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MAIN ASPECTS OF THE DEVELOPMENT OF THE MARKET OF AVIATION SERVICES OF UKRAINE

ОСНОВНІ АСПЕКТИ РОЗВИТКУ РИНКУ АВІАЦІЙНИХ ПОСЛУГ УКРАЇНИ

The main aspects of the market of aviation services of Ukraine considered in the article. An assessment of the characteristics of the service. The factors influencing the components of the cost of services substantiated. The interdependence of value and value of services taking into account risks revealed. The purpose of the study is to assess the characteristics of air services and identify the interdependence of value and value of air services, taking into account the risks that will ensure future growth in traffic, which will positively affect the quality of service, financial stability of enterprises, and at the same time. The study of literature sources and approaches to solving the problem showed that given the significant changes in the market of transport airlines, determining the components of the cost of the service requires further study and research. The research in the article carried out in the following logical sequence: the interdependence of the value and cost of air services revealed, taking into account the risks of civil aviation enterprises. The substantiation of the economic model of the cost of the service provided by the enterprises of the aviation industry carried out, taking into account the specifics of the activity and the influence of factors. The methodological tools of the study were: the method of questionnaires, the method of expert assessments, systematic analysis and statistical analysis to identify trends and patterns, the study period selected years from 2017 to 2019. The object of study selected aviation services of Ukraine, as the effectiveness of aviation services a decisive factor in ensuring the competitiveness of airlines. The article evaluates the characteristics of services of civil aviation enterprises by harmonizing the value and cost of the service taking into account the risks, which revealed the presence of the following interdependent values and the cost of the service, in particular, components of the cost of service provided by civil aviation enterprises. Cargo characteristics cost of loading and unloading works, fixed costs, variable costs, insurance, tax-on-cargo and profit. The results of the study can be useful for the management structures of airlines involved in the restoration and development of national aviation.

Keywords: air services, quality, value, risk, questionnaire, expert assessment, complex assessment.

У статті розглянуто основні аспекти розвитку ринку авіаційних послуг України. Здійснено оцінку характеристик послуги. Обґрунтовано фактори, що впливають на складові вартості послуг. Виявлено взаємообумовленість цінності та вартості послуг з урахуванням ризиків. Метою проведеного дослідження є оцінка характеристик авіапослуги та виявлення взаємообумовленості цінності та вартості авіапослуги з урахуванням ризиків, яка дозволить у майбутньому забезпечити зростанням обсягів перевезень, що позитивно відобразиться на якості обслуговування, фінансовій стійкості підприємств, і разом з тим, на конкурентоздатності авіапідприємств. Вивчення літературних джерел і підходів до вирішення проблеми показали, що враховуючи значні зміни на ринку транспортних авіакомпаній, визначення складових вартості послуги потребує подальшого вивчення і дослідження. Дослідження в статті проведено в наступній логічній послідовності: виявлено взаємообумовленість цінності та вартості авіапослуги з урахуванням ризиків діяльності підприємств цивільної авіації; здійснено обґрунтування економічної моделі вартості послуги, що надається підприємствами авіаційної галузі, з урахуванням специфіки діяльності та впливу факторів. Методологічним інструментарієм проведеного дослідження стали: метод анкетного опитування, метод експертних оцінок, системний аналіз та статистичний аналіз для виявлення тенденцій та закономірностей, періодом дослідження обрані роки з 2017 по 2019. Об'єктом дослідження обрано авіаційні послуги України, оскільки ефективність надання авіаційних послуг сфери є вирішальним фактором забезпечення конкурентоспроможності авіакомпаній. У статті проведена оцінка характеристик послуг підприємств цивільної авіації, шляхом гармонізації цінності та вартості послуги з урахуванням ризиків, що дозволила виявити наявність наступних взаємообумовлених цінностей та вартості послуги, зокрема, складові вартості послуги, що надається підприємствами цивільної авіації, до яких віднесено: ціна палива, характе-

ристики вантажу, вартість вантажно-розвантажувальних робіт, постійні витрати, змінні витрати, страхування, податкове навантаження та прибуток. Результати проведеного дослідження можуть бути корисними для управлінських структур авіакомпаній, що займаються питаннями відновлення та розвитку національної авіації.

Ключові слова: авіапослуги, якість, цінність, ризик, анкетування, експертна оцінка, комплексна оцінка.

Problem statement. The need to assess the characteristics of the civil aviation provided by enterprises, due to a decrease in the competitive position of national airlines in the air transportation market, since in the current economic conditions of the industry, the service that acquires qualitatively new features. Therefore, the definition of the components of the cost of a service, as a complex multidimensional process, is an urgent issue of our time.

Analysis of recent research and publications. The works of V. Kazak [2], K. Kalda [3], K. Lozhachevska, R. Mnatsakanova [5], O. Morgulets [6], V. Pavelko, and T. Chmil and others are devoted to the issue of value and cost of air services taking into account risks. However, given the significant changes in the market of transport airlines, determining the components of the cost of the service requires further study and research.

Identification of previously unresolved issues that are part of a common problem. Carrying out a comprehensive assessment of the characteristics of the service, which will not only determine the main components of the cost of the service, but also identify the links that mutually determine the cost of the service and its value and determine the need to identify risks as a complex multidimensional process.

Methodology and research methods. The following methods for were used the research: the method of questionnaire survey, the method of expert assessments, system analysis and statistical analysis to identify trends and patterns.

Formulation of the goals of the article. The purpose of this study is to assess the characteristics of the service and identify the interdependence of value and cost of the service, taking into account the risks that will ensure future growth in traffic, which will positively affect the quality of service, financial stability, and at the same time the competitiveness of airlines.

Statement of the main research material. Modern conditions of management of civil aviation enterprises, characterized, on the one hand, by the rapid dynamism of the competitive environment, and on the other, by rising fuel prices, political instability in the country and regions of the world, weakening of state support for enterprises. The center of gravity of the market of services provided by enterprises of the studied industry. The essence of which is to determine

the main interest of the consumer, on the one hand, and achieve the most valuable result at the lowest cost - on the other, it is appropriate to conduct a survey values of services provided by civil aviation enterprises [5].

A schematic representation of the identification of the interdependence of the value and cost of the service, taking into account the risks of civil aviation enterprises presented is in Figure 1.

In order to identify the quantity and quality of air services, a survey conducted by questionnaire. The survey conducted during 2017–2019, by interviewing passengers on board aircraft, during flights by the surveyed companies and during the registration of cargo. Thus, in 2017, the surveyed enterprises transported 2973 000 passengers, 5130 flights, 146 air routes, including domestic 27, international 119. During 2018, 4885 thousand people transported, 7640 flights, 162 air routes, with of them: domestic 35, international 127. In 2019, 6355 thousand people were transported, 9420 flights, 169 air routes, including domestic 38, international 131.

During 2017–2019, civil aviation enterprises transported passengers: 14213 thousand people, flights 2190, of which 11073 people took part in the survey, with 1011 thousand people, using the services of civil aviation enterprises not more than once a year, 5084 thousand people. More than five, but not more than ten times a year, 2341 thousand people. From ten to twenty times a year, and only 1732 thousand people. More than twenty times, which allows us to conclude that it is appropriate to take into account the results of the survey. In terms of determining the main characteristics of the value of the service, categories of passengers using services from 5 to 10 times a year. The share of the total number of respondents is 45.91%, of which in 2017 1634 thousand people were transported, in 2018 1721 thousand people, and in 2019 1729 thousand people.

The questionnaire analysis was conducted by providing respondents with a quantitative assessment of the characteristics that determine the value of the service provided by the airline on a five-point scale, the results of the questionnaire are summarized, some of them are presented in Fig. 2, 3, 4.

According to Fig. 2 – point assessment of the value of the service of civil aviation enterprises "network of routes" in 2017 fluctuated, of the 1634 thousand passengers transported 14.87% estimated the network of routes in one point,

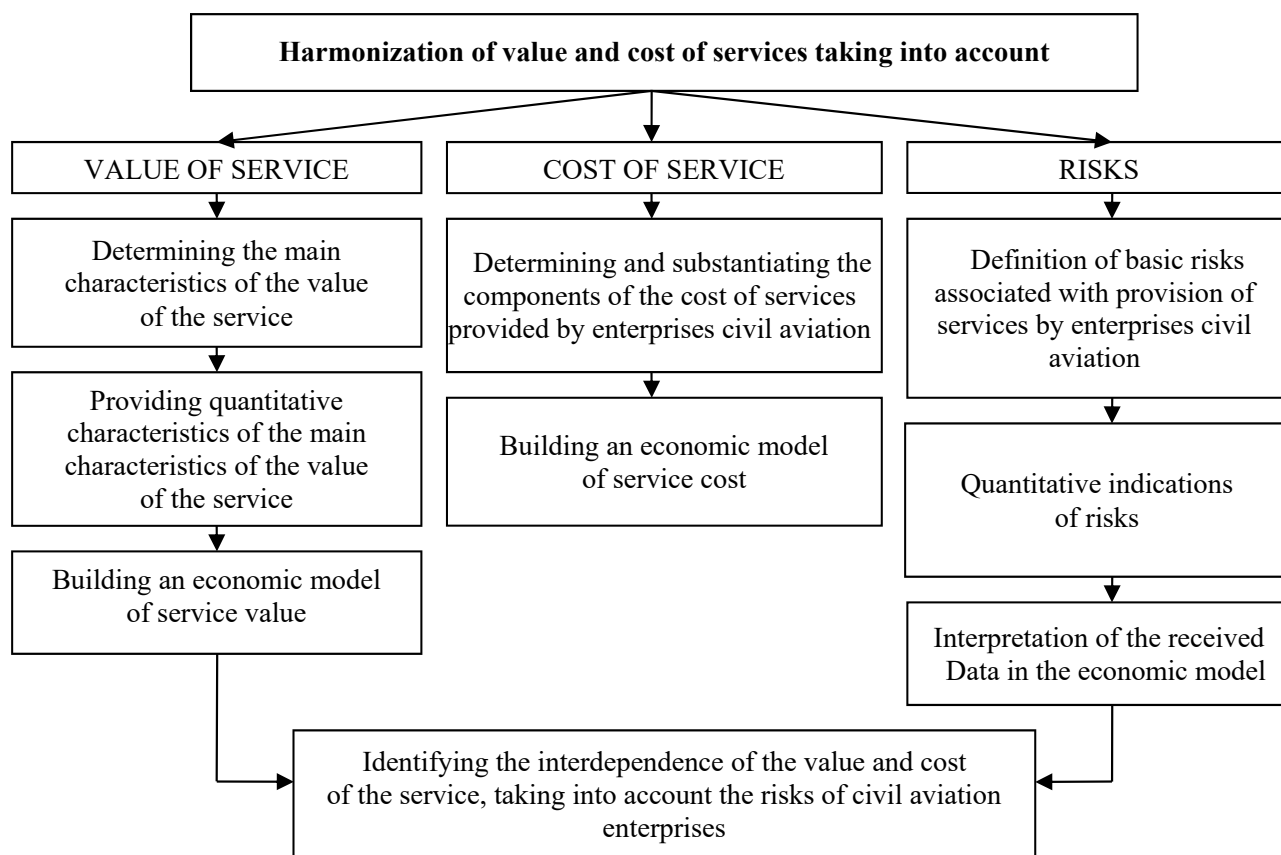


Figure 1. Identification of the interdependence of the value and cost of the service, taking into account the risks of civil aviation enterprises

Compiled by the authors. Source: [2; 3; 5]

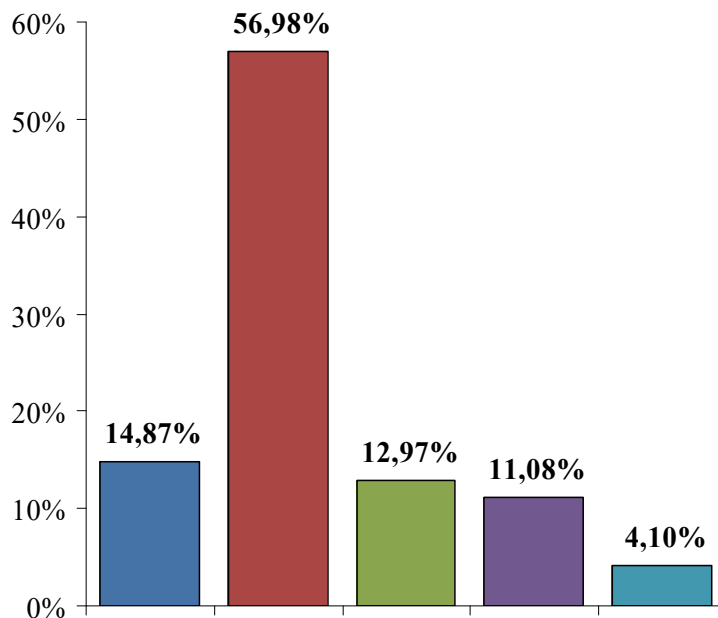


Figure 2. The results of the survey on the characteristics of the value of the service provided by the enterprises of CA "Network of Routes" for 2017, in%

Compiled by the authors. Source: [1; 4]

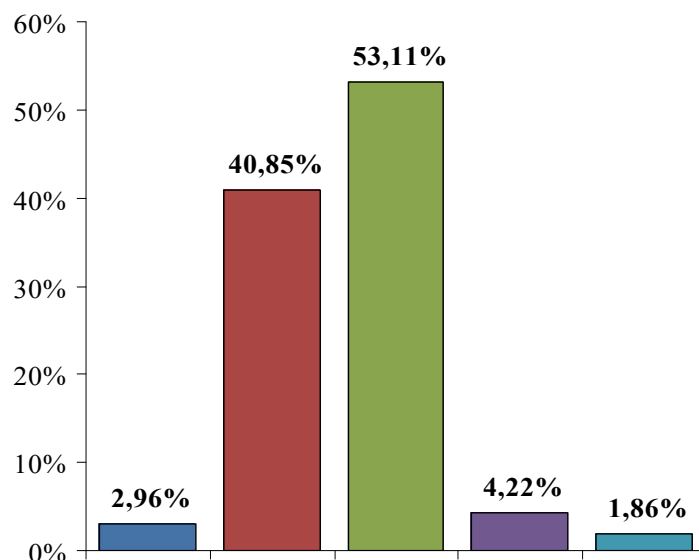


Figure 3. The results of the survey on the characteristics of the value of the service provided by the enterprises of CA "Network of Routes" for 2018, in %

Compiled by the authors. Source: [1; 4]

56.98% in two points, 12.97% in three points, 11.08% in four points, and only 4.1% in five points.

According to Fig. 3 – point assessment of the value of the service of civil aviation enterprises "Route Network", in 2018, also fluctuated: of the 1721 thousand passengers, transported 2.96% rated the network of routes in one point, 40.85% in two points, 53.11% in three points, 4.22% in four points, and only 1.86% in five points.

According to Fig. 4 – point assessment of the characteristics of the value of the service of civil aviation enterprises "Route Network", in 2019, fluctuated: of the 1729 thousand passengers, transported 4.40% rated the network of routes in one point. 17.99% in two points, 69.92% in three points, 6.19% in four points, and only 1.50% in five points, which indicates the need to expand the network of routes by the surveyed enterprises of civil aviation. The implementation of which will increase in the future passenger and freight traffic and to ensure the growth of competitive positions in the air transportation market.

Characteristics of the value of the service "Service provided during the flight", % (Table 1).

Quite high scores of this characteristic, during 2017-2019, the share of three points was 34.52%, 30.27%, 26.49%, further reduction of the characteristic. The share of four points was 17.44%, 37%, 18.62% and a further increase in the share of five points to 21.66%, 21.38% and 22.15% on the one hand. Indicates the satisfaction of passengers with the service provided during the flight, and, on the other hand, about the

insignificance of this characteristic in the structure of the value of the service in the aspect of this study.

Table 1

Characteristics of the value of the service "Service provided during the flight", %

Mark	2017	2018	2019
1	6,73	12,38	13,94
2	19,65	18,59	18,80
3	34,52	30,27	26,49
4	17,44	17,37	18,62
5	21,66	21,38	22,15
Total	100	100	100

Compiled by the authors. Source: [1; 4]

Characteristics of the value of the service "speed of delivery", % (Table 2).

Table 2

Characteristics of the value of the service "speed of delivery", %

Mark	2017	2018	2019
1	14,50	13,54	13,82
2	21,11	16,27	13,53
3	49,39	51,48	57,03
4	10,28	10,98	5,84
5	4,71	7,73	9,77
Total	100	100	100

Compiled by the authors. Source: [1; 4]

The highest share of the score "three" in the results of the questionnaire analysis of the

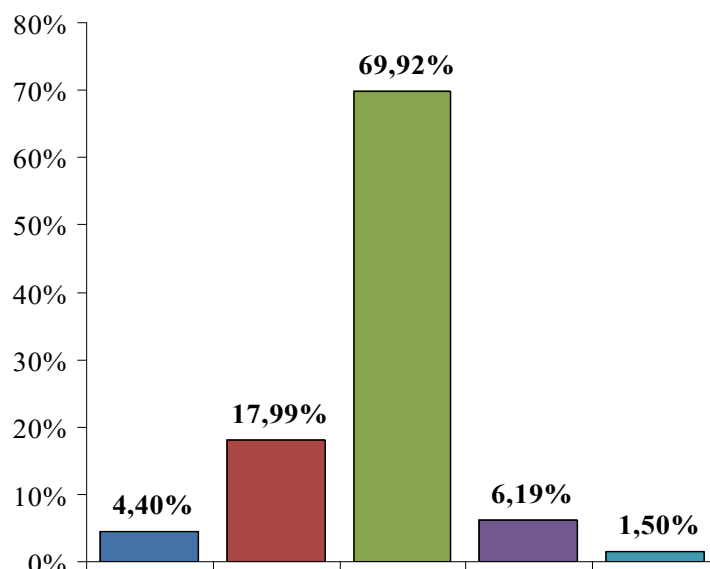


Figure 4. The results of the survey on the characteristics of the value of the service provided by the enterprises of CA "Network of Routes" for 2019, in%

Compiled by the authors. Source: [1; 4]

characteristics of the value of the service, the value of which in percentage, during the analyzed period, was: 49.39; 51.48; 57.03. This indicates low availability, reliability, maneuverability of cargo delivery by the surveyed civil aviation enterprises, in turn; improving the quality of this characteristic will ensure competitiveness in both domestic and international markets of air transport enterprises in the industry.

For further assessment of the characteristics of the service of civil aviation enterprises, in order to identify the interdependence of value and cost of the service, taking into account the risks in the context of competitiveness of civil aviation enterprises, there is a need to interpret percentage points and meet evaluation criteria (Table 3).

Table 3

Table of percentage points interpretation and compliance with evaluation criteria

Compliance with the evaluation criteria, %	Maximum	90 < H < 100	1
	High	60 < H < 90	2
	Medium	40 < H < 60	3
	Low	10 < H < 40	4
	Minimal	0 < H < 10	5

Compiled by the authors. Source: [1; 4]

According to Table 3, the interpretation of percentage points and compliance with the evaluation criteria of the survey results should be considered as follows: five points corresponds to 0 < H < 10 percent. Which determines the minimum criterion in the value of services provided

by civil aviation enterprisesю four points (10 < H < 40) low; three points (40 < H < 60); two points (60 < H < 90) correspond to the high criterion of service value, and one point (90 < H < 100) to the maximum value of service value.

Increased price, domestic and international competition, the development of alliances, higher aircraft and flight services, inefficient marketing policy, inefficient use of aircraft, lack of modern automated management accounting systems, low-yield long-term investment projects and unprofitable network of routes, are the main factors. Affecting the cost components of services provided by civil aviation enterprises. That is why it is expedient to build an economic model of the cost of the service provided by aviation enterprises, taking into account the specifics of the activity and the influence of factors [5].

Characteristics of the value of the service do not have a quantitative dimension, which necessitates providing them with quantitative characteristics using the method of expert evaluations; the advantage of this method is ease of formation, taking into account professional skills and experience of experts. Civil aviation enterprises (Table 4).

Should be noted is that one of the main components of the cost of passenger and cargo transportation services by airlines is the price of fuel, because it is the rate of change in aviation fuel prices, namely, increasing the fuel component in total costs, significantly affects the financial stability of the airline. At the same time, it is worth noting the other components of the cost of

Table 4

Expert assessment of the significance of the characteristics of the value of services provided by civil aviation enterprises

Weight	Characteristics of the value of the service	Experts									
		1	2	3	4	5	6	7	8	9	10
N1	Network of routes	5	4	5	5	5	5	5	4	5	4
N2	Flight schedule	5	5	5	5	4	5	4	5	5	5
N3	Ticket price	5	5	5	4	5	5	5	4	4	5
N4	Punctuality of the airline	4	4	5	5	5	5	4	4	5	4
N5	Staff attitudes	1	2	1	3	2	2	2	3	2	1
N6	Service provided during the flight	4	3	4	3	2	2	3	3	3	3
N7	Comfort during the flight	3	2	1	2	2	3	2	1	2	3
N8	Program for frequent flyers	1	1	2	3	3	2	3	4	2	3
N9	Ease of booking	3	2	2	1	1	4	3	4	4	3
N10	Reputation, company image	2	1	1	1	1	1	3	2	1	1
N11	Speed of cargo delivery	5	4	4	5	5	4	5	5	4	5
N12	Frequency and regularity of flights	4	5	5	4	4	5	4	4	5	5
N13	Minimum cargo size	5	5	4	3	5	5	5	5	4	5
N14	Level of risks of loss and damage to cargo	4	5	4	5	5	4	5	4	5	4
N15	Mandatory participation of intermediaries	5	4	5	4	5	5	4	5	4	4
N16	Observance of terms of departure and arrival of cargo	5	5	4	5	5	4	5	5	5	5
N17	The level of cooperation of intermediaries with colleagues in the countries of destination of goods	2	3	3	4	1	4	1	1	1	4

Compiled by the authors. Source: [1; 4]

the service, in particular, fixed and variable costs, insurance, tax burden and profit, the difficulty of determining which is due to the high dynamism of the environment, in particular: high dependence on economic and political situation. Country, income of individuals, inflation rate, the discount rate of the National Bank of Ukraine.

Conclusions. Risks related to the economic activity of civil aviation enterprises affect the value and cost of services provided by enterprises of the studied industry. The consequences of certain risks of civil aviation enterprises are the loss of markets, destabilization of foreign economic relations with foreign partners,

weakening the company's competitive position in foreign markets, loss of liquidity, as there is a dependence of liquidity on current assets and liabilities. Yazan determines the level of costs of the enterprise for their maintenance. The assessment of the characteristics of services of civil aviation enterprises, by harmonizing the value and cost of the service taking into account the risks, revealed the following interdependent values and the cost of the service, in particular, components of the cost of services provided by civil aviation enterprises. Cost of loading and unloading works, fixed costs, variable costs, insurance, tax burden and profit.

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