

THE IMPACT OF CLUSTERS ON REGIONAL DEVELOPMENT

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Abstract: *The development of countries and regions is conditioned by the ability of business entities to succeed in global markets. The competitiveness of businesses is now being achieved and maintained mainly through innovation. Innovative business activities are considered to be a highly interactive process. Intense contacts and business cooperation have a major impact on the ability of businesses to offer competitive solutions. Therefore, clusters can operate with a higher degree of efficiency and use the specialist assets of suppliers with shorter response times than if they operate in isolation. Spill over effects and business interaction with other stakeholders and customers increase economies of scale, reduce costs, expand small and medium-sized businesses, increase specialization, increase competitiveness, improve information transfer, and more. The cluster environment also has a positive effect on the emergence of new and innovative businesses that can connect to existing relationships between individual cluster actors. The mutual cooperation of enterprises with each other, but also with other actors and their location in geographic proximity, leads to an increase in the competitiveness of enterprises, which is also reflected in the overall economic performance and prosperity of the regions and countries. Clusters are currently considered to be a significant factor that increases the prosperity of the regions, increases the inflow of foreign direct investment, creates an environment conducive to innovation and knowledge creation. Therefore, the aim of our contribution through a questionnaire survey is to determine the impact of clusters on the development of regions in the Slovak Republic and small and medium-sized enterprises in the regions.*

Key words: *regional development, small and medium enterprises, the cluster, competitiveness*

1. INTRODUCTION

A favorable business environment is a prerequisite for the long-term growth and development of the regions of every market economy. The primary source of region development is well-functioning small and medium-sized enterprises because they are both business and socially connected with their region. The performance and competitiveness of business entities is an important factor in the development of the regions. If the regions are competitive, they create the right conditions for economic operators that create new jobs and opportunities. Competitive regions generate income and maintain employment at a high level. The Slovak Republic has long been addressing problems with interregional disparities. Habánik, Koišová, [4], Gajdoš, P. [1] states that "regional disparities are the product due to several factors, depend on the quality and developing disposable potentials but also different

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positions from which each region entered the transition process." Balancing these differences is one of the primary objectives of the SR regional policy. However, under the influence of market forces, globalization and other economic activities, it is natural that business activities are concentrated only in selected regions where appropriate business conditions are ensured, thereby further enhancing regional disparities. One of the effective solutions of regional disparities is support the development of clusters in regions such as Havierniková, Strunz [5] says: One possibility how to contribute to the regional development is interconnection between businesses, educational institutions and local government entities into the purpose-built configurations – clusters. Cluster business collaboration can take the form of joint innovations that maintain the viability and prosperity of the region, thereby creating the preconditions for reducing regional disparities. Thus, an effective cluster policy that is involved in regional policy is a tool for increasing economic growth, sustainable social and economic development and a better quality of life for the regions. (Kordoš, Vojtovič) [7]

2. THE EVALUATION OF THE RESULTS OF THE QUESTIONNAIRE SURVEY

The following part of paper is a survey of the questionnaire survey with we have implement in the VEGA, entitled "Evaluating the Impact of Clusters on Regional Development". The questionnaire was intended only for cluster companies. As a first step, we have collected information on all clusters in the territory of the Slovak Republic. We have found that not every cluster is still functional today. That is why we have created a list of functional clusters in the SR as can be seen in table 1.

Table 1: List of functional clusters in the Slovak Republic

Bratislava	1	Danube Knowledge Cluster	Žilina	1	Cluster of Liptov
	2	National energy cluster		2	Cluster Orava
Trnava	1	Car cluster Slovakia		3	Cluster Turiec
	2	Electrotechnical cluster - Western Slovakia		4	Z@ict
	3	Energy cluster - Western Slovakia	Banská Bystrica	1	Slovak engineering cluster
4	Cluster to support innovative and green technologies	2		Cluster of border castles	
Trenčín	1	Slovak IT cluster	Prešov	1	The energy cluster of Prešov region
	2	Cluster Váh		2	Rail transport cluster
Nitra	1	Bioeconomy cluster	Košice	1	BITERAP
	2	Cluster Topoľčany		2	AT+R cluster
	3	Slovak plastic cluster		3	Cluster of tourism Košice
		4		RADAR cluster	
		5		IT Valley Košice	

Source: www.siea.sk

When composing the questionnaire, we focused on small and medium-sized enterprises that are technological in nature. Questions in the questionnaire were divided into several sections. The first part of the questions to have found out basic business information about small and medium-sized enterprises. The questions were focused on the name of the small and medium-sized enterprise, the region in which the company operates and the size of the enterprise based on the number of its employees and the turnover. The second part of the questions was focused on identifying the motives and reasons for entering the cluster. For these motives, respondents assigned weight to the motif's significance in his decision to enter the cluster. The significance of the decision scale has six values:

- 0 - insignificant,
- 1 - almost insignificant,
- 2 - not very significant,
- 3 - significant,
- 4 - very important,
- 5 - the most significant.

In the third part of the questionnaire, we identified the benefits for clusters of small and medium enterprises in networking, human resources, collaboration and promotion, using the same range (0-5) as in the second part of the questionnaire. In the last question, respondents expressed their opinion on the impact of the cluster on the development of the region in which they operate. On this issue, respondents have selected from the following options as a clusters contributes to the region's development:

- a) with the targeted support for growth firms active in prospective sectors,
- b) with the effective public-private partnerships,
- c) with the regional specialization,
- d) with making the region more attractive for investors,
- e) with the better knowledge of the needs of entrepreneurs,
- f) employment growth in the region.

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Subsequently, we prepared a questionnaire to send on e-mail to individuated small and medium-sized enterprises from our cluster list (Table 1) in the Slovak Republic. Municipalities, cities, schools, interest groups and tourism businesses did not participate in our survey questionnaire. Overall, we have achieved a return of 249 questionnaires. This number represents 249 technology companies that are part of the real-world clusters in the Slovak Republic, so we consider our survey with respect to the number of technologist's clusters and their members relevant. We also verified the relevance of the questionnaire through statistical methods. Because of limited capacity, we only dealt with the factors we considered key areas in the cause of entry and benefit of cluster entry.

Then, we worked out basic information about respondents and descriptive characteristics. We divided the number of respondents by region. Most respondents of the questionnaire survey were from Trenčín Region - TN (106), followed by Zilina region - ZA (41), Prešov region - PO and Bratislava region - BA (27), Trnavský region - TT (25), Nitriansky region - NR (10), The Košice region - KE (9) and the least of respondents from the Banskobystrický region - BB (4). The questionnaire survey was attended by 89 micro-enterprises, ie enterprises with a maximum of 10 employees. The largest number of micro enterprises was in the Trenčín region (46) and least in the Nitra region (4). Due to the ratio of the number of micro enterprises to the total number of enterprises in the region, the Nitriansky Region (50%) have the largest representation and Trnava region (12%) have the lowest. The survey was attended by the same number of small businesses. The largest number of enterprises with employees ranging from 10 to 49 employees is located in the Trenčín Region (26) and least in the Nitra Region (1). The largest

number of small businesses in the region is located in the Trnava region (60%) and least in the Banskobystrický Region (25%). Medium-sized enterprises with a total of 50-249 employees represent 71 respondents. Most of them are again in the Trenčín Region (28) and least in the Nitra Region (1). The largest representation in terms of the ratio of medium-sized enterprises to the total number of enterprises in the region is located in the Žilina Region (39%) and east in the Nitra Region (10%).

The first statistical method we used was the Cronbach alpha test. This test tells us the correlation of questions in the questionnaire, so we determine their reliability. The Cronbach alpha test values are in the range of 0-1, with a minimum desirable value of at least 0.7. However, the resulting values beyond the 0.9 level may not be desirable, as the response scale is likely to be too narrow. In connection with this information, we applied the item's reliability analysis to selected variables. STATISTICA has produced the output shown in Table 2.

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Table 2: Cronbach's alpha test

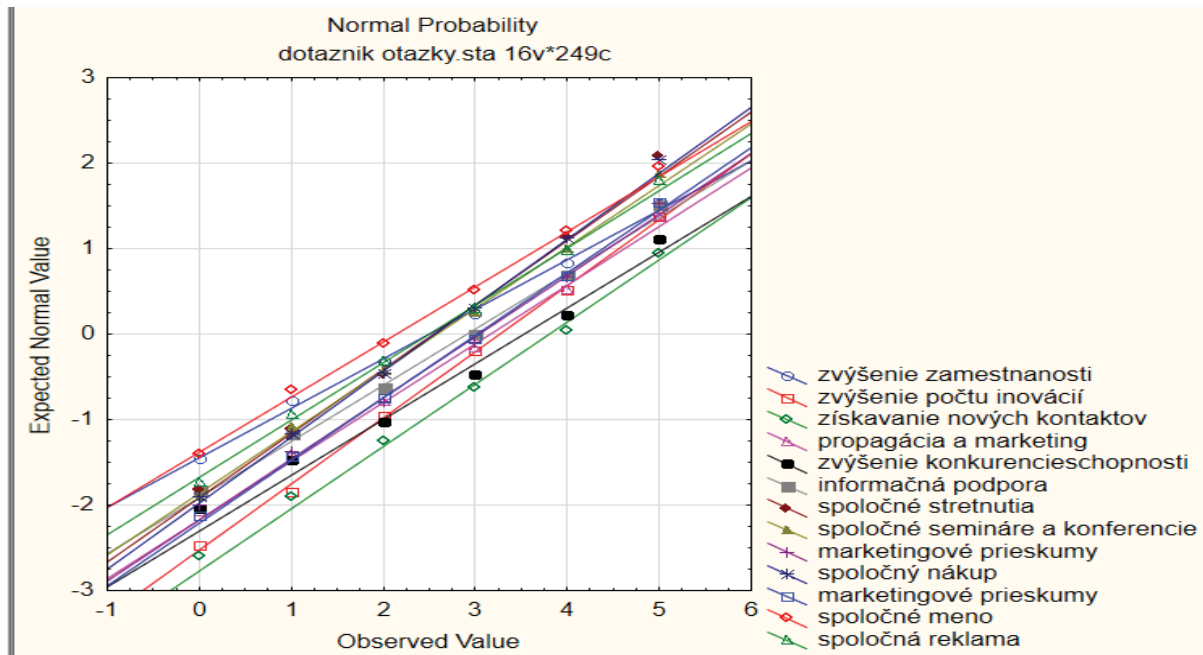
Souhrn pro měř.: Prům=40,8353 SmOdch =10,2847 Plat. N:249					
Cronbach. alfa: ,830238 Standardiz. alfa: --,821443					
Prům. kor. mezi prvky:--					
proměnná	Prům. po odstr.	Rozptyl po ods.	SmOdch po ods.	Prv-Celk Korel.	Alfa po odstr.
Počet zamestnancov	38,90763	102,6461	10,13144	0,127775	0,834796
Ročný obrat	39,32932	103,2409	10,16076	0,113672	0,834664
zvýšenie zamestnanosti (motív)	38,33333	90,2945	9,50234	0,422711	0,823399
zvýšenie počtu inovácií (motív)	37,57831	95,5933	9,77718	0,364729	0,825295
získanie nových kontaktov (motív)	37,08434	92,3182	9,60824	0,504458	0,816978
lepšia propagácia a marketing (motív)	37,68675	91,3477	9,55760	0,480472	0,818238
zvýšenie konkurencieschopnosti (motív)	37,35341	91,3369	9,55704	0,470850	0,818902
zvýšenie informačnej podpory (prínos)	37,94378	89,3543	9,45274	0,531684	0,814624
spoločné stretnutia (prínos)	38,29317	92,0225	9,59283	0,503109	0,816953
spoločné semináre a konferencie (prínos)	38,24900	90,4762	9,51190	0,539901	0,814354
vzdelávanie a príprava zamestnancov (prínos)	37,79920	89,7589	9,47412	0,572947	0,812173
spoločný nákup (prínos)	38,28112	93,1659	9,65225	0,463030	0,819480
marketingové prieskumy (prínos)	37,82731	90,0545	9,48971	0,572632	0,812337
spoločné meno a značka (prínos)	38,68675	91,2754	9,55381	0,444773	0,820876
spoločná reklama (prínos)	38,34137	90,3855	9,50713	0,497709	0,817051

Source: the program Statistics

The resulting Cronbach alpha test is 0.830238. Since the resulting value exceeds the required value (0.7), we claim that the collected data is reliable and can be processed without any further changes.

Another statistical method we have used to find basic information about our questionnaire is the N-P plot. Thanks to this graph, we can judge whether the data come from a normal division.

Graph 1: Normal probability graph (N-P plot)



Source: the program Statistics

From graph 1, it had revealed that the variables come from the normal distribution because the points do not nearly departed from the straight line. The analyses described above have shown us that we could continue in evaluating the questionnaire survey because the data was statistically relevant. Subsequently, we analysed the selected answers from the questionnaire survey. We analysed the answers received from the respondents, through selected statistical methods, both from a territorial and national point of view.

Regarding the size of the enterprises, we decided by the Paersons Chi Quadrant method to determine whether there is a dependence between the size of the enterprise and the region where the enterprise is located. To begin with, we have developed the hypothesis H0 and an alternative hypothesis H1.

H0: There is no dependence between the region and the size of the business in which it operates.

H1: There is a dependence between the region and the size of the business in which it operates.

Table 3: Calculation of Paerson's Chi Quadrate (Region x Enterprise Size)

Souhrnná tab.: Očekávané četnosti (dotaznik otazky.sta)				
Četnost označených buněk > 10				
Pearsonův chí-kv. : 17,8008, sv=14, p=,216028				
kraj	Mikro podnik	Malý podnik	Středný podnik	Řádk. součty
1	9,65060	9,65060	7,69880	27,0000
2	8,93574	8,93574	7,12851	25,0000
3	37,88755	37,88755	30,22490	106,0000
4	3,57430	3,57430	2,85141	10,0000
5	14,65462	14,65462	11,69076	41,0000
6	1,42972	1,42972	1,14056	4,0000
7	9,65060	9,65060	7,69880	27,0000
8	3,21687	3,21687	2,56627	9,0000
Vš skup.	89,00000	89,00000	71,00000	249,0000

Source: the program Statistics

The p-level value is 0.2216028. At the fourteen degrees of freedom, we can not reject the H0 hypothesis at a significance level of $\alpha = 95\%$. There is no dependence between the region and the size of the enterprise in which it operates. We also decided to verify the results of Paerson's chi quadrate through a correlation analysis.

Table 4: Calculation of Correlation Analysis (Region x Enterprise Size)

Prom. X & prom. Y	Korelace (dotaznik otazky.sta) Označ. korelace jsou významné na hlad. $p < ,05000$ (Celé případy vynechány u ChD)										
	Průměr	Sm.Odch.	r(X,Y)	r ²	t	p	N	Konst. záv.: Y	Směr. záv.: Y	Konst. záv.: X	Směrnic záv.: X
kraj	3,714859	1,875946									
kraj	3,714859	1,875946	1,000000	1,000000			249	0,000000	1,000000	0,000000	1,000000
kraj	3,714859	1,875946									
Počet Zcov	1,927711	0,799947	0,069506	0,004831	1,095017	0,274576	249	1,817607	0,029639	3,400648	0,162997
Počet Zcov	1,927711	0,799947									
kraj	3,714859	1,875946	0,069506	0,004831	1,095017	0,274576	249	3,400648	0,162997	1,817607	0,029639
Počet Zcov	1,927711	0,799947									
Počet Zcov	1,927711	0,799947	1,000000	1,000000			249	0,000000	1,000000	0,000000	1,000000

Source: the program Statistics

The absolute value of the Pearson correlation coefficient was 0.069506. Based on the results of the correlation analysis, we were able to confirm the results of Paerson's chi quadrate that there is no dependence between the size of the business and the region in which it operates.

From other collected data, we have find out that 153 enterprises have a turnover of up to two million euros. This figure represented 61.45% of the total number of respondents. Most of these businesses were located in the Trenčin region (75) and least in the Banskobystrický region (1). Given the ratio of the number of enterprises with a turnover of up to two million Euros to the total number of enterprises in the region, the Trenčín region (70.75%) and the smallest Banskobystrický region (25%) were the largest ones. On our survey was attended by 66 companies with a turnover of between two and ten million euros. Most of them were again in the Trenčín region (22) and least in the Banskobystrický region (1).

Most of the businesses with a turnover of between two and ten million Euros to the total number of businesses in the region are located in the Nitra region (40%) and least in the Trenčín Region (20.75%). Most of the businesses that exceeded the turnover of 10 million and did not exceed 50 million euros were 30% of the total number of respondents. Most of them were in Trenčiansky and Žilinský region (9). Least of to them were in the Nitra region (1). The largest representation in terms of the ratio of the number of enterprises, with the turnover to the total number of enterprises in the region, was in the Banskobystrický region (50%) and least in Bratislava and Prešovský region (7.41%).

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In relation to the volume of sales in the enterprise, we chose to use the Paerson's Chi Quadrate method to determine whether there is a dependence between the two variables mentioned.

Table 5: Calculation of Paerson's chi quadrate (county x sales volume in the enterprise)

Souhrnná tab.: Očekávané četnosti (dotazník otázky.sta)				
Četnost označených buněk > 10				
Pearsonův chí-kv. : 20,2411, sv=14, p=,122747				
kraj	ročný obrat 1	ročný obrat 2	ročný obrat 3	Řádk. součty
1	16,5904	7,15663	3,25301	27,0000
2	15,3614	6,62651	3,01205	25,0000
3	65,1325	28,09639	12,77108	106,0000
4	6,1446	2,65060	1,20482	10,0000
5	25,1928	10,86747	4,93976	41,0000
6	2,4578	1,06024	0,48193	4,0000
7	16,5904	7,15663	3,25301	27,0000
8	5,5301	2,38554	1,08434	9,0000
Vš. skup.	153,0000	66,00000	30,00000	249,0000

Source: the program Statistics

To begin with, we have again developed the hypothesis H0 and an alternative hypothesis H1.

H0: There is no dependence between the sales volume in the business and the region in which it operates.

H1: There is a dependence between sales volume in the business and the region in which it operates.

The p-level value was at 0.122747. At the fourteen degrees of freedom, we hypothesized H0 at the level of significance $\alpha = 95\%$ did not refusing. There is no dependence between the region and the size of the enterprise in which it operates. We also decided to verify the results of Paerson's chi quadrate through a correlation analysis.

Table 6: Calculation of Correlation Analysis (Region x Sales Income)

Korelace (dotazník otázky.sta)											
Označ. korelace jsou významné na hlad. p < ,05000											
(Celé případy vynechány u ChD)											
Prom. X & prom. Y	Průměr	Sm.Odch.	r(X,Y)	r^2	t	p	N	Konst. záv.: Y	Směr. záv. Y	Konst. záv.: X	Směrnic záv.: X
kraj	3,714859	1,875946									
kraj	3,714859	1,875946	1,000000	1,000000			249	0,000000	1,000000	0,000000	1,000000
kraj	3,714859	1,875946									
roční obrat	1,506024	0,702073	0,018148	0,000329	0,285268	0,775678	249	1,480793	0,006792	3,641829	0,048492
roční obrat	1,506024	0,702073									
kraj	3,714859	1,875946	0,018148	0,000329	0,285268	0,775678	249	3,641829	0,048492	1,480793	0,006792
roční obrat	1,506024	0,702073									
roční obrat	1,506024	0,702073	1,000000	1,000000			249	0,000000	1,000000	0,000000	1,000000

Source: the program Statistics

The absolute value of the Pearson correlation coefficient was 0.018148. Based on the results of the correlation analysis, we confirmed the results of Paerson's chi quadrate that there is no dependence between the size of the business and the region in which it operates.

Table 7: Descriptive characteristics (whole SR)

Proměnná	Popisné statistiky (dotazník otázky sta)														
	N platných	Průměr	Medián	Modus	Četnost modu	Součet	Minimum	Maximum	Spodní kvartil	Horní kvartil	Rozptyl	Sm. odch.	Směrod. chyba	Šikmost	Špičatost
kraj	249	3,714859	3,000000	3,000000	106	925,0000	1,000000	8,000000	3,000000	5,000000	3,519173	1,875946	0,118883	0,674437	-0,33116
Počet Zcov	249	1,927711	2,000000	Vicenás.	89	480,0000	1,000000	3,000000	1,000000	3,000000	0,639914	0,799947	0,050695	0,131109	-1,42463
roční obrat	249	1,506024	1,000000	1,000000	153	375,0000	1,000000	3,000000	1,000000	2,000000	0,492907	0,702073	0,044492	1,035626	-0,25815
zvýšenie zamestnanosti (motív)	249	2,502008	3,000000	3,000000	64	623,0000	0,000000	5,000000	1,000000	4,000000	2,468746	1,571224	0,099572	-0,076042	-1,00382
zvýšenie počtu inovácií (motív)	249	3,257028	3,000000	3,000000	69	811,0000	0,000000	5,000000	2,000000	4,000000	1,385283	1,176980	0,074588	-0,212250	-0,56049
získavanie nových kontaktov (motív)	249	3,751004	4,000000	5,000000	85	934,0000	0,000000	5,000000	3,000000	5,000000	1,437751	1,199063	0,075988	-0,754076	-0,12717
propagácia a marketing (motív)	249	3,148594	3,000000	4,000000	68	784,0000	0,000000	5,000000	2,000000	4,000000	1,780250	1,334260	0,084555	-0,428908	-0,50618
zvýšenie konkurencieschopnosti (motív)	249	3,481928	4,000000	4,000000	74	867,0000	0,000000	5,000000	3,000000	5,000000	1,839390	1,356241	0,085948	-0,816991	0,04441
informačná podpora (prínos)	249	2,891566	3,000000	3,000000	70	720,0000	0,000000	5,000000	2,000000	4,000000	1,959969	1,399989	0,088721	-0,356373	-0,59519
spoločné stretnutia (prínos)	249	2,542169	3,000000	3,000000	85	633,0000	0,000000	5,000000	2,000000	3,000000	1,507287	1,227716	0,077803	-0,282668	-0,42324
spoločné semináre a konferencie (prínos)	249	2,586345	3,000000	3,000000	74	644,0000	0,000000	5,000000	2,000000	4,000000	1,662877	1,289526	0,081720	-0,124374	-0,65265
marketingové prieskumy (prínos)	249	3,036145	3,000000	3,000000	79	756,0000	0,000000	5,000000	2,000000	4,000000	1,655946	1,286836	0,081550	-0,445500	-0,25636
spoločný nákup (prínos)	249	2,554217	3,000000	3,000000	81	636,0000	0,000000	5,000000	2,000000	3,000000	1,449670	1,204022	0,076302	-0,191295	-0,38680
marketingové prieskumy (prínos)	249	3,008032	3,000000	3,000000	73	749,0000	0,000000	5,000000	2,000000	4,000000	1,596709	1,263610	0,080078	-0,305313	-0,44295
spoločné meno (prínos)	249	2,148594	2,000000	3,000000	64	535,0000	0,000000	5,000000	1,000000	3,000000	2,022186	1,422036	0,090118	0,074385	-0,87764
spoločná reklama (prínos)	249	2,493976	3,000000	3,000000	63	621,0000	0,000000	5,000000	1,000000	4,000000	1,912262	1,382846	0,087634	-0,033518	-0,82590

Source: the program Statistics

As we are dealing with this part of the collected data from the whole Slovak Republic, there are 249 respondents. Table 7 shows a number of important data. Median, that is, the average value of the organized file is located in the Trenčín Region. Thus, we can say that the Bratislavský, Trnava and Trenčín regions represent half of the total number of respondents. Modus is located in the Trenčín Region. It occurs most frequently in the statistical file, so most of the respondents come from enterprises located in the Trenčín Region. In all variables we found all the values from the range offered. We could say that we have a representative sample of respondents from each regions Slovak Republic and from every size of the enterprise (micro-enterprise, small enterprise, medium-sized enterprise). We had a sample to enterprise with small turnover (up to € 2 million), a median turnover (from € 2 to € 10 million) and a sample of at least one technology company with a turnover of up to € 50 million (from 10 to 50 million). In each of the factors we considered key, we found at least once statement about its insignificance for at least one business and at least one statement that it is the most significant for at least one enterprise. For this reason, we considered it important to address separately some of the selected factors that motivate the enterprises to enter the cluster and its benefits from the input. In this post, we only mention two motivational factors with respect to the scope of the contribution and that - increasing employment, increasing the number of innovations

Increasing employment - the cluster entry reason

The average value of the tracked file reached 2.50. This value showed that for the respondents, the increase in employment as a factor for cluster entry at the level was little significant and significant. Because the median and modus were significant, we consider this factor complexly as important to an enterprise as the reason for entering the cluster. The "Significant" option is in the middle of the offered scale.

Table 8: The ratio of respondents' responses to the significance of the increase in employment as a cluster entry factor

	insignificant	almost insignificant	not very significant	significant	very significant	most important
BA	18,52	14,81	18,52	18,52	14,81	14,81
TT	8,00	4,00	16,00	28,00	28,00	16,00
TN	11,32	16,98	17,92	25,47	16,98	11,32
NR	30,00	20,00	10,00	30,00	10,00	0,00
ZA	24,39	14,63	14,63	24,39	4,88	17,07
BB	0,00	0,00	0,00	75,00	25,00	0,00
PO	7,41	14,81	22,22	25,93	14,81	14,81
KE	22,22	11,11	33,33	22,22	11,11	0,00

Source: the program Statistics

On the basis of the data collected, we found that most respondents from the Trenčín region (12) considered the reason for the increase in employment to be the most important factor for entering the cluster. No business considered this factor to be the most important in the Nitra, Banskobystrická and Košice regions. On the other hand, this factor was considered insignificant by the majority of respondents also from the Trenčiansky region (12). In the Banskobystrický region, none of the respondents said that this factor be insignificant.

Table 8 shows the percentage of respondents' responses to the significance of the increase in employment as the factor of cluster input on the number of enterprises in the region. In this case, the largest ratio is in the Žilinský region (17.07%). The smallest ratio is found in the Nitra, Banskobystrický and Košický regions because in these regions, none of the respondents said that this factor would be the most significant of the offered options. In the Banskobystrický region, none of the respondents expressed the fact that the mentioned factor was insignificant. The largest percentage of enterprises that did not take into account the increase in employment as a reason for entering the cluster are located in the Nitra region (30%).

Increasing the number of innovations - the cluster entry reason

Similarly as in the previous case, we also worked on other motivational factors. The average value of the tracked reason for cluster input is 3.26. This means that for SMEs in the Slovak Republic the increase in the number of innovations was a significant factor. This is evidenced by the value of the modus and the median.

However, other factors of motivation, which, given the limitations of the article's scope, are not discussed in detail, include: - acquiring new contacts, promoting and marketing, increasing competitiveness, We cannot ignore the benefits of, for example, information support, joint meetings, seminars and conferences, joint purchasing, marketing surveys, common name and advertising, etc.

3. CONCLUSION

Clusters are a significant microeconomic factor enhancing the prosperity of the regions. Clusters contribute to an increasing inflow of investment, creating an environment conducive to innovation and knowledge creation. Therefore, regions with strong clusters are considered to be innovative leaders. On the basis of the territorial division of the Slovak Republic, the potential of clustering is relatively good. Based on our questionnaire survey of individual regions of Slovakia, the most promising from the viewpoint of the founding and existence of

clusters are the regions of western Slovakia. The motive for entering small and medium enterprises for cluster based on our survey is:

- increasing the competitiveness of enterprises,
- easier to establish new business contacts,
- joint promotion and marketing of SMEs in clusters,
- increasing the number of innovations and more.

Moreover, as a further benefit for small and medium-sized businesses surveyed included the following: information support, joint meetings, seminars and conferences, joint purchasing, marketing surveys, etc.

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