"A practical study on evaluation of sales and service potential in distributing the industrial products (case study: regions in Ukraine)"

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14	13	2

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A practical study on evaluation of sales and service potentials in distributing the industrial products (case study: regions in Ukraine)

Abstract

The article covers the study of sales and service potentials of Ukrainian regions in distributing the industrial products. Using the data of the State Statistics Service of Ukraine, the statistical analysis of key indicators of sales and service potentials is provided. The analysis of indicators' dynamics in 2010–2015 shows the stability or insignificant increase in almost all regions. Based on ranking results of Ukrainian regions for sales and service potentials, the five-zone matrix of potentials is formed. The evaluations show that Kyiv (city), Dnipropetrovsk and Donetsk regions can be defined as leaders, and Chernivtsi and Ternopil regions can be defined as outsiders. High concentration of regions in pessimistic zones of the five-zone matrix of potentials indicates the crisis processes in the country. This also defines the high degree of regional disparities and contradictions in service and sales activities in Ukraine.

Introduction

Economic growth is one of the priority tasks facing Ukraine and its regions at present. The studies of foreign and domestic scientists show that only innovative development of the national economy and the efficient use of the newest technologies are able to provide long-term economic growth. The authors do not deny the importance and, in most cases, the exclusive role of innovative development. But the authors also see it expedient to note that the innovative development requires high concentrations of material, intellectual and financial resources but also providing relevant level of service and sales potentials.

1. Literature review

Problems of improvement and management of the potential of the region are observed by many scientists. Scientific research in this field presents different views. Scientific works of Balatskiy (2006, 2010), Libabova and Khvesyk (2014), Semenova and Rudenko (2012), Grishyna, Efimova, and Grishina (2011), Gedz (2012), Tuleja and Gajdová (2015), Low, Henderson, and Weiler (2005) are devoted to the study of the economic potential of the region.

In the structure of the region's potential, Balatskiy (2006, 2010) has determined the following components: institutional potential, labor potential, financial potential (current finances and investments), production potential, intellectual potential, natural potential, social potential, managerial potential, the potential of the regional infrastructure.

Libabova and Khvesyk (2014) investigate the current state, trends and problems of reproduction of the socio-economic potential of sustainable development of Ukraine and its regions. The authors have suggested the methodology to form the system of indicators of the effectiveness of the development of regional socio-economic systems.

Semenova and Rudenko (2012) consider region's economic potential as a system, the main subsystems of which are investment, innovation, natural resource and labor potentials, characterized by appropriate economic resources. The criteria for its assessment include: the number of economically active population in the region, natural resources of the region of production purpose, fixed assets (production and non-production purposes), stocks of objects of industrial purpose and objects of durable use, intangible resources.

Grishyna, Efimova, and Grishina (2011) note that the region's economic potential is the total available capacity of economic resources within the region to ensure the production of the maximum possible amount of goods and services that meet the needs of society at this stage of its development. The volume of economic potential is determined by the quantity and quality of available economic resources, as well as conditions that ensure their effective use. The authors point out that economic potential should be seen as a system which contains a certain number of components such as investment potential, innovative potential, production potential and labor potential.

According to Gedz (2012), the potential of region's socio-economic development characterizes the possibility of its development by using the whole complex of territorial resources, features of the

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existing and perspective structure of its economy, geographical position in the interests of improving the population's quality of life.

Tuleja and Gajdová (2015) have evaluated the economic potential of the regions of the Czech Republic using the following indicators: the regional gross domestic product per capita, the net available income of household per person, the gross fixed capital per inhabitant, the unemployment rate and an amount of compensation of employees.

Low, Henderson, and Weiler (2005) have provided the practical study on gauging a region's entrepreneurial potential. They point to the old rules collapse, where traditional assets such as cheap land and labor determined a region's success or failure. Instead, new categories of assets are shaping economic prospects – assets like workforce skills, lifestyle amenities, access to capital and information, and innovative activity. The mission for us is to find new pathways to tap these assets.

On the other hand, Teslya and Shults (2014), Maksimova (2009), Fedotov (2007) deal with the market potential and point to its key role due to a number of issues for the domestic economy.

Teslya and Shults (2014) believe that the market potential of the region is a part of its economic potential. They also see market potential as a separate set of interconnected elements of its economic system, allocated on the basis of the function performed by them on the market, characterizing the region's ability to make production and consumption opportunities. The authors state that market potential consists of four structural elements: market infrastructure, innovative potential, consumer potential, and industrial potential. The formation of market potential is influenced by the priorities of national economic policy regarding the development of the production, business support, creating conditions for activation of innovation activity on production, improvement of investment climate and the effectiveness of investment projects, as well as the income, which determines their purchasing power.

In Maksimova (2009), the region's market potential is considered as a separate set of interrelated elements of the economic system in the region, describing the ability of the region to implement production and to meet the challenges of economic and social development.

According to Fedotov (2007), the analysis of the region's market potential is not limited to the definition of the capacity of the regional market, since there are many factors that can influence the adoption of managerial decisions on the regulation of economic processes in the region (i.e., legislation, the capacity of the business activity among the population, etc.). The market potential is always determined by the number of the population and average income per capita (in the dynamics on the types of consumer goods and services).

The research by Bilovodska et al. (2017) covers the analytical study on logistics outsourcing impact on logistical service quality in supply chains. Authors have provided a research of enterprises service capabilities and have formed a set of indicators to estimate the logistics service level of enterprise. This study provides the essentials for management of service and sales activities. On the other hand, Olefirenko and Shevliuga (2017) have analyzed the indicators and characteristics of sales policy instruments of enterprises and have estimated the influence of sales policy parameters on innovation level. In this context, we believe that the effective service and sales management of the enterprises is the key factor for sustainable growth and it influences the region's rankings for service and sales potentials.

Despite the fact that a lot of works are devoted to research of the components and dimensions of the potential of the regions, many approaches to region's potential management are developed, the ultimate consensus between scientists and economists is not achieved. Therefore, there is a need for a more detailed study and assessment of the region's service and sales potentials. This will lead to the development of relevant approaches to their management.

2. Aim of the study

The object of the article is to provide the study of service and sales potentials of Ukrainian regions in distributing the industrial products using the official statistic data of the State Statistics Service of Ukraine. Results based on this assessment are aimed at defining the degree of regional disparities in Ukraine.

3. Results

According to the author's vision, the sales potential of the regions in the distribution of industrial products covers the actual and potentially possible sales volumes, which, in turn, depend on the demand for goods, the general market conditions, business trends, income level and business activity. To provide the analysis of the Ukrainian regions' sales potential, it would be appropriate to use the following indicators: gross regional product (GRP), output of products and services, sales volume for industrial products (total industrial output), retail

and wholesale trade turnover. The analysis of indicators' dynamics in 2010-2015 shows an increase in their value in each region (except Donetsk and Luhansk regions). On top of all, the special attention should be paid to the 2015 when the indicators have rapidly increased (Figures 1-7).
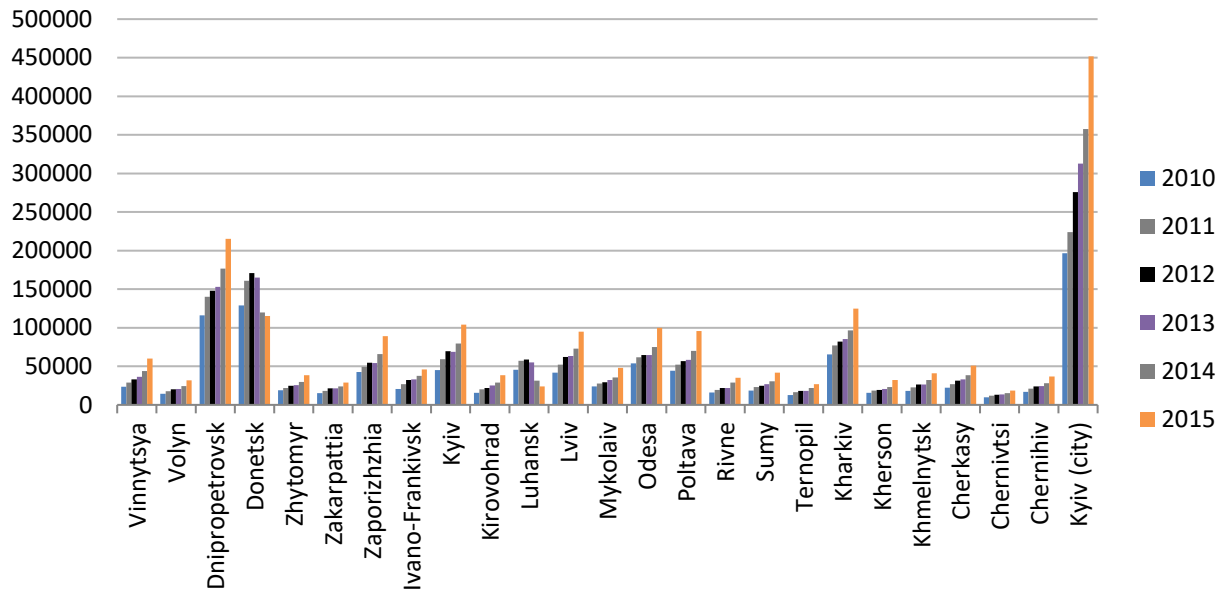

Fig. 1. The GRP by region in 2010–2015, million UAH at actual prices (based on data of the State Statistics Service of Ukraine)
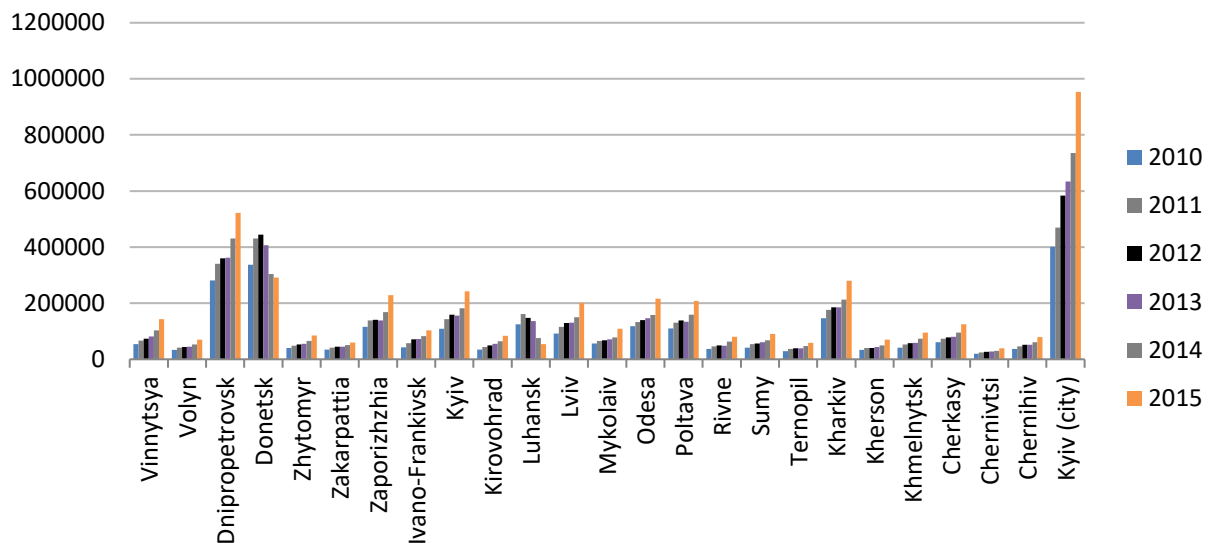

Fig. 2. The output of products and services in Ukrainian regions in 2010–2015, million UAH at actual prices (based on data of the State Statistics Service of Ukraine)
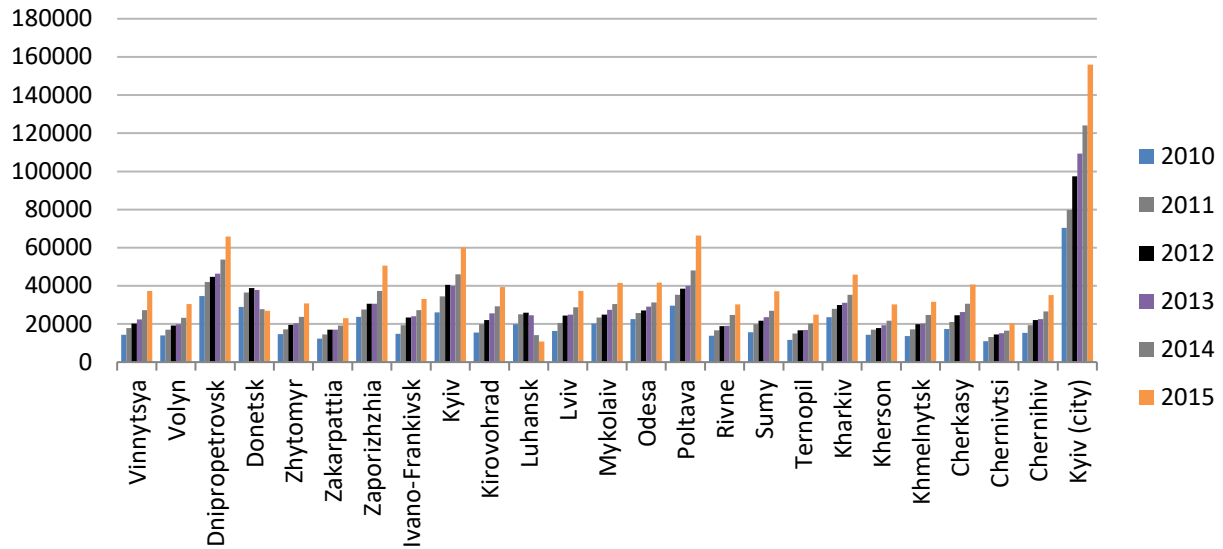
Fig. 3. The GRP per capita by region in 2010–2015, UAH million (based on data of the State Statistics Service of Ukraine)

Fig. 4. The sales volume for industrial products (goods, services) by region in 2010–2015, million UAH (based on data of the State Statistics Service of Ukraine)

Fig. 5. The per capita sales volume for industrial products (goods, services) by region in 2010–2015, million UAH (based on data of the State Statistics Service of Ukraine)
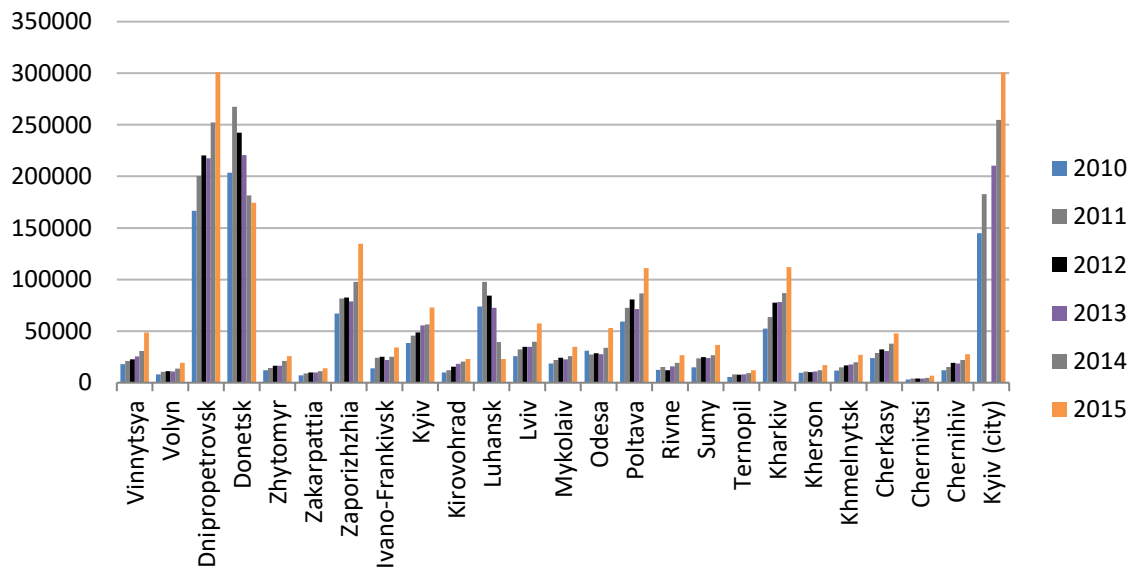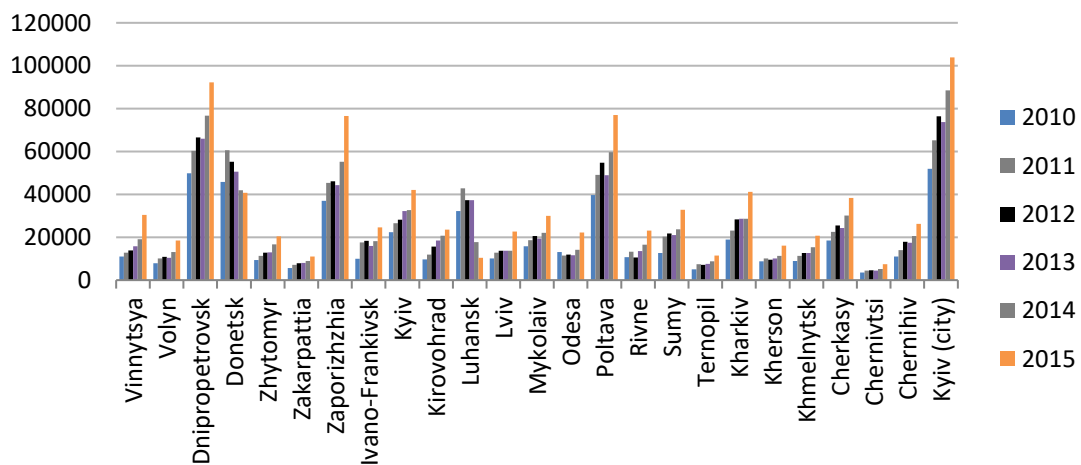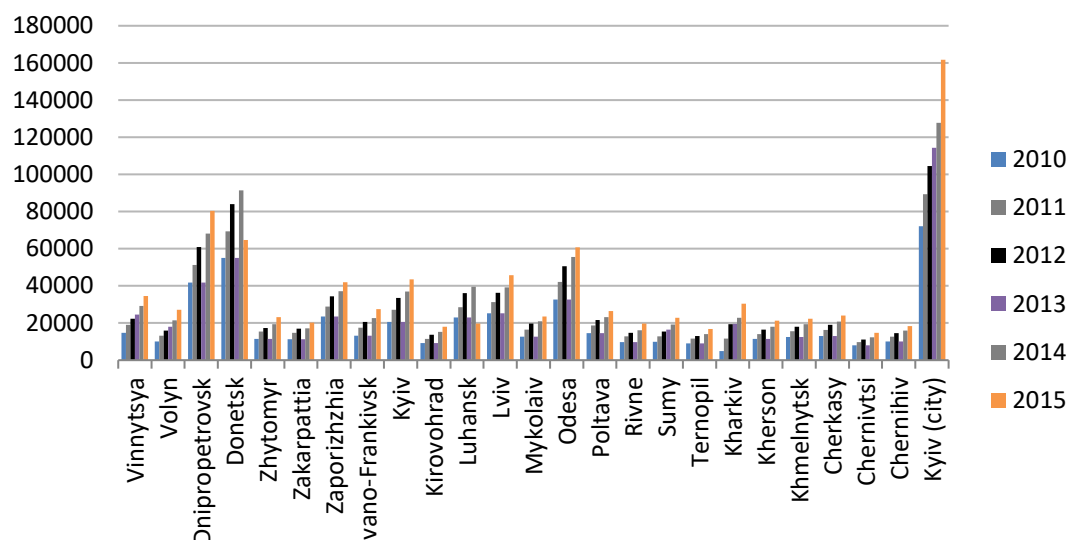
Fig. 6. The retail trade turnover by region in 2010–2015, million UAH (based on data of the State Statistics Service of Ukraine)
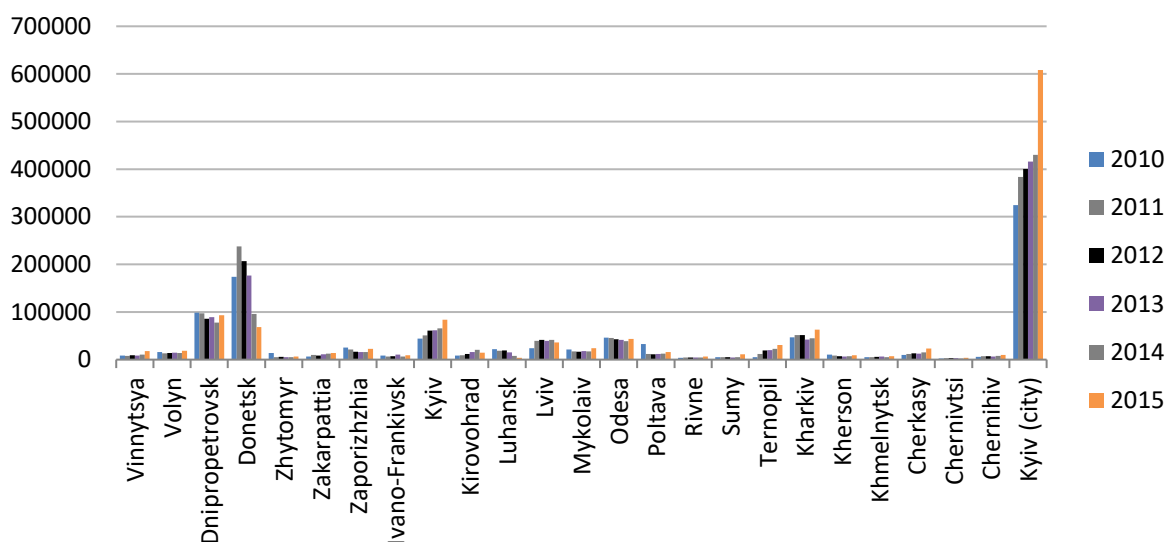

Fig. 7. The wholesale trade turnover by region in 2010–2015, million UAH (based on data of the State Statistics Service of Ukraine)

As we see from the diagrams above for the overwhelming majority of the evaluating indicators, the leaders are the Kyiv (city), Dnipropetrovsk and Donetsk regions. Although it should be noted that Poltava region is the leader in GRP and in the per capita sales volume for industrial products (goods, services).

To determine the ranking of Ukrainian regions for sales potential, it was decided to calculate the average values of its indicators for the analyzed period (see Table 1 in Appendix).

Thus, according to the ranking results of the Ukrainian regions in terms of the level of

development of sales potential, the leaders are the Kyiv (city), Dnipropetrovsk and Donetsk regions (Table 1, lines marked in green), while Chernivtsi, Ternopil and Zakarpattia regions are outsiders (Table 1, lines marked in red).

When distributing industrial products, the service potential brings together intermediaries (the number of enterprises, both industry and services sector), sales volume for services, etc. The dynamics of service potential indicators by regions of Ukraine in 2010–2015 is shown in Figures 8-12. The relative stability with a tendency to a slight increase can be traced for all regions (except Kyiv (city), and Donetsk, Luhansk, Kharkiv regions).

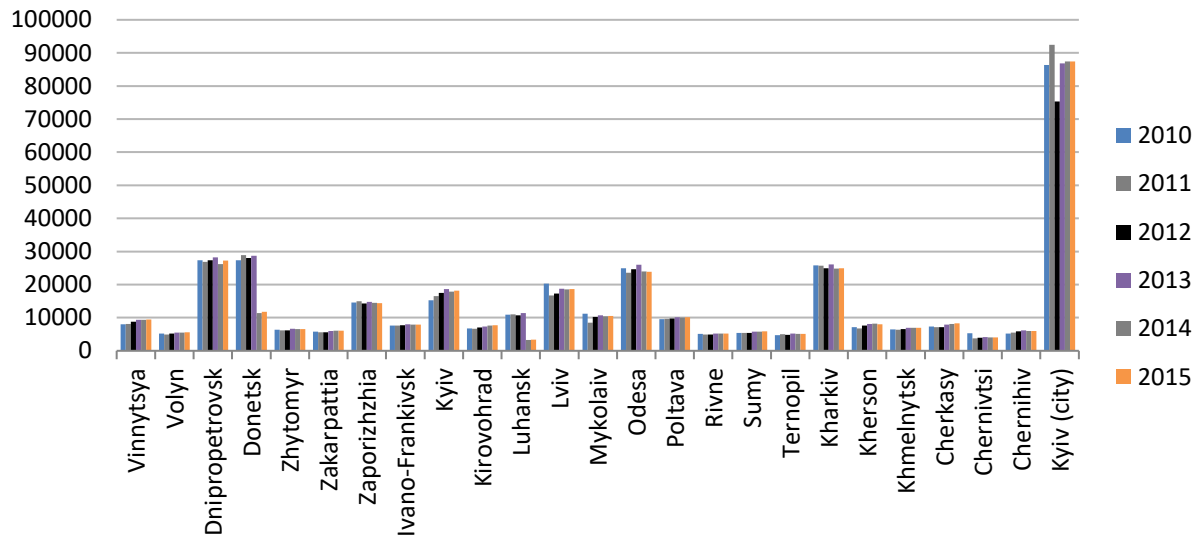**Fig. 8. The number of enterprises by region in 2010–2015, units (based on data of the State Statistics Service of Ukraine)**
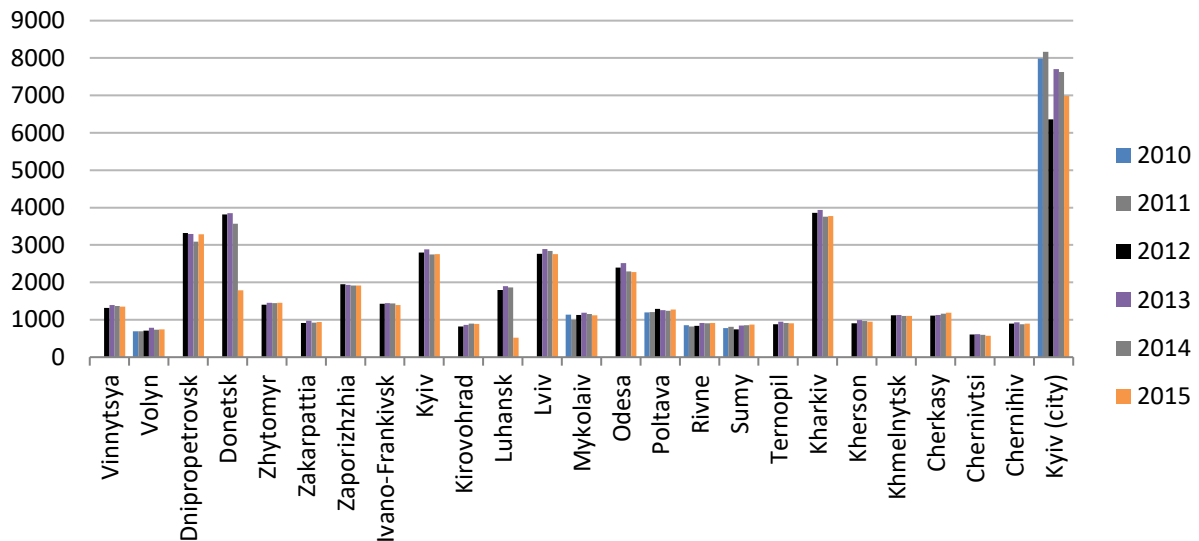

Fig. 9. The number of industrial enterprises by region in 2010–2015, units (based on data of the State Statistics Service of Ukraine)
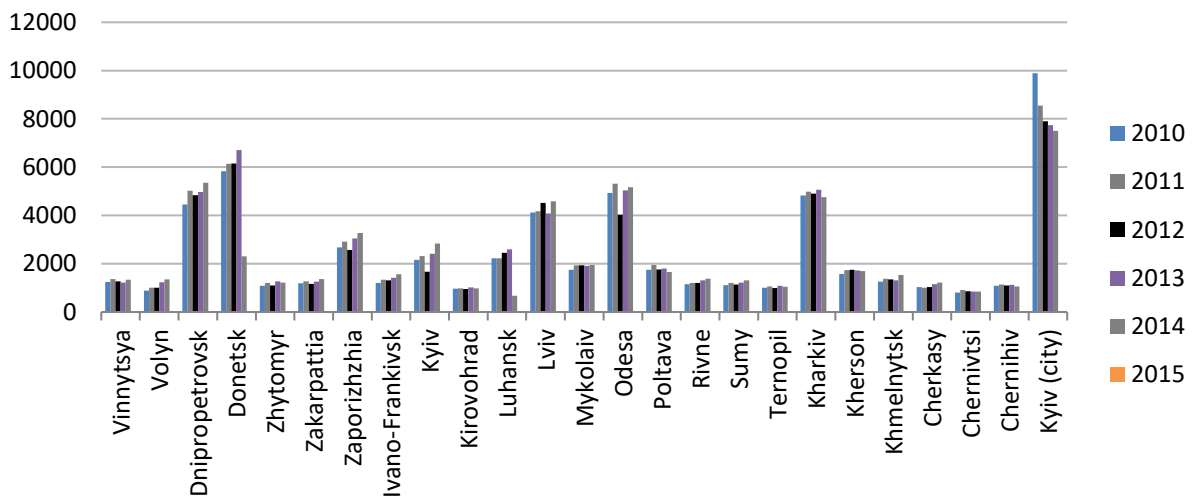

Fig. 10. The number of services sector enterprises by region in 2010–2015, units (based on data of the State Statistics Service of Ukraine)
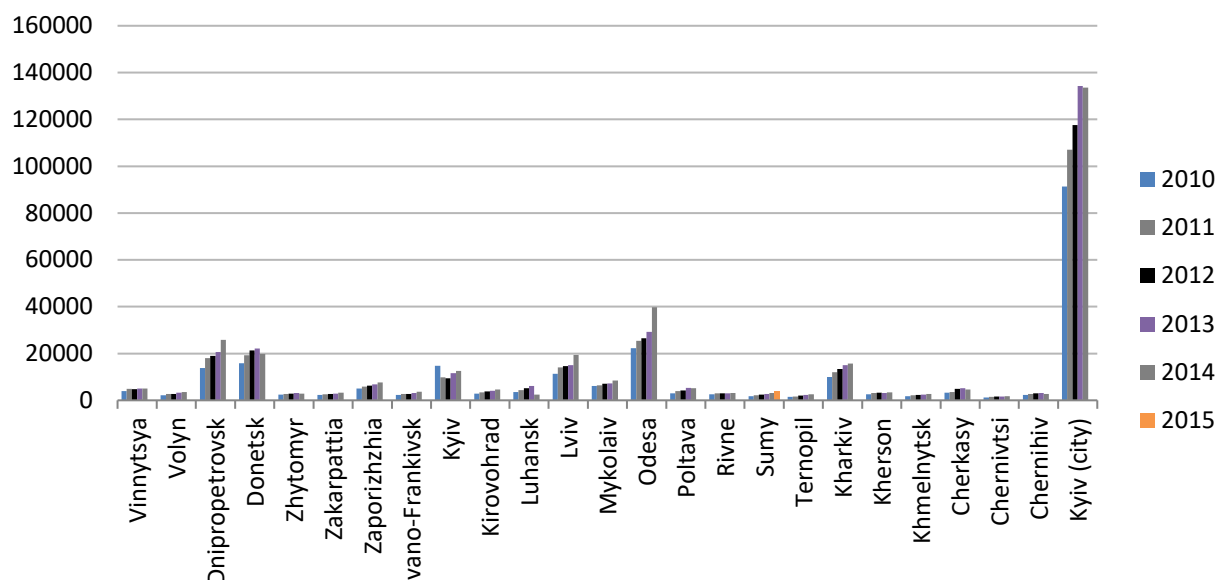
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Fig. 11. The sales volume of services sector enterprises by regions in 2010–2015, million UAH (based on data of the State Statistics Service of Ukraine)
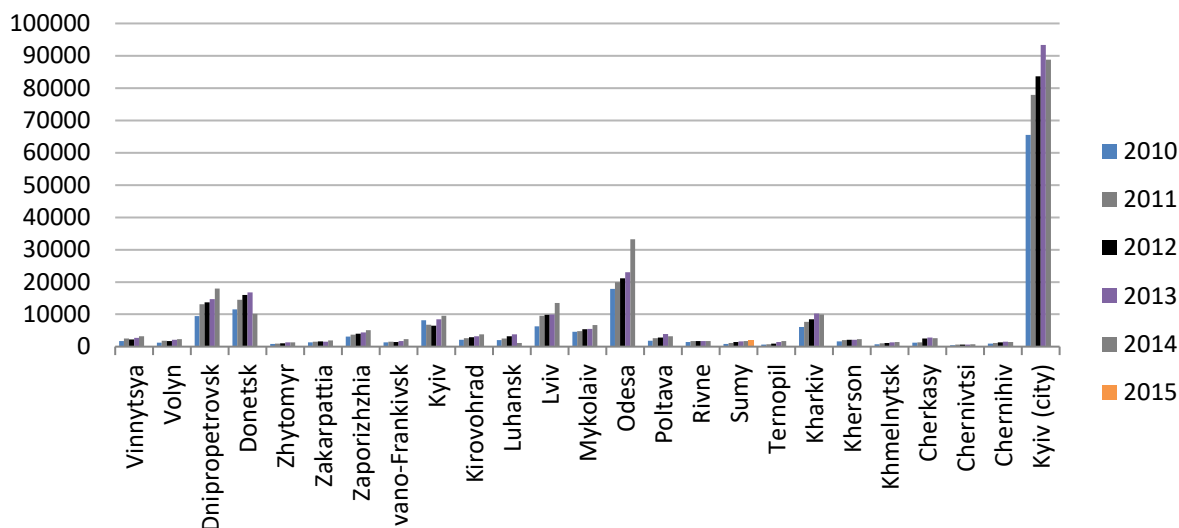

Fig. 12. The volume of services sold by the services sector enterprises to enterprises by regions in 2010–2015, million UAH (based on data of the State Statistics Service of Ukraine)

As we see from the diagrams above, the leadership on the total number of enterprises is observed in Kyiv (city), Dnipropetrovsk and Kharkiv regions; the leadership on the number of industrial enterprises is observed Kyiv (city), Kharkiv and Donetsk regions; the leadership on the number of services sector enterprises is observed in Kyiv (city), Donetsk and Dnipropetrovsk regions. The top values of sales volume of services sector enterprises were indicated for Kyiv (city), Odesa and Donetsk regions. In addition, Kyiv (city), Odesa and Dnipropetrovsk regions have shown the leadership on the volume of services sold by the services sector enterprises to transport and storage enterprises.

To determine the ranking of Ukrainian regions for service potential, it was decided to calculate the average values of its indicators for the analyzed period (see Table 2 in Appendix).

Thus, according to the ranking results of the Ukrainian regions in terms of the level of development of service potential, the leaders are the Kyiv (city), Dnipropetrovsk, Donetsk and Odesa regions (Table 1, lines marked in green), while Chernivtsi, Ternopil and Sumy regions are outsiders (Table 1, lines marked in red).

Using the rating results (see Tables 1-2) the matrix of potentials was formed. Five zones have been allocated on the matrix. Zone 1 combines the best rating indices; it consolidates the leaders of the rating assessments. The zone is determined by the coordinates [1; 5] on the X axis (service potential) and the [1; 5] on the Y axis (sales potential). Accordingly, zone 2 is limited to the coordinates (5; 10] on both axes; zone 3 – (10; 15] on both axes; zone 4 – (15; 20] on both axes; zone 5 – (20; 25] on both axes.
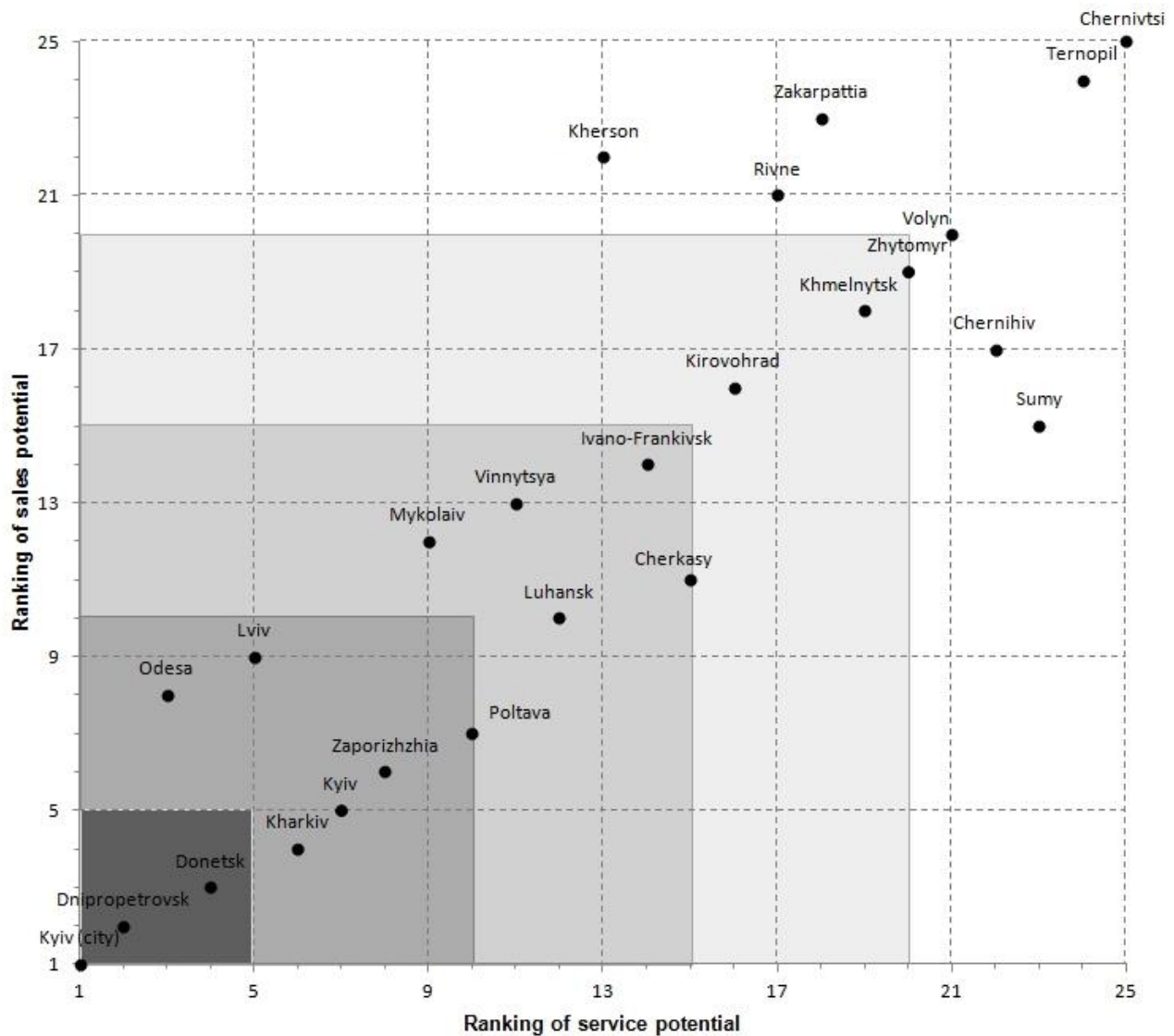
Fig. 13. The matrix of regions' sales and service potentials

High concentration of regions in zones 4 and 5 indicates the crisis processes in the country. This, in

turn, should encourage the public and business sector to the active actions.

Conclusion

The aim of this study was to evaluate the service and sales potentials of Ukrainian regions and on the basis of this assessment to describe the degree of regional disparities in the country. In line with this aim, the authors have provided the description of key general characteristics and indicators through which we can determine this potential. The authors state that in the distribution of industrial products, region's sales potential covers the actual and potentially possible sales volumes, which depend on the size of demand for goods, the general market conditions, incomes and business activity, and, in turn, region's service potential brings together intermediaries, the volume of sold services, etc.

On the basis of official statistical information, an estimation of the analyzed potentials of Ukrainian regions for 2010–2015 has been performed. It has

been shown that almost all regions demonstrate the stability or increase of service and sales potential indicators. Using the indicators' values, the authors have provided the ranking by region. On the majority of the estimated indicators, the leading regions and the outsider regions were identified.

In addition, the authors developed a matrix that reflects the grouping of Ukrainian regions by the levels of sales and service potential. According to the matrix, Chernivtsi and Ternopil regions got in a zone with the worst levels of potentials, while the Kyiv (city), Dnipropetrovsk and Donetsk regions got in a zone with the best levels of potentials. Volyn region has a transitional position and can improve its ratings due to further increase in the volume of services provided by service enterprises,

and in the volume of retail and wholesale trade turnover. Kherson, Rivne, Zakarpattia, Chernihiv, Sumy and Odesa regions characterized by contradictions in service and sales activities, because of a set of analyzed indicators have significantly different meanings. For instance, Sumy region occupies the 15th place for sales potential, and the 23rd – for service potential; on the contrary, Kherson region – 22nd place for sales processes, and the 13th place in service support. Odeska region has to increase its sales potential (since it ranks the 8th place), and maintain the level of service potential (has a leading ranking). Lviv and Mykolaiv regions are also characterized by an insignificant disparities in the development of service and sales potential indicators. In order to ensure effective distribution of industrial products by domestic enterprises and management of distribution channels, it is necessary to take into account the potential risks associated with the disparities of the development of most regions of Ukraine.

Acknowledgements

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Appendix

Table 1. The average values of sales potential indicators and ranking by region in 2010–2015* (developed by the author)

Region	GRP, mln UAH	Ranking	The output of products and services at actual prices, mln. UAH	Ranking	GRP per capita, mln UAH	Ranking	Sales volume for industrial products (goods, services), mln. UAH	Ranking	Per capita sales volume for industrial products (goods, services) mln. UAH	Ranking	Retail trade turnover of, mln. UAH	Ranking	Wholesale trade turnover, mln. UAH	Ranking	General ranking**	Integral ranking
Vinnytsia	37627.3	11	86979	11	23194.2	16	27798.6	12	17141.1	14	24044.3	10	10435.5	17	91	13
Volyn	21429.3	23	47790.3	21	20596.7	19	12291.9	21	11814.0	21	17617.7	15	15017.3	12	132	20
Dnipropetrovsk	158129.5	2	382500.3	2	47901	2	226405.8	1	68577.6	2	57388.3	3	90353.5	3	15	2
Donetsk	143450.5	3	369127.5	3	32800.7	6	214957.6	3	49135.4	5	69892.3	2	159858.4	2	24	3
Zhytomyr	26572.7	17	57751.5	17	21002.2	18	17652.7	18	13953.7	19	16396.5	17	7048.0	21	127	19
Zakarpattia	21538.2	22	45755.3	23	17170.7	24	10152.2	23	8093.5	23	15278.7	20	10611.4	16	151	23
Zaporizhzhia	59366.2	9	155004	6	33377.7	5	90388.6	4	50771.5	4	31547.5	7	19793.5	8	43	6
Ivano-Frankivsk	32696.2	14	71181.2	14	23667.2	14	24083.5	15	17433.4	13	19054.7	12	8131.9	18	100	14
Kyiv (city)	302954.5	1	629392.0	1	106175.2	1	218411.0	2	76603.4	1	111614.8	1	427139.5	1	8	1
Kyiv	71048.7	5	165294.7	5	41199.7	4	52898.5	8	30678.1	6	30399.0	8	61129.9	4	40	5
Kirovohrad	25060.7	19	55120.5	18	25274.2	12	16517.9	20	16658.3	15	12781	23	13444.45	15	122	16
Luhansk	45310.0	10	116615.3	10	20029.3	22	65197.0	7	29601.1	7	28323.3	9	14437.0	13	78	10
Lviv	64443.7	7	136395.8	9	25372.7	11	37424.7	9	14407.3	17	33827.5	6	37033.8	7	66	9
Mykolaiv	32754.3	13	74458.8	13	27954.8	9	24671.0	14	21050.0	11	17675.0	14	19013.7	9	83	12
Odesa	69929.2	6	151900.8	7	29571.7	8	33598.1	10	14041.4	18	45684.2	5	43150.3	6	60	8
Poltava	62880.8	8	146423.3	8	42952.3	3	80340.5	5	54838.9	3	19831.7	11	16173.6	11	49	7
Rivne	23826.5	20	53995.3	20	20582.5	20	16922.8	19	14619.4	16	13809.3	21	4631.2	24	140	21
Sumy	27483.7	16	62113.5	16	24143.8	13	25106.3	13	22048.8	10	16106.9	18	6103.8	22	108	15
Ternopil	18899.0	24	41770.5	24	17570.3	23	8510.9	24	7912.3	24	12234.7	24	18167.5	10	153	24
Kharkiv	88522.7	4	197821.5	4	32308.2	7	78464.7	6	28111.2	8	52857.5	4	49911.7	5	38	4
Kherson	21614.3	21	46408.3	22	20088.0	21	11804.8	22	10966.5	22	15414.8	19	8042.6	19	146	22
Khmelnytsk	27808.7	15	63243.0	15	21211.5	17	17990.2	17	13592.5	20	16716.5	16	5802.4	23	123	18
Cherkasy	33837.8	12	85266.0	12	26753.3	10	33564.5	11	26522.9	9	17700.8	13	14222.5	14	81	11
Chernivtsi	13723.2	25	28111.0	25	15123.3	25	4493.7	25	4951.8	25	10632.0	25	3061.6	25	175	25
Chernihiv	25244.3	18	54461.2	19	23531.3	15	19179.3	16	17881.2	12	13623.3	22	7366.8	20	122	17

* - the lines marked in green show the best integral values of the region's indicators; and the lines marked in red show the regions with worst indicators' values;

** - calculated as the sum of ratings for each indicator.

Table 2. The average values of service potential indicators and ranking by region
in 2010–2015* (developed by the author)

Regions	Number of enterprises, units	Ranking	Number of industrial enterprises, units	Ranking	Number of services sector enterprises, units	Ranking	The sales volume of services sector enterprises, mln. UAH	Ranking	The volume of services sold by the services sector enterprises to enterprises, mln. UAH	Ranking	The volume of services sold by the services sector enterprises to transport and storage enterprises, mln. UAH	Ranking	General ranking**	Integral ranking
Vinnytsia	8816	11	1356	12	1288	15	4739.1	10	2475.5	13	1413	10	71	11
Volyn	5317	22	725	24	1096	21	2882.4	18	1840.8	16	931.4	17	118	21
Dnipropetrovsk	27214	2	3249	4	4927	3	19436.7	4	13782.9	4	6037.5	3	20	2
Donetsk	22689	5	3257	3	5426	2	19674.5	3	13792.1	3	4957.8	5	21	3-4
Zhytomyr	6435	18	1440	10	1176	19	2791.5	19	1098.2	23	381.0	24	113	19-20
Zakarpattia	5867	19	938	18	1246	17	2767.5	20	1585.4	19	922.6	18	111	18
Zaporizhzhia	14585	8	1931	8	2897	7	6323.9	9	4055.8	9	1474.0	9	50	8
Ivano-Frankivsk	7810	13	1424	11	1366	14	2902.8	17	1654.24	18	976.14	16	89	14
Kyiv (city)	85958	1	7472	1	8314	1	116778	1	81852.6	1	15631.7	2	7	1
Kyiv	17326	7	2795	6	2279	8	11625.6	7	7915.0	7	4078.6	7	42	7
Kirovohrad	7191	16	868	22	978	24	3767.94	14	2925.4	10	2460.5	8	94	16
Luhansk	8447	12	1517	9	2035	9	4382.0	11	2553.5	12	884.6	19	72	12
Lviv	18387	6	2816	5	4297	6	14883.8	5	9809.4	5	5093.1	4	31	5
Mykolaiv	10283	9	1122	15	1891	10	7044.2	8	5399.7	8	4187.1	6	56	9
Odesa	24506	4	2372	7	4896	5	28618.3	2	23061.6	2	17607.2	1	21	3-4
Poltava	9873	10	1244	13	1782	11	4324.5	12	2873.2	11	1407.7	11	68	10
Rivne	5090	23	876	21	1247	16	2946.6	16	1679.1	17	1131.7	14	107	17
Sumy	5619	21	818	23	1194	18	2713.3	22	1450.7	20	772.0	20	124	23
Ternopil	5000	24	913	19	1037	23	2023.0	24	1090.9	24	554.0	23	137	24
Kharkiv	25389	3	3830	2	4908	4	13223.2	6	8477.9	6	1403.5	12	33	6
Kherson	7637	15	953	17	1696	12	3113.7	15	2020.9	15	1277.0	13	87	13
Khmelnytsk	6728	17	1114	16	1367	13	2308.9	23	1143.4	22	570.9	22	113	19-20
Cherkasy	7666	14	1150	14	1087	22	4290.1	13	2113.5	14	1060.8	15	92	15
Chernivtsi	4220	25	598	25	853	25	1549.8	25	617.8	25	251.2	25	150	25
Chernihiv	5808	20	901	20	1102	20	2751.6	21	1274.1	21	673.3	21	123	22

* - the lines marked in green show the best integral values of the region's indicators; and the lines marked in red show the regions with worst indicators' values;

** - calculated as the sum of ratings for each indicator.