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## **MACRO ACCOUNTING OF THE TOURIST CLUSTER' STATE REGULATION IN UKRAINE**

*The article summarizes the approaches and defines the prospects for using international experience in the organization of macroeconomic accounting in the sphere of state regulation of the development of the tourist cluster of the national economy of Ukraine. The classification and description of the main types of tourism expenditures, which are thoroughly considered in determining the contribution of tourism and travel to the gross value added and gross domestic product of the national economy, are given. It is substantiated the decisive influence of attracting international experience in development of a tourism satellite account (TSA) in the conditions of modernization of the forms of public administration development of the sectoral structure of the national economy for the implementation of the model of the post-industrial technological system of the management system.*

*The point of view justified that it is necessary to further development of instrumental methods for the determination of the direct, indirect and indirect effects in the context of universal cost analysis and results of tourism. For the regional localization of accounting tourist activities at the subnational level in Ukraine proposed to apply interregional approach what based on zoning of TSA, or "strictly" regional approach.*

## **Introduction**

The system of national accounts (SNA) is intended for macro-analysis of the state of the market economy and the processes taking place there. The practice of using this tool of analysis takes place in the atmosphere of the creative “removal” of the contradiction between the need to specify information about individual parties of the productive activity on a macroeconomic scale, which requires detailed meso (sub) calculations, and the need to achieve a high level of generalizations of indicators of the industrial situation in the national framework, which should ensure the aggregation of indicators and integrate the integrated system of statistical information into the table of the inter-industry balances of the type “Costs-Output”.

The International Recommendations on Tourism Statistics (IRTC) [1] are intended for detailed analysis by the United Nations Statistics Division, the World Tourism Organization (UNWTO), the Statistical Office of the European Communities (Eurostat), the Organization for Economic Cooperation and Development (OECD) analysis of all aspects of demand for goods and services related to the activity of visitors [2], research of its (demand) connection with the formation of the supply of goods and services within the national economy [3], establishes the relationship between supply and other types of economic activity [4]. Auxiliary tourism accounts have a long history of formation, which begins with the development in 1973 of recommendations on tourism statistics by UNWTO. Today the version of the IRTC 2008 is in force, which fully considers the basic concepts and definitions relating to the status of a visitor, tourist (overnight visitor) or excursionist (same-day tourists) [1, paragraph. 2.13]; forms of tourism [1, paragraphs 2.39 and 2.40]; goals of tourist trips [1, paragraph 3.17]; the concept of tourist expenses [1, paragraph 4.2]; their separate categories relating to various forms of tourism [1, paragraphs 4.15 and 4.20]; classification systems for tourism analysis. The recommendations lay the methodological foundations for the development of national tourism statistics systems, while ensuring the reliability of data sources, the regularity of their collection, comparability, internal consistency and recognition at the international level.

## **1. Peculiarities of Satellite Tourism Account' formation in the system of SNA**

The full Satellite Tourism Account (STA) of Ukraine is mainly descriptive, does not contain estimates of the indirect or direct impact of tourism consumption on the economic system as a whole, in the case of the need for a comprehensive industry analysis, it is necessary to construct “cost-result” models or general equilibrium, but provides:

- macro-aggregating of indicators of scale and economic significance of direct tourism (DT) functioning on a national scale to gross value added (GVA) and gross domestic product (GDP);

- detailing (in derived tables of resources and use) data on consumption of tourists' services, and about ensuring their level of consumption by domestic supply and import at current and constant prices;

- detailed accounts of the industries of tourism, including information on employment, links with other types of production activities, the process of gross fixed capital accumulation;

- links between economic data and non-cost information about the number of trips, duration of stay, purpose of travel, types of tourist transport, etc.

The feature of tourism is the uniqueness of the visitor's position, which, unlike other categories of consumers, whose activities are reflected in the SNA of the country of permanent residence, is determined by the temporary (not more than one year) nature of staying in this status, an objective that is not associated with employment at the location at the place of visit (on an ongoing basis) to the enterprise.

In the framework of the implementation of the macroeconomic approach to statistical surveys of demand-based tourism, a measure of the economic effect of the activities of travelers in places of visiting is carried out. Measuring the costs of travelers moving from one country to another outside the country of permanent residence is reflected in the “travel” category of the balance of payments [5]. Unlike travelers, tourist activities are carried out by visitors in the process of preparing for a trip, as well as directly during its implementation. In addition to tourism-specific activities (landscapes, monuments, sunbathing, visiting places of interest), one of its elements

may be trips for business, education, training, if they meet the above limit. The economic status of “visitor” involves the temporal expensiveness of the person during the period of stay in the places of visiting (outside the environment of staying in ordinary life) in the context of a trip, as well as the related costs of other persons in their interests. Depending on the main purpose, specific trips can pursue personal goals of the visitor (rest, leisure, recreation, visits to friends or relatives, education and training, health and treatment, religion/pilgrimage, shopping, transit, other purposes); his business and professional goals. The basic element in the definition of tourism – the usual habitat – should be distinguished from the country of permanent residence [5] and place of permanent residence in the country [6]. After the trip ends, the visitor's status is lost.

Tourist costs – the number of visitors’ cash, other expenses paid / reimbursed by other persons for purchasing consumer goods/services, values for personal consumption or use as a gift before/after a tourist trip. In addition, travel expenses also include cash expenses:

- for goods and services of a consumer nature carried out directly by employers for employees who are on business trip;

- visitors compensated by a third part – employer (financial corporations (FC), public administration (PA), non-profit organizations serving households (NOSH)); another household or within the social insurance system;

- visitors who are made to receive the individual services provided and subsidized by the PA, NOSH in the field of education, medicine, museum affairs, performing arts, etc.;

- cash expenses for services paid mainly by employers and provided to workers and their families during travel (transport subsidies, residence / stay in employer residences used for recreation purposes) or other services;

- additional payments made by visitors to attend sports or any other cultural event at the invitation and mainly at the expense of producers (FC, PA, NOSH).

The broader category of “tourist consumption”, which is formally defined in the same category as “travel expenses”, in addition to the listed items of money

transactions, should include services related to living during rest on own funds, tourist social transfers in kind and other forms of conditional consumption. Estimation of this kind of operations is carried out based on sources of information on the exchange of housing, the assessment of the amount of rent in the case of the use of rest homes, calculation of the cost indicators of indirect financial intermediation services (PFP) [7, pp. 6.163-6.169].

Indirectly determined consumption costs, other adjustments should be included in the list:

- conditionally calculated amount of barter operations (for example, temporary exchange of housing for recreation purposes);

- conditionally calculated value of goods (vegetables, fruits, game, fish, etc.) that are made at their own expense in recreational homes or because of activities during recreation (gardening, hunting, fishing, etc.) outside of the usual environment;

- the cost of services (for market, as well as for individual end-use), which are directly related to living during rest at their own expense (secondary housing for recreation, other forms of non-traditional possession of rest homes);

- the cost of PFPs included in the interest paid by visitors in the amount of their travel expenses incurred;

- net amount of expenses of the host party, considering increased expenses for food, payment of utilities, registration of invitations, purchase of gifts, etc.;

- producer costs (FC, PA, NOSH) are related to expenses of employees for business trips, which do not involve payment of money to employees (free/subsidized transport, free/subsidized provision of accommodation/food for their employees);

- net (expenses without cash payments to employees) producers' costs of providing additional services to their employees (their families) as visitors (more than the costs already included in tourist expenses), including free/subsidized transport, accommodation in holiday centers;

- part of the expenses of the PA for the provision of non-market services for individual consumption in the field of education, social security, health care, museum activities, recreational services, which are considered as privileged from the point of

view of the interests of visitors and are characterized as social transfers in kind [7, points 8.141-8.145].

The features of the calculation of tourist consumption volumes, in contrast to the same expenses, are: out of money transactions (barter, own account, payment in kind and other natural transfers, social transfers in kind); the need to take into account part of the cost of intermediate consumption (airspace) of tourism service providers; exclusion of purchases for the purpose of carrying out unorganized external (shuttle trade); inclusion in the value of the purchase of goods which have a certain value, excluding their value, which do not belong to the category of consumer goods, on the one hand, excluding costs that are not related with purchase of goods / services (transfer payments, taxes (except those included in the purchase price), bank interest), on the other hand; exclusion from the accounts of tourist consumption of purchase and capital repairs of the building for the rest, which are subject to new forms of ownership (timeshare [8], shared ownership, fractional property ownership, equity ownership, co-ownership [9]), related features elements calculate gross fixed capital formation in tourism; implementation approach to the evaluation of tourism consumption such as what happens when the transfer of ownership of goods or the provision of services may not coincide in time with the moment of payment (advance payment options and further use of credit cards, loans, etc.); inclusion in the category of tourist expenses and consumption of funds spent both during the preparation for travel and during the time of their implementation.

The applied value of the concept of tourist consumption is particularly clearly manifested in the determination of the volumes of GDP and GDP.

The problems encumbering the widespread and widespread use of the concept of demand include obstacles to determining volumes: tourism consumption as an intermediate consumption of producers due to the fact that it does not always serve as a part of the final consumption of households of the individuals concerned; household services for own consumption over the amount provided by a paid domestic service; services provided by owners of holiday homes, taking into account the main and auxiliary housing; tourist one-day consumer goods of durable use of two types – those

used in the preparation and implementation of travels, as well as those used not only for tourism (bags, suitcases, tourist equipment, housing vehicles) but also in the ordinary environment (cars, cameras, etc.).

Gross fixed capital accumulation (GFCA), which is determined by establishing the total value of fixed assets (net of realized) in the reporting period, plus some increase in the value of non-productive assets as a result of the production activities of institutional units, as well as an analysis of volumes and flows of physical investments in the field tourism, is associated with three main categories: specific tourism capital assets that are difficult to transform for use in any other sector of the economy; investments of enterprises of the tourist sphere, which do not belong to the category of specific tourist; tourism-specific infrastructure created by the PA to promote tourism development. GFCA in the tourism sector within the analyzed economy refers to the produced fixed assets, which are operated by local producers, and does not include mobile funds operated in the territory of a specific economic territory by non-residents (except for recreation homes) (airplanes, trains, ferries, cruise ships, buses etc.).

The determination of the volumes of PA expenditures for collective consumption that are not subsequently redistributed by consumers and are accounted for as actual final consumption of PA in the SNA requires special calculations. Collective non-market services, called collective tourist consumption, may include public expenditure for the benefit of both consumers and producers, and costs only for the benefit of producers.

Within the framework of the implementation of a proposal based on a macroeconomic approach, approaches to identifying products (typical tourism, other and non-consumer goods) that are typical for the sector of activity (tourism sectors) using the internationally accepted levels of product classifications [10] and types of industrial activities [11].

Special issues, requiring detailed and additional settlement procedures are:

- determination of the full cost of residential services, as well as “timeshare” services and other innovative forms of property for holiday homes;

- accounting, irrespective of the way of receiving income (levies, fees, commissions), the cost of booking services provided by travel agencies, tour operators and other suppliers;

- development of methods of quantitative assessment of the services of the conference services industry.

Formation of indicators SAT involves the preparation of 10 tables. Tables 1-7 differ in their degree of detailing the list of non-consumer products; in tables 5-6, it is recommended to divide the total airspace by 10 subcategories [13].

The main aggregate indicators, based on which the idea of the importance of tourism in the economy (Table 1) is formed, are: consumption, as well as the cost of the main categories of visitors to consumer products, as well as products that are of some value, relating to tourism within the state; GVA; GDP.

A complete list of variables that characterize the tourism industry within the concept of supply of goods and services includes in its composition:

- GAV – the value of the final product minus internal intermediate consumption (IIC);

- net value added (NVA) – GVA minus fixed capital consumption (CCO);

- GVA – the sum of indicators of airborne vehicles of all sectors of tourism;

- GDP – an indicator of connection between demands (tourism consumption)

as well as suggestions from national producers;

- employment – variable value that takes into consideration the number of jobs, total waste of working hours, jobs full-time equivalent (FTE) by gender (tab. 7);

- GFCA – a value that considers the process of GFCA tourism establishment within specific sectors of tourism assets and investments in the form of tourism into other productive assets non-tourism specific products (tab. 8);

- collective tourism consumption (CTC) to determine the cost of providing non-market services [10] for the levels of the PA (tab. 9);

- total demand concerning tourism in the country, the rate of “cost-based quantitative evaluation of the GDP value” – the amount of consumption about tourism within the state, GFCA, CTC.

Table 1

**The sequence of calculating basic aggregates during tabulation of the SNA' SAT**

Economic aggregates		Indexes													
		demand						supply							
		expenses, consumption						production in tourism and other industries (basic prices)			total domestic supply and consumption related to domestic tourism (buyer prices)				
		costs in size products for tourism				other components of tourist consumption	consumption	by branches by type of activity	total	other branches	output of domestic producers (in base prices)	import cost	taxes less subsidies on manufactured and imported products	trade and transport margins	internal offer (at buyers' prices)
		inland	internal	outgoing	domestic										
		1	2	3	4	5	6								
		I. General release (base prices)				<b>Costs</b>		<b>Consumption</b>							
II. Aggregate CIC (buyers' prices)	x	x	x	x	x	x									
III. Aggregate GDP (base prices):	x	x	x	x	x	x		<b>GV A</b>		<b>GDP</b>				<b>GAV</b>	
including	a) wages and salaries of hired workers	x	x	x	x	x									
	b) other taxes	x	x	x	x	x									
	c) gross mixed income	x	x	x	x	x									
	d) gross reserve capital at the expense of deductions from profit	x	x	x	x	x									

Source: [12]

Table description of the spreadsheet functioning tourism is used in the practice of the activity of the statistical authorities (tab. 1-7) generally provides generalized reflection of the products composed of final products, which products are part of the initial resources as it is made payment for production factors used, thereby avoiding duplication of the comparison and aggregation of individual activities.

## **Part 2. TSA specific formation problems**

Data, presented in Table 2 allow making analytical comparison of the dynamics of the formation of individual aggregates tourism development and its contribution to total GDP formation at different aggregation levels (global economics, macro, national economy). For example, peculiarities of the development of tourism in Ukraine in 2016 are in much higher than the average for the EU, the specific contribution to the total GDP of tourism (30.2% vs 24.9%), increased levels of domestic expenditure (88.6% vs 80.6%), while relatively lower specific gravity revision in total direct contribution of industry to GDP (27.1% vs 36.3%).

The actual calculation of the volume of GFCA in the tourism sector of tourism and other sectors (Table 8 SAT) is carried out in the context of specific tourist fixed assets (consisting of 5 sub – accommodation rating, and other non-residential premises and facilities related to tourism, equipment for passenger cars used for tourist purposes, other machinery and equipment, specially designed to produce typical tourist products, improvement of land used for tourism) and investments of tourism and other assets made non-tourism specific products.

At the same time, sectorial picture of GFCA in the field of tourism of Ukraine is incomplete because there are only in the form of paragraph memorandum data transactions with non-financial rough assets (such as land) and intangible rough assets (for example, land rights, rights to trade stamps, etc.).

At the stage of calculating GFCA, the problem of establishing its value goes beyond the sector and there is an element determining the aggregate national wealth. Its successful solution is seen in the development and practical implementation of a clear sequence of balance sheet assets and liabilities (BAL) of the national economy.

Table 2

**Aggregated indicators of the contribution of ITT to the development of the economy, prices of buyers (nominal)**

	Year														
	2011			2014			2016			2017 (forecast)			2027 (forecast)		
	1*	2*	3*/4*	1*	2*	3*/4*	1*	2*	3*/4*	1*	2*	3*/4*	1*	2*	3*/4*
1. Inland tourism	1232,0	308,2	<u>41,2</u> 20,9	1440,3	349,8	<u>23,5</u> 25,2	1401,5	375,1	<u>38,8</u> 27,3	1453,6	397,9	<u>45,8</u> 29,5	3015,3	688,8	<u>149,1</u> 52,3
2. Internal costs (with individual PAs)	3331,1	726,5	<u>42,5</u> 105,1	3669,5	792,5	<u>50,6</u> 123,4	3574,6	840,9	<u>75,1</u> 134,6	3660,0	855,8	<u>84,9</u> 139,8	7582,4	855,8	<u>200,4</u> 202,9
3. Domestic tourism consumption, expenses (1 + 2)	4563,1	1034,7	<u>83,8</u> 126,0	5109,8	1142,3	<u>74,2</u> 148,7	4976,1	1216,0	<u>113,9</u> 161,9	5113,6	1253,6	<u>130,7</u> 169,3	10597,6	1253,6	<u>349,4</u> 255,3
4. Procurement of providers, including the supply chain of imported goods	-2436,0	-566,2	<u>-58,5</u> -71,0	-2741,3	-628,7	<u>-51,8</u> -87,9	-2670,1	-668,1	<u>-79,1</u> -95,6	-2745,4	-688,6	<u>-91,2</u> -99,9	-5711,5	-688,6	<u>-250,7</u> -149,9
<b>5. The direct contribution of the travel and tourism industry (ITT) to GDP (= 3 + 4)</b>	2127,1	468,5	<u>25,3</u> 55,0	2368,5	513,5	<u>22,4</u> 60,8	2306,0	547,9	<u>34,8</u> 66,3	2368,2	565,0	<u>39,5</u> 69,4	4886,1	565,0	<u>98,7</u> 105,4
Other final contribution (indirect and induced)															
6. Internal supply chains	2089,3	490,7	<u>41,1</u> 62,9	2368,3	548,6	<u>36,4</u> 78,6	2317,0	586,6	<u>56,6</u> 85,7	2380,4	603,0	<u>64,2</u> 89,7	5051,3	603,0	<u>160,7</u> 136,3
7. Capital Investments	725,9	132,3	<u>5,7</u> 10,7	807,7	129,9	<u>5,0</u> 14,7	806,5	143,0	<u>5,7</u> 15,6	830,6	148,5	<u>6,8</u> 16,1	1827,8	148,5	<u>21,5</u> 25,6
8. Collective expenses of PA	413,8	79,8	<u>9,9</u> 9,1	431,5	82,1	<u>13,1</u> 9,5	423,9	85,2	<u>19,0</u> 9,7	429,2	86,3	<u>20,7</u> 9,9	762,6	86,3	<u>46,9</u> 13,9
9. Imported goods with indirect costs	299,8	-117,3	<u>-4,7</u> -7,7	360,0	-133,2	<u>-5,6</u> -9,5	389,3	-148,4	<u>-9,1</u> -10,7	390,2	-155,1	<u>-10,6</u> -11,3	658,8	-155,1	<u>-27,2</u> -14,1
10. Induced contribution	1259,0	253,5	<u>15,9</u> 32,4	1389,0	275,0	<u>15,2</u> 39,1	1370,6	294,0	<u>21,4</u> 42,3	1400,1	302,2	<u>24,1</u> 43,7	2789,2	302,2	<u>65,5</u> 67,2
<b>11. Total ITT contribution to GDP (= 5 + 6 + 7 + 8 + 9 + 10)</b>	6915,1	1307,4	<u>93,1</u> 162,4	7725,0	1416,0	<u>86,6</u> 193,2	7613,3	1508,4	<u>128,5</u> 209,0	7798,7	1549,9	<u>144,7</u> 217,4	15975,6	1549,9	<u>366,1</u> 334,3
Contribution to employment (thousand employees)															
12. Direct	99505	10620,2	<u>339,7</u> 1415,4	104618	10906,0	<u>224,1</u> 1517,2	108741	11409,2	<u>247,2</u> 1589,3	111013	11730,1	<u>258,9</u> 1620,4	138086	13640,5	<u>295,2</u> 1807,5
13. Aggregate	258106	25068,0	<u>1277,3</u> 3561,5	277230	25672,8	<u>879,3</u> 3944,3	292220	26585,0	4081,9	297896	27162,2	<u>958,6</u> 4128,2	381700	30767,5	<u>1091,8</u> 4601,6
Other indicators															
14. Outgoing tourism, expenses	1096,1	299,3	<u>34,1</u> 40,1	1357,1	341,6	<u>57,7</u> 44,4	1366,0	369,5	<u>120,9</u> 53,7	1414,8	378,1	<u>126,4</u> 52,4	2898,9	537,8	<u>318,7</u> 73,1

Notes: 1\* – the whole world, billions of dollars; 2\* – EU, billion euro; 3\*/4\* – Ukraine, billion UAH / United Kingdom of Great Britain, billion pounds

Source: [14-17]

This is possible if the general principles of cost estimation for non-financial and financial assets: BAL should agree with the accounts of accumulation SNA, which evaluation of assets and liabilities should be conducted on a set of prices related to their specific varieties, be current on balance sheet date; the most suitable to carry out an adequate assessment source observation data rates are the stock exchange, where each asset is functioning as a fully homogeneous, often sold, in a significant volume and market price is included in the listing at regular intervals.

Another acceptable method of determining the cost of installation is present (discounted) value of future economic benefits expected from the asset (forests, minerals).

Generally, the NPA – assets created out of the production process, i.e. by legal or accounting actions. Ideally, the most complete form of representation NPA valuation of their distribution between institutional sectors would be capital account [7], which is balanced with zero result at the calculation of the net lending/net borrowing.

Per the current version of the SNA, reflected in her receiving three different types of NPA: natural resources; contracts, leases and licenses; goodwill and marketing assets. Features of these types of NPA evaluation are shown in Table 3. Note that only the natural resources that belong to institutional units (IO) or groups for which can be found ownership and ensured compliance classified as economic assets and reflected in BAL.

Moreover, natural assets should provide benefits to their owners with regard to technology, scientific knowledge, economic infrastructure, available resources and corresponding prices balance sheet date.

Natural assets in the form of bio matter are renewable. If the recovery of resources is under control, or management responsibility of IO, they are seen as cultured and activities displayed within the boundaries of the production in the SNA. Growth of bio matter in the wild or uncultivated vegetation build-up is not considered as part produced assets. If the process is similar to the controlled area brings benefits to its owner, it is treated as economic assets.

Table 3

**Methods of evaluating certain kinds of rough nonfinancial and intangible assets**

Articles of NPA	Definition as an economic asset	Methods of cost estimation
Land	A land plot, which includes a pound covering and any associated with it, surface water, which is the property rights, from which their owners as a result of possession and use may receive economic benefits	The cost of alienating a land plot that does not include the cost of any buildings located on it or passing through it, crops, trees and animals, mineral and energy minerals, non-cultivated biological resources and water resources above the surface of the earth
Mineral and Energy Minerals Resources	Mineral and energy reserves located on or under the surface of the earth are economically viable for use, taking into account existing technologies and relative prices	The cost of alienating proven reserves of coal, oil, gas, other types of fuel and metal ores, non-metallic minerals, located below or on the surface of the earth. including stocks at the bottom of the sea, on which property rights are established
Uncultivated biological resources	Animals, birds, fish and plants that bring products both once and repeatedly, on which property rights are established and secured but in which natural growth and reproduction are not under the direct control, responsibility and management of institutional units	The cost of aquatic biological resources in national waters, exclusive economic zones, extraterritorial waters, resources of animals, except water, trees, cereals, other plants within the territory of the country that can currently be exploited for economic purposes or if there is a likelihood of this in the near future
Aquatic resources	The resources of the surface and groundwater used for extraction, to the extent that their limitation requires the provision of property rights and / or rights of use, market valuation and individual measures of economic control	If it is not possible to separate the cost of surface waters from the land associated with them, the entire asset should be classified in the category representing a large part of the total value
Other natural resources	Radio Frequency Ranges	Cost of alienation of ecological resources, recognized as economic assets, with the help of market instruments
Operating lease agreements that are traded on the market	Third party property rights pertaining to fixed assets	The cost of a legal and practical right to transfer a building to a sublease, when a tenant has been leased for the tenant, but a construction could receive a higher fee in the absence of a lease agreement
Permissions to use natural resources	Third party property rights related to natural resources	The cost of quotas that can be legally and practically transferred to other persons
Permits to engage in certain activities	The right to obtain monopoly profits, which are not less than the cost of a license granted by the PA or other units	The cost of commissions from providing future flow of proceeds to approved operators treated as an asset if the licensee can exercise the right by reselling it.
The right to receive goods and services in the future on an exclusive basis	The right of the party who has contracted to purchase goods or services at a fixed price in the future, to transfer the obligations of the second party to the contract to a third party	The value of the right to receive in the future goods and services on an exclusive basis, when one party, has entered into a contract, in order to buy goods and services at a fixed price in the future, may transfer obligations of the second party to the contract to a third party
Goodwill	Cost of corporate structures and aggregate business: labor and management, corporate culture, product distribution networks and customer base, complement to the value of individual assets used in combination with each other	The cost of disposal, which takes into account the premium over the value of individually identified and valued assets and liabilities, which assesses a set of factors that prompts clients to reconnect with the services of the organization
Marketing Assets	The names of brands, trademarks, logos and domains, the overall impression received by the client (potential client) from communicating with the company and its products	The difference between the value paid for the current company and the amount of its assets minus the amount of its obligations, each item of which is individually identified and evaluated

Source: [18-19]

Costs collective tourism consumption, i.e. PA to produce the collective non-market services (Table 9 SAT), comprised of the costs of providing services in four major subclasses NACE: (a) advertising in tourism; (b) information for visitors; (c) public administration that relate to the wholesale and retail trade, public catering system, hotels and restaurants; (d) public administration which relate to cases in tourism.

Part of this cost category also includes public expenditures, market research and public opinion polls; to organize the activities of the police and fire services; others in education and training, which are not included in other classes; aids in education.

Separately (Table 10 SAT) defines non-monetary quantitative indicators, trips and nights spent with evolution of tourism and categories of visitors; arrivals and nights spent with the allocation of transport for inbound tourists; facilities and opportunities for placement with the release of the individual forms; institutions in the fields of tourism, which differ in the number of jobs.

Summarizing the above, we note that the undisputed fact is the increase of the degree of influence tourism sector on the economy at all levels of management.

For better understanding of the growth dynamics and proportions between different aggregated indicators, to introduce methods of effective regulation of the industry (especially at the national and sub-national levels), it is necessary to further development of instrumental methods for the determination of the direct, indirect and indirect effects in the context of universal cost analysis and results of tourism.

Thus, when establishing direct “instant” impact on output consumption and gross value added in the tourism industry for the use of existing methodological approaches are ignored important values (shaded sectors in Fig. 1).

If authentication chain effects of indirect contribution of tourism to the economy of consumption should take into account the fact that the initial cost yet produce a limited time cycle of increased demand for goods and services that are necessary to meet existing needs.

The economic aggregates that characterize offer in the tourism sector			Gross		
			value added		GDP
			created in tourism		
			in the fields	directly	
Gross added value producer prices	in tourism	for consumers			
		for non-visitors			
	with side branches not related to tourism	for consumers			
		for non-visitors			
The nominal net taxes on products and imports, which includes the consumption of that attributed to tourism in the country, the price buyers					

Source: [12]

**Fig. 1. Directions of the development of methods of calculating direct contribution aggregates supply in the tourism sector**

The positive indirect effect of increasing demand for intermediate products or means of production, which be produced or imported, kept as long as no run its course as a result of direct and indirect sources. The origins fixed in the case where part of the increased travel demand and caused him income resulting from incurred visitor costs assigned to other countries in the direct supply of goods and services (direct leakage due to the first cycle of imports, which focuses on direct consumer ratings) there is a distribution/redistribution of primary income (indirect leakages due to imports of second cycle providing production resources and production assets); these maintenance cycles imports of resources and funds, providing operation previously imported items, equipment and labor.

The chain of indirect effects of tourism consumption on other industries is influenced by technological links between them and leads to the formation of additional value added, employment, compensation of employees, taxes, income, etc. [20].

Indirect contributions of the additional demand are observed in case of increase in consumption of various goods and services by households.

To assess indirect and indirect impact of tourism on economic development can be used a set of tools.

The models are based on an analysis of costs and outcomes, provide an opportunity to show the quantitative relationship between production (with the release

of products/activities), calculated at basic prices and intermediate consumption (with the release of products/activities) in nominal prices customers, as technological factors. Matrix factors of such costs  $i$  resource for production  $j$  unit area, although it serves as a basis for the mathematical model of technological devices of tourism [21], implies the need of adjustments considering several significant assumptions. In addition, its use requires maximum detail SNA, the allocation for each cell component of imported and domestic tourism consumption (total domestic demand in the tourism sector). This includes GFCA indicator.

Sophisticated optimization multi-interactive computed general equilibrium model in terms of price fluctuations require training for their construction specially adapted information, explanations and assumptions used different kind of structure. For the international comparisons of their use seems problematic, because involved to build data is not standardized. This model can take the form of any type and to be nonlinear.

Approximate evaluation depending on value added, employment, and government revenue level from the original travel costs can be achieved through the use of coefficients, multipliers. The system of ratios allows you to turn the volume indicators of tourist consumption (aggregate or release individual products) in terms of indirect or indirect influence. A significant warning to the use of such multipliers is simplified character of aggregation, lack of specificity of incorporation of tourism in the country, often borrowing from external sources.

For the regional localization of accounting tourist activities at the subnational level in Ukraine can be implemented as interregional (“top-down”) approach is based on zoning of SAT [22; 23], and “strictly” regional (“down-top”) approach established, although simplified in comparison with SNA, the order reflects the features of organizing sectorial activities, considering specific situations and the differences in specific areas [24].

Some of the recommendations and ideas on opportunities to improve accounting in calculating the aggregate contribution of IPT to GDP and employment, the calculation of GFCA, consideration while data on transactions with non-financial

rough assets (NRA) and intangible rough assets (IRA) contained in the support account [12], ESA-2010 [24], publications of known researchers [25], our previous personal and inspired publications [26-30].

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