   d. promoting non-governmental entities operating in the field of public benefit (F1.4);
   e. helping NGOs to establish national and international contacts (F1.5);
   f. assisting in the establishment of NGOs (F1.6);
   g. designation of a person in the office responsible for contacts with non-governmental organizations (F1.7);
   h. patronage over the activities of non-governmental organizations (F1.8).

Appendix B:

Table 4. Values of weights for individual tools used by communes in the process of supporting entrepreneurship

TOOLS	Rural	Urban	Urban-rural	City with powiat rights
C1.1	0.0230	0.0000	0.0292	0.0000
C1.2	0.0000	0.0000	0.0000	0.0151
C1.3	0.0000	0.0000	0.0376	0.0152
C1.4	0.0000	0.0000	0.0000	0.0024
C2	0.0000	0.0000	0.0093	0.0000
C3.1	0.0000	0.0000	0.0000	0.0000
C3.2	0.0624	0.0000	0.0271	0.0000
C3.3	0.0000	0.0000	0.0000	0.0000
C3.4	0.0000	0.0000	0.0000	0.0100
C3.5	0.0000	0.0000	0.0000	0.0020
C3.6	0.0784	0.0000	0.0033	0.0033
C3.7	0.0000	0.0000	0.0345	0.0151
C4	0.0000	0.0000	0.0384	0.0000
C5	0.0000	0.0000	0.0000	0.0111
C6	0.0243	0.0000	0.0001	0.0114
C7	0.0000	0.0000	0.0124	0.0000
C8.1	0.0032	0.0000	0.0000	0.0000
C8.2	0.0011	0.0000	0.0000	0.0143
C8.3	0.0068	0.0000	0.0220	0.0000
C8.4	0.0872	0.0000	0.0000	0.0000
C8.5	0.0000	0.0000	0.0000	0.0000
C8.6	0.0994	0.0000	0.0384	0.0117
C8.7	0.0000	0.0000	0.0000	0.0024
C8.8	0.0038	0.0000	0.0149	0.0000
C8.9	0.0961	0.0000	0.0000	0.0000
C8.10	0.0000	0.0000	0.0381	0.0000
D1	0.0420	0.0283	0.0000	0.0329
D.2.1	0.0000	0.0122	0.0000	0.0000
D.2.2	0.0206	0.0050	0.0000	0.0333
D3	0.0194	0.0006	0.0543	0.0000
D4	0.0131	0.0000	0.0000	0.0292
D5.1	0.0420	0.0030	0.0000	0.0297
D5.2	0.0000	0.0000	0.0000	0.0000
D5.3	0.0387	0.0000	0.0089	0.0307
D5.4	0.0000	0.0186	0.0264	0.0323
D5.5	0.0000	0.0281	0.0000	0.0000
D5.6	0.0000	0.0000	0.0000	0.0326
D5.7	0.0000	0.0000	0.0000	0.0000
D5.8	0.0000	0.0226	0.0517	0.0295
D5.9	0.0000	0.0030	0.0488	0.0000
D5.10	0.0297	0.0268	0.0000	0.0000
D5.11	0.0000	0.0220	0.0044	0.0000
D6	0.0002	0.0000	0.0000	0.0270
D7.1	0.0000	0.0005	0.0273	0.0221
D7.2	0.0270	0.0010	0.0261	0.0109
D7.3	0.0000	0.0275	0.0373	0.0000
D7.4	0.0000	0.0000	0.0505	0.0000
D7.5	0.0000	0.0039	0.0523	0.0000
E.1.1	0.0000	0.0497	0.0326	0.0218

TOOLS	Rural	Urban	Urban-rural	City with powiat rights
E.1.2	0.0173	0.0113	0.0345	0.0221
E.1.3	0.0170	0.0000	0.0000	0.0318
E.1.4	0.0087	0.0000	0.0098	0.0316
E.1.5	0.0339	0.0752	0.0353	0.0000
E.1.6	0.0000	0.0000	0.0000	0.0230
E.1.7	0.0000	0.0764	0.0000	0.0214
E.1.8	0.0074	0.0241	0.0000	0.0316
E.1.9	0.0126	0.0020	0.0000	0.0151
E.1.10	0.0368	0.0000	0.0000	0.0000
E2	0.0006	0.0791	0.0000	0.0154
E4.1	0.0084	0.0000	0.0279	0.0000
E4.2	0.0000	0.0753	0.0000	0.0120
E4.3	0.0000	0.0000	0.0000	0.0000
E4.4	0.0000	0.0000	0.0110	0.0079
E4.5	0.0048	0.0038	0.0022	0.0184
E4.6	0.0000	0.0013	0.0341	0.0000
E4.7	0.0365	0.0000	0.0000	0.0000
E5.1	0.0355	0.0000	0.0000	0.0017
E5.2	0.0000	0.0056	0.0025	0.0000
E5.3	0.0000	0.0632	0.0138	0.0171
E5.4	0.0000	0.0021	0.0000	0.0000
E5.5	0.0035	0.0038	0.0073	0.0003
E6.1	0.0275	0.0809	0.0234	0.0103
E6.2	0.0000	0.0061	0.0000	0.0000
E6.3	0.0000	0.0221	0.0300	0.0000
E6.4	0.0000	0.0046	0.0138	0.0000
E6.5	0.0309	0.0312	0.0007	0.0000
F1.1	0.0000	0.0000	0.0067	0.0000
F1.2	0.0000	0.0000	0.0041	0.0321
F1.3	0.0000	0.0322	0.0001	0.0532
F1.4	0.0000	0.0409	0.0050	0.0398
F1.5	0.0000	0.0408	0.0059	0.0297
F1.6	0.0000	0.0304	0.0002	0.0402
F1.7	0.0000	0.0348	0.0054	0.0473
F1.8	0.0000	0.0000	0.0000	0.0521

Note: For an explanation of the symbols, see Appendix A.
Source: own elaboration.

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Contribution share of authors is equal and amounted to 25% for each of them.

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Conflict of Interest

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