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This paper considers the process of influence of digitalized management on the financial risks of industrial enterprises. An algorithm for determining the category of financial risks of industrial enterprises has been developed. Depending on the values of the coefficient of variation of deviations of financial ratios from the standards, five categories of financial risks have been distinguished – minimum, low permissible, critical, catastrophic. The categories of financial risks of industrial enterprises of the energy sector on the basis of liquidity indicators were determined. The indicators with the help of which it is possible to determine the level of digitalized management have been systematized. The parameters of low, medium, and high levels of digitalized management of industrial enterprises were substantiated. The relationship between the level of digitalized management of industrial enterprises and the categories of financial risks has been established. To assess the impact of digitalized management on the financial risks of industrial enterprises, a cross matrix "level of digitalized management – category of financial risk" is proposed. This has made it possible to justify the expediency of using three strategic directions of influence of digitalized management on the financial risks of industrial enterprises – the strategy of an innovator, follower, and observer. It has been established that while the innovator's strategy assumes the maximum, the observer's strategy is a minimum of effort and aims to actively use digital tools to manage this process. The practical use of the proposed directions of influence of digitalized management on the financial risks of industrial enterprises will provide an integrative combination of quantitative and qualitative results. In particular, achieving a stable financial condition of industrial enterprises in the context of digital transformation of the economy

Keywords: digitalized management, financial risks, industrial enterprises, digital technologies, level of digitalization

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ASSESSMENT OF THE IMPACT OF DIGITALIZED MANAGEMENT ON THE FINANCIAL RISKS OF INDUSTRIAL ENTERPRISES

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1. Introduction

Crisis phenomena in the economy lead to a deterioration in the results of economic activity of enterprises. Especially acute structural transformations of market conditions are experienced by industrial enterprises. As a result, such enterprises face serious problems, which, in the end, can cause a bankruptcy crisis. Analyzing the risk portfolio of an industrial enterprise, it is advisable to note the essential role of financial risks affecting almost all aspects of management. In addition, a distinctive feature of financial risks is the possibility of their occurrence at any stage of financial and economic activity. Financial risks are characterized by a high degree of unpredictability, randomness, and destructive actions. In order to minimize the negative consequences of financial risks and neutralize them, industrial enterprises develop and apply effective management mechanisms. The procedure for managing financial risks at each enterprise has a certain specificity. It should be noted that the most important stages of risk management are the identification of the most destructive financial risks, as well as the development of strategic directions for their management. This process is facilitated by active steps towards the digitalization of risk management. An important role in the adequate assessment of financial risks belongs to the Big Data technology, owing to which it became possible to process large amounts of information and identify hidden dependences.

Scientific research on this topic is important because assessing the impact of digitalized financial risk management provides enterprises with a number of benefits. First, the quality of financial risk assessment is improving. Secondly, the procedure for responding to external challenges is accelerating. Thirdly, the likelihood of threats to the financial and economic security of the enterprise decreases. Fourth, there is a saving on human resources in risk management. Fifth, there is a formation of an autonomous system of financial risk management with a gradual transition to a continuous regime. At the same time, in order to achieve maximum efficiency, the risk management process must be harmoniously combined with the digital strategy of industrial enterprises. In other words, it is important to ensure its flexibility, continuity, and maximum informativeness for users. As a result, the risk management process will be an important prerequisite for the successful digital transformation of industrial enterprises.

2. Literature review and problem statement

The development of digital technologies has had a positive impact on the effectiveness of managing the financial aspects of enterprises, in particular on risk management.

Paper [1] examines the risks of economic activity of enterprises, directions for its improvement and methods of analyzing these risks on the basis of financial statements of enterprises. It has been established that enterprises most often provide information on economic, currency, financial, in particular liquidity risk. The authors proposed an approach to risk analysis based on financial reporting indicators. Analytical indicators include financial risk – solvency, financial leverage; credit risk – investment coverage ratio, return on equity, return on assets; liquidity risk – coverage ratio, fast liquidity ratio, absolute liquidity ratio.

A similar approach is applied in study [2], which considers the fundamental aspects of managing the financial stability of enterprises. It was established that the assessment of the potential of financial stability is one of the priorities of commercial diagnostics of enterprises, the state of which is characterized by an increased probability of bankruptcy and tends to complete insolvency. The method of correlation analysis determined the predicted value of the coefficient of financial stability, which can be used to develop a business strategy of an enterprise or make corrective anti-crisis management decisions. It has been established that the object of managerial influence of a crisis enterprise should be the potential of financial stability, the settlement of which ensures a positive financial balance of the enterprise.

Digitalization of all aspects of life has affected the financial stability of companies. Therefore, unlike previous studies, paper [3] identifies global digital trends in industries and forms a map of new areas of business. Since the industrial landscape is complex and dynamic due to the rapid pace of technological change and digital transformation, the identification of industrial trends can be crucial for strategic planning and investment policy at the enterprise level.

The study of world experience in digital development and the formation of strategies for the digitalization of national economies is reported in [4]. The authors propose three strategic options for digital development: inertial, catching up with digital development, and a leadership strategy in the digital market. The strategy of catching up with digital development focuses on technological rearmament and digitalization, as well as on local stimulation of the development of digital developments within the country. Fundamental and applied science are segmented and centered around those areas that have commercial applications in the near future. As a rule, cheaper, not the most advanced technologies in the world are imported. There is a decentralization of decision-making on the choice of technology, which reduces the risk of errors. When implementing such a strategy, the risks are minimal. The digital economy creates new opportunities for industry, social life, trade, and development. Small businesses and entrepreneurs are gaining new profit opportunities through access to global markets. Mobile and digital solutions contribute to expanding access to financial services. In addition, small businesses can use access to various cloud services to obtain funding on online platforms.

The authors of [5] proposed information and analytical model for the analysis and forecasting of the financial stability of the enterprise. The theoretical justification of the need for industrial enterprises to analyze financial stability in order to effectively manage it in the digital economy is considered. Conducting such an analysis in practice makes it possible to identify the strengths and weaknesses of the financial and economic activities of the enterprise under study, as well as to understand the possibilities of further development of this enterprise, to identify threats and risks of various scenarios for the further development of the company. At the same time, the practical application of financial analysis methods makes it possible to understand that the use of digital technologies makes it possible to quickly and effectively formulate recommendations for overcoming threats and making a profit.

Study [6], in contrast to the previous one, revealed the main trends in the development of digitalization processes in the field of public administration. The rapid development of digital technologies leads to an increase in the efficiency of administration of budget revenues, and the management of financial risks is perceived in the context of tax administration. The authors note that the use of digital technologies to overcome the consequences of financial risks in itself can generate new risks.

Study [7] is of interest in the fact that the authors propose a model of digitalization that affects the development of financial systems. Growing uncertainty in the business environment leads to the formation of demand for new institutional and legal conditions for financial and investment strategies. As a result of considering the features of risk-oriented control in the context of digitalization, the features of the global economic system have been developed that affect the formation and development of risks. In addition, the prospects for the digitalization of business systems are highlighted and it was concluded that in the context of digitalization, interactive cooperation to support the development of the real economy is the main and mandatory element.

Paper [8] considers the effectiveness of financial management of oil refineries in the context of global digitalization and the transition of enterprises to a new technological structure. It is noted that the modern high level of automation of business processes of oil refineries predetermines the adoption of development strategies, taking into account the risks from compliance with information security. This makes it possible to assess possible threats, identify channels of information leakage, and take prompt measures to counter risks.

Study [9] considers the tools of internal control in the context of digitalization to ensure the anti-crisis stability of ferrous metallurgy enterprises. To this end, the conditions for effective digitalization of the internal control system based on innovation and electronic document management are analyzed. The theoretical and applied analysis covers the study of factors that can ensure the effectiveness of an internal control system based on digital solutions for big data analysis and predictive analytics. The practical significance of the study is determined by the possibility of using the conclusions and proposals set out in it, which will allow the management of the metallurgical enterprise to quickly identify financial risks, plan ways to eliminate them, and carry out appropriate further control. To achieve this goal, the approach to using remote methods in a remote format based on digital technologies is substantiated. This will allow business owners to determine the current state of affairs and electronic document management in real time. According to the results of the study, it was concluded that it is through digitalization that internal control becomes an effective tool for ensuring the anti-crisis stability of metallurgical companies.

The logical continuation of the previous study is [10], where the possibilities of analyzing unstructured and alternative data are considered. The authors note that machine learning algorithms are gaining popularity in financial risk management. Along with technological advances in learning and digitizing society, new financial technologies are also driving innovation.

According to the results of the above review, some body came to the conclusion that in some studies the digital aspects of financial risk management are not sufficiently covered [1, 2], or the impact of digitalized management on activities in general has been determined [3, 4]. It is worth noting that works [5-10] report attempts to determine the impact of digital models on the financial condition of enterprises and, in particular, financial risks. However, scientific and applied tasks in terms of developing effective tools for assessing the level of impact of digitalized management on the financial risks of industrial enterprises remain unresolved. Thus, it is expedient to direct efforts to solve this problem in order to make adequate strategic decisions.

3. The aim and objectives of the study

The aim of the original study is to assess the impact of digitalized management on the financial risks of industrial enterprises. This will provide a solid foundation for the sustainable development of industrial enterprises in the sectors of the national economy in the context of popularization of digital trends.

To accomplish the aim, the following tasks have been set:

 to determine the categories of financial risks of industrial enterprises in relation to deviations from the regulatory criteria of the main indicators of the analysis of financial condition;

 to substantiate the system of indicators that determine the level of digitalized management and affect the financial risks of industrial enterprises;

 to determine the strategic directions of influence of digitalized management on the financial risks of industrial enterprises.

4. The study materials and methods

The object of the study is the process of influence of digitalized management on financial risks, the subject is theoretical, methodological, and practical basis for assessing the impact of digitalized management on the financial risks of industrial enterprises. The original paper hypothesized that the level of digitalized management of an industrial enterprise had a direct impact on financial risks.

When conducting research and substantiating the assumption, a number of general scientific methods were applied. To build a sequence for determining the category of financial risks of industrial enterprises, the algorithmizing method was used. The calculation of indicators for determining the category of financial risks of industrial enterprises was carried out using the method of financial analysis. The establishment of limit values of financial indicators was carried out using the regulatory method.

To identify the most dangerous types of financial risks and the degree of their threat to the enterprise, a statistical method was used, in particular, the coefficient of variation of deviations was calculated. To determine the level of digitalized management of industrial enterprises, methods of expert assessments and desk research were used. To determine the directions of digitalized financial risk management of industrial enterprises, matrix and structural-logical research methods were used. To write the conclusions of the study, the method of theoretical generalization was used.

5. Results of research on the impact of digitalized management on the financial risks of industrial enterprises

5. 1. Determining the category of financial risks of industrial enterprises

In a broad sense, financial risks are associated with the risks of losing a certain part of assets [11]. In addition, it is believed that financial risks arise as a result of economic risks [12], which, in turn, led to their species diversity. In particular, the financial risks of industrial enterprises are divided into external and internal. External financial risks are influenced by factors of the macroenvironment – the legislative framework, state policy, economic situation in the country, etc. Internal financial risks arise in the process of operational, financial, and investment activities. It is worth noting that it is the internal financial risks that industrial enterprises can manage while they adapt to external ones in a greater way [13].

The process of financial risk management involves the identification of the most dangerous types of financial risks and the degree of their threat to the enterprise [14]. For this purpose, an algorithm for determining the category of financial risks of industrial enterprises has been developed (Fig. 1).

To determine the category of financial risks of industrial enterprises, indicators for assessing the financial condition, in particular financial stability, solvency, liquidity, and business activity, can be used. This procedure is simplified by the fact that for most of them the generally accepted regulatory criteria have already been established. In addition, industry average regulatory criteria may be applied. Comparing the calculated indicators with the standards, one can set deviations. There are no deviations if the calculated indicator is within the normal range, otherwise the mathematical difference is determined. After determining the deviations for all indicators, the coefficient of variation of deviations is calculated, which makes it possible to establish the category of financial risk – minimum, low, permissible, critical, catastrophic.

As an example, Tables 1 to 3 give a procedure for determining the category of financial risks of industrial enterprises in the energy sector based on liquidity indicators.

Table 1

Liquidity indicators of industrial enterprises of the energy sector

| Industrial enterprises | Current liquidity ratio (<i>Clr</i>) | Fast liquid- ity ratio (<i>Flr</i>) | Absolute liquidity ratio (<i>Alr</i>) | |
|---|--|---|---|--|
| SE «VK «Krasnoly- manska» | 0.68418 | 0.65909 | 0.00025 | |
| SE «Volynugillia» | 0.02756 | 0.00251 | 0.00013 | |
| SE «Lvivugillia» | 0.18469 | 0.11012 | 0.00344 | |
| SE «Myrnograd- vugilya» | 0.05554 | 0.01067 | 0.00029 | |
| SE «NAEK «Energo- atom» | 1.03930 | 0.40723 | 0.02162 | |
| SE «Regional Elec- tric Networks» | 0.76301 | 0.76113 | 0.00007 | |
| SE «Selydivugillia» | 0.09827 | 0.06331 | 0.00002 | |
| SE «Toretsk coal» | 0.05601 | 0.03266 | 0.00046 | |
| SE «Eastern Mining and Processing Plant» | 0.55137 | 0.20697 | 0.00260 | |
| PJSC «Nizhnyodnis- trovska HPP» | 1.77733 | 1.49965 | 0.01678 | |
| PJSC «Ukrhydro- energo» | 1.20933 | 1.17433 | 0.51423 | |
| SE «Ukrshachthy- drozakhist» | 0.00921 | 0.00879 | 0.00000 | |
| SE «Mine No. 1 «Novovolynska» | 0.10597 | 0.09352 | 0.00001 | |
| SE «Zarichna Mine» | 0.10764 | 0.02158 | 0.00000 | |
| SE «Mining Ad- ministration «South Donbasske No. 1» | 0.15067 | 0.12844 | 0.00055 | |

Note: compiled from [18–20]

| Calculation of deviations from the standards of liquidity |
|---|
| indicators of industrial enterprises of the energy sector |

| Industrial enterprises | Deviations from the normative value <i>Clr</i> (1–2) | Deviations from the nor- mative value <i>Flr</i> (0.6–1) | Deviations from the normative value <i>Flr</i> (0.2–0.6) |
|---|--|---|--|
| SE «VK «Krasnoly- manska» | 0.31582 | 0.00 | 0.20 |
| SE «Volynugillia» | 0.97244 | 0.60 | 0.20 |
| SE «Lvivugillia» | 0.81531 | 0.49 | 0.20 |
| SE «Myrnograd- vugilya» | 0.94446 | 0.59 | 0.20 |
| SE «NAEK «Energo- atom» | 0.00000 | 0.19 | 0.18 |
| SE «Regional Electric Networks» | 0.23699 | 0.00 | 0.20 |
| SE «Selydivugillia» | 0.90173 | 0.54 | 0.20 |
| SE «Toretsk coal» | 0.94399 | 0.57 | 0.20 |
| SE «Eastern Mining and Processing Plant» | 0.44863 | 0.39 | 0.20 |
| PJSC «Nizhnyodnis- trovska HPP» | 0.00000 | 0.00 | 0.18 |
| PJSC «Ukrhydro- energo» | 0.00000 | 0.00 | 0.00 |
| SE «Ukrshachthy- drozakhist» | 0.99079 | 0.59 | 0.20 |
| SE «Mine No. 1 «Novovolynska» | 0.00000 | 0.51 | 0.20 |
| SE «Zarichna Mine» | 0.00000 | 0.58 | 0.20 |
| SE «Mining Adminis- tration «Pivdennodon- basske No. 1» | 0.00000 | 0.47 | 0.20 |

Note: compiled from [18–20]

Table 3

Categories of financial risks of industrial enterprises of the energy sector

| Industrial enterprises | Coefficient of variation, n | Type of finan- cial risk |
|--|-----------------------------|-----------------------------|
| SE «VK «Krasnolymanska» | 0.842474 | catastrophic |
| SE «Volynugillia» | 0.127738 | low |
| SE «Lvivugillia» | 0.34731 | permissible |
| SE «Myrnogradvugilya» | 0.297237 | permissible |
| SE «NAEK «Energoatom» | 1.04189 | catastrophic |
| SE «Regional Electric Networks» | 0.113293 | low |
| SE «Selydivugillia» | 0.360784 | permissible |
| SE «Toretsk coal» | 0.190624 | low |
| SE «Eastern Mining and Processing Plant» | 0.084762 | minimum |
| PJSC «Nizhnyodnistrovska HPP» | 0.809605 | catastrophic |
| PJSC «Ukrhydroenergo» | 0 | minimum |
| SE «Ukrshachthydrozakhist» | 0.400713 | permissible |
| SE «Mine No. 1 «Novovolynska» | 0.139049 | low |
| SE «Zarichna Mine» | 0.224354 | low |
| SE «Mining Administration «Pivdennodonbasske No. 1» | 0.36489 | permissible |

Note: compiled from [18–20]



Fig. 1. Algorithm for determining the category of financial risks of industrial enterprises Note: compiled from [15-17]

The above algorithm is universal in nature and can be used to identify financial risks on various grounds.

5.2. Systematization of indicators that determine the level of digitalized management of industrial enterprises

The next stage of the study is to determine the level of digitalized management of industrial enterprises for a more complete understanding of its impact on financial risks. To this end, it seems expedient to single out the indicators by which it will be possible to determine the level of digitalized management of an enterprise. In addition, it is also necessary to determine the weight coefficients of each indicator. This step can be implemented with the participation of experts. Indicators of digitalized management, affecting the financial risks of industrial enterprises, are systematized in Table 4.

To establish the weighting coefficients, ten experts were involved, who, using ranking, determined the significance of a particular indicator. Using the concordation coefficient, the calculated value of which is equal to 0.73, it is proved that the experts' estimates are consistent.

In general, if an industrial enterprise has all the components, the level of the digitalized management indicator will be equal to 1. Accordingly, in the absence of certain parameters, the overall indicator of digitalized management will be reduced.

| Systematization of indicators of digitalized management of | | | | |
|--|--|--|--|--|
| industrial enterprises | | | | |

| Indicator | Value | Weight |
|---|--------------------|--------|
| Availability of an infor- mation center | 1 – yes, 0 – no | 0.20 |
| Availability of electronic document management | | 0.18 |
| Availability of a cyber security system | | 0.16 |
| Use of digital tech- nologies in financial calculations | | 0.14 |
| Use of digital technolo- gies in procurement | | 0.10 |
| Use of digital technolo- gies in sales | | 0.10 |
| Availability of an ERP system | | 0.06 |
| Presence of a VRM system | | 0.03 |
| Availability of SCM system | | 0.03 |
| General level of digitiza- tion (I _D) | _ | 1.0 |

Note: compiled from [21–25]

Table 4

In this regard, it seems expedient to establish the following logical-linguistic values of the scale of the general indicator of digitalized management of an industrial enterprise:

 $-0.7 < I_D \le 1.0$ – high level of digitalized management;

 $-0.4 < I_D \le 0.7$ – average level of digitalized management;

 $-0 \leq I_D \leq 0.4$ – low level of digitalized management.

The value of the general indicator and the level of digitalized management of industrial enterprises in the energy sector are given in Table 5.

These data show that almost all enterprises of the energy industry have a medium or low level of digitalized management, with the exception of SE NNEGC Energoatom. The direct relationship between the level of digitalized management of enterprises and financial risks is confirmed. In this regard, it seems expedient to determine the strategic directions of influence of digitalized management on the financial risks of industrial enterprises.

Table 5

The level of digitalized management of industrial enterprises in the energy sector

| Industrial enterprises | General indicator of digi- talized manage- ment, I _D | Level of digi- talized manage- ment |
|--|--|---|
| SE «VK «Krasnolymanska» | 0.52 | average |
| SE «Volynugillia» | 0.38 | low |
| SE «Lvivugillia» | 0.38 | low |
| SE «Myrnogradvugilya» | 0.38 | low |
| SE «NAEK «Energoatom» | 1.0 | high |
| SE «Regional Electric Networks» | 0.52 | average |
| SE «Selydivugillia» | 0.38 | low |
| SE «Toretsk coal» | 0.38 | low |
| SE «Eastern Mining and Processing Plant» | 0.52 | average |
| PJSC «Nizhnyodnistrovska HPP» | 0.52 | average |
| PJSC «Ukrhydroenergo» | 0.52 | average |
| SE «Ukrshachthydrozakhist» | 0.52 | average |
| SE «Mine No. 1 «Novovolynska» | 0.38 | low |
| SE «Zarichna Mine» | 0.38 | low |
| SE «Mining Administration «Pivdennodon- basske No. 1» | 0.38 | low |

Note: compiled from [26-30]

5. 3. Strategic directions of influence of digitalized management on financial risks of industrial enterprises

To determine the directions of digitalized financial risk management of industrial enterprises, it is proposed to use a matrix of strategies (Fig. 2). Thus, in accordance with the level of digitalized management and the category of financial risk of an industrial enterprise, it is proposed to use a set of three strategies:

- 1. The strategy of the innovator.
- 2. Follower strategy.
- 3. Observer strategy.

The use of an innovator's strategy is essential for critical and catastrophic financial risks. It involves conducting a more thorough and frequent assessment of financial risks, prompt amendments to the plan for their audit and monitoring, the active use of big data and analytics for decision-making. This strategy also envisages the use of performance indicators to evaluate and encourage new working methods based on digital solutions. In addition, it is planned to create a personnel program for hiring specialists in the field of digital technologies or training existing employees in skills in the field of digitalization. This direction seems possible to implement by contacting external service providers to attract the necessary competencies in the field of digital technologies. The follower's strategy involves fewer active actions on digitalized financial risk management, even in case of their maximum threat. A minimum of efforts to manage financial risks is planned to be made when using the observer's strategy.

The innovator's strategy aims to actively use digital financial risk management tools. For example, the use of ERM software makes it possible to analyze various types of financial risks. This includes traditional and unconventional sources. In turn, ERM software comes with artificial intelligence and machine learning for data analytics, risk aggregation automation, risk assessment, and modeling, risk report generation. Some industrial enterprises use ERM software in conjunction with specialized software such as Robotic Process Automation (RPA) [36].

Neutralization of potential catastrophic and critical financial risks is a key element of the strategy of an industrial enterprise. This will make it possible to keep the situation under control.

6. Discussion of results of the study on the impact of digitalized management on the financial risks of industrial enterprises

The study of assessing the impact of digitalized management on the financial risks of industrial enterprises proved that financial risks pose the greatest threat to the economic activity of enterprises.

One of the main stages of risk management is its analysis and evaluation, which makes it possible to identify certain categories of financial risks. In contrast to [1, 2, 5], where the identification of financial risks occurs only by financial indicators, the authentic authors expanded the criterion base

| | | Level of digitalized management | | |
|----------------------------|--------------|---------------------------------|-----------|-----------|
| | | low | medium | high |
| Financial risk category | minimum | observer | observer | follower |
| | low | observer | observer | follower |
| | permissible | observer | follower | innovator |
| | critical | follower | innovator | innovator |
| | catastrophic | follower | innovator | innovator |

Fig. 2. Matrix of strategies for digitalized financial risk management of industrial enterprises Note: compiled from [31–35] due to the statistical indicator – the coefficient of variation. Based on these assumptions, an algorithm for determining the category of financial risks of industrial enterprises was built (Fig. 1). To test the presented algorithm, the financial statements of enterprises in the energy sector were used (Tables 1–3). In addition, the study substantiated the system of digitalization indicators affecting the financial risks of industrial enterprises. In contrast to [23], a more simplified procedure for determining the level of digitalized management of industrial enterprises of the energy sector (I_D) is proposed, which includes nine components. At the same time, the presence of one or another component has a value of 1, and the absence – 0. This technique was also tested at the enterprises of the energy industry (Table 4), which made it possible to determine the level of digitalized management.

Taking into account previous studies of the categories of financial risks, as well as the level of digitalized management of industrial enterprises, a cross matrix was built, which identifies the strategic directions of digitalized financial risk management of industrial enterprises (Fig. 2). The most effective strategy for managing financial risks of an industrial enterprise is the innovator strategy, which involves the development of digital competencies, as well as the active use of digital technologies.

The results of assessing the impact of digitalized management on the financial risks of industrial enterprises create the basis for ensuring their sustainable development under conditions of instability. In parallel with this, it is important to take into account the negative impact of various factor conditions in the complex.

The practical significance of the study is to develop an algorithm for assessing financial risks, a methodology for determining the level of digitalized management of industrial enterprises, which makes it possible to determine the strategic directions of influence on risks.

The limitations of the proposed methods and directions relate in a certain degree to subjectivism since not all indicators seem possible to measure quantitatively. At the same time, there are difficulties associated with information constraints, in particular financial data, which is a significant drawback and may make it impossible to further research in this direction.

The prospects for research in this area are the further development of methodological recommendations for assessing financial risks to minimize their negative impact. The improved process of the impact of digitalized management on financial risks should be transparent, practical, as well as consistent with the strategic goals of industrial enterprises.

7. Conclusions

1. It has been established that financial risks arise as a result of economic risks, which causes their species

diversity. It is determined that financial risks are divided into external and internal. It is noted that the process of managing financial risks involves identifying the most dangerous types of financial risks and identifying the degree of their threat to the enterprise. An algorithm for determining the category of financial risks of industrial enterprises is proposed, which is based on the calculation of financial indicators and the coefficient of variation of deviations from the standards. Depending on the values that take the coefficients of variation, such categories of financial risks as minimum, low, permissible, critical, and catastrophic are distinguished.

2. The system of indicators with the help of which it is possible to determine the general level of digitalized management of an enterprise is substantiated. The logical-linguistic values of the scale of the general indicator of digitalized management were established, which made it possible to single out low, medium, and high levels of digitalized management of industrial enterprises. It has been established that the level of digitalized management directly affects the financial risks of industrial enterprises.

3. Strategic directions of influence of digitalized management on financial risks of industrial enterprises are determined. A matrix of strategies for civilized financial risk management of industrial enterprises has been developed. It is proposed to use a set of three strategies – innovator, follower, observer. It is justified that the use of an innovator's strategy is extremely necessary for critical and catastrophic financial risks. It has been established that the innovator's strategy aims to actively use digital financial risk management tools.

Conflicts of interest

The authors declare that they have no conflicts of interest in relation to the current study, including financial, personal, authorship, or any other, that could affect the study and the results reported in this paper.

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Data availability

The manuscript has no related data.

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