

# Development of services market in rural areas of the region (the case of Transcarpathia, Ukraine)

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## Abstract

*The paper covers the problem of the state of market services in the context of territorial aspect. The current situation in Transcarpathian service sector is analyzed within the criterion of distribution of services in cities or rural areas of the region and reviewed under the main factors that influence development of services market in such territories. A methodology of services market allocation assessment used in the paper is based on a complex index and includes a set of particular indices. The complex index reveals existing state and disproportions in development of services market in Transcarpathia.*

**Key words:** region, services market, rural areas, demand, consumption

**JEL Classification:** R12

## 1 Introduction

Increasing economic and social effectiveness of entrepreneurial activity at the services market of the region can only be gained with previous identifying peculiarities of spatial organization and revealing ‘weak pockets’ of services enterprises dislocation. Thus practical meaning of spatial proportions of services market becomes more essential for regions with high share of rural population as rural areas often do not have complete range of services available for people living at the territory as well as developed business relations in services sector (topicality of this problem is clear for Transcarpathia with 62% share of population living in rural areas).

Therefore the paper is aimed at investigation of peculiarities of regional services market spatial organization, learning tendencies and features of services sector in cities and rural areas of the region. Authors use methodology of complex index which characterizes the level of development of services sector in administrative units of the region.

## 2 Body of Paper

Most scholars, who are interested in the role of services in economic growth, agree that technical progress is the main factor that forms the dynamics and structural changes in economic systems, that is increasing role of services sector and namely market services. However, these processes together with urbanization often cause disproportions in spatial development of services sector because of concentration of servicing sites at cities. Thus, “...urban environment has special features that make for minimization of costs for public services together with tendencies of services differentiation and improving their quality” [1].

At the same time, services market development in rural areas has the same level of importance as in areas with high population density, as the system of market and non-market services in rural areas is an important element of living conditions and reason that keeps rural population from moving into cities. From the other side, development of new kinds of services and supporting existing enterprises is one of the ways of dealing with the problem of unemployment and effective exploitation of productive forces. Therefore the problem of regional services market should be examined taking into account specific features of the rural and urban territories, demand for services in both of them and factors that influence it.

Basically transport, communication and consumer services prevail in rural areas of Ukraine. At the same time rather low total level of services in such territories is caused by low consumer demand. Demand for services is income-elastic ( $E_y > 1$ ), because of its close connection to discrete incomes and changes in income of population [2]. It is also known that in case of growth in incomes the share of expenditures for food, clothes and material needs decreases while the share of nonmaterial products (services) grows. It means also that expansion of social groups with middle and high income usually causes development of services market. Unfortunately low position of Transcarpathia in ratings of income per person in Ukraine shows low demand for services, which is mostly evident in rural areas.

Some scholars explain destruction of services sector in rural areas of Ukraine as the result of reforms in agricultural sector [3], but under conditions of modern economy services sector grows greatly together with agriculture in tourist sector for instance, especially in ecotourism.

Demographic issues are also very important: number of people and density of population in rural areas, sexual and professional population structure, social and cultural traditions may cause intensity of services consumption and structure of the market. Direct feedback between intensity of services consumption and density of population and share of urban population, dispersion of population, and inverse feedback between intensity of services consumption and index of population density is already proved by [4]. It means that far distance to big cities and lack of infrastructure needed for services sector complicates development of services sector in rural areas. Age-related issues also form the structure of services consumed at the territory, for instance the share of services mostly consumed by the youth and people of middle-age and pensioners.

The influence of cultural and social traditions and customs can be observed in willful refusal of people to buy some kinds of services because of conservative way of life or religious commitments, which is also more common in rural areas rather than in cities. The authors of the paper [5] explain refusal to consume some services by the mentality of the Ukrainians.

The analysis of some general data of services sector from the point of spatial distribution (administrative entities of the region) shows the existence of certain disproportions. The share of five cities of regional status in services provided in the region is 54%, while the share of rural areas is 21% (other 25% refer to enterprises out of regional division). Such proportion has been almost unchangeable within the period of 2002-2007. At the same time, there is almost the same quantity of enterprises providing services in cities and rural areas (53,3% in cities and 46,7% in rural areas). But the number of employees of such enterprises is twice as many as in rural areas (66,4% of employees in services sector work at city enterprises and 33,6%).

More than 50% of market services in the region are provided by enterprises of three cities – Uzhgorod (26,8%), T Chop (15,1%) and Mukachevo (9,8%). Nine out of thirteen districts of the region have the share of 1% or lower in the total amount of regional services market.

The index of services per capita is quite different in cities and rural areas: UAH 575, 3 per year in cities and UAH 121,6 in rural areas, that is 4,7 lesser (in 2004 this difference was 6 times, UAH 255), see Fig.1.

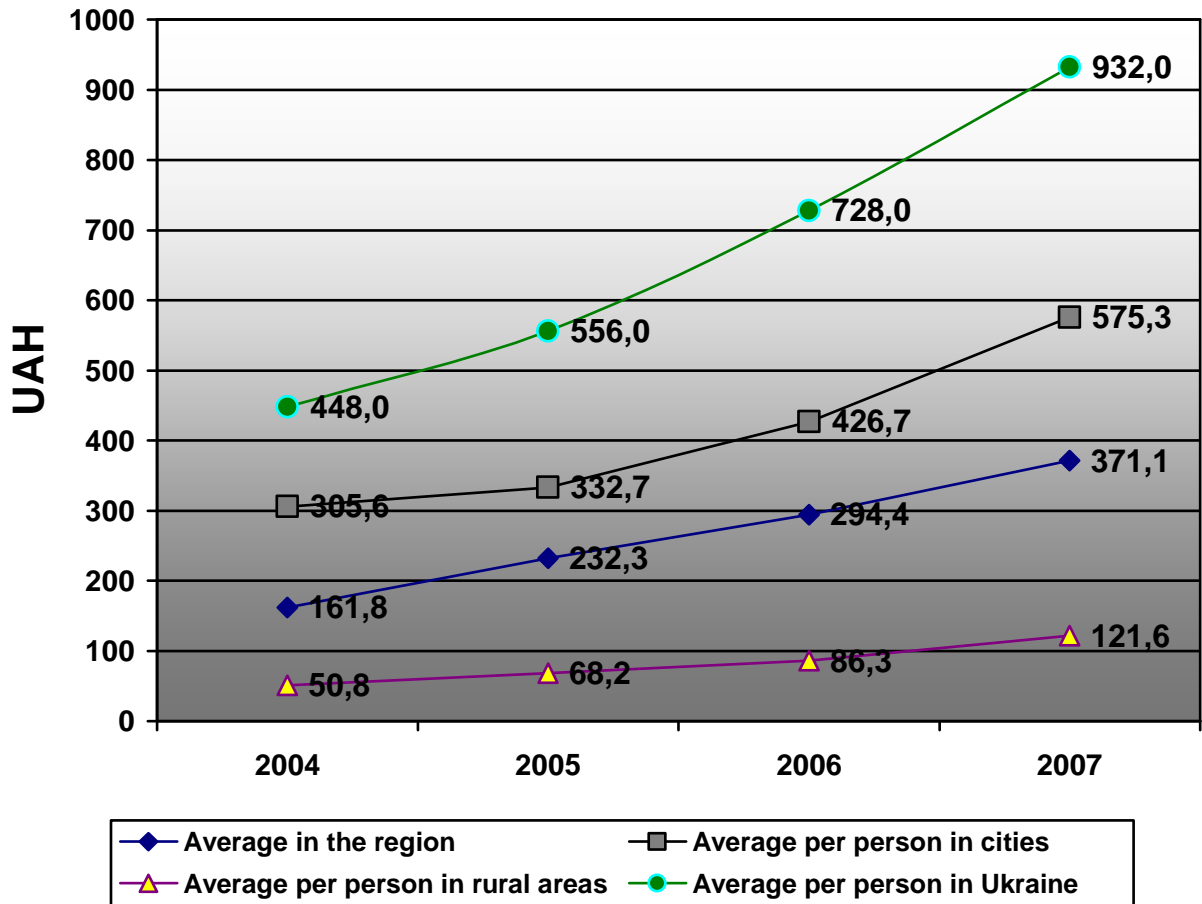


Fig. 1 Services per capita in Transcarpathia, 2004-2007[7]

Tendencies of development and spatial distribution of services sector in rural areas within the region should be studied by means of complex rating assessment, revealing different sides of services market. This can be done due to summarized ratio including a number of specific indices which characterize development of services market at the territory. Such summarized Ratio of services market development includes the following specific indice:

**Table 1** Specific indices of the Services market development ratio

No.	Index	Calculation
1	The share of enterprises providing services in the total quantity of active enterprises	$Q_e = \frac{\text{Quantity of enterprises providing services}}{\text{Total quantity of active enterprises}}$
2	Number of enterprises providing services per 10 000 of population	$Q_{ep} = \frac{\text{Number of enterprises at the market} \times 10000}{\text{Number of population}}$
3	Amount of services provided per capita	$A_{pc} = \frac{\text{Amount of services provided to consumers (UAH)}}{\text{Number of population}}$
4	Share of employed at the services market in the total number of employees	$E_s = \frac{\text{Number of employees of enterprises providing services}}{\text{Number of employed in all spheres of economy}}$
5	Average amount of services provided by one enterprise	$A_{pe} = \frac{\text{Total amount of services provided by all enterprises}}{\text{Quantity of enterprises providing services}}$
6	Average amount of services provided by one employee	$A_{pem} = \frac{\text{Total amount of services provided by all enterprises}}{\text{Number of employees of enterprises providing services}}$
7	Average monthly salary of employed in services sector	$A_{ms} = \frac{\text{Total yearly labor compensation fund of all enterprises providing services}}{\text{Average yearly number of employees}}$
8	Share of services in exports of goods and services of the territory	$E_s = \frac{\text{Services export (\$)}}{\text{Goods and services export (\$)}}$

Selected indices reflect the role of enterprises providing services in the overall structure of entrepreneurial activity in the region and effectiveness of its functioning together with the role of services sector in with dealing problems of unemployment and providing rural population with necessary market services. The ratio also includes a special index (that is the share of services in exports of goods and services of the territory), which corresponds to current needs of integration into global processes of trade in services and is especially significant for bordering region.

The ratio has been calculated by means of method of distances based on measuring closeness of object to the reference sample. Specific indices (Table 1) are calculated for every administrative entity of the region excluding data of the cities which are being analyzed separately (for results see Table 2). Reference samples (data) are maximal values of the indices chosen.

**Table 2 Values of specific indices of the Ratio of services market development (Rsmđ) for districts and cities of Transcarpathia**

	<b>Qe (1=100%)</b>	<b>Qep (units)</b>	<b>Apc (UAH)</b>	<b>Es (1=100%)</b>	<b>Ape (tsnd UAH)</b>	<b>Apem (tsnd UAH)</b>	<b>Ams (UAH)</b>	<b>Es (1=100%)</b>
<b>Cities of regional level:</b>								
Uzhgorod	0,3486	42,33	1093,0	0,5194	963,3	18,1356	1039	0.0607
Berehovo	0,3491	23,98	304,4	0,2284	341,41	11,1623	850	0.0060
Mukachevo	0,3529	24,09	495,2	0,2496	866,6	22,5331	1228	0.0219
Khust	0,4000	23,64	441,5	0,4815	313,72	6,6045	883	0.0003
Tchop	0,6206	41,37	542,4	0,8636	7377,13	61,5046	1531	0.7258
<b>Reference values (cities)</b>	<b>0,6206</b>	<b>42,33</b>	<b>1093,0</b>	<b>0,8636</b>	<b>7377,13</b>	<b>61,5046</b>	<b>1531</b>	<b>0,7258</b>
<b>Administrative districts:</b>								
Berehivsky	0,4563	8,99	13,3	0,1738	294,80	13,5048	1050	0.0136
Velykoberezhnyansky	0,3962	7,77	57,5	0,1219	137,28	6,5671	730	-
Vynogradivsky	0,4252	7,74	106,3	0,2390	237,52	5,6507	851	0.0021
Volovetsky	0,1666	6,10	80,2	0,0697	233,47	14,3524	626	-
Irshavsky	0,2349	4,34	74,8	0,0554	346,34	24,1769	716	0.0232
Mizhgirsky	0,4311	9,79	185,5	0,2879	240,45	7,2675	878	0.0267
Mukachivsky	0,4439	9,51	185,8	0,2250	1163,9	50,1451	836	0.5607
Perechynsky	0,5223	11,18	82,2	0,1909	145,28	5,3866	793	-
Rakhivsky	0,4093	9,72	57,9	0,3771	116,79	1,3760	854	0.0075
Svalyavsky	0,2252	7,64	523,2	0,2172	2151,83	2,7808	839	0.0118
Tyachivsky	0,2280	3,32	57,1	0,0752	297,91	15,4513	716	0.0072
Uzhgorodsky	0,3904	17,01	66,9	0,1615	411,73	8,5221	1007	0.0080
Khustsky	0,6463	5,53	90,5	0,2439	293,45	7,7765	1121	0.0036
<b>Reference values (districts)</b>	<b>0,6463</b>	<b>17,01</b>	<b>523,2</b>	<b>0,3771</b>	<b>2151,83</b>	<b>50,1451</b>	<b>1121</b>	<b>0.5607</b>

The next step of calculation is standardization of values in table 2 with the certain reference value as follows:

$$P_{ij} = \frac{B_{ij}}{\max B_i}, \quad (1)$$

Where  $P_{ij}$  – standardized index  $i$  for  $j$  district (city),  $B_{ij}$  – value of specific index  $i$  for  $j$  district (city),  $\max B_i$  – reference sample of  $i$  index.

For each object the value of Ratio will be calculated as follows:

$$R_{smđj} = \sqrt{(1 - P_{1j})^2 a_1 + (1 - P_{2j})^2 a_2 + \dots + (1 - P_{nj})^2 a_n} \quad (2),$$

Where  $R_{smđ}$  – rating ratio for  $j$  district (city);

$P_{1j}, P_{2j}, \dots, P_{nj}$  - standardized indices of  $j$  district (city);

$a_1, a_2, \dots, a_n$  – weighting coefficients of indices.

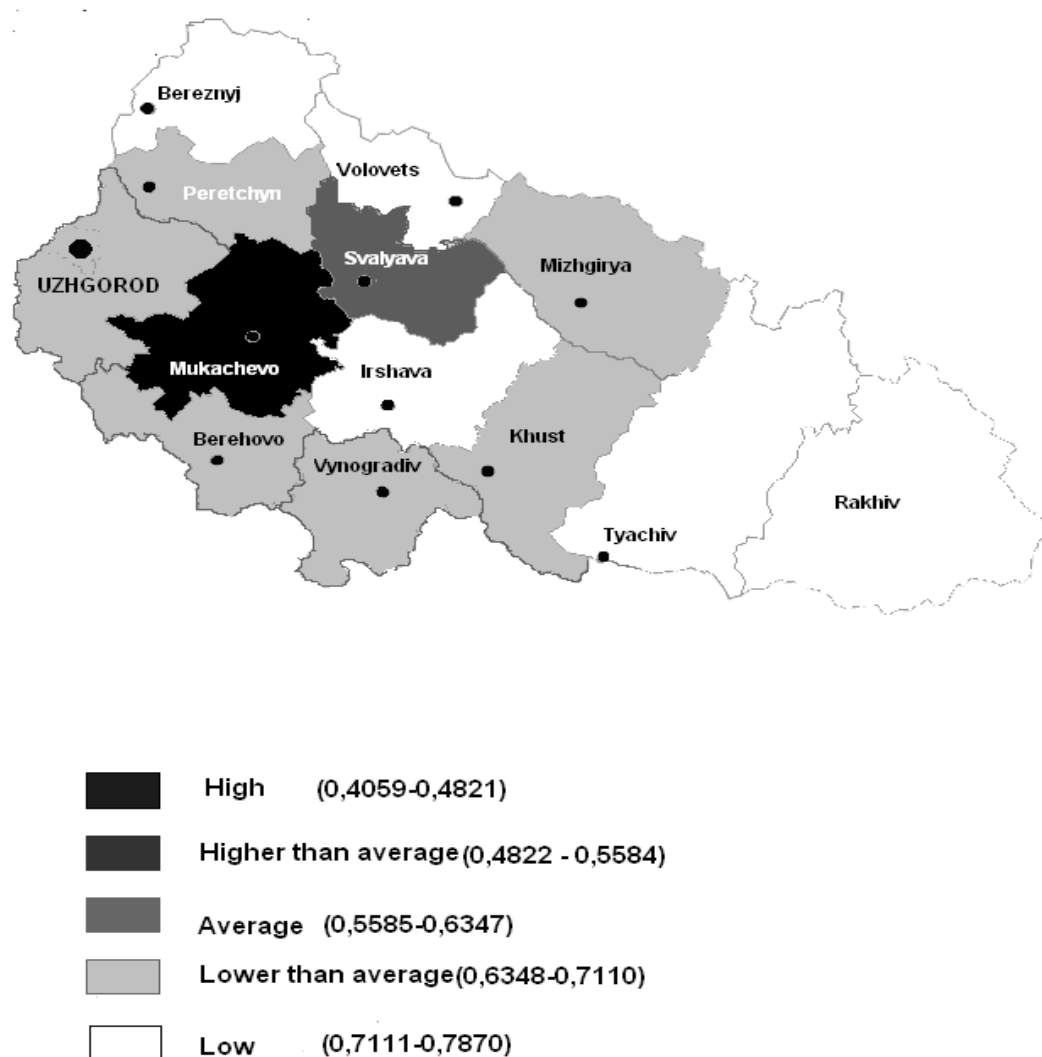
Weighting coefficients were identified by means of expert assessment of their importance by a group of specialists in the sphere of services. Ranking of districts according to the level of services market development is conducted in downturn order of Ratio (the lesser the ratio, the higher the level of services market development), see Table 3.

Table 3 Standardized values of indices and Ratio of services market development

	Qe/ Qemax	Qep/ Qepmax	Apc/ Apcmax	Es/ Esmax	Ape/ Apemax	Apem / Apemmax	Ams/ Amsmax	Es/Esmax	Rsmd	Rank
<b>CITIES:</b>										
Uzhgorod	0,5617	1,0000	1,0000	0,6014	0,1306	0,2949	0,6786	0,0836	0,5358	2
Berehovo	0,5625	0,5665	0,2785	0,2645	0,0463	0,1815	0,5552	0,0083	0,7189	5
Mukachevo	0,5686	0,5691	0,4531	0,2890	0,1175	0,3664	0,8021	0,0302	0,6334	3
Khust	0,6445	0,5585	0,4039	0,5575	0,0425	0,1074	0,5767	0,0004	0,6760	4
Tchop	1,0000	0,9773	0,4962	1,0000	1,0000	1,0000	1,0000	1,0000	0,2164	1
<b>DISTRICTS:</b>										
Berehivsky	0,7060	0,5285	0,0254	0,4609	0,1370	0,2693	0,9367	0,0243	0,7078	8
Velykobereznyansky	0,6130	0,4568	0,1099	0,3233	0,0638	0,1310	0,6512	-	0,7548	11
Vynogradivsky	0,6579	0,4550	0,2032	0,6338	0,1104	0,1127	0,7591	0,0037	0,6983	6
Volovetsky	0,2578	0,3586	0,1533	0,1848	0,1085	0,2862	0,5584	-	0,7810	12
Irshavsky	0,3635	0,2551	0,1430	0,1469	0,1610	0,4821	0,6387	0,0414	0,7518	10
Mizhgirsky	0,6670	0,5755	0,3545	0,7635	0,1117	0,1449	0,7832	0,0476	0,6357	3
Mukachivsky	0,6868	0,5591	0,3551	0,5967	0,5409	1,0000	0,7458	1,0000	0,4059	1
Perechynsky	0,8081	0,6573	0,1571	0,5062	0,0675	0,1074	0,7074	-	0,7018	7
Rakhivsky	0,6333	0,5714	0,1107	1,0000	0,0543	0,0274	0,7618	0,0134	0,7202	9
Svalyavsky	0,3484	0,4491	1,0000	0,5760	1,0000	0,0555	0,7484	0,0210	0,5800	2
Tyachivsky	0,3528	0,1952	0,1091	0,1994	0,1384	0,3081	0,6387	0,0128	0,7870	13
Uzhgorodsky	0,6041	1,0000	0,1279	0,4283	0,1913	0,1699	0,8983	0,0143	0,6794	4
Khustsky	1,0000	0,3251	0,1730	0,6468	0,1364	0,1551	1,0000	0,0064	0,6943	5

The spread in development of services market is obvious both among cities and rural areas and within the groups of entities with close level. Though enterprises of Uzhgorod, the regional center of Transcarpathia, sell more than 25% of all services in the region, the integral assessment shows that Uzhgorod occupies the second position after T Chop city, which is the most western site of Transcarpathia and Ukraine. The highest position of T Chop is caused by its location, developed external operations in trade in services with bordering countries.

As the main point of research was to define differences if any existing in development of services sector in rural areas of Transcarpathia, the cities were divided into the separate group, while Ratio for districts was calculated excluding cities. So the following situation can be illustrated by the map of services market development:



**Fig. 2 Groups of Transcarpathian districts according to the Services market development ratio (2007 year).**

### 3 Conclusion

According to the results of Ratio of services market development calculation, three quarters of rural area of Transcarpathia refer to districts with problems of services market development, that eventually influences the overall situation in the region. Only one district – Mukachivsky – has developed services sector, and one – average level (Svalyavsky). Other administrative districts with rural areas show very low value of Ratio. The spread between maximal and minimal value is 1.94 times. Thus, eleven out of thirteen districts have insufficient services level and need special attention from the side of local authorities.

So services market in rural areas is influenced greatly by income, demographic, social, cultural factors. Such influence results in structural and quantitative differences in urban and rural services sector. However, as the case of Transcarpathia shows, even some rural and mountainous areas have potential to develop services sector, but these processes have to be supported by local authorities. Thus, the proposed way of assessment of services sector can be used at executive level to monitor the development of tertiary sector in rural areas and make certain decisions to facilitate it.

### References

- [1] О. Лук'янченко, В. Кавиршина. Розвиток сфери послуг у міському середовищі // Регіональна економіка. – 2006. - №4. – с.111-117.
- [2] Рынок услуг как сектор экономики [Электронный ресурс] / М.В. Круглова // Культура народов Причерноморья. — 2005. — №64. — С. 63-66.- Access: [http://www.nbuu.gov.ua/Articles/Kultnar/knp64/knp64\\_63-66.pdf](http://www.nbuu.gov.ua/Articles/Kultnar/knp64/knp64_63-66.pdf)
- [3] Горьовий В.П. Сфера побутового обслуговування сільського населення України в умовах ринкової економіки// Економіка АПК.-2007.-№4. – с.133-139.
- [4] Ситник Н.С. Вплив роззосередженості споживачів на ємність ринку послуг // Регіональна економіка. – 2001. - №1. – с.189-194.
- [5] Стадник В.В., Ванджула Д.Г. Інституційні чинники розвитку підприємництва у сфері послуг // Научные труды ДонНТУ. Серия: экономическая. Выпуск 69. – с. 210- 212.
- [6] Kuzmisiin P. – Kuzmisiinova V. Teritorialne socialno-economicke structurne procesy a disproporcije (aplikacija na priklade Slovenskej republiky) 2<sup>nd</sup> European Conference in Regional Science – CERS, 2007, p. 547-553.
- [7] Статистичний щорічник Закарпаття за 2007 рік. - Ужгород: Головне управління статистики у Закарпатській області. - 2008. – 596с.
- [8] Регіон: соціально-економічні трансформації: монографія / М. І. Пітюлич [та ін.] ; Ужгород. нац. ун-т. - Ужгород : "Карпати", 2007. - 416 с.