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Strategic Approach to Monitoring the Risk Resilience and Financial Security of Companies in the Passenger Air Transport Industry

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ABSTRACT

The **relevance** of the study is due to the social significance of the Russian passenger air transportation industry, its high exposure to complex risks due to the sanctions policy of unfriendly countries, the turbulence and uncertainty of existing risk factors, the need for state regulation and control over the functioning of companies in the industry, as well as the lack of an effective system for monitoring its sustainable development. In 2022, the Government of the Russian Federation approved a comprehensive program for the development of the aviation industry in the Russian Federation until 2030. In this regard, the **purpose** of the study was to develop a strategic approach to monitoring the risk tolerance of companies in the passenger air transportation industry based on a comprehensive analytical toolkit that provides a vector definition of strategic indicators of their sustainable development. The **scientific novelty** of the proposed strategic approach lies in the development of a business analysis algorithm as a sequence of analytical procedures that make it possible to form a sustainable development strategy, as well as monitor the risk tolerance and financial security of companies in the passenger air transportation industry. The strategic approach includes three logically connected stages: sectoral-industry analysis, identification of risk factors and assessment of their impact on the company using improved methods of strategic analysis; formation of a target matrix of the company's competitive advantages, focused on a stakeholder approach to sustainable development; definition of a system of strategic indicators for monitoring the risk tolerance of the company. The **theoretical significance** of the study lies in the development and adaptation of the industry analysis methodology to the specifics and needs of the passenger air transportation industry for its sustainable development in a highly turbulent economy. The improved tools of strategic analysis, focused on a balanced assessment and differentiated accounting of risk factors affecting the industry and a particular company, the complexity of their impact, as well as increasing the feasibility of a sustainable development strategy, have **practical significance**. The results may be useful for key stakeholders of airlines, including the Federal Air Transport Agency, in order to minimize the risks of implementing a comprehensive program for the development of the aviation industry, as well as monitoring information on the state of financial security of socially significant companies.

Keywords: sustainable development; financial security; strategic analysis; stakeholder approach; industry of passenger air transportation; monitoring; strategic approach; competitive advantages; sanctions; risk factors

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INTRODUCTION

The aviation industry of Russia, including activities in the field of passenger air transportation, is considered a socially significant and priority sector of the country's state policy, as confirmed by the comprehensive program for the development of the aviation industry of the Russian Federation until 2030, adopted by the Government of the Russian Federation in 2022. However, high geopolitical risks and growing uncertainty are influencing the sustainable development of socially significant sectors of the economy, as indicated by Russian scientists V.V. Ivanter and others in their papers [1]. In the context of the pandemic and sanctions from unfriendly countries, the passenger air transportation industry has proven to be highly vulnerable, subject to numerous risks due to extremely high turbulence and uncertainty of the existing risk factors. This requires state support and control over the functioning of industry companies [2], as well as increases the importance of analytical tools for risk monitoring, diagnosis, and mitigation of threats to the financial interests of companies and their key stakeholders. For sustainable growth, Russian businesses need to continuously adapt and address emerging issues to ensure their financial security.

Research by O.S. Sukharev [3] demonstrates that the fundamental tool for developing a sustainable economic development strategy, including the construction of an "investment function dependent on changes in risk, return (profitability), and sectoral technology", is sectoral analysis. Russian scientists S. Yu. Glazyev [4], Yu. M. Tsygalov [5], V.G. Kogdenko [6], M.A. Fedotova, O.V. Loseva, I.V. Kosorukova, et al. [7], as well as foreign authors M. Reeves, S. Levin, D. Weda consider it important to take into account industry risks and factors of innovative development that affect the level of profitability, competitiveness, and efficiency of business. Innovative development is an integral factor for

sustainable economic growth, as it generates technological knowledge and scientific-industrial potential, the development of which should be ensured by state policy [4]. Among industry factors, sustainable development risks play a significant role, representing a consolidation of legal and reputational risk factors that are highly likely to transform into financial security risks.

The analysis of financial security and sustainable development indicators in various sectors of the economy, at different levels of management, as well as in relation to industry risks, is presented in the studies by D.D. Burkaltsova et al. [8]. In the works of I.M. Lukasevich and N.A. L'vova [9], approaches to forecasting financial security at the micro level as potential company bankruptcies using the Moscow Exchange Stock Indices (MOEXBMI) are critically evaluated, based on an empirical sample of two companies in the passenger air transportation industry.

In most studies, the sources for monitoring the financial security and sustainable development of companies are typically object-based financial reporting data, aggregated and processed using digital technologies, which is clearly insufficient, as indicated by foreign authors J. Grewal et al. [10], as well as Russian scholars O.V. Efimova [11], O.V. Rozhnova [12]. They focus on the indicators of sustainable business development from the perspective of risks disclosed in corporate reporting, which also allows for the consideration of the quality of risk management: how the organization identifies, analyzes, and manages sustainable development risks. According to M.V. Melnik [13], risk resilience, stability, and financial security in corporate business also largely depend on the effectiveness of financial management.

In our opinion, the key tool for managing the risks of a company's financial security in the long term is strategic analysis, the development of a sustainable development strategy, continuous monitoring of its implementation, and readjustment based on the analysis of the

external and internal environment, taking into account the results of industry analysis. Therefore, in our study, the financial security of the company is included as a criterion for assessing the sustainability of the company's development as the management's ability to manage business risks that affect financial viability and ensure the company's stability in the long term [14].

Thus, the **purpose of the study** is to develop a strategic approach to monitoring the risk resilience of companies in the passenger air transport industry based on a comprehensive analytical toolkit that ensures the vector definition of strategic indicators of their sustainable development.

RESEARCH METHODOLOGY

The proposed strategic approach to monitoring the risk resilience of companies in the passenger air transport industry includes a set of three logically connected stages: sectoral and industry analysis, assessment of the state of the passenger air transport industry, identification of key risk factors under sanctions; development of a target matrix for forming the company's competitive advantage, oriented towards a strategic stakeholder approach to sustainable development; definition of a system of strategic indicators for monitoring the company's risk resilience. The stages are implemented based on a comprehensive analytical toolkit that ensures the vector-based determination of strategic indicators for monitoring the risk resilience and financial security of industry companies.

The first stage involves identifying risk factors for the sustainable development of the company based on sectoral analysis. Understanding and classifying risks associated with a specific sector of the economy allows for proper diagnosis, analysis, evaluation, control, and forecasting of risks, which in turn ensures effective management of them. The assessment of the stability of an organization's activities directly depends on

the state and trends in the industry and the market, which serve as the primary platform for the company's operations. Identification of risk factors and assessment of their impact on industry companies are conducted based on the PESTEL method, the choice of which is justified by the significance and consideration of the impact of environmental risks on the business environment, including compliance analysis of adherence to industry standards.

At the second stage, the identification and assessment of the company's strengths (core competencies) are conducted in the following areas: overall strategy, management system, finance, marketing, human resources, technology, corporate culture, product. At the same time, the capabilities of the classic SWOT analysis are quite limited due to the lack of quantitative assessment of the impact of risks on the company's sustainability and financial security. In this regard, this approach was improved using the Quality Function Deployment (QFD) matrix, which allows for a quantitative assessment of the relationship between the company's strengths and weaknesses with its opportunities and threats, and on this basis, to determine the vector directions for the company's development aimed at enhancing financial security and risk resilience.

The third stage develops strategic risk resilience indicators for monitoring the sustainable development of industry companies.

The business analysis algorithm as a sequence of analytical procedures that allows for the formation of a sustainable development strategy, as well as monitoring the risk resilience and financial security of companies in the passenger air transport industry, is presented in *Fig. 1*.

Thus, the use of advanced analytical tools within a strategic approach to monitoring the risk resilience of companies in the passenger air transport industry allows for the identification of sectoral and industry-specific risk factors (threats) and success factors that can most

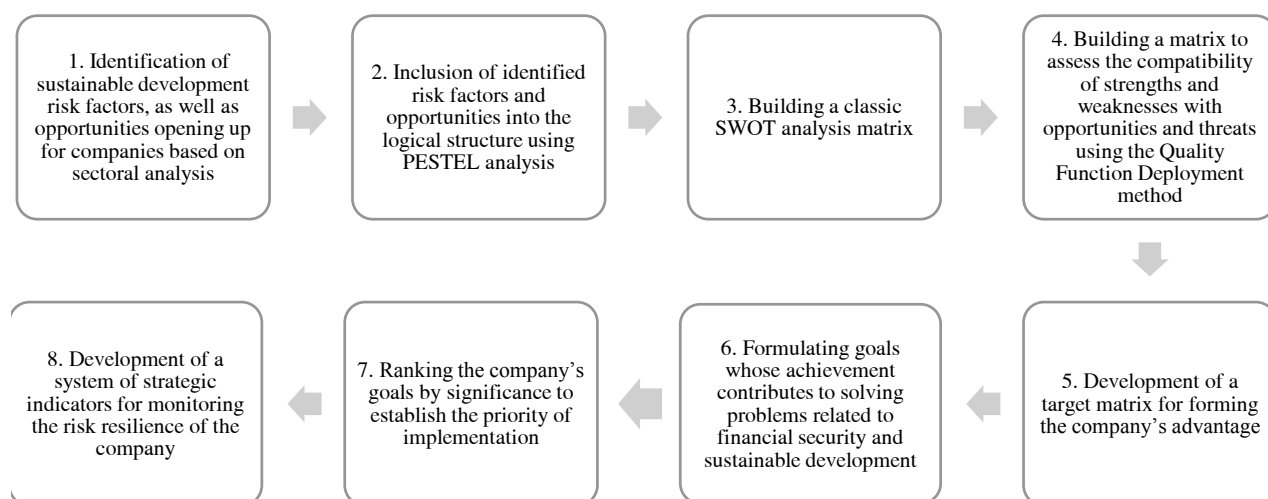


Fig. 1. Business Analysis Algorithm: a Strategic Approach to Company Sustainability

Source: Compiled by the authors.

significantly impact the company's operations, as well as enables a more effective strategic analysis, the development or adjustment of the company's development strategy to enhance its financial security and risk resilience.

RESEARCH RESULTS

Sectoral and industry analysis, assessment of the state of the passenger air transport industry. Identification of key risk factors under sanctions.

According to the established concept of sectoral economy by K. Clark [15], the passenger air transportation industry belongs to the tertiary sector of the economy. Its development is complicated by the impact of COVID-19-related restrictions since 2019, followed by sanctions imposed by unfriendly countries. According to the conjuncture surveys of heads of organizations providing various services in all subjects of the Russian Federation, the key sectoral trends of 2022 can be identified as follows: a decrease in the business confidence index by 8 points, with business sentiment appearing better than during the pandemic in 2020; a deterioration in key business climate indicators, specifically a 17% decrease in demand for services, a 20% decrease in profits, and an 18% decline in the economic situation of companies. At the same

time, the number of people employed in the tertiary sector has remained almost stable over the past four quarters, amounting to (–5%). Meanwhile, 66% of respondents noted a sharp increase in pressure on businesses due to economic uncertainty, and the main constraints on business development were identified as “lack of financial resources” and “high tax rates”.

The results of the conjuncture surveys are confirmed by data from official state statistics and Rosaviation: the passenger air transportation industry was in a growth phase before the COVID-19 pandemic, with growth rates exceeding 10%. In 2022, the industry was in a state of survival. Sanctions from unfriendly countries were aimed at putting an end to Russia's civil aviation. The critical increase in risks is primarily due to the ban on most financial operations, including the prohibition of insurance, which is mandatory for flights, as well as leasing — the main method of acquiring passenger aircraft. The termination of contracts with lessors has led to a significant portion of the aircraft fleet of Russian airlines being at risk of seizure, with the exception made only for aircraft under financial leasing, which constitutes a minor share. Since 27 February 2022, anti-Russian sanctions included a ban on flights of all Russian airlines in the airspace of

the European Union, which reduced passenger traffic. Russia's response was a ban on the overflight of aircraft from unfriendly countries through Russia.

The identified risks can be broadly categorized as financial (market, operational, and liquidity) and non-financial (country and regional, legal, reputational), which also inevitably affect the financial security and stability of the passenger air transport industry. In the comprehensive program for the development of the aviation industry of the Russian Federation until 2030, approved by the Government of the Russian Federation in 2022, more than 770 billion rubles are planned for the subsidization of domestic passenger air flights, as well as support for aircraft manufacturing. Today, the share of foreign-made aircraft in the fleet of Russian airlines for commercial transportation is about 67%, while foreign airliners account for approximately 95% of the total passenger turnover. Under the conditions of sanctions that have banned the supply of new foreign liners, as well as the maintenance of already used aircraft produced abroad, the Russian aviation industry has been tasked with increasing the share of domestic aircraft from the current 33% to 81%. Given the successful implementation of import substitution programs in 2022–2030, the supply of 1,036 passenger aircraft for civil aviation needs is planned.

Thus, the introduction of sanctions against Russia opens up new opportunities for the development of domestic aeronautical systems and programs, which will ensure the autonomy and increased safety of civil aviation. It also allows for a shift to the production of domestic airliners and the expansion of the internal flight zone. Given the vast territory of the Russian Federation, the reorientation to the domestic air travel market will contribute to the development of Russia's tourist infrastructure, the influx of capital and investments into the regions. This also promotes the growth of domestic tourism, hospitality, and the increase in passenger traffic of Russian airlines. An

important advantage for Russia in this situation is its vast territory, as well as cooperation with friendly countries, which contributes to the development of air communications.

To identify the threats and opportunities for the company, we used PESTEL analysis, as it allows for the assessment of the impact of environmental and climate risks. However, we modified the approach to obtain quantitative evaluations of the factors' effects. The algorithm involved determining the impact on the industry of each component of the identified factor (strong/medium/weak), establishing component weights using the pairwise comparison method with a conversion to scores. The strength of the influence of factors was also converted into numerical values (5/4 — strong, 3 — medium, 2/1 — weak), with the resulting weights calculated by multiplying the component weight by the factor weight. Taking into account the strength of the influence, we determined the urgency of the response for each factor (5 — very urgent, 1 — not urgent) and the nature of the influence (–1 negative, +1 positive). By multiplying the resulting weight of the factor by the urgency of response and the nature of the change, we calculated the final impact score of each factor. Factors with a negative assessment were considered as threats, while those with a positive assessment were considered as opportunities. The generalized results of the PESTEL analysis are presented in *Fig. 2* as a diagram of the business environment profile of companies in the passenger air transport industry across political, economic, social, technological, legal, and environmental components.

The results of the analysis show that the greatest threat requiring a rapid response for the company's activities comes from factors such as: the military operation in Ukraine; rising fuel prices; the tightening of sanctions against Russia and the introduction of retaliatory sanctions, which together can lead to a significant increase in costs and a decrease in the efficiency of the companies in

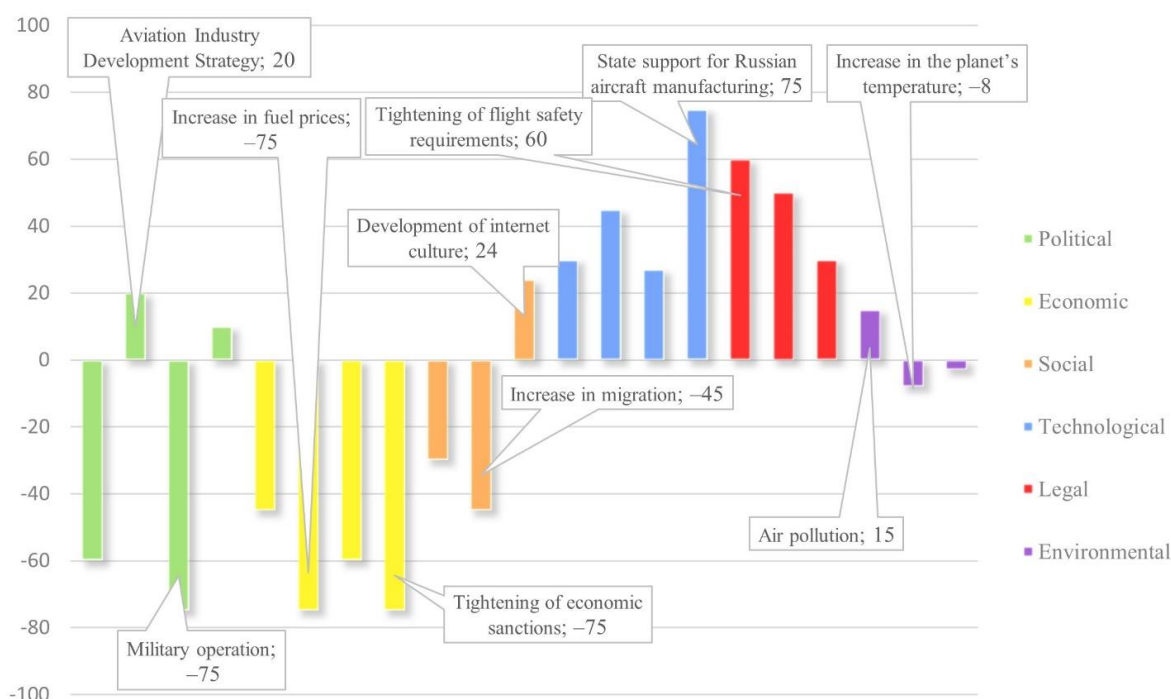


Fig. 2. Business Environment Profile Diagram for Companies in the Passenger Air Transport Industry

Source: Compiled by the authors.

the industry [16]. The best opportunities are provided by factors related to the tightening of flight safety requirements, which contribute to the enhancement of the reputation of airlines and the image of Russian aircraft manufacturing. At the same time, there are far more threats than opportunities, which requires prompt adjustments to the strategy, monitoring, and control over the risk resilience and financial security of the companies.

Development of a Target Matrix for Forming the Company's Competitive Advantage, Oriented Towards a Strategic Stakeholder Approach to Sustainable Development

The pilot implementation of the proposed approach was conducted at the Aeroflot Group. The development of a target matrix for forming the company's competitive advantage, oriented towards a strategic stakeholder approach to sustainable development, includes a set of analytical procedures for assessing the actual state of the company, its sustainable development policy, and financial security. The Aeroflot Group has been part of our country's image for almost 100 years. Since

2006, it has been part of the international alliance SkyTeam, but in 2022 it suspended its membership in the international alliance due to sanctions. The conducted analysis allowed for the identification of problematic areas in the company that pose a threat to its financial security. In challenging market conditions, the company shows signs of financial insolvency, which is linked to global restrictions due to COVID-19, as well as sanctions from unfriendly countries. In 2022, the company's shares became the underperformers of the Russian market, having fallen more than fourfold over the past two years. However, despite all the challenges, the company remains a leader in passenger air transportation. She adheres to the principles of sustainable development, focusing on ensuring the continuity of operational activities and the transport accessibility of the country and its regions. It has a fleet of passenger aircraft that are highly efficient in fuel consumption, with low greenhouse gas emissions and noise on the ground. By modernizing its fleet, the company has been able to significantly reduce CO₂ emissions over

the past ten years. Additionally, it makes a significant contribution to the development of the Russian aerospace industry, being the largest customer of domestic passenger aircraft. Such a partnership not only promotes the introduction of advanced aircraft models but also supports the development of high-tech sectors and the preservation of jobs. As a result of the analysis, the company's core competencies reflecting its strengths were identified: the ability to quickly adapt to changing conditions; developed skills in collaboration and interaction, which lead to the development of partnership networks; high technological and technical efficiency. Based on the generalization of identified threats (risks) and opportunities from the external environment, as well as the company's strengths and weaknesses using SWOT analysis, a matrix for assessing the compatibility of strengths and weaknesses with opportunities and threats was developed. For this purpose, the Quality Function Deployment matrix method was applied, which allows understanding how significant the connection is between a particular strength (weakness) of the business and a particular threat (opportunity) (Fig. 3). The analysis of the impact of various opportunities and threats on the Aeroflot Group was conducted in comparison with the main competitor, CJSC "S 7 Group" (columns 10 and 21 indicate the influence scores of the factors. The blue square represents the Aeroflot Group, and the green one represents CJSC "S 7 Group"). Benchmarking served as a navigator for developing prospective directions to enhance the risk resilience and financial security of the Aeroflot Group. The conducted analysis allowed for focusing on the factors that scored the highest and were marked in the matrix with yellow shading.

The conducted analysis highlighted the threats of a shortage of qualified personnel due to mobilization, as well as the increasing turnover of pilots. According to S. Yu. Glazyev, "high-quality human capital" is a "strategic resource" for companies and the country,

accumulating "intellectual, physiological, labor, and social potential of people" [3], which should be supported and its development ensured.

The identified risks negatively impact the financial position and stability of the company. At the same time, almost all of its strengths can be realized based on the growth of domestic tourism and the increase in demand for domestic air travel, for which government support is required.

Based on the interpretation of the results of the assessment of the compatibility of strengths and weaknesses with opportunities and threats, a target matrix of the company's competitive advantage is formed, which includes vector directions for increasing the risk resilience and financial security of the Aeroflot Group, ranked according to priority levels. The matrix serves as a navigator for developing a sustainable development strategy for the near future: revising personnel policy; increasing the share of transportation within Russia; developing the low-cost passenger transportation segment; opening new hubs within Russia; reducing fuel consumption and CO₂ emissions; developing vertical integration; revising marketing policy; supporting Russian aircraft manufacturing; developing a quality management system; implementing artificial intelligence to control the ratios between capital and liabilities, liabilities and assets, capital and assets, profit and resources; opening new routes to friendly countries.

Definition of a System of Strategic Indicators for Monitoring the Company's Risk Resilience

The final stage of the strategic approach is the monitoring of the sustainable development strategy, based on benchmarking using competitive advantage indicators — risk resilience indicators [17]. A key aspect of monitoring is financial security as a generalized criterion-based assessment of the company's sustainable development strategy, which is related to the ability to manage business risks affecting financial viability (financial risks) and to ensure the company's resilience to financial

| <div>Strengths</div> <div>Opportunities and threats</div> | Importance | Large market share, strong positions | Compliance with ESG principles | A large number of partner companies | A large number of directions | High quality of service | High technological and technical efficiency | State participation | Assessment | | | | | Target value | Degree of improvement | Weightiness | Weightiness, % |
|--|------------|--------------------------------------|--------------------------------|-------------------------------------|------------------------------|-------------------------|---|---------------------|------------|---|---|---|---|--------------|-----------------------|-------------|----------------|
| | | | | | | | | | 1 | 2 | 3 | 4 | 5 | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | 11 | 12 | 13 | 14 |
| Suspension of flights by 9 Russian companies | 4,0 | ⊗ 1,31 | ○ 0,44 | | △ 0,15 | ⊗ 1,31 | △ 0,15 | | | | | | | 2,0 | 1,0 | 4,0 | 0,15 |
| State support for the industry | 5,0 | ○ 0,54 | △ 0,18 | | | △ 0,18 | | ⊗ 1,63 | | | | | | 4,0 | 1,0 | 5,0 | 0,18 |
| Zero VAT rate | 4,0 | | | | △ 0,15 | | △ 0,15 | △ 0,15 | | | | | | 3,0 | 1,0 | 4,0 | 0,15 |
| The development of new air routes across Russia | 5,0 | | | △ 0,23 | | | | | | | | | | 5,0 | 1,3 | 6,3 | 0,23 |
| Growth of domestic tourism and hospitality | 5,0 | ⊗ 2,72 | ⊗ 2,72 | △ 0,30 | ○ 0,91 | ○ 0,91 | | △ 0,30 | | | | | | 5,0 | 1,7 | 8,3 | 0,30 |
| Tightening of sanctions | 3,0 | △ 0,08 | | △ 0,08 | ○ 0,25 | | | | | | | | | 2,0 | 0,7 | 2,0 | 0,08 |
| Risks of failure of purchased units, components, and materials | 3,0 | | | | | | | ○ 0,28 | | | | | | 3,0 | 0,8 | 2,3 | 0,09 |
| Reduction of activities due to the "outbreak" of influenza, smallpox, hantavirus, or coronavirus | 3,0 | △ 0,12 | △ 0,09 | △ 0,12 | | | | △ 0,12 | | | | | | 3,0 | 1,0 | 3,0 | 0,12 |
| The decline in the real disposable income of Russians | 3,0 | △ 0,09 | | | △ 0,09 | | | | | | | | | 3,0 | 0,8 | 2,3 | 0,09 |
| Increase in aviation fuel prices | 4,0 | △ 0,17 | | | | ○ 0,50 | ○ 0,50 | △ 0,17 | | | | | | 5,0 | 1,0 | 4,0 | 0,17 |
| The shortage of skilled labor in the market due to mobilization | 5,0 | | | | | | | △ 0,14 | | | | | | 2,0 | 0,7 | 3,3 | 0,14 |
| The probability of negative changes occurring in the surrounding natural environment | 4,0 | △ 0,17 | ⊗ 1,49 | | △ 0,17 | | △ 0,17 | | | | | | | 4,0 | 1,0 | 4,0 | 0,17 |
| Strengthening of competitors | 5,0 | ○ 0,41 | ○ 0,41 | △ 0,14 | ○ 0,41 | △ 0,14 | △ 0,14 | | | | | | | 2,0 | 0,7 | 3,3 | 0,14 |
| Total strengths | | 5,61 | 5,33 | 0,87 | 2,12 | 3,03 | 1,09 | 2,79 | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|--|------------|--------------------------|--------------------------|----------------------------|---|------------|---|---|---|---|--------------|-----------------------|-------------|----------------|-----------------------------|
| Weaknesses Opportunities and threats | Importance | Weak financial condition | Weak marketing campaigns | Increase in staff turnover | Lack of required number of qualified pilots | Assessment | | | | | Target value | Degree of improvement | Weightiness | Weightiness, % | Total opportunities/threats |
| | | | | | | 1 | 2 | 3 | 4 | 5 | | | | | |
| | | | | | | | | | | | | | | | |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 | | | | | 22 | 23 | 24 | 25 | 26 |
| Suspension of flights by 9 Russian companies | 4,0 | 0,44 | | 0,44 | 0,44 | | | | | | 2,0 | 1,0 | 4,0 | 0,145 | 4,640 |
| State support for the industry | 5,0 | 0,18 | | | 0,18 | | | | | | 4,0 | 1,0 | 5,0 | 0,181 | 2,900 |
| Zero VAT rate | 4,0 | 0,15 | | | | | | | | | 3,0 | 1,0 | 4,0 | 0,145 | 0,580 |
| The development of new air routes across Russia | 5,0 | 0,23 | | | | | | | | | 5,0 | 1,3 | 6,3 | 0,227 | 0,453 |
| Growth of domestic tourism and hospitality | 5,0 | 0,30 | | | | | | | | | 5,0 | 1,7 | 8,3 | 0,302 | 8,157 |
| Tightening of sanctions | 3,0 | 0,74 | | | | | | | | | 2,0 | 0,7 | 2,0 | 0,08 | 0,3 |
| Risks of failure of purchased units, components, and materials | 3,0 | 0,84 | | | | | | | | | 3,0 | 0,8 | 2,3 | 0,09 | 0,6 |
| Reduction of activities due to the "outbreak" of influenza, smallpox, hantavirus, or coronavirus | 3,0 | 1,12 | | | | | | | | | 3,0 | 1,0 | 3,0 | 0,12 | 0,7 |
| The decline in the real disposable income of Russians | 3,0 | 0,84 | | | | | | | | | 3,0 | 0,8 | 2,3 | 0,09 | 0,7 |
| Increase in aviation fuel prices | 4,0 | 1,49 | 0,17 | | | | | | | | 5,0 | 1,0 | 4,0 | 0,17 | 0,3 |
| The shortage of skilled labor in the market due to mobilization | 5,0 | 0,14 | | 1,24 | 1,24 | | | | | | 2,0 | 0,7 | 3,3 | 0,14 | 2,5 |
| The probability of negative changes occurring in the surrounding natural environment | 4,0 | 0,50 | | | | | | | | | 4,0 | 1,0 | 4,0 | 0,17 | -1,5 |
| Strengthening of competitors | 5,0 | 1,24 | 1,24 | 0,41 | 0,14 | | | | | | 2,0 | 0,7 | 3,3 | 0,14 | 1,4 |
| Total weaknesses | | 5,61 | 1,41 | 1,22 | 0,76 | | | | | | | | | | |

Fig. 3. Compatibility Matrix of Strengths and Weaknesses with Opportunities and Threats

Source: Compiled by the authors.

Strategic Indicators of Risk Tolerance of the Largest Airlines in Russia

| No. | Key risks and strategic risk tolerance indicators | Weight of the indicator | Aeroflot Group | | S 7 Group of Companies | | PJSC UTair Airlines | | JSC Ural Airlines | |
|--------|---|-------------------------|----------------|---------------------|------------------------|---------------------|---------------------|---------------------|-------------------|---------------------|
| | | | Indicator | Weighted assessment | Indicator | Weighted assessment | Indicator | Weighted assessment | Indicator | Weighted assessment |
| 1 | Financial (market risks): market share dynamics | 0.12 | 8 | 0.6 | 7 | 0.84 | 4 | 0.48 | 6 | 0,72 |
| 2 | Financial (liquidity risks): financial security | 0.13 | 6 | 0.65 | 6 | 0.78 | 3 | 0.39 | 4 | 0,52 |
| 3 | Legal risks (environmental safety) | 0.1 | 8 | 0.8 | 5 | 0.5 | 3 | 0.3 | 2 | 0,2 |
| 4 | Financial risks: operational performance | 0.13 | 5 | 0.91 | 6 | 0.78 | 4 | 0.26 | 5 | 0,52 |
| 5 | Financial (market risks): quality of services | 0.12 | 9 | 1.08 | 9 | 0.96 | 4 | 0.6 | 3 | 0,6 |
| 6 | Financial (market) risks: marketing and advertising | 0.06 | 7 | 0.36 | 7 | 0.42 | 4 | 0.18 | 5 | 0,3 |
| 7 | Financial (market risks): pricing policy | 0.06 | 7 | 0.24 | 6 | 0.3 | 5 | 0.36 | 4 | 0,42 |
| 8 | Financial (market) risks: innovative status | 0.06 | 9 | 0.48 | 9 | 0.54 | 4 | 0.12 | 3 | 0,18 |
| 9 | Reputational risks (level of customer satisfaction) | 0.12 | 8 | 0.84 | 8 | 0.84 | 4 | 0.48 | 3 | 0,36 |
| 10 | Financial (market risks): fleet of aircraft | 0.1 | 9 | 0.9 | 8 | 0.6 | 2 | 0.3 | 3 | 0,3 |
| Total: | | 1 | – | – | 7.51 | – | 6.56 | – | 3.47 | – |

Source: Compiled by the authors.

risks (market, operational, liquidity) and non-financial risks (legal, reputational). In this regard, as strategic indicators for monitoring in accordance with the constructed target matrix of competitive advantage, which sets the vector directions for enhancing risk resilience and financial security, 10 indicators have been identified (*Table*).

The *Table* presents key risks associated with the corresponding strategic indicators of risk resilience, as well as their forecasted values for the largest airlines in Russia, calculated for the period 2017–2021 with a forecast until 2030 using a weighted expert assessment on a nine-point scale, where 1 indicates critically low risk resilience and 9 indicates the highest possible risk resilience. According to the forecast results, the Aeroflot Group has the highest risk resilience, with a weighted score of 7.51 due to high values in indicators of financial risk resilience, safety levels, aircraft fleet condition, and focus on the interests of key stakeholders. Legal and reputational risk indicators assess the harmful impact on the environment, social responsibility, and corporate governance: insufficient compliance control and risk management can negatively affect the company's reputation and lead to a loss of trust from key stakeholders, primarily clients and investors.

CONCLUSION

The results of the study demonstrated a modified strategic approach to assessing the risk resilience and financial security of companies in the passenger air transport

industry. The developed business analysis algorithm allows for the formation or adjustment of a sustainable development strategy for companies, taking into account the influence of identified risk factors, as well as monitoring risk resilience and financial security in conditions of instability and uncertainty in the macroeconomic situation [18]. Theoretical results provide an improvement in the methodology of industry analysis as applied to the passenger air transportation sector for the purpose of its sustainable development in a highly turbulent economy. The modified strategic analysis allows for a differentiated accounting of risk factors affecting the industry and the financial security of the company, assessing the complexity of their impact, which will enhance the feasibility of the sustainable development strategy. The results may be useful for key stakeholders in airlines, including Rosaviation, to minimize the risks of implementing a comprehensive aviation industry development program, as well as to monitor information on the financial security status of socially significant companies.

The limitation of the obtained results is due to the lack of publicly available current financial reporting data for public companies in the passenger air transportation industry for 2022. The direction of further research will focus on analyzing stakeholder risks and their impact on the industry's sustainable development strategy.

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