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Стаття надійшла до ред. 18.02.2015 р.

УДК 338.486 *JEL Classification: L83*

THE INFLUENCE OF A COUNTRY'S GLOBAL MARKET POSITION ON THE TOURISM INDUSTRY MACROECONOMIC INDICATORS

V. Yermachenko

The article provides the analysis of the countries' tourism development indicators in correspondence with the position of a national economy in the global market. The issues of international tourism impact on a national economy have been studied, in both the methodological aspects and practical implementation, the main challenges of the branch functioning today have been pointed out. The research goal is to find the most relevant methods and approaches to the descriptive analysis of macroeconomic data, concerning the scale of a national economy and the strategic position of the tourism industry in a state. The object of the research is the operation of national economies in the global tourism market, the subject is the elaboration of estimation techniques of a national tourism market structure with the countries having operative programmes of the branch development taken as an example. The scientific novelty consists in the elaboration of the methodical approach to cluster formation preceding the use of econometric models. The main research method is grouping on the basis of a cluster approach. It has been proved that the common cluster analysis with econometric models is not often relevant to the specific purpose, so step-by-step estimation of the indicators chosen has been suggested considering every peculiarity of a national foreign trade policy.

Preliminary grouping of the countries by the criteria of economic stability has been performed. Further investigations in this field will be conducted via analysis of the dominant strategies in tourism development programmes according to the current position of a country in the pre-defined group and singling out the main trends peculiar to the majority of the projects.

Keywords: grouping of the countries, cluster analysis, tourism development macroeconomic data.

ВПЛИВ ПОЗИЦІЇ КРАЇНИ НА СВІТОВОМУ РИНКУ НА ФОРМУВАННЯ МАКРОЕКОНОМІЧНИХ ПОКАЗНИКІВ РОЗВИТКУ ГАЛУЗІ ТУРИЗМУ

Єрмаченко В. Є.

У статті наведено аналіз показників розвитку туризму в деяких країнах відповідно до їх позиції на світовому ринку. Розглянуто питання впливу сфери міжнародного туризму на економіку країни як на рівні методологічних аспектів, так і на рівні практичної реалізації, вказано основні проблеми функціонування галузі на сьогодні. Мета статті – обґрунтування оптимальних методів і підходів до описового аналізу макроекономічних показників виходячи з масштабів національної економіки та стратегічного становища галузі туризму в державі. Об'єктом дослідження є діяльність національних економік на світовому туристичному ринку, предметом – розробка методів оцінювання структури національного туристичного ринку на прикладі країн з діючими програмами розвитку галузі. Наукова новизна полягає в уточненні методичного підходу до кластеризації, яка випереджає використання економетричних моделей. Основним методом дослідження є групування на основі кластерного підходу. Доведено, що стандартний кластерний аналіз на основі економетричних моделей часто не відповідає меті дослідження, тому пропонується покрокове оцінювання вибраних показників з урахуванням особливостей зовнішньоторговельної політики держави. Подальші дослідження мають бути спрямовані на аналіз провідних стратегій у рамках програм розвитку туризму відповідно до поточного перебування країни в певному кластері і виділення основних тенденцій, характерних для більшості проектів.

Ключові слова: групування країн, кластерний аналіз, макроекономічні показники розвитку туризму.

ВЛИЯНИЕ ПОЗИЦИИ СТРАНЫ НА МИРОВОМ РЫНКЕ НА ФОРМИРОВАНИЕ МАКРОЭКОНОМИЧЕСКИХ ПОКАЗАТЕЛЕЙ РАЗВИТИЯ ОТРАСЛИ ТУРИЗМА

Ермаченко В. Е.

В статье приведен анализ показателей развития туризма в некоторых странах в соответствии с их положением на мировом рынке. Рассмотрены вопросы влияния сферы международного туризма на экономику страны как на уровне методологических аспектов, так и на уровне практической реализации, указаны основные проблемы функционирования отрасли на сегодняшний день. Цель статьи – обоснование оптимальных методов и подходов к описательному анализу макроэкономических показателей исходя из масштабов национальной экономики и стратегического положения отрасли туризма в государстве. Объектом исследования выступает деятельность национальных экономик на мировом туристическом рынке, предметом – разработка методов оценки структуры национального туристического рынка на примере стран с действующими программами развития отрасли. Научная новизна состоит в уточнении методического подхода к кластеризации, предваряющей использование эконометрических моделей. Основным методом исследования является группировка на основе кластерного подхода. Доказано, что стандартный кластерный анализ на основе эконометрических моделей часто не соответствует цели исследования, поэтому предлагается пошаговая оценка выбранных показателей с учетом особенностей внешнеторговой политики государства. Выполнена предварительная группировка стран по критерию экономической стабильности. Дальнейшие исследования будут направлены на анализ доминирующих стратегий в рамках программ развития туризма в соответствии с текущим положением страны в определенном кластере и выделение основных тенденций, характерных для большинства проектов.

Ключевые слова: группировка стран, кластерный анализ, макроэкономические показатели развития туризма.

The goal and content of state and/or regional programmes will substantially differ subject to the general size of a national economy and the share of T&T industry in its GDP. The importance of the tourism sector may also depend on the other quantitative and qualitative parameters, which could be extremely essential for one country and irrelevant to another. Thus, the article provides the analysis of interdependence between the position of a national economy in the global market and its main tourism indicators.

The issues of international tourism impact on a national economy have been studied by many scientists in Ukraine and

abroad. Alexandrova A. and Liubitseva O. were among the pioneers in the CIS scientific community, describing the methodology of the tourism branch analysis in their early publications. Since that, each year has been remarked by ongoing studies of tourism internaional flows, supplementing the theory and practice of the industry researches with new methods and concepts [1 – 3].

Pădure G. and Turtureanu I. A. state that "tourism ... provides more fixed earnings than primary products. The income from tourism has increased at a higher rate than primary products ... in a number of countries especially in countries having a low industrial base". The authors present interesting statistic data highlighting that some countries have more visitor arrivals than the population number. Tourism has become an essential sector of international trade in many countries, generating GDP and compensating the balance of payment accounts. The multiplier effect of tourism is deduced in direct, secondary and tertiary sectors [4]. Bulin D. performed the grouping of EU countries using the cluster analysis method by the macroeconomic indicators of the tourism industry, including the balance of payments, multiplier coefficients and the level of T&T competitiveness. Three clusters were defined with different internal policies in the tourism industry [5]. Korres G. M. studies the impact of innovation activity indicating the strong influence of the long waves of the business cycles. He insists that "innovative activity has been one of the most important components for the long-term economic growth", and the innovative potential for sustainable development should be also measured in terms of regional disproportions [6]. Apostolakis A. and Clark D. have discovered the role of tourism activity in regional economic development with Britain's market taken as an example. They recommend local economies to reach "higher than average levels of entrepreneurial activity and qualifications", while pay and unemployment rates could be around the national norm, in order to boost tourism income. The scientists warn, by the way, that development programmes need to be worked out carefully for each locality taking into account their peculiarities [7]. Samonova T. B. has found the dependence of the domestic tourism market structure on consumers' expectations [8]. Liutak O. M. has revealed the necessity of the information support of statistical analysis of tourist flows [9 – 10] and suggested an econometric model of the recreation segment development in a transboundary region. Liao T. has analysed the structural contribution of the tourism industry into the gross of a national economy. The "clear" ("auxiliary") branch was created by dividing the tourism industry into six ones including traffic, hotel, catering, tour, amusement and shopping. The structure productivity coefficient was calculated as the elastic coefficient of the tourism industry structure change index to the tourism economy total growth rate, reflecting the drive function and influence of the tourism industry structure change (i.e. each of the six branches) on the development of the tourism industry [11].

Teker S. and Teker D. have investigated the concept of public-private partnerships (PPP) in the field of tourism, proposing a PPP model for tourism project financing. The main idea is that "the governments may protect their budget from fund deficit by transferring the financing solutions and the risks to the private sector while they assure the quality and continuity of services provided to public". Several PPP models are defined – build-transfer (BT), build-lease-transfer (BLT), build-transfer-operate (BTO), build-operate-transfer (BOT), build-own-operate-transfer (BOOT), build-own-operate (BOO) models, – ranked by the level of responsibility and ownership distribution between the public and private sector [12]. Dzhukha V. and Pogosyan R. have analysed the legal aspects of public-private cooperation with the sports and recreation sphere taken as an example [13]. Zyma O. and Lisitsyna I. have summarised the experience of PPP projects implementation by their aim and duration in different countries of the world, stating that it is more considerable to realise mid- and short-term PPP projects in Ukraine due to the cyclic character of its economy [14].

Special studies have been conducted of the tourism impact assessment in developing countries, for example, [15] raises the problem of "import leakage" – the excess of the value of imported merchandise and services for keeping high standards of foreign tourists' accommodation above the real income of inbound tourism, additionally leading to various social strains. Generally "leakages" are defined as the percentage of the price of the holiday paid by the tourist that leaves a destination (imported goods or profits remitted by foreign hotel groups) or that never reaches the destination because of the involvement of intermediaries (such as tour operators or transporters) often based in the developed countries [16].

The problems of ownership of infrastructural objects by residents and transnational companies have been discussed. Seifert-Granzin J. and Jesupatham D. S. have studied integration processes in the world tourism market and the challenges of globalisation to national economies and local business units. While "retail distributors and travel agencies ... control all stages of distribution, marketing and sales of package tours; ... airlines extending far into the field of primary tourism and travel-related services", "hotels and hotel chains hardly pursue strategies of vertical integration at all" [17]. It should be mentioned that namely hotels and other accommodation facilities provide the employment of local labour force and offer the variety of either qualified or unskilled jobs, helping to "socialisation" of local population and empowering their positive attitude to overwhelming income flows. As the research of the World Bank shows, "in many developing countries, domestic demand is often very low, so exports remain one of the few channels that in the longer run significantly contribute to higher rates of per capita income growth in a country. Many countries that are commodity dependent or that exhibit a narrow export basket often suffer from export instability arising from inelastic and unstable global demand". The underlying question is whether a county ought to diversify its export. Tourism can contribute to such a diversification but only the countries "with the necessary security and political stability, appropriate natural endowments, and sufficient environmental management capacities clearly have an advantage in developing tourism" [16].

Bole D., Hribar M. Š. and Kozina J. have worked out the recommendations for tourism development in local rural communities within the EU countries, indicating that "ever more globalised European countryside is less and less dependent on the traditional economic activities such as agriculture and is increasingly more oriented toward the service sector of the economy". Communities and local travel operators should be involved in the tourist product development and management process. "The local communities must be informed and must make their own decisions on what forms of tourism and what kind of products they want to offer the tourists, as well as what the estimated benefits and costs will be for the entire community" [18]. Sharma K. K. outlines that "recreation is often juxtaposed in relation to forestry, agriculture, water supply, conservation and a host of competing activities that each make use of socially constructed leisure space. The multiple use of resources is an underlying principle which recreation resource management seeks to accommodate". He suggests an extensive survey of tourism impacts on local communities, with the critical issue of the changing public policy framework within public service provision in leisure. The author insists that "carrying capacity is one of the most complex and confusing concepts" in destination management. The earlier researches have identified the physical, economic, ecological and social capacity" [19]. It should be noted that this area of scientific investigation has been predominantly based on the analysis of the inbound tourism impact, and precautionary measures are tailored mainly for developing countries or endangered local communities. "The organisation and spatial location of capital and, in particular, the penetration of foreign or international capital is another major consideration in the potential contribution of tourism to the national economy", although "tourism can help to eliminate the widening economic gap between developed and less developed countries" [20]. Additionally, Sharma K. K. figures out that forecasting visitor demand and pointing out so-called "hallmark events" are not enough for the overall estimate of the tourism economy.

International cooperation in the field of trade in services relies on bilateral and multilateral agreements between countries and businesses. However, "preferential trade agreements can achieve greater liberalisation and economic integration among trading neighbours at roughly the same level of development, but may discriminate against other countries and distort trading patterns" [21]. In special cases, public policy in the sphere of international tourism must correspond with current protectionist measures undertaken by a state.

The OECD researchers forecast a significant shift in international tourism markets over the period 2010 – 2030. "The share

of international arrivals to the emerging economies will surpass that to the advanced ones ... . Average annual growth in outbound trips will be 17 mn for Asia Pacific, 16 mn for Europe, 5 mn for the Americas, 3 mn for Africa and 2 mn for the Middle East" [22]. If the emerging tourism markets were just a novelty for the mature economies recently, they have become a challenge today. Recipient countries must not only reinforce consumer targeting, but do it in a completely new environment and societies. The example of China is given [23, p. 23], as the country is in the first place for outbound tourism with revenues of 102 bn USD which is – a 37 % increase compared with 2011, boosted by rising disposable incomes, a relaxation in restrictions on foreign travel and an appreciating currency, simultaneously with a move away from group to independent travel. Some other countries have also become a prior target for national meeting industries, often accompanied by a sharp turn in hospitality background principles. The hallmark for this trend is "demographic change (for instance, the uneven growth of the world population) as one of the external factors that will shape tourism demand and development in the medium to longer-term" [23].

The work [24] provides an overview of researches performed in the sphere of public regulation of domestic business environment and foreign trade with the examples of activities which fostered exports in various branches and classifies methodologies of recent findings [24, p. 32–34].

Röpke W. describes "the international order", analysing the principles of functioning of the global economy, trying to define the prerequisites for world crises and "fears" and the ways to solve structural disparities in the world trade [25]. He argues about the point of a trade balance equilibrium, denominating the tourism industry as an instrument for counterpoising the existing deficit [25, p. 195–196]. Stabler M. J., Papatheodorou A. and Sinklair M. T. have investigated trends in the global tourism market via the theories in terms of political economy, such as the intertemporal choice theory, a range of theories of expectations of future income in explaining tourism demand etc., have evaluated the effect of intersectoral cooperation in pricing policy, have observed econometric studies in this field [26].

Tourist flows can be assessed either in the number of visitors/visits or money income/loss from operations. The first method is in preference when evaluating the indicators of capacity, recreational load, employment, demand for resources, the second one measures various macroeconomic financial indicators, including the efficiency. The total effect estimates trade in tourism products (goods and services) for both tourism and non-tourism industries based on intersectoral cooperation. Thus, the impact of foreign and domestic trade is a complex of influences, the open system, multirelated with the other sectors of a national economy. Taking separate indicators out of the general research scheme could misrepresent the current position of a country and its tourist potential. Considering this, the research plan ought to include the following steps:

1) "sampling" i.e. selecting the national economies with various levels of economy development and the scale of production capacities under the criterion of availability of official tourist programmes through world media. The country providing open access to its strategic documents, raises the awareness and increases the confidence among potential investors and consumers;

2) estimating the general position of a national economy in the global market;

3) defining the structure of tourist flows and grouping the countries.

The object of the article is the operating of national economies in the global tourism market, the subject is the elaboration of estimation techniques of a national tourism market structure analysis with the countries having on-going programmes of the branch development taken as an example. The scientific novelty consists in the elaboration of the methodical approach to cluster formation preceding the us of econometric models.

The most essential criterion identifying the strategy directivity is the structure of the tourism industry, i.e. the shares of domestic, inbound and outbound tourism. Scientists argue on the optimal ratio of these flows, but it is usually recommended to keep the outbound flow lesser than the inbound one, and not to forget about the domestic tourism infrastructure support.

The main method used in the process of conducting the research was grouping on the basis of a cluster approach. Common cluster analysis with econometric models was not relevant to the specific purpose, so the authors suggest step-by-step estimation of the indicators chosen and considering every peculiarity of a national foreign trade policy.

Though the economies of varying scales were purposely included into the research, the largest of them should be grouped separately, as their performance influences not only the domestic tourism market, but the world industry on the whole. Such emphasis is recommended to be put on the basis of macroeconomic indicators. In order to avoid inevitable fluctuations, the annual mean for all indicators was calculated, despite the value of a central government debt (the last available figures were taken) and some figures for Anguilla, Dominica, Iran, Kiribati and the UAE, who haven't released the ordinary reports [27].

The ultimate leader is the USA with the GDP of 15.59 trillion USD, followed by China (7.14) and Japan (5.45). The next nine countries produced annually more than 1 trillion USD: Germany, UK, Brazil, Italy, Russia, India, Canada, Spain and Australia.

By the population censuses China and India are in advance (1.344 bn and 1.221 bn people, the average for 2009 – 2013), followed by the USA, Brazil, Russia and Japan with more than 100 mn estimations. Philippines, Vietnam, Germany, Iran, Turkey, UK, Italy, South Africa registered from 50 to 95 mn residents. On the other side, Montenegro, Malta, Maldives, Iceland, Belize, Kiribati, Seychelles, Dominica and Anguilla are inhabited by less than 1 mn people.

Qatar, Australia, USA, Canada, Finland, Japan, Germany and Iceland have the highest GDP per capita within the group of the researched countries (40 – 82 thousand USD, while Belize, Macedonia, Jordan, Georgia, Morocco, Sri Lanka, Philippines, Kiribati, Vietnam, Ghana, India, Laos, Kenya and Mozambique have less than 5 USD thousand.

Total reserves (including gold) are among indicators measuring the stability of a national economy. During five previous years China possessed more than 3 177 bn USD, Japan had $1 195 bn Russia had $492.7 bn, USA had $490.6 bn, Brazil had $322.2 bn, India had $296.5 bn, Germany had $215.3 bn and Italy had $157.4 bn. Turkey, Poland and the United Kingdom owned from $90 to $99 bn. Lithuania, Latvia, Sri Lanka, Belarus, Greece, Iceland, Ghana, Kenya, Mozambique, Georgia, Macedonia, Slovakia, Estonia, Laos, Slovenia had less than 1 bn reserves (measured in USD) at their disposal, and Malta, Montenegro, Maldives, Seychelles, Belize, Dominica, Anguilla and Kiribati had less than $1 bn.

The total central government debt (in % of the GDP), according to the latest data available for Dec 2012/2013, was the highest in Japan (227.2 %), followed by Greece (175.1 %), Italy (132.6 %), Portugal (129 %) and USA (101.5 %). It should be noted that the USA, Japan and Italy were mentioned before as the most powerful world produces with large reserves. Iceland, Spain and the UK were indebted in the amount of 90 – 97 %, Canada and Jordan had a debt of 87 – 89 %, Germany, Sri Lanka, Malta, Slovenia and Dominica owed 70 – 79 %. The debt of Bulgaria, the UAE, Kazakhstan, Russia, Chile, Kiribati, Iran and Estonia amounted to less than 10 % of the GDP.

The current account balance indicator is not completely enough to characterise the foreign currency flows, but it is widely used to estimate the efficiency of foreign economic operations in the sphere of trade in goods and services and the ability to attract investments. The highest positive value is noted for Germany ($217.82), China ($202.58) and Japan ($132.71); Russia ($71.78), Qatar ($56.78), the UAE ($38.33) and Iran ($30.48) following them. They are followed by Philippines ($8.09) and Israel ($4.8) with a substantial gap, and Finland, Kazakhstan, Latvia, Slovenia, Estonia and Lithuania keep balancing within the 0.1 – 1 bn USD range. The largest negative balance is counted for the USA (432.32 USD), followed by Brazil, Turkey, Italy, Australia, Spain, Canada, India and the UK (45 – 60 bn USD), South Africa, Portugal, Poland and Greece have the figures of 11 – 25 bn USD; Belarus, Morocco and Romania remain in the range of 5 – 8 bn USD. The rest of the countries have negative balance, which doesn't exceed 5 bn USD.

Table 1 shows the distribution of countries by the ratio of total reserves and the central government debt to the GDP, with the sign of current account balance in brackets. Countries in italics have a negative net balance of trade in tourism services.

The most endangered instability of a national economy within the researched group of countries was faced by Greece,

Italy, Portugal and the USA because of an extra high governmental debt, lack of reserves and a negative current account balance, with Spain, the UK, Germany and Canada following them. Germany was the only one among them who handled foreign trade efficiently. Japan was in trouble for an extra high central government debt, despite the fact that the other indicators can be assessed positively. Iceland and Jordan had to serve a high debt and managed with the negative balance, but the advantage was a sufficient level of total reserves. China showed the best macroeconomic indicators among all the countries, followed by the UAE, Kazakhstan, Russia, Iran and Philippines. But if the criterion of trade balance in tourism services is added, only the UAE will be left, probably followed by Estonia.

Table 1

Grouping of countries by the criteria of economic stability

% to GDP	Total reserves, including gold		
Central government debt	0 – 10	10 – 30	30 – 45
10 – 30	Kiribati (–), Estonia (+), *Australia (–)*	Macedonia (–), Anguilla (–), UAE (+), *Kazakhstan (+)*, *Russia (+)*, Chile, (–), *Iran (+),*	*China (+)*, Bulgaria (–)
30 – 50		South Africa (–), Ghana (–), Mozambique (–), Lithuania (–), *Romania (–),* Latvia (+), Belarus (–), New Zealand (–), Turkey (–), Maldives (–), *Qatar (+),* Georgia (–)	*Philippines (+)*
50 – 75	Malta (–), Slovenia (+), *Finland (+)*, Slovakia (–)	Dominica (–), Seychelles (–), India (–), Israel (+), Croatia (–), Belize (–), Laos (–), Morocco (–), Poland (–), Montenegro (–), *Brazil (–)*, Vietnam (–), Kenya (–)	
75 – 100	Spain (–), *the UK (–), Canada (–), Germany (+)*	Sri Lanka (–)	Iceland (–), Jordan (–)
100 and more	Greece (–), Italy (–), Portugal (–), USA (–)	*Japan (+)*	

Qatar and Iran can be distinguished by the highest share of tourism services in total imports (18.7 and 23.6 % respectively) altogether with the low rate of exports (4.4 and 3.1 %), while tourism industry supports more than 80 % of income from foreign trade for Anguilla (89.2 % of total exports) and Maldives (82.7 %), and more than 50 % for Montenegro (51.1 %) and Dominica (56.5 %). The share of import operations is also higher for Anguilla (9.3 %) and Maldives (13 %), while for Montenegro (2.6 %) and Dominica (4.9 %) it is lower almost threefold. Six countries mentioned above provide no information about the number of outbound tourist trips to the world databases as open sources, while the indicators of international tourist arrivals are completely available.

Seven countries more can be outlined as predominant exporters – their share of tourism exports keeps the level of 20 – 40 %, with the share of imports not exceeding the five-year average of 8 % – Croatia (37.3 % of total exports and 3.8 % of total imports), Jordan (32.2; 7.1 %), Belize (30.5; 4,5 %), Morocco (29.6; 4.8 %), Kiribati (23.5; 4.0 %), Greece (22.2; 3.7 %) and Georgia (20.4; 5.3 % respectively).

The other countries analysed are not too heavily dependent on the import of tourism services, as it doesn't exceed 10 – 11 %, while the share of export fluctuates from 2 to approximately 20 % (Fig. 1). Within the group Kenya and Turkey are closer to net exporting, spending less than 3 % on outbound trips; Portugal, Malta, Spain and Bulgaria spend 5 – 6 %, and Laos follows them with 8 %. Australia and Iceland manage nearly the equilibrium at the level of 10 – 12 %, and the UAE and Russia have the prevailing imports ratio.

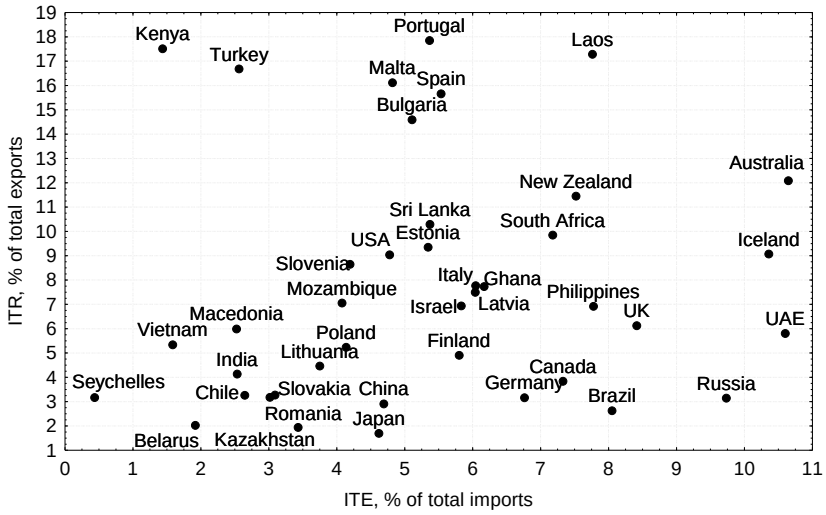

Fig. 1. **The share of foreign trade in tourism services in total exports and imports**

Seychelles, Belarus, Chile, India, Kazakhstan, Romania, Slovakia, Lithuania, China and Japan show the lowest shares of imports and exports – within the borders of 5 %, though all these countries worked out long-term strategies for tourism development and launch individual charismatic product in the global market. Despite the fact that some of the countries attract a big amount of visitors, these destinations cannot be named as standard and single-token ones.

The USA, China, Spain, Italy, Turkey, the UK, Germany, Russia, Canada, Greece and Poland attract annually more than 10 mn foreign tourists, but the rank of revenues from inbound trips doesn't always correspond to this number (Table 2).

Table 2

Top-20 countries by the absolute value of tourism flows, 2013, USD bn
(2009 – 2013, annual average; for outbound trips via currency rates)

Rank	Visitor exports		Domestic travel & tourism spending		Expenditure on outbound travel	
1	US	164.91	US	689.28	US	119.61
2	Spain	58.65	China	445.68	Germany	93.20
3	China	56.56	Japan	188.64	UK	67.94
4	Germany	44.94	UK	164.52	China	65.90
5	Italy	40.20	Brazil	117.40	Russia	51.92
6	UK	35.53	Italy	109.65	Canada	40.57
7	Turkey	29.85	Spain	78.43	Italy	32.46
8	UAE	19.99	Germany	78,14	Australia	32.02
9	Australia	18.25	Australia	77.96	Japan	31.07
10	Russia	17.78	India	70.40	Brazil	24.71
11	Canada	16.22	Russia	60.63	UAE	21.35
12	India	16.09	Canada	35.23	Spain	20.83
13	Greece	14.90	Turkey	28.85	Iran	18.27
14	Portugal	13.34	Philippines	13.88	India	14.02
15	Japan	11.85	Chile	13.39	Anguilla	10.32
16	Poland	10.84	Greece	12.29	Poland	8.11
17	Croatia	10.38	South Africa	11.92	Qatar	7.94
18	South Africa	9.46	New Zealand	11.34	South Africa	7.54
19	Morocco	8.55	Iran	11.06	Philippines	6.12
20	New Zealand	6.85	Portugal	7.70	Finland	5.60

It is obvious that almost the same countries are leaders in receiving revenue from exports and selling services in the domestic market, but the other national economies are the main consumers in the global tourism market, if the extra-large economies were excluded from the list.

It is clear that any country is interested in supporting profitable industries in the first place and receiving income from foreign economic operations. On the other hand, all countries cannot be exporters in all possible spheres; apparently, the "profitable" group of national industries should equilibrate the "detrimental" ones. Some countries are traditional exporters and importers of tourist services, and their officials responsible for making strategies must take this peculiarity into account.

Grouping (clustering) the countries is based on the gross volume of operations in tourism trade. The data were taken for 5 years (from 2009 to 2013). The primary indicators in national currency in real 2013 prices (WTTC methodology) were aggregated using the arithmetic mean. The gross industry turnover is the sum of visitor exports, domestic expenditure and expenditure on outbound travel (in absolute values), the shares of each component are calculated on its basis. For example, the USA tourism industry is characterised by the following simple means (Table 3).

Table 3

The main indicators of T&T (2009 – 2013 average)

Indicators	(2009 – 2013) USD bn	Share, %	Average growth rate, %
1	2	3	4
Visitor exports	164.9	16.7	8.28
Domestic expenditure	706.3	71.5	3.83

Table 3 (the end)

1	2	3	4
Expenditure on outbound travel	116.0	11.8	3.73
Gross industry turnover	987.2	100	4.55

The USA T&T industry is based predominantly on the potential of an inner market (more than 70 % of all operations) and has positive balance in foreign trade (16.7 – 11.8 = 4.9 USD bn), so the long-term strategy could be directed to further development of the inner market and increasing the number of foreign visitors. These areas also represent the highest average annual growth rate. As Fig. 2 shows, the USA experienced no slowdowns during the researched period.

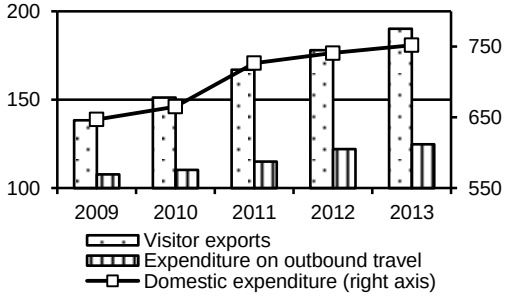

Fig. 2. **The dynamics of tourist flows of the USA,** USD bn

Canada also has a strong domestic market, but a negative balance of trade in tourism services and lower growth rates (Fig. 3). Therefore its long-term strategy could also include further development of the inner market, but with the support of inbound tourism.

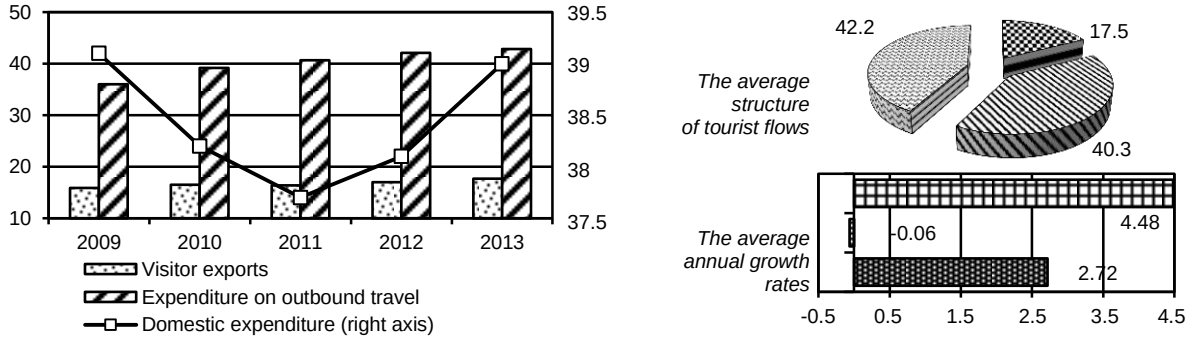

Fig. 3. **The structure and dynamics of tourist flows of Canada,** bns of Canadian dollars

In Ukraine (Table 4, Fig. 4), the structure of gross industry income/expenditure is almost regular (the annual 2009 – 2013 average makes 35.5 % for domestic travel, 35.1 % for exports and 29.4 % for imports of tourism services). The 2009 – 2011 period was distinguished by a sharp increase in domestic expenditure, while the shares of foreign trade decreased. On the contrary, domestic expenditure has been slowing down since 2011 and the value of imports has been growing altogether with the slight fluctuations of visitor exports [28].

Table 4

Tourist flows of Ukraine

Indicator / Year	2009		2010		2011		2012		2013		09 13 average	
*Gross income/expenditure**	*UAH bn*	*%*	*UAH bn*	*%*	*UAH bn*	*%*	*UAH bn*	*%*	*UAH bn*	*%*	*UAH bn*	*%*
Visitor exports	44.2	37.4	42.6	36.1	43.1	33.8	47.1	34.9	46.6	33.8	44.7	35.1
Domestic expenditure	39.5	33.4	41.2	34.9	48.9	38.4	48.0	35.5	48.1	34.9	45.1	35.5
Expenditure on outbound travel	34.5	29.2	34.2	29.0	35.4	27.8	40.0	29.6	43.0	31.2	37.4	29.4
Total turnover	118.2	100	118.0	100	127.4	100	135.1	100	137.7	100	127.3	100
*Number of trips***	*th. units*	*%*	*th. units*	*%*	*th. units*	*%*	*th. units*	*%*	*th. units*	*%*	*th. units*	*%*
Inbound flow	2 822.870	12.3	335.835	14.7	234.271	10.6	270.064	9.0	232.311	6.7	270.954	10.2
Domestic flow	9 136.400	39.9	1 295.623	56.8	1 250.068	56.8	1 956.662	65.2	2 519.390	72.9	1 587.077	60,0
Outbound flow	10 941.700	47.8	649.299	28.5	715.638	32.5	773.970	25.8	702.615	20.3	787.138	29,8
Total turnover	22 900.970	100	2 280.757	100	2 199.977	100	3 000.696	100	3 454.316	100	2 645.169	100
Specific income, UAH / trip	*UAH thousand*		*UAH thousand*		*UAH thousand*		*UAH thousand*		*UAH thousand*		*UAH thousand*	
Inbound trips	156.58		126.85		183.97		174.40		200.59		165.05	
Domestic trips	43.23		31.80		39.12		24.53		19.09		28.44	
Outbound trips	31.53		52.67		49.47		51.68		61.20		47.54	
Total turnover	51.61		51.74		57.91		45.02		39.86		48.12	

* The WTTC data.
** The State Statistical Service of Ukraine data.

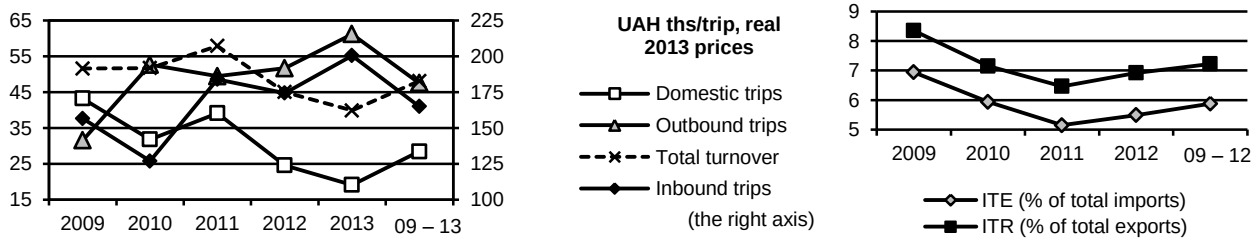

Fig. 4. **Specific income/expenditure of the tourism industry in Ukraine**

In quantities, the market structure is quite different: the average share of outbound trips produces 30 % as well, but foreign visitors make only 10 % of Ukraine's tourist flow (resulting in 35.1 % of the total industry turnover) and residents travelling within the borders of the country numbered 60 % of all the visitors, being the most unprofitable segment (36 % of the total industry turnover). Fig. 5 demonstrates the dynamics of specific income/expenditure. In general, the profitability of foreign economic operations mounted, while domestic tourism resulted in its reduction. It should be noted that the specific values do not correspond directly with the mean market prices or consumer expenditures per trip (assessed empirically at 5 – 30 UAH thousand), as they represent an economic effect of the industry production.

The specific income for domestic trips showed a negative growth rate compared with the basic year (2009). Thus, the price index can be determined as 0.44 units. The volume index, represented by the total number of domestic trips by residents, made 2.76 units, and the price index, denominated in the total value of domestic expenditure, made 1.22 units. As a result, the drop of the domestic tourist market profitability ratio by 55.84 % in five

years can be explained by the impetuous advance of quantitative indicators (by 175.75 %) with the simultaneous retardation of the pricing policy (expenditures grew only by 21.77 %). Such disparity was also urged by the damping pricing policy of several major travel operators, followed by medium and small travel agencies, which in turn caused unreasonable consumer demands – a stimulus for further price freeze. The Ukrainian tourism industry faced definite problems to break this circularity.

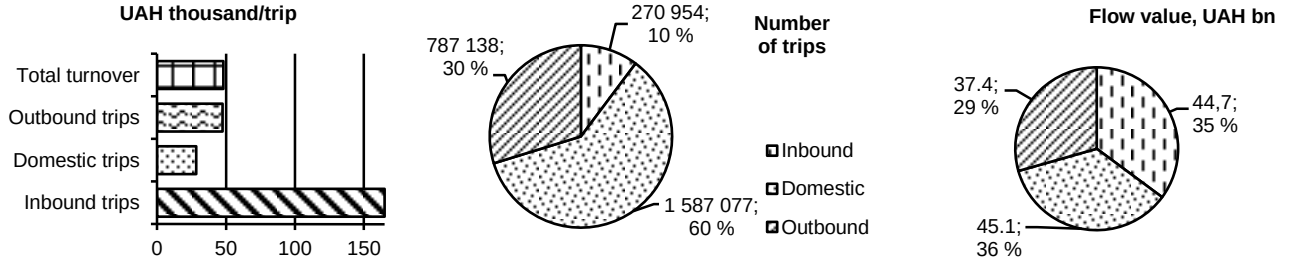

Fig. 5. **Tourist flows of Ukraine, 2009 – 2013 average values**

International tourism expenditures in Ukraine made 5.88 % of total imports on average in 2009 – 2012, international tourism receipts amounted to 7.22 % of total exports. Both indicators had been impressively decreasing in 2009 – 2011, with the final welcome growth in 2012.

The structure of the gross industry turnover is measured in relative figures, which makes it possible to restrict arithmetically the maximal number of possible clusters. The sum of shares must always equal 100 %; a country/territory can theoretically report only about two or even one existing flow (for example, if travellers to the North Pole or Antarctica are counted), but usually this can be neglected. Boundary indexes may also be important when forming neighbouring clusters.

When comparing and grouping some objects, researches generally use aggregated indicators as a basis, and clusters are characterised by average figures. This approach is more relevant for absolute values: the countries can be divided firstly by turnover volumes, but in this case structural peculiarities, crucial for industry strategies, will deviate. Economies with the similar structure of the tourism industry ought to follow similar strategies, but they can be placed in different clusters, if their operation volumes vary significantly. In order to fulfil the aim of the research, the method of grouping based on boundary limits is preferable.

The number of groups depends basically on segmentation scaling. Regular intervals are simpler and sufficient in the majority of cases, so we try to characterize the clusters, formed by domestic (a), inbound (b) and outbound (c) tourism flows, measured in percentage shares out of the gross industry turnover. For spacing in 100 % / 3 ≈ 33.3 % the upper and lower limits will be the following:

a_1, b_1, c_1: 0 – 33.2;
a_2, b_2, c_2: 33.3 – 66.6;
a_3, b_3, c_3: 66.7 – 100.

The ratio between domestic expenditure and visitor exports define the primary attributes of a group, which is supplemented by the value of visitor exports. The order of criteria significance can be different, it depends on the research task.

Scale limits and spacing are summed up to outline the cluster margins (Table 5).

Table 5

The upper and lower limits for clusters for a 3-spaced scale

	lower limit	upper limit	b_1		b_2		b_3	
			0	33.2	33.3	66.6	66.7	100
1	2	3	4	5	6	7	8	9
a_1	0.0	33.2	a_lb_l	a_lb_u	a_lb_l	a_lb_u	a_lb_l	a_lb_u
			a_ub_l	a_ub_u	a_ub_l	a_ub_u	a_ub_l	a_ub_u
a_2	33.3	66.6	a_lb_l	a_lb_u	a_lb_l	a_lb_u	a_lb_l	a_lb_u
			a_ub_l	a_ub_u	a_ub_l	a_ub_u	a_ub_l	a_ub_u
a_3	66.7	100	a_lb_l	a_lb_u	a_lb_l	a_lb_u	a_lb_l	a_lb_u
			a_ub_l	a_ub_u	a_ub_l	a_ub_u	a_ub_l	a_ub_u
a_1	0.0	33.2	0.0	33.2	33.3	66.6	66.7	100
			33.2	66.5	66.6	99.8	99.9	*133.2*

Table 5 (the end)

1	2	3	4	5	6	7	8	9
a_2	33.3	66.6	33.3	66.6	66.7	99.9	100	*133.3*
			66.6	99.8	99.9	*133.1*	*133.2*	*166.6*
a_3	66.7	100	66.7	99.9	100	*133.2*	*133.3*	*166.7*
			100	*133.2*	*133.3*	*166.6*	*166.7*	*200*

Note. Figures in italics are inapplicable.

The combination of the lower and upper limits for two flows (a and b) form four limits for a cluster and restricts the value of the third flow (c). Group $a_1 – b_2$ is characterized by a low level of the domestic market development and a medium attractiveness of the tourist infrastructure of a country for foreign travellers, while the share of outbound trips by residents can vary from 100 – 99.8 % to 100 – 33.3 %, so this cluster may be split, in turn, into two separate ones. a_l, b_l and a_u, b_u are the minimal and maximal values of the tourist flow share respectively.

The possible value of c is calculated on the basis of the combination of a and b under the same principle for all the groups. For the group $a_1 – b_2$ it is the following (with the rounding of the number effect):

$a_l + b_l = 0.0 + 33.3 = 33.3$; $a_u + b_l = 33.2 + 33.3 = 66.6$;
$a_l + b_u = 0.0 + 66.6 = 66.6$; $a_u + b_u = 33.2 + 66.6 = 99.8$.

The minimal sum of a and b shares make 33.3 %, so c cannot exceed 100 – 33.3 = 66.7 %, the maximal sum of a and b restricts the minimal value of c: 100 – 99.8 = 0.2 %. So, the share of the outbound money outflow fluctuates from 0.2 to 66.7 %, which corresponds to c_1 and c_2 limits. Group $a_3 – b_1$ demands specification, because the total sum of the a, b and c shares cannot exceed 100 %. So c there can vary from 0 % (100 – 100) to 33.2 % (100 – 66.7). It corresponds to c_1, but theoretically, if a country receives no income from foreign trade in tourism services (b = 0), c_2 = 33.3 is possible. Depending on the rounding and openness/closeness of an interval, this cluster may be split, but it is logically unreasonable.

The possible number of clusters is shown in Table 6.

Table 6

Cluster characteristics for a 3-spaced scale

	Limit		b_1		b_2		b_3		b_1	b_2	b_3
	lower	upper	0	33.2	33.3	66.6	66.7	100	Clusters		
a_1	0	33.2	c_2, c_3		c_1, c_2		c_1 (c_2 theoretically, if a = 0)		2	2	1
a_2	33.3	66.6	c_1, c_2		c_1 (c_2, if a_2 and b_2 = min)		theoretically possible, if c = 0		2	1	0
a_3	66.7	100	c_1 (c_2 theoretically, if b = 0)		theoretically possible, if c = 0		impossible		1	0	0

Considering the most common structure of the tourism economy of a country, it is relevant to distinguish nine clusters. Two extra ones may be added, but they will probably contain few countries, which theoretically can occur in the sample. Scaling in four intervals makes 16 possible clusters for the same criteria, but this number is more preferable with a larger sample size. The limits are represented in Tables 7 – 8.

Table 7

The upper and lower limits for clusters for a 4-spaced scale

	Lower limit	Upper limit	b_1		b_2		b_3		b_4	
			0	25	25.1	50	50.1	75	75.1	100
a_1	0	25	0.0	25.0	25.1	50.0	50.1	75.0	75.1	100.0
			25.0	50.0	50.1	75.0	75.1	100.0	*100.1*	*125.0*
a_2	25.1	50	25.1	50.1	50.2	75.1	75.2	*100.1*	*100.2*	*125.1*
			50.0	75.0	75.1	100.0	*100.1*	*125.0*	*125.1*	*150.0*
a_3	50.1	75	50.1	75.1	75.2	*100.1*	*100.2*	*125.1*	*125.2*	*150.1*
			75.0	100.0	*100.1*	*125.0*	*125.1*	*150.0*	*150.1*	*175.0*
a_4	75.1	100	75.1	*100.1*	*100.2*	*125.1*	*125.2*	*150.1*	*150.2*	*175.1*
			100.0	*125.0*	*125.1*	*150.0*	*150.1*	*175.0*	*175.1*	*200.0*

Table 8

Cluster characteristics for a 4-spaced scale

	Lower limit	Upper limit	b_1		b_2		b_3		b_4	
			0	25	25.1	50	50.1	75	75.1	100
a_1	0	25	$c_4, c_3, c_2 = 50$		$c_2, c_3 \le 74.9$		$c_1, c_2 \le 49.9$		$c_1 \le 24.9$	
a_2	25.1	50	$c_2, c_3 \le 74.9$		$c_1, c_2 \le 49.8$		$c_1 \le 24.8$		impossible	
a_3	50.1	75	$c_1, c_2 \le 49.9$		$c_1 \le 24.8$		impossible		impossible	
a_4	75.1	100	$c_1 \le 24.9$		impossible		impossible		impossible	

As the sample size makes 54 countries, it is better to choose a 3-spaced scale. As the sequence of data is rather dissimilar (Table 9, Fig. 6), the maximal number of groups should be taken. The cluster elements (2009 – 2013 average) are represented in Table 10.

Table 9

The general statistic description of tourism flows

Indicators	Visitor exports	Domestic expend-iture	Expend-iture on out-bound travel	Capital investment (CI), % of all fixed investment	CI/ITC
Mean	39.5	39.3	21.2	8.5	18.9
Maximum	85.8	81.6	50.2	42.3	66.2
Minimum	4.3	2.0	6.8	2.0	5.2
Variation range	81.5	79.7	43.4	40.3	61.0
Standard deviation	22.2	21.0	11.0	7.8	10.3
Mode	multiple	multiple	multiple	10.6	multiple
Median	38.9	39.1	20.0	5.8	17.3

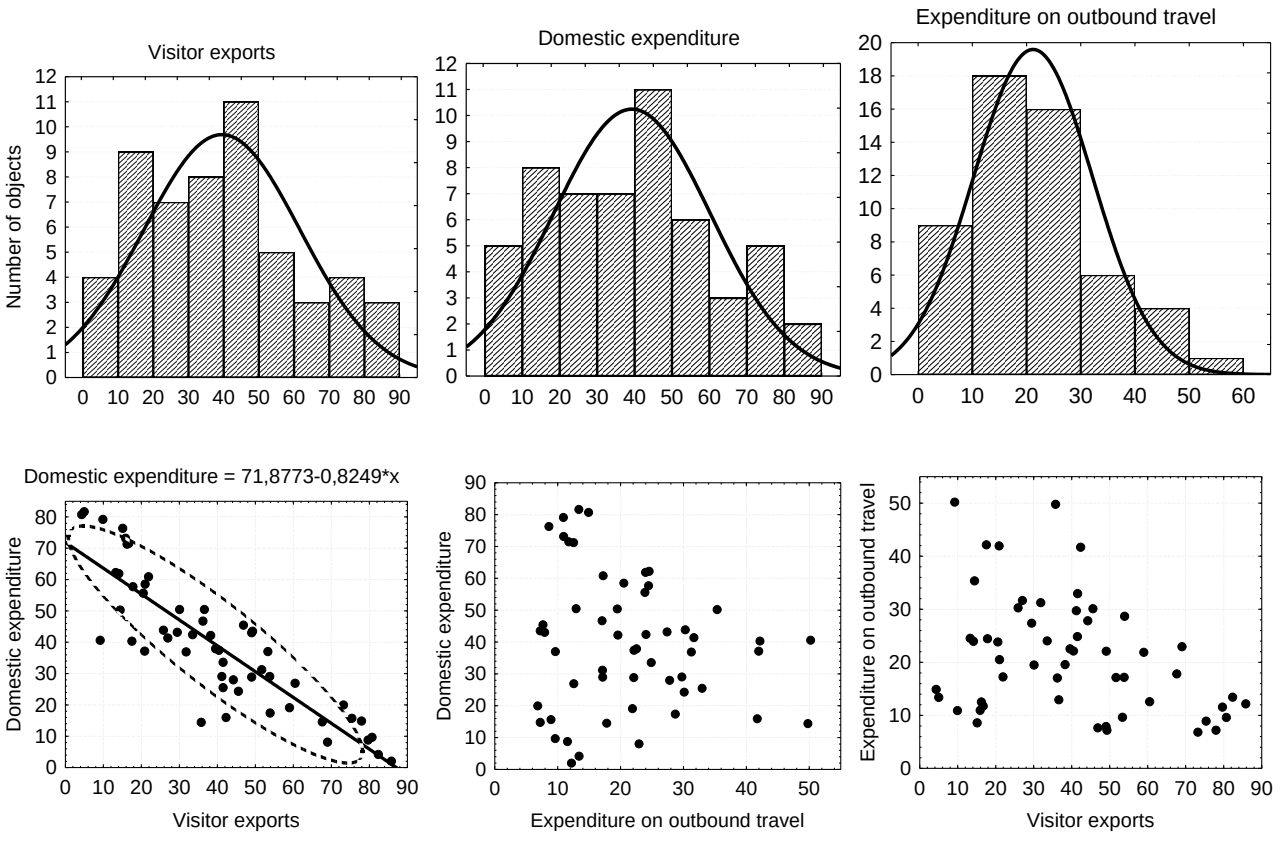

Fig. 6. **Descriptive analysis of tourism flows** (2009 – 2013 average data, %)

Table 10

Country grouping by the structure of tourism flows

	Limits	b_1	b_2	b_3
		0 – 33.2	33.3 – 66.6	66.7 – 100
1	2	3	4	5
a_1	0 – 33.2	–	1: Portugal (+); Poland (+); Georgia (+); Slovenia (+); Macedonia (+); Morocco (+); Latvia (+); Iceland (+); Bulgaria (+); Estonia (+)	3: Montenegro (+); Belize (+); Croatia (+); Malta (+); Dominica (+); Seychelles (+); Jordan (+); Anguilla (+); Maldives (+)
			2: UAE (+); Qatar (-)	
a_2	33.3 – 66.6	4: UK (-); Australia (-); Italy (+); Belarus (+); Philippines (-); Kazakhstan (-); New Zealand (+); Finland (-); Mozambique (+); Romania (-); Ghana (+)	6: Spain (+); Sri Lanka (+); Turkey (+); Greece (+); Kenya (+); South Africa (+); Slovakia (+); Vietnam (+); Israel (+); Laos (+);	–

Table 10 (the end)

1	2	3	4	5
		5: Russia (-); Iran (-); Canada (-); Germany (-)	Lithuania (+); **Ukraine(+)**	
a_3	66.7 – 100	7: Japan (-); Brazil (-); China (-); Kiribati (+); Chile (+); USA (+); India (+)	–	–

Note. The sign of the net balance of trade in tourism services is given in brackets.

The ratio between the capital investment (into the tourism industry) and the total income from tourism (the sum of visitor exports and domestic tourism expenditure – internal tourism consumption according to the WTTC terminology) – CI/ITC – is a revealing indiator, demonstrating either the attractiveness of the industry for investors or the attitude of a country's officials towards the national tourism sphere. This ratio was not included into the grouping criteria, but is extremely significant for tourism policy estimation. In general, 2/3 of the researched countries spend less than 20 % of their total income on the tourist infrastructure renovation (Fig. 7).

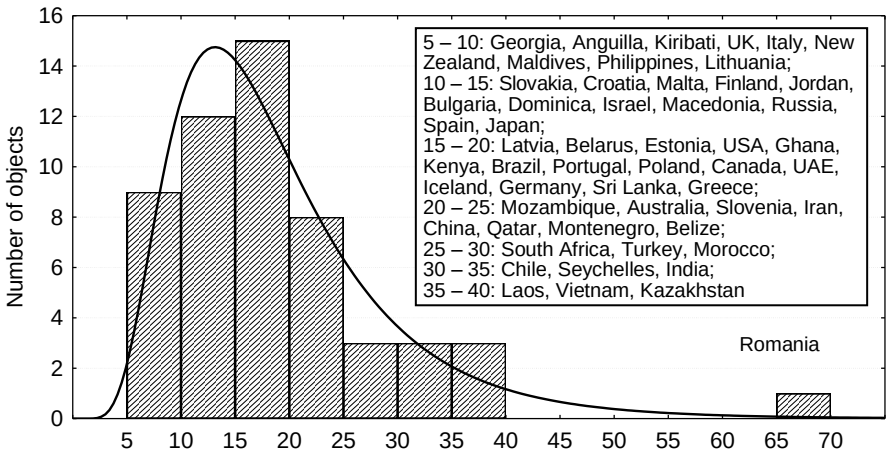

Fig. 7. **The distribution of CI/ITC ratio** (2009 – 2013 average data, %)

It is interesting to point out the inverse dependence inside the sample: the higher domestic expenditures are, the lower income from foreign tourism a country receives. It could probably be explained by the approach of vendors of tourist services – as it is easy to find a local consumer, they see no sense in attracting travellers from abroad, which in addition demands extra resources and efforts for permanent monitoring of overseas markets, improvement or adjusting of the existing infrastructure and changing sometimes the established mode of behaviour with new visitors. Common interrelations between the domestic/outbound and inbound/outbound flows were not found.

40 countries out of 54 (74 %) have a positive net balance of trade in tourism services (calculated here as the difference between visitor exports and expenditure on outbound travel). This indicator is widely used, but it cannot estimate the total impact of the tourism industry on the national economy. The difference between the sum of visitor exports and domestic expenditure, and the value of expenditure on outbound travel is more demonstrative, but it is rarely used. The negative sign highlights the total unprofitableness of the tourism industry for the national economy. Only Iran has the negative indicator, which must stimulate the development of a completely new strategy (Fig. 8).

Almost all the countries forming the sample have a low share of the outbound tourism flow, and only six of them are distinguished by the medium level. In turn, they make two diverse clusters – Russia, Iran, Canada and Germany receive more profit from domestic trips, than from visitor exports, and have a negative net balance of trade in tourism services. On the contrary, the UAE and Qatar pay more attention to the support of inbound trips, than to travelling within the country by residents (it could be grounded by a low quantitative capacity of the inner markets, e.g. small population and area). But if the UAE resulted in a positive net balance, Qatar needs to attract more foreign tourists.

Two more groups of countries have a prevailing domestic flow over the inbound one. The distribution by the net balance is not distinguished here, as nearly half of the national economies have a positive net balance and another half demonstrate a negative one. But Brazil, Chile, China, Japan, India, Kiribati and the USA possess the strongest domestic markets covering over 2/3 of the total turnover of trade in tourism services, but the negative net balance ought to induce the countries' officials to stimulate export of tourism services. Clusters 1 and 3 have little income from rendering services to residents, but their policy predisposes the attraction of tourists from abroad.

The tourism economy of Anguilla, Belize, Croatia, Dominica, Jordan, Maldives, Malta, Montenegro, Seychelles (cluster 3) is highly dependent on visitor exports. One of the reasons for such a policy can be quite a small area of these countries. Cluster 6 is the most balanced, every flow takes approximately 1/3 of the total turnover, and all the countries have a positive net balance. In their macroregion, they are the leaders.

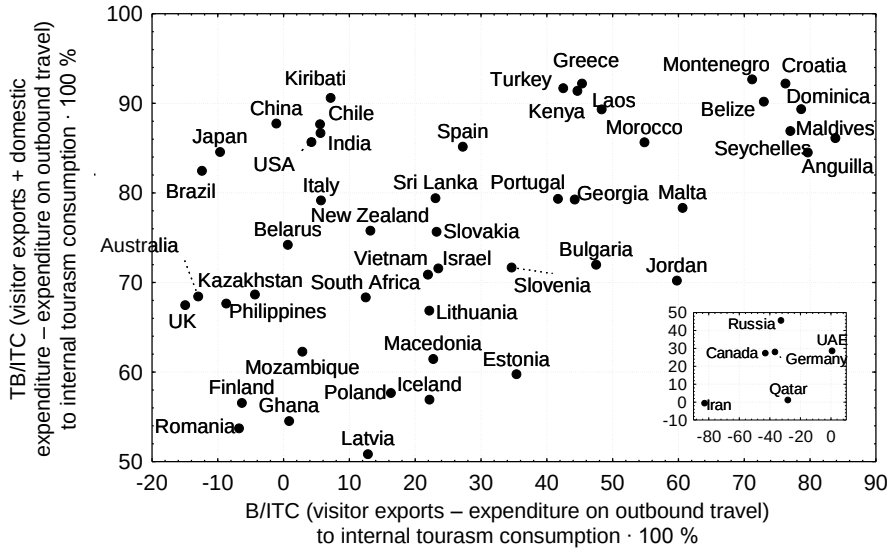

Fig. 8. **The impact of the tourism industry on a country's economy**

As Table 11 shows, the absolute value of the net balance of trade in tourism services is not characteristic compared with the other grouping criteria (they have the highest standard deviation). B/ITC and TB/ITC indicators were not primarily included in the clustering procedure, but it was hypothetically suggested that the policy of a country in the tourism sphere was strongly dependent on the state of foreign trade. It occurred that this impact was volatile. Despite cluster 4, the countries of one group stick to the same investment policy in sharing the income from rendering tourism services.

Table 11

Description of the clusters

Cluster description/ average shares	1	2	3	4	5	6	U	7
Number of cases	10	2	9	11	4	11	1	7
Domestic tourism development	low	low	low	medium	medium	medium	m	high
Inbound tourism income	medium	medium	high	low	low	medium	m	low
Outbound tourism effect	low	medium	low	low	medium	low	m	low
Domestic expenditure, %	25.9/4.5	15.2/0.5	10.9/5.8	52.0/9.3	42.1/5.7	41.8/4.9	35.5	76.3/4.4
Visitor exports, %	50.1/6.9	39.0/2.3	76.9/6.1	23.0/6.4	15.5/5.0	42.2/6.4	35.1	11.9/5.4
Expenditure on outbound travel, %	24.0/6.8	45.8/2.8	12.3/5.2	25.0/4.8	42.4/6.1	16.0/7.1	29.4	11.9/2.0
Capital investment, % of all the fixed investments	7.5/4.6	6.6/2.8	17.5/7.9	4.4/1.5	3.0/0.7	7.2/3.5	2.4	10.2/14.3
Capital investment to internal tourism consumption, % [CI/ITC]	16.6/5.8	20.6/1.8	15.9/8.6	20.3/17.5	18.2/3.0	20.8/9.2	6.6	20.3/9.4
Visitor exports (expenditure on outbound travel) to internal tourism consumption, % [B/ITC]	33.2/14.2	-13.4/10.2	73.3/8.3	-2.8/8.4	-48.4/23.0	30.4/12.3	8.1	-0.1/8.0
Visitor exports + domestic expenditure (expenditure on outbound travel) to internal tourism consumption, % [TB/ITC]	67.5/11.7	14.6/9.7	85.6/7.3	66.2/8.6	24.8/19.1	80.2/10.1	58.4	86.5/2.6

Note. Mean/standard deviations are valid for the data presented.

Ukraine appeared to be in the 6th group (its indicators were not primarily included into the model in order to check the degree of similarity of cluster means for the non-random sample based on the criterion of public programmes of tourist development promotion). Our country is distinguished by approximate equality of the tourist flows structure, as exports and domestic consumption exceeds imports only by 5 % on average, and a positive net balance of foreign trade in tourism services. The negative factor is the low share of capital investment (2.4 on average). Slovakia spent the same (2.4 %), and only Canada (2.3 %), Belarus (2.1 %) and Macedonia (2.0 %) displayed lower indicators. As it was mentioned above, no direct relation was observed between the structure of tourist flows and capital investment.

The author considers that some countries completed infrastructure construction projects a few decades ago or have recently done this, the others are implementing them now, but both may have started similar tourism strategies.

One more cluster may be separated out of the seven suggested ones with the proportional structure of gross income/expenditure, measured by the standard deviation of average shares remaining under 10 units. Ghana (3.11 %) and Ukraine (3.41 %) represent the most regular structure, the other ten countries follow them with a certain gap – Poland (6.82 %), Romania (7.33 %), Latvia (8.04 %), Lithuania (8.31 %), Mozambique (8.57 %), South Africa (9.19 %), Vietnam (9.37 %), Finland (9.38 %), Macedonia (9.43 %) and Israel (9.82 %). As we can see in the case of Ukraine,

the analysis of money flows ought to be proceeded with the trips number estimation and specific profitability calculation in order to assess the price policy within the industry. It has to be distinguished when existing disparities appear due to the reasonable policy of the domestic market support (usually countries set lower prices for tourist services for residents) and when they are the consequence of uncoordinated activity of market actors.

The research findings have proved that pre-grouping of a sample by a few selected indicators (variables) could be a helpful instrument to be used before the cluster modelling, as it reflects the cornerstone distinguished features of national tourism economies, which may disappear if simple data averaging is used and no weights are set for the factors. Further investigations in this field will be conducted via analysing the dominant strategies in tourism development programmes according to the current position of a country in the pre-defined group and singling out the main trends peculiar to the majority of projects.

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Стаття надійшла до ред. 05.03.2015 р.

УДК 657.92 *JEL Classification: E22; H54*

СУДОВО-ЕКОНОМІЧНА ЕКСПЕРТИЗА РОЗРАХУНКІВ, ПОВ'ЯЗАНИХ ІЗ ПОДАТКОМ НА ДОХОДИ ФІЗИЧНИХ ОСІБ: ТЕОРЕТИКО-МЕТОДИЧНІ АСПЕКТИ

Крівцова Т. О.

Збільшення кількості порушень податкового законодавства щодо сплати та нарахування податку на доходи фізичних осіб (далі – ПДФО) в Україні, а також ускладнення форм та засобів скоєння таких порушень обумовлюють необхідність детального вивчення й удосконалення теоретико-методичних засад судово-економічної експертизи (далі – СЕЕ). До того ж відсутність методики СЕЕ розрахунків, пов'язаних із ПДФО, серед атестованих і рекомендованих до застосування в Реєстрі методик проведення судових експертиз обумовлює актуальність і своєчасність теми дослідження.

Метою даної статті є обґрунтування теоретико-методичних положень та розроблення практичних рекомендацій щодо СЕЕ у справах, пов'язаних із ПДФО.

У статті використано такі методи дослідження: індукції та дедукції, аналізу та синтезу, абстрактно-логічні, причинно-наслідкового зв'язку.

Результатами дослідження є: уточнення визначення поняття "методика СЕЕ"; обґрунтування об'єктів СЕЕ розрахунків, пов'язаних із ПДФО; окреслення особливостей методики СЕЕ розрахунків, пов'язаних із ПДФО; розроблення загального алгоритму СЕЕ розрахунків, пов'язаних із ПДФО; наведення алгоритмів таких прийомів документального контролю у ході СЕЕ: формальної, арифметичної та взаємної перевірок документів, що стосуються розрахунків, пов'язаних із ПДФО.

Отримані результати дослідження мають сприяти подальшому розвитку та вдосконаленню теоретико-методичних засад СЕЕ, скороченню витрат часу на її проведення, повному та всебічному дослідженню фактичних обставин справи, а також мають на меті створити можливості для підвищення достовірності висновків судових експертів. Подальші дослідження є сенс зосередити на розгляді таких теоретико-методичних аспектів, як: використання інших методів документального контролю в процесі виконання СЕЕ розрахунків, пов'язаних із ПДФО, використання розрахунково-аналітичних методів та встановлення порядку їх застосування у справах, пов'язаних із підтвердженням правильності нарахування (сплати) ПДФО, підтвердженням суми нарахованого доходу (об'єкта оподаткування ПДФО) не тільки найманих працівників (щодо доходу, отриманого (нарахованого) у вигляді заробітної плати), але й інших категорій платників податку.

Ключові слова: судово-економічна експертиза, методика судово-економічної експертизи, розрахунки, пов'язані з податком на доходи фізичних осіб, методи документального контролю.