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Integrated approach to risk analysis in financial statements to ensure economic security of the enterprise

■ **Abstract.** In the current conditions of international turbulence, it remains particularly important to find new approaches to analysing risks for enterprises to ensure their quality future functioning. In this regard, the study aimed to propose one such approach, which would allow for assessment of the provision of economic security for companies. The study used a systematic approach and forecasting method to analyse financial statements, applying a process approach that includes evaluating the market position, external factors, and company reputation. This comprehensive assessment helped to identify risks and find mitigation methods. Financial risks identified in the company's statements were categorised into market, credit, and liquidity risks. This approach was applied to Manas International Airport Joint-Stock Company from 2017 to 2023. The systematic approach assessed the company's stable market position, positively impacting financial stability. Studying external factors, such as economic conditions and regulatory changes, helped evaluate potential risks. The forecasting method assessed financial indicators like profitability, sales, and assets, revealing positive trends: increased profitability, higher sales volumes and assets, and reduced debt load. These trends indicate financial stability and effective control of risks, even in crises. Liquidity analysis showed sufficient liquid assets to cover short-term obligations, emphasising financial stability. Thus, the company effectively manages

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financial risks. The results obtained in the framework of the study can be applied for further assessment of the economic well-being of enterprises in Kyrgyzstan, both by government representatives and independent representatives

■ **Keywords:** audit; diversification; liquidity; insurance; hedging

■ INTRODUCTION

Financial statement risk analysis is the process of assessing potential risks that could affect the financial results and position of a company based on financial statement data. This type of analysis is important for both internal and external users of financial statements, including the company's managers, investors, creditors, and analysts. Financial statement risk analysis is pivotal in assessing a company's financial strength and performance, as well as identifying potential threats and opportunities. It consists of several approaches, and its main purpose is to determine the risks that the company has at the moment, as well as to find methods to avoid them, to prevent them from being realised, or to reduce their negative impact. At the moment, there are many approaches and methods for analysing financial reporting risks, as stated by A.-I. Sabău *et al.* (2021). Nevertheless, all of them have their flaws and shortcomings, so it is not always possible to identify all the main negative indicators and related problems that may arise during the long-term operation of the company. In this regard, the proposal of new approaches of this kind remains relevant. In the framework of this study, the proposals are aimed primarily at enterprises in Kyrgyzstan. Numerous scholars contributed to the approaches to risk assessment in enterprises (Rodríguez-Espíndola *et al.*, 2022; Alotaibi, 2023).

The methodology of enterprise financial risk management was reviewed by B. Alieva *et al.* (2020). Researchers described the importance of this component even though it is impossible to fully protect against price impact. They also noted the existing knowledge gaps in this area among managers, but do not offer effective approaches to hedging, or methods to improve the quality of knowledge among employees of enterprises. A. Kulustayeva *et al.* (2020) tested hypotheses related to the impact of various financial indicators on the profitability of insurance companies. They confirmed the existence of a positive correlation between financial leverage, firm size, and attractiveness; some other relationships related to profitability and growth potential were also considered. However, approaches to improve the financial health of firms were not provided. Risk management approaches of banks in Germany and Kyrgyzstan were assessed by H.C. Brauweiler & N. Madmarov (2020). The results showed that banks in Germany mainly face operational risk and banks in Kyrgyzstan face credit risk. It was also shown that the German approach is generally more effective, which may indicate the relevance of applying some principles of local managers in the financial sector. H. Ma *et al.* (2020) in turn assessed the risks of transnational oil investments in Central Asia. They also formulated a comprehensive assessment approach for this and proposed methods to mitigate their impact on the company's operations. The peculiarities of the economic, social, political and legal fields among entrepreneurs in Kyrgyzstan were assessed by A. Generalov & O. Generalova-Kutuzova (2021). At the same time, the scientists described what negative and positive components of these spheres affect the financial condition of companies.

Research conducted by scholars has already considered many aspects of enterprise financial risk, but some aspects remain insufficiently studied. The lack of comprehensive approaches to financial risk control in the context of Kyrgyz enterprises is an important problem. Attention has been focused on developed countries or specific industries, while local approaches for Kyrgyz enterprises have not been fully developed or adapted. Although there are many studies on the impact of various financial indicators on profitability, no specific recommendations have been provided to improve the financial health of enterprises. Studies that assessed risks did not always include suggestions on how to reduce or avoid them. The lack of new approaches to financial risk assessment is also a significant problem. Existing approaches to financial risk assessment have their drawbacks and cannot always detect all negative indicators. The need for new, more adapted methods for local enterprises remains relevant. Long-term studies of the impact of various risks on enterprises in the context of Kyrgyzstan have not been sufficiently covered. Thus, the main objective of this study was to fill these gaps, to propose new approaches to financial risk control that would meet the specific conditions of Kyrgyzstan, and to provide specific recommendations for improving the financial condition of enterprises in this region.

■ MATERIALS AND METHODS

Within the framework of the research, some approaches were used to calculate the main liquidity and creditworthiness ratios of companies by years from 2017 to 2023 was carried out. One of the used indicators was the current liquidity ratio, which shows the ability of the company to fulfil its short-term obligations. It is determined by the formula:

$$Cr = \frac{CA}{CL}, \quad (1)$$

where Cr – current ratio; CA – current assets; CL – current liabilities. Another value is the value of quick liquidity, which should remain at the level of one for a sufficient level. Its formula is as follows:

$$Qr = \frac{(QA-I-PE)}{CL}, \quad (2)$$

where Qr – quick ratio; I – inventories; PE – prepaid expenses. Another value is the cash ratio. It was calculated by formula:

$$CaR = \frac{CaE}{CL}, \quad (3)$$

where CaR – cash ratio; CaE – cash and cash equivalents. These three basic types of liquidity ratios are the main ones, although there are many more. Another indicator for calculating the level of riskiness of a company is its profitability. The number of types of profitability also remains very high, but for this study, it is worth citing only a few of the main ones. The first type is the return on assets, the calculation methodology of which is shown in formula:

$$ROA = \frac{NI}{A} \times 100\%, \quad (4)$$

where ROA – return on assets; NI – net income; A – assets. Another value is the return on sales, which is calculated as follows:

$$ROS = \frac{S}{A} \times 100\%, \quad (5)$$

where ROS – return on sales; where S – sales. Another value is the return on equity, the formula for calculating which can be found in formula:

$$ROE = \frac{NI}{E} \times 100\%, \quad (6)$$

where ROE – return on equity; E – equity. A less frequently used calculation is the return on fixed assets, which is calculated as shown in formula:

$$ROFA = \frac{NI}{FA} \times 100\%, \quad (7)$$

where $ROFA$ – return on fixed assets; FA – fixed assets. Furthermore, the asset turnover ratio was used in the analysis, which is calculated as follows:

$$ATR = \frac{S}{A}, \quad (8)$$

where ATR – asset turnover ratio. The financial dependence indicator was also used, which reflects how large a part in the structure of liabilities accounts payable has in the structure of liabilities. Accordingly, the higher this indicator is, the worse it is. The indicator is calculated as shown in formula:

$$FDR = \frac{(CL+LTL)}{A} \times 100\%, \quad (9)$$

where FDR – financial dependency ratio; LTL – long-term liabilities. Another indicator used is the inventory turnover ratio, which shows how quickly the company's inventory turns over. The higher this indicator is, the better. It is calculated as shown in formula:

$$ITR = \frac{CGS}{AI}, \quad (10)$$

where ITR – inventory turnover ratio; CGS – costs of goods sold; AI – average inventory. Based on these 10 indicators, conclusions were formed about how risky the business process is. Joint-Stock Company (JSC) Manas International Airport was chosen to demonstrate the assessment process, as it is one of the largest and most profitable companies in Kyrgyzstan, and, in addition, has a lot of information available to analyse financial statements. Furthermore, within the framework of the work, calculations according to Altman Z-Score were used, the formula for finding the values of which is as follows:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.999X_5, \quad (11)$$

where Z – model value; X_1 – ratio of the difference between current assets and liabilities to total assets; X_2 – net income to assets ratio; X_3 – earnings before interest and taxes value to asset ratio; X_4 – equity to debt ratio; X_5 – operating income to assets ratio. Numerous scientific methods were used in the research. Thus, the system method was used to

depict the risks that affect the company's activities within a single system, where they interact with each other, affecting its financial results. The forecasting method was also used, which allowed us to assess the probable future trends of the company's development.

■ RESULTS

The integrated approach to risk analysis in financial reporting to ensure the economic security of the enterprise involves the integrated use of various techniques and tools to assess potential threats and vulnerabilities that may affect the financial condition and stability of the company. This approach includes several key stages: risk recognition (their identification and classification: for example, changes in interest rates, exchange rates, and operational risks), risk assessment (using quantitative methods such as sensitivity analysis, scenario analysis and others), risk management (development of strategies and practices to minimise the negative impact of risks on the company through diversification, insurance, hedging) and the direct integration of such a strategy into the planning, budgeting and control processes. Risk monitoring should be carried out on an ongoing basis to assess changes in financial indicators and identify changes in the level of risk and timely response to them. The increased use of information technology to collect, process and analyse risk data, as well as for monitoring and reporting, also remains relevant (Mosteanu & Faccia, 2020).

It is also worth differentiating force majeure from risks. Force majeure is an event that is impossible to foresee, it is unpredictable and does not depend on the activities of the business. Accordingly, it cannot be managed. On the contrary, risk can be assessed, the probability of its occurrence can be determined, and it depends on the actions of companies. This indicates that it can be managed, proper preventive measures are taken. Thus, business managers should address risk management as only in this way they can reduce the sustainability of the company in the long term (Kliestik *et al.*, 2020). The main risk that can be identified from a company's statements is financial risk, which can be categorised into three others: market risk (shows how market trends affect the value of the business or the company's future cash flows), credit risk (shows the likelihood that the business will not be able to pay its debts), and liquidity risk (reflects the likelihood that the business will not be able to pay its obligations when due). Nevertheless, an integrated approach to risk analysis should be a more comprehensive phenomenon than a simple assessment of financial indicators. Such an analysis should include consideration of operational, strategic, regulatory, reputational, and other types of risks affecting the business. One of the characteristics of such analysis is multidisciplinary, i.e. integration of knowledge and methods from different disciplines.

In such a context, there may be a need for collaboration between different departments and divisions of the organisation, such as finance, strategic planning, and others, to get the right information to conclude the company. Understanding risk management should be at the level of a process approach, that is, a continuous cyclical flow that includes the steps of identifying, assessing, monitoring, and responding to risks, as well as auditing and adapting them (Dudek *et al.*, 2023). It also remains relevant to

assess the extent to which the current state of the company converges with its long-term development strategy. In the process of data collection and analysis itself, it is worth using the latest technology to simplify the process. All this addresses the organisation as a single mechanism, a system where risks in one area can affect other areas,

which requires a comprehensive approach to risk analysis and full control at all levels. It is worth evaluating the possibilities of using the proposed methodology on a specific example. Within the framework of this study, JSC Manas International Airport was selected for this purpose. The data in this regard are shown in Table 1.

Table 1. Data used in analysing financial risks of the selected enterprise in the period from 2017 to 2023, billion KGS

Value	2017	2018	2019	2020	2021	2022	2023
CA	3.85	3.25	4.87	4.07	8.54	13.17	13.14
CL	0.73	0.54	0.68	0.64	1.07	1.42	1.13
I	0.63	0.71	0.59	0.74	1.07	1.7	0.64
Monetary funds and equivalents	2.28	1.97	0.78	0.74	5.77	7.69	7.07
Net profit	1.79	1.63	2.11	0.62	4	5.3	5.24
S	7.1	5.83	7.23	3.69	10.12	15.05	9.03
E	9.52	10.32	11.55	10.91	14.52	22.54	32.53
A	10.89	11.06	12.46	11.73	15.8	24.2	33.83
Primary funds	6.34	6.92	6.84	6.93	6.55	10.22	18.98
LTL	0.64	0.21	0.22	0.18	0.21	0.23	0.18
Cost of sales	5.08	3.82	4.6	3.2	5.57	9.36	4.32

Source: compiled by the authors based on Kyrgyz stock exchange (2024)

As can be seen from Table 1, the company's profits and sales are increasing over time, as are assets, while debt is only decreasing, as is the cost of sales. Already this indicates good trends in the company. Formulas for the 10 values

were demonstrated in previous section of the article, the calculation has been done to analyse the risks of the company. Table 2 demonstrates the calculated values for these indicators for the company.

Table 2. Data of the company's financial risk assessment indicators and their change trend in the period from 2018 to 2023

Value	2018	2019	2020	2021	2022	2023	Trend
Cr	6.06	7.11	6.39	7.95	9.29	11.67	92.52
QR	4.73	6.25	5.24	6.95	8.09	11.1	134.7
CaR	3.67	1.14	1.16	5.37	5.42	6.28	71.11
ROA, %	14.74	16.92	5.31	25.35	21.91	15.47	4.96
ROS, %	52.65	58.03	31.46	64.08	62.19	26.69	-49.3
ROE, %	15.8	18.24	5.71	27.59	23.51	16.09	1.84
ROFA, %	23.56	30.83	8.99	61.09	51.87	27.58	17.09
ATR	8.67	11.08	5.56	11.22	10.86	7.7	-11.22
FDR, %	6.71	7.27	6.99	8.12	6.82	3.85	-42.66
ITR	5.69	7.05	4.81	6.17	6.75	3.69	-35.24

Source: compiled by the authors based on Kyrgyz stock exchange (2024)

To determine how qualitative data are sufficient to define the company as financially stable and having no significant risks within its business processes, it is worth setting certain limits for the indicators. Thus, the Cr and Qr indicators can be considered to be above 4-5, which is observed in Table 2 throughout the period, and in 2023 this value becomes above 10. As for CaR, the normative value is between 0.2 and 0.5, while it remains significantly higher throughout the time. Profitability indicators cannot have clear normative values: in this case, it is worth focusing on the trend, which for all of them remains positive, which indicates the growth of all profitability indicators, which is a positive factor for business development. It is worth noting that even in 2020, which was a particularly difficult year for the airline industry, the company was able to remain profitable. The ATR value, which shows asset turnover, although it is below the 2018 figure, remains within the normative limits for it (between 5 and 10). The

FDR value indicates that the level of debt in the company is negligible: long-term and short-term liabilities occupy no more than 10% of the liabilities structure, while equity capital occupies more than 90%. Value decrease in 2023 in this case only once again shows the high level of stability of the company. The last value is ITR, which also decreased significantly in 2023. Nevertheless, this is caused by a significant decrease in both the level of inventories and the cost of manufactured products, which in general can be considered positive trends. Thus, the JSC Manas International Airport, from the point of view of financial statements, can be considered financially sustainable, even considering the use of higher normative values for assessing financial risks for Kyrgyzstan. Another indicator that is quite often used to assess the probability of bankruptcy of the company is Altman Z-Score. The value for the period from 2018 to 2023 for the JSC Manas International Airport can be seen in Figure 1.

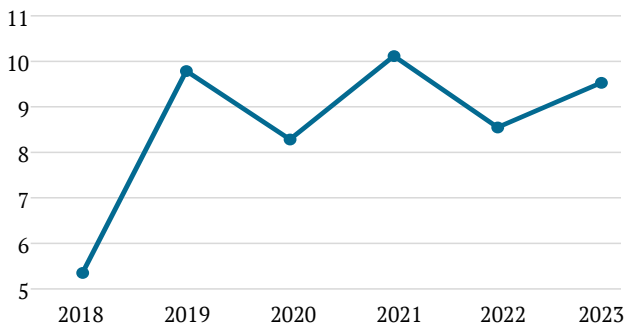


Figure 1. Z score for the JSC Manas International Airport in the period from 2018 to 2023

Source: compiled by the authors based on Kyrgyz stock exchange (2024)

As can be seen from Figure 1, the z score is very high: a value above 2.8 is already considered to indicate an extremely low probability of bankruptcy, whereas for the selected company it is above 8 in the period from 2019, which indicates an extremely high level of financial stability. The increase in the value in 2019 is associated primarily with a decrease in the level of long-term and short-term debt, which was not at a high level even before. Nevertheless, a comprehensive approach implies a deeper dive into the peculiarities of the company's activities to form conclusions. It was mentioned above that within the framework of analysing the state of development of a company, it is important to assess the market risk factor, i.e. it is necessary to conclude how the current market trends affect the development of an individual company. In this case, the situation is special since the aviation industry is important for the national security of the country, and therefore can count on state support in case of problems.

In 2020, this area began to face problems due to the onset of the COVID-19 crisis and the restriction on air transport, which caused the company to face certain difficulties, which was also visible in the deterioration of financial indicators during this period (Podra & Petryshyn, 2023). This was also the reason for increased geopolitical instability in the region. In JSC Manas International Airport, however, the deterioration of the situation is not observed, and the decrease in profitability indicators is due to the increase in the value of assets rather than a decrease in profits. In this regard, it is possible to conclude that the current global crisis trends do not have a significant negative effect on the functioning of the company. Moreover, the industry has opportunities for development in the future considering that there are still some difficulties in it, even in terms

of the formation of international routes. In other words, no significant problems could be found in the context of air transport market development. To assess the impact of changes in exchange rates on the company. It is worth estimating the impact of foreign exchange gains/losses on profit before tax. These data are shown in Figure 2.

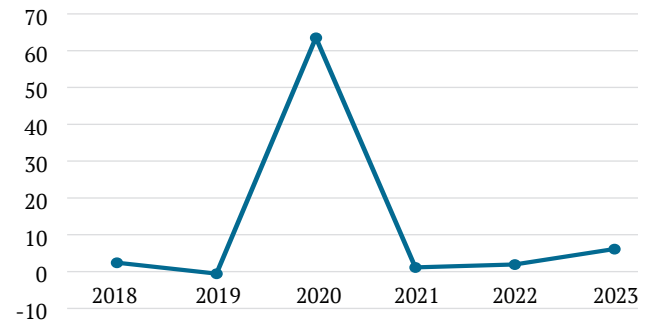


Figure 2. Data on the ratio of foreign exchange gains/losses to profit before tax for the period from 2018 to 2023, %

Source: compiled by the authors based on Kyrgyz stock exchange (2024)

The impact of changes in foreign exchange rates mainly had a positive effect on the company's profitability (with the exception of 2019). In 2020, income from changes in exchange rates accounted for more than 60% of the company's total income. However, there was a sharp decline after 2020, which should be analysed and understood for further planning and financial risk management. This may indicate that the company adheres to a competent strategy in the context of changes in exchange rates and does not receive a negative impact due to this factor. As for reputational risks, there are no significant problems in this context, and difficulties related to the internal control of production processes are solved by the company's employees after an independent audit. One of the components of the company's risk analysis is sensitivity analysis. Its essence consists of the estimation of changes in the results of the company's activity depending on the decrease/increase of its separate indicators, for example – revenue, and cost price. In practice, each company should calculate individual indicators for which sensitivity analysis will be carried out (Kupyra & Kyrshko, 2020). For the company analysed in this study, the following variables were selected: revenue, cost of sales, general and administrative expenses, foreign exchange income and financial income. The valuation data can be seen in Table 3 and Table 4.

Table 3. Statement of comprehensive income of JSC Manas International Airport for the period from 2022 to 2023, thousand KGS

Core operating activities	2022	2023
Profit	8,112,140	9,030,791
Cost price	-3,502,984	-4,321,352
Net profit	4,609,156	4,709,439
Other income/expenses from operating activities	369,914	478,530
Costs of sales	-5,640	-3,975
General and administrative expenses	-343,211	-456,506
Operating expenses	21,063	18,049

Table 3. Continued

Core operating activities	2022	2023
Profit from operating activities	4,630,219	4,727,488
Finance income	158,573	235,057
Finance costs	-414	0
Other income/expense (income from associated subsidiaries)	111,233	392,417
Other income/expenses	-20,170	6,034
Foreign exchange gains/losses	97,653	348,990
Total income/expense from non-operating activities	346,875	982,498
Profit/loss from taxation	4,977,094	5,709,986
Income tax expense	-457,390	-474,884
Profit after tax	4,519,704	5,235,102

Source: compiled by the authors based on Kyrgyz stock exchange (2024)

Table 4. Sensitivity analysis of selected indicators for JSC Manas International Airport for the period from 2022 to 2023

Profit -10%		
Year	2022	2023
Effect on net income	1.63	1.58
Cost of sales +10%		
Year	2022	2023
Effect on net income	0.704	0.757
General and administrative expenses +10%		
Year	2022	2023
Effect on net income	0.069	0.08
Foreign exchange gains will decrease by 10%		
Year	2022	2023
Effect on net income	0.0196	0.061
Decrease in finance income by 10%		
Year	2022	2023
Effect on net income	0.0319	0.0412

Source: compiled by the authors based on Kyrgyz stock exchange (2024)

As can be seen from Table 3 and Table 4, different indicators, when changed by 10%, show different impacts on the final net profit. Nevertheless, from the analysis in Table 4, only revenue and cost of sales have any significant impact. Thus, when revenue decreased by 10%, net profit decreased by 15.8%, and when the cost of sales increased by 10%, net profit decreased by 7.57%. Given this information, it is worth assuming that the most effective strategy for the company is to maximise revenue. Several methods can be used for this purpose: firstly, increasing marketing efforts to attract more passengers and airlines, both through more active advertising campaigns and by improving loyalty programmes and forming deeper cooperation with travel agencies (Li *et al.*, 2020). Additional investment in infrastructure to make it more attractive and convenient for passengers and airlines to increase both its capacity and popularity among the population should also be effective.

Another option for risk assessment is probabilistic analysis, which evaluates company data using statistical data evaluation methods. Nevertheless, it is difficult to perform it based on available data for the selected company, because the data on financial statements are available only for the period from 2017 to 2023, i.e. for 7 years, based on which it is difficult to build any model. Within the scope of the work, it was possible to make only some estimation for the available statistical data to be taken from the financial

statements of the company. The results obtained regarding the real net profit are shown in Figure 3.

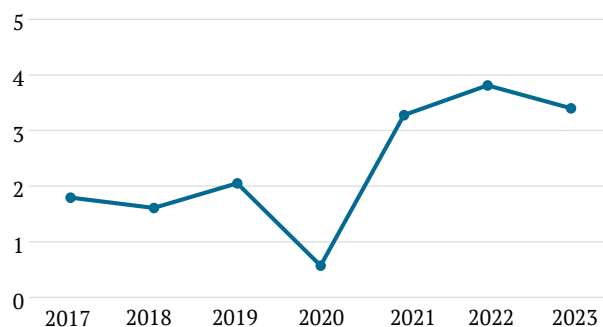


Figure 3. Data on real net profit of JSC Manas International Airport (in 2017 prices) for the period from 2017 to 2023, billion KGS

Source: compiled by the authors based on Kyrgyz stock exchange (2024) and Kyrgyzstan inflation (2024)

Based on the data from Figure 3, a linear regression formula was constructed in which the constant is 0.3735 and the coefficient near the dependent variable (order of year from 1 to 7, where 1 is 2017 and 7 is 2023) is 0.8664. This concludes that the value of the company's profitability

in real terms will be equal to 3.854 billion KGS (considering the standard deviation, which is equal to 0.785 billion KGS). At the same time, the probability that the company's income in real terms will be higher is equal to 72%, and the probability that it will become negative is very close to zero (0.000046%). In other words, the company can become unprofitable only in the case of a "black swan", which is also a sign of its financial stability. However, it is still worth considering that the conclusions were made based on data from only 7 years, and therefore may be inaccurate. More data is required to form more accurate judgements.

As described above, an integrated approach to analysing financial statement risks involves meaningfully more information than simply analysing data from the financial statements. This has been partially done above, as some market trends have been considered, reputational risks have been assessed, and the impact of the international situation on the company's future analysis capabilities has been analysed. Nevertheless, a full-fledged analysis of this kind is possible only in case of direct contact with the management of the company to understand internal trends, processes, and development strategies, and assess the specifics of their practices. To fully assess and understand the company's risks, one should be either an auditor (external or internal) or work directly in the company. However, some common components of an integrated approach to risk analysis can be applied without this information.

■ DISCUSSION

Thus, the conducted study on risk analysis and economic security of JSC Manas International Airport for the period from 2017 to 2023 revealed the financial stability and risk tolerance of the company. The company as a whole demonstrates positive trends of profit, sales, and asset growth with simultaneous reduction of debt liabilities. The calculated indicators confirmed high financial stability and effective control of financial risks. Despite the challenges of the COVID-19 pandemic and geopolitical changes, the company was able to maintain profitability, indicating a strong governance and risk minimisation strategy. Altman Z-Score also confirms the extremely low probability of bankruptcy and the high level of financial stability of the company (Xhafka *et al.*, 2023). Overall, the integrated approach to risk analysis of JSC Manas International Airport's financial statements demonstrates the company's strong position and its ability to effectively manage financial risks, ensuring long-term sustainability. However, the company's managers should monitor changes in the world to be able to quickly apply solutions in case of sudden changes in the geopolitical or economic situation, as was the case at the beginning of the COVID-19 pandemic (Nimani & Spahija, 2023).

A new model on the principles of flexibility and sustainability was proposed by D. Settembre-Blundo *et al.* (2021). They proposed a conceptual model that combines strategic and operational aspects of risk, which tries to link the selected variables (different types of risks, the company itself and the operations it carries out) through positivist and qualitative interpretation. S. Pizzi *et al.* (2021) also linked selected risks to sustainability objectives and therefore tried to categorise them according to their relevance. The present study also addressed risk management as one

of the components of the qualitative development of the company. The features of the integrated model, also described in the paper, could be used for better identification of risks, and thus for finding opportunities to face them. Thus, the application of the recommendations outlined in this study can significantly improve the ability of companies to reduce the risk of any risky situations.

The assessment of risks of overseas investments on the example of Haier Group following international financial reporting standards was carried out by B. Zhong *et al.* (2022). Researchers categorised the risks into macro and micro risks, with macro risks being those that cover international political crises, fluctuations in economic development, market changes, legal problems, cultural integration problems and epidemic risks, and micro risks being the reduction in the cost of enterprise operations and fluctuations in international exchange rates. To assess and identify these risks, the z score and the event analysis method were used, combining qualitative and quantitative approaches. The conclusions they have formed advised the importance of combining the efforts of governments and society with a robust domestic system can help enterprises balance the benefits and risks of overseas investment. This study did not distinguish between micro and macro risks but also used Altman Z-Score, which is a fairly effective method of calculating the probability of a company's bankruptcy. Its application in current conditions, especially in the case of customising it to apply to the realities of individual industries and countries.

A multidimensional approach to the assessment of corporate financial risk was described by M.S. Çolak (2021). He proposed the use of two innovative composite indices designed to assess the financial condition of non-financial firms. The indices they described were adapted specifically for the conditions of Turkish firms, while they outperform the original Altman Z-Score in terms of accuracy. The analysis shows that firms with open currency positions tend to have lower scores on the selected indices, indicating a higher vulnerability to economic shocks. This vulnerability is more pronounced for smaller firms, which also constitute the majority of firms in the distress zone despite their smaller share in total assets, and conversely, larger firms with better currency control predominantly occupy the safe zone (Spytska, 2023). In this study, Altman Z-Score was used to form conclusions regarding the assessment of the bankruptcy risk of the selected firm but without introducing any modification to it. To assess the financial stability of the analysed company addressing the inherent risks of Kyrgyzstan, a higher bar was chosen during the analysis of individual financial indicators to conclude the stability of the company, and to increase their accuracy.

The importance of financial reporting as a crucial tool for identifying and systematising business risks in accounting was shown by E.W. Babuska (2021). The study suggested the use of specific analytical financial indicators to facilitate risk analysis, allowing detailed characterisation and systematisation of risks based on their visibility in the components and items of financial statements. The study also noted that while financial reporting is publicly available and serves as a valuable resource for various stakeholders, including investors, to identify and assess risks, it does not cover risks related to social and environmental issues,

making it increasingly relevant over time to create reports that can assess these risks as well. The present study also proposed quite clear financial indicators for analysing the financial condition of the enterprise and described methods of forming assessments about the situation in this context. However, it is worth noting that in the world at the moment it is more and more common to submit reports that disclose not only financial but also other indicators of the company's activity (Stender, 2023). Thus, the spread of this type of reporting culture in Kyrgyzstan would make it easier to analyse risks and the overall situation of the company.

H. Wu *et al.* (2022) evaluated the financial fraud risk analysis based on data from financial statements. Researchers noted that fraud corporations tend to hire audit firms that have previously issued standard unqualified opinions to other fraud organisations and that auditors with experience in auditing fraud are likely to continue working for fraud corporations after a change of employment. In other words, they believe that there should be some changes both in the processes for selecting auditors to detect fraud in companies and also in terms of the approaches to evaluating financial statements themselves. This study did not focus on the possibility of auditors acting in bad faith when preparing financial statements, but it is worth recognising that this is a widespread problem and that public authorities should take appropriate measures to counter it.

The overall results of the risk and economic security study of JSC Manas International Airport for the period from 2017 to 2023 confirmed the financial stability and high level of risk tolerance of the company. The company generally demonstrates positive trends in the growth of profits, turnover and assets, while reducing debt. The calculated indicators confirmed high financial stability and effective control of financial risks. Despite the challenges of the COVID-19 pandemic and geopolitical changes, the company has managed to maintain profitability, which indicates a strong strategy. The Altman Z-Score also confirms the extremely low probability of bankruptcy and the high level of financial stability of the company. In general, the integrated approach to risk analysis of the financial statements of JSC Manas International Airport demonstrates the company's strong position and its ability to effectively manage financial risks, ensuring long-term sustainability. However, the company's managers should monitor changes in the world to be able to quickly apply solutions in the event of sudden changes in the geopolitical or economic situation, as happened at the beginning of the COVID-19 pandemic.

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■ CONCLUSIONS

The study has shown that a comprehensive approach to analysing risks in financial reporting, aimed to ensure the economic security of the enterprise, includes a variety of methods and tools for assessing potential threats and vulnerabilities affecting the financial health and stability of the company. This strategy is complex and involves several major steps related not only to the assessment of the company's financial performance but also other variables. The risks themselves can be divided into several subtypes, such as market, credit, and liquidity risks, but a thorough analysis of them should make it possible to evaluate them and propose methods to improve the ability to manage them.

The described principles were used to assess the risks inherent in JSC Manas International Airport for the period from 2017 to 2023. The analysis revealed positive trends in the company's financial performance, including growth in profits, sales, and assets, as well as a reduction in debts. The calculated financial ratios suggest that the company is financially sound and effectively manages its financial risks even in the face of challenges such as the COVID-19 pandemic and geopolitical instability. Altman Z-Score further confirms the financial strength of the company, indicating an extremely low probability of bankruptcy. The impact of exchange rate changes on the company's profitability, except for a small deviation in 2019, was generally positive, suggesting a competent strategy in this area. Given the comprehensive approach to analysing the company's financial statements, reputational risks were also assessed, but no significant issues were found in this context. In addition, a sensitivity analysis of some indicators (the impact of their change on net profit) and a probabilistic analysis were carried out, which showed that the company has a fairly stable financial position. Its long-term strategy should focus on increasing revenue, as the sensitivity analysis showed that this is what leads to profit maximisation. Further research should focus on the development of other approaches for analysing the risks of the financial statements of companies. In addition, it remains relevant to carry out calculations of the state of the risk level at other enterprises in the country.

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■ CONFLICT OF INTEREST

None.

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Інтегрований підхід до аналізу ризиків у фінансовій звітності для забезпечення економічної безпеки підприємства

■ **Анотація.** У поточних умовах міжнародної турбулентності залишається актуальним пошук нових підходів до аналізу ризиків для підприємств із метою забезпечення їх якісної майбутньої діяльності. У цьому контексті дослідження мало на меті запропонувати один із таких підходів, який дозволить оцінити забезпечення економічної безпеки компаній. У дослідженні використано системний підхід та метод прогнозування для аналізу фінансової звітності, застосовано процесний підхід, що включає оцінку ринкового положення, зовнішніх факторів та репутації компанії. Ця комплексна оцінка допомогла виявити ризики та знайти методи їхнього зменшення. Фінансові ризики, виявлені у звітності компанії, були категоризовані на ринкові, кредитні та ризики ліквідності. Цей підхід був застосований до Акціонерного товариства «Міжнародний аеропорт Манас» із 2017 року по 2023. Системний підхід дозволив оцінити стійке ринкове положення компанії, що позитивно впливає на фінансову стабільність. Вивчення зовнішніх факторів, таких як економічні умови та регуляторні зміни, допомогло оцінити потенційні ризики. Методом прогнозування оцінено фінансові показники, такі як прибутковість, обсяги продажів та активи, розкриваючи позитивні тенденції: збільшення прибутковості, вищі обсяги продажів та активів, зменшення заборгованості. Ці тенденції свідчать про фінансову стабільність та ефективний контроль ризиків, навіть у кризові періоди. Аналіз ліквідності показав достатній обсяг ліквідних активів для покриття короткострокових зобов'язань, що підкреслює фінансову стабільність. Таким чином, компанія ефективно керує фінансовими ризиками. Результати, що отримано в рамках дослідження, можуть бути застосовані для подальшої оцінки економічного добробуту підприємств у Киргизстані як урядовими представниками, так і незалежними експертами

■ **Ключові слова:** аудит; диверсифікація; ліквідність; страхування; хеджування