REVIEW

of the official reviewer for dissertation work

Sadvakassova Kamilla Gabitkyzy on the topic "Financing of aviation companies: theory, methodology and practice" submitted for the degree of Doctor of Philosophy (PhD) in the educational program "8D04110 - Finance".

№	Criteria	Compliance with the criteria (underline one of the answer options)	Justification of the official reviewer's position (comments should be highlighted in italics)
1.	The topic of the dissertation (as of the date of its approval) corresponds to the directions of scientific development and/or state programs	1.1 Compliance with priority areas of scientific development or state programs: 1) the dissertation was completed within the framework of a project or target program financed from the state budget (indicate the name and number of the project or program); 2) the dissertation was completed within the framework of another state program (indicate the name of the program); 3) the dissertation corresponds to the priority direction of scientific development approved by the Higher Scientific and Technical Commission under the Government of the Republic of Kazakhstan (indicate the direction).	The topic of the research corresponds to modern trends in the development of scientific knowledge and is related to state programs to support the aviation industry. It is based on the analysis of both theoretical and practical aspects that contribute to the development of effective strategies for financing airlines, considering the principles of sustainable development. This study is directly related to the development strategy of the Republic of Kazakhstan "Kazakhstan - 2050", especially in terms of supporting transport infrastructure and stimulating entrepreneurship as a key factor in economic growth. In addition, the work touches on relevant aspects of the Sustainable Development Goals, including economic growth and the development of innovative financial instruments in the field of air transportation. The dissertation corresponds to the priority direction of science Intellectual potential of the country - Structural and technological modernization and sustainable territorial-spatial development of the state, economy and society. The study is devoted to the issues of financing airlines, which is an important aspect of ensuring the stable development of the aviation industry and transport infrastructure of the country.
2.	Importance for Science	The work makes/does not make a significant contribution to science, and its importance is/is not well explained.	The study makes a significant contribution to science, substantiating the importance of effective financing of airlines for the development of the aviation industry and the national economy. The work examines in detail modern financing mechanisms, analyzes global practices and proposes optimal strategies adapted to the conditions of the Republic of Kazakhstan. Particular attention is paid to state

			programs to support air carriers, the investment attractiveness of the industry and the sustainable development of transport infrastructure. The results presented in the study can be used to develop new financial instruments aimed at increasing the competitiveness of airlines and ensuring their long-term financial stability.
3.	The principle of independence	Level of independence: 1) high; 2) medium; 3) low; 4) there is no independence.	The study is characterized by a high level of independence, which is confirmed by the in-depth study of airline financing issues and the development of original approaches to solving current industry problems. The work provides a comprehensive analysis of airline financing sources, including government support, private investment, credit instruments and international financial mechanisms. Particular attention is paid to assessing the effectiveness of various financing models, as well as their impact on the sustainability and competitiveness of air carriers. The study is based on current data, economic models and a comparative analysis of global experience, which indicates its high scientific value. The findings and proposals presented can be used by both the scientific community and practitioners working in the field of aviation financing. No unauthorized borrowings were found, there are no unformatted citations or incorrect references.
4.	The principle of internal unity	4.1 Justification of the relevance of the dissertation: 1) justified; 2) partially justified; 3) is not justified.	The relevance of the dissertation research is fully justified, since the issues of financing airlines play a key role in the development of the aviation industry and the country's transport system. Stable and effective financing of air carriers directly affects their competitiveness, the quality of services provided, the modernization of the air fleet and flight safety. In modern conditions, characterized by economic challenges, changes in market conditions and the impact of global crises, the search for optimal financial strategies for airlines is of particular importance. An important aspect is the development of mechanisms for attracting investment, diversification of funding sources and the

			creation of favorable conditions for the sustainable development of air carriers. In addition, the study examines the role of the state in supporting the aviation sector, analyzing existing subsidy programs, tax incentives and credit mechanisms. The work pays attention to international experience, which allows identifying the most effective financing models and adapting them to the conditions of the Republic of Kazakhstan. Thus, the dissertation meets current scientific and practical needs, offering an integrated approach to solving the problems of financing airlines and contributing to the sustainable development of the industry.
		4.2 The content of the dissertation reflects the topic of the dissertation: 1) reflects; 2) partially reflects; 3) does not reflect.	The content of the dissertation fully reflects to the stated topic, revealing in detail the key aspects of airline financing. The work presents a comprehensive description of modern financial mechanisms, analyzes sources of financing, including government support, private investment, credit instruments and international funds. The study covers both theoretical and practical aspects, paying attention to the issues of the effectiveness of various financing models and their impact on the development of the aviation industry. Emphasis is placed on the analysis of world experience and the adaptation of successful strategies to the conditions of the Republic of Kazakhstan. The dissertation also considers the challenges and risks associated with the financing of air carriers, suggesting ways to minimize them. The work contains recommendations for improving the financial strategies of airlines aimed at ensuring their sustainable growth and competitiveness. Thus, the structure and content of the dissertation are logically built and fully reflect the current problems and prospects for financing airlines.

		4.3. The goal and objectives correspond to the topic of the dissertation: 1) correspond; 2) partially correspond; 3) do not correspond.	The purpose and objectives of the study fully correspond to the topic of the dissertation, providing a comprehensive analysis and development of effective approaches to airline financing. The main objective of the study is to identify optimal financial mechanisms aimed at ensuring the sustainable development of air carriers, increasing their competitiveness and adaptation to changing economic conditions. The tasks set fully reflect the relevance of the study, and their solution contributes to achieving the main goal of the dissertation and revealing the key aspects of airline financing.
		4.4 All sections and statements of the dissertation are logically interconnected: 1) are completely interconnected; 2) partial connected; 3) there is no connection.	All sections and statements of the dissertation are logically interconnected and built in accordance with the stated topic, ensuring a holistic and consistent disclosure of issues of airline financing. The introduction determines the relevance of the study, formulates the goal, objectives, object and subject of the study, and substantiates the scientific and practical significance of the work. The first section is devoted to the theoretical aspects of airline financing, where key concepts, models and factors affecting the financial stability of air carriers are considered. The second section analyzes existing sources of financing, including government support, private investment, credit instruments and alternative mechanisms. Particular attention is paid to world experience, which allows us to identify the most effective strategies and adapt them to the conditions of the Republic of Kazakhstan. The third section focuses on assessing the risks and problems associated with airline financing, as well as developing practical recommendations for their minimization and improving the effectiveness of financial strategies. The conclusion contains a generalization of the main results of the study, summing up and formulating conclusions confirming the logical relationship of all statements of the dissertation.

			Thus, the structure of the work is built in such a way that each subsequent chapter logically follows from the previous one, providing a comprehensive and systematic approach to the study of issues of airline financing.
		4.5 The new solutions (principles, methods) proposed by the author are substantiated and evaluated in comparison with known solutions:	The new solutions proposed by the author in the field of airline financing are carefully argued and substantiated based on a critical analysis of existing approaches. The work examines the main models and mechanisms of financing used in world practice, their advantages and disadvantages, as well as the possibility of adaptation to the conditions of the Republic of Kazakhstan. The author conducts a comparative analysis of traditional and innovative financial instruments, such as government subsidies, bank loans, leasing, venture investments and specialized aviation funds. Based on the identified trends, improved financing methods are proposed that contribute to increasing the financial stability of air carriers. Much attention is paid to assessing the effectiveness of the proposed solutions in comparison with existing models. Methods of economic analysis, modeling and forecasting are used, which allows us to quantitatively assess the impact of new financial strategies on the development of the aviation industry. Thus, the dissertation contains not only a detailed review of current financing methods, but also offers reasonable recommendations confirmed by a critical analysis and comparative assessment of their effectiveness.
		1) there is a critical analysis;	
		2) partial analysis;	
		3) the analysis does not represent personal opinions, but quotes from other authors;	
		4) no analysis.	
5.	The principle of scientific novelty	5.1 Are the scientific results and statements new?	The scientific results and statements presented in the dissertation are completely new and reflect the author's approach to solving current issues of airline financing. The work develops and substantiates innovative strategies for attracting financial resources aimed at increasing the sustainability and competitiveness of air carriers. The author proposes improved financing methods adapted to modern economic conditions and features of the aviation industry of the Republic of Kazakhstan.
		1) completely new;	
		2) partially new (25-75% are new);	
		3) not new (less than 25% are new).	

			The proposed scientific statements are based on a deep analysis of world practice and adapted to the realities of the national economy, which confirms their originality and practical value. The results of the study can be used both in the scientific community and in the practical activities of airlines, financial institutions and government agencies.
		5.2 Are the findings of the dissertation new?	
		1) completely new;	The findings presented in the dissertation are partially new and are based on a comprehensive analysis of the problems and prospects of airline financing. They reflect the author's contribution to the development of scientific knowledge in this area and include innovative approaches to the formation of sustainable financial strategies for air carriers.
		2) partially new (25-75% are new);	
		3) not new (less than 25% are new).	
		5.3 Technical, technological, economic or managerial decisions are new and justified:	The technical, technological, economic and managerial solutions presented in the dissertation are partly new and justified, since they are based on a deep analysis of existing methods of financing airlines, adaptation of world experience and development of improved strategies that consider the specifics of the industry. The presented solutions are partly new, since they are based on the improvement of existing models and methods considering modern economic trends and industry specifics. They are justified and have practical significance for the development of airline financing mechanisms.
		1) completely new;	
		2) partially new (25-75% are new);	
		3) not new (less than 25% are new).	
6.	Validity of the main conclusions	All key findings are based/not based on sound scientific evidence or are reasonably well supported (for qualitative research and arts and humanities majors).	All the main conclusions of the dissertation are based on solid scientific evidence and carefully substantiated in accordance with the research methodology. The work uses both quantitative and qualitative methods of analysis, which provides a comprehensive approach to studying the problems of airline financing. In the case of using qualitative research methods, the conclusions are based on a deep analysis of expert opinions, industry reports, regulatory documents and aviation industry development strategies. This approach ensures the reliability and validity of the proposed solutions.

			Thus, all the main conclusions of the dissertation have a solid scientific basis and are confirmed either by quantitative calculations or reasoned qualitative analysis, which meets the standards of research in the field of economics, management and financing of airlines.
7.	The main statements submitted for defense	The following questions must be answered for each statement separately:	1 **statement:** Theoretical and methodological aspects of financing aviation companies were substantiated based on a study of the specific characteristics of airline financing and the methodology for forming financing sources. An author interpretation of the concept of airline financing was proposed, revealing the unique features of managing financial resources in airlines.
		7.1 Is the statement proven? 1) proven; 2) rather proven; 3) rather not proven; 4) not proven; 5) in the current formulation, it is impossible to verify the proof of the statement. 7.2 Is it trivial? 1) yes; 2) no; 3) in the current formulation it is impossible to verify the triviality of the statement. 7.3 Is it new? 1) yes; 2) no; 3) in the current formulation it is impossible to verify the novelty of the statement. 7.4 Level of application: 1) narrow; 2) medium; 3) wide;	7.1 Is the statement proven?? 1) proven; 2) rather proven; 3) rather not proven; 4) not proven; 5) in the current formulation, it is impossible to verify the proof of the statement. 7.2 Is it trivial? 1) yes; 2) no; 3) in the current formulation it is impossible to verify the triviality of the statement. 7.3 Is it new? 1) yes; 2) no; 3) in the current formulation it is impossible to verify the novelty of the statement.

		4) in the current wording it is not possible to verify the level of application of the statement.	7.4 Level of application: 1) narrow; 2) medium; 3) wide; 4) in the current wording it is not possible to verify the level of application of the statement. 7.5 Is it proven in the article? 1) yes; 2) no; 3) In its current formulation, it is impossible to verify the validity of the statement in the article. 2 **statement:** As a result of research foreign practice in aviation industry using quantitative and qualitative methods, an analysis of the financial performance of airlines was conducted. This identified the internal and external financing sources and aspects that determine the assessment of financial multiplies for the Air Astana group. 7.1 Is the statement proven?? 1) proven; 7.2 Is it trivial? 2) no; 7.3 Is it new? 1) yes; 7.4 Level of application: 3) wide; 7.5 Is it proven in the article? 1) yes; 3 **statement:** The specifics of airline financing for the Air Astana group were evaluated, including SWOT analysis and further strategy of the company.
		7.5 Is it proven in the article?	
		1) yes;	
		2) no;	
		3) In its current formulation, it is impossible to verify the validity of the statement in the article.	

			7.1 Is the statement proven?? 1) proven; 7.2 Is it trivial? 2) no; 7.3 Is it new? 1) yes; 7.4 Level of application: 3) wide; 7.5 Is it proven in the article? 1) yes. **4 statement:** A methodology for using alternative options for financing aviation companies was developed. Additionally, a conceptual roadmap for the Air Astana group was proposed. 7.1 Is the statement proven?? 1) proven; 7.2 Is it trivial? 2) no; 7.3 Is it new? 1) yes; 7.4 Level of application: 2) medium; 7.5 Is it proven in the article? 1) yes. **5 statement:** A business plan was developed to create an additional source of income for the airline. This plan supports digitalization and technological transformation within the Air Astana group. 7.1 Is the statement proven??

			1) proven; 7.2 Is it trivial? 2) no; 7.3 Is it new? 1) yes; 7.4 Level of application: 3) wide; 7.5 Is it proven in the article? 1) yes.
8.	The principle of reliability.	8.1 The choice of methodology is justified or the methodology is described in sufficient detail:	The choice of methodology in the dissertation is justified and presented in sufficient detail, which ensures the scientific validity of the results obtained. The work uses modern methods of analysis, allowing for a comprehensive study of airline financing issues and the proposal of effective solutions.
	Reliability of sources and information provided	1) yes;	
		2) no.	
		8.2 The results of the dissertation work were obtained using modern methods of scientific research and methods of processing and interpreting data using computer technologies:	The results of the dissertation were obtained using modern methods of scientific research, as well as advanced methods of processing and interpreting data using computer technologies, which confirms their reliability and practical value.
		1) yes;	
		2) no.	
		8.3 Theoretical conclusions, models, identified relationships and patterns are proven and confirmed by experimental research (for areas of training in pedagogical sciences, the results are proven on the basis of a pedagogical experiment):	The theoretical conclusions, developed models, identified relationships and patterns in the study of airline financing are confirmed by the conducted analysis and experimental research. As part of the work, a comprehensive assessment of existing methods of airline financing was carried out, including an analysis of statistical data, financial statements of leading air carriers, as well as modeling various scenarios for raising capital.
		1) yes;	
		2) no.	

		supported/partially supported by references to relevant and reliable scientific literature.	In the dissertation, all important statements are supported by references to relevant and reliable scientific literature, which confirms their validity and scientific reliability. Thus, the dissertation is based on an extensive scientific foundation, and all key statements are confirmed by relevant and reliable sources, which increases the reliability and value of the results obtained.
		8.5 The reference sources used are sufficient/not sufficient for a literature review.	The literature sources used are sufficient to conduct a comprehensive literature review, providing an in-depth analysis of the topic of airline financing. The quantity and quality of the sources used are sufficient to form a complete picture of the problem of airline financing, as well as to confirm the scientific validity of the study.
9	The principle of practical value	9.1 The dissertation has theoretical significance:	The dissertation has theoretical significance, as it contributes to the development of scientific ideas about airline financing, offering new approaches to the analysis, forecasting and strategic management of financial flows in the aviation industry.
		1) yes;	
		2) no.	
		9.2 The dissertation has practical significance and there is a high probability of applying the obtained results in practice:	The results of the study have high practical significance, and the probability of their implementation in the activities of airlines and regulatory authorities is very high.
		1) yes;	
		2) no.	
		9.3 The following are new suggestions for practice:	The practical proposals developed in the dissertation are completely new, as they are based on modern methods of analyzing airline financing, consider current industry challenges and offer innovative approaches to managing financial flows.
		1) completely new;	
		2) partially new (25-75% are new);	
		3) not new (less than 25% are new).	
10.	Quality of writing and design	Quality of academic writing:	The quality of academic writing in the dissertation is high, which is expressed in the clarity of presentation, logical consistency of argumentation and adherence to scientific style.
		1) high;	
		2) medium;	
		3) below average;	

11.	Comments on the dissertation	4) low. 1) The methodological part can be detailed. It is necessary to describe in more detail the research methods used, their rationale and limitations. 2) The literature review can be expanded. More modern foreign sources should have been included to better reflect global trends in airline financing. The above comments do not reduce the high theoretical and practical significance of the dissertation research.
12.	The scientific level of the doctoral student's articles on the research topic (in the case of defending a dissertation in the form of a series of articles)	Form of defense – dissertation work
13.	Decision of the official reviewer (in accordance with paragraph 28 of these Model Regulations)	The dissertation work of Sadvakassova Kamilla Gabitkyzy on the topic "Financing of aviation companies: theory, methodology and practice" fully meets the requirements for research for the degree of Doctor of Philosophy (PhD) in the educational program "8D04110 - Finance".

Official reviewer:
Candidate of Economics, Associate Professor
Karaganda University named after E.A. Buketov

Kalkabayeva Gaukhar Muratovna

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