

Nina Krakhmalova¹, Oleksandr Chopyk², Serhii Chuhaiev³

MANAGEMENT OF FINANCIAL STABILITY OF TRADING ENTERPRISES USING BUSINESS ANALYTICS AND ARTIFICIAL INTELLIGENCE

Ensuring the financial stability of trading enterprises in the context of digital transformation of the economy requires the implementation of modern approaches to financial resource management that combine the analytical capabilities of digital technologies with methods of intelligent data processing. The study examines the features of forming a financial stability management system using business analytics and artificial intelligence technologies, identifies their role in increasing the efficiency of financial management, forecasting financial risks and supporting managerial decision-making. The main attention is paid to the integration of digital information platforms into the process of analyzing liquidity, solvency, capital turnover, profitability and other key financial indicators of trading enterprises. The article develops an author's methodological approach to a comprehensive assessment of financial stability, which is based on the use of the coefficient of financial analytical stability, the index of business analytics efficiency and the index of intellectual support of financial decisions. The practical testing of the proposed approach was carried out on the example of the activities of LLC "ATB-Market", LLC "Epicenter K" and LLC "NOVA LINIYA". A comparative assessment of the level of digitalization of financial management was carried out, the effectiveness of the use of business analytics and artificial intelligence technologies was determined, the directions of their application in ensuring the financial stability of trade enterprises were systematized, and a conceptual model of a modern financial management system was formed. The results of the study showed that the integration of business analytics, intelligent forecasting algorithms and digital information platforms contributes to improving the quality of financial planning, accelerates the processing of management information, ensures timely identification of potential financial risks and increases the validity of management decisions. The practical use of the proposed methodological provisions allows strengthening the financial stability of trade enterprises, optimizing the use of financial resources, increasing the efficiency of working capital management and ensuring the long-term competitiveness of business entities in the digital economy.

Keywords: financial stability; trade enterprises; financial management; business analytics; artificial intelligence; digitalization; digital technologies; forecasting; financial risks; business intelligence; management decisions; competitiveness; working capital; digital transformation.

Tabl. 5. Fig. 1. Lit. 24.

DOI: 10.32752/1993-6788-2026-1-301-584-599

Peer-reviewed, approved and placed: 13.07.2026

¹ ORCID ID: <https://orcid.org/0009-0007-5890-1732>

² ORCID ID: <https://orcid.org/0000-0002-2853-8326>

³ ORCID ID: <https://orcid.org/0000-0002-6840-7355>

Ніна А. Крахмальова, Олександр В. Чопик, Сергій В. Чуґаєв

УПРАВЛІННЯ ФІНАНСОВОЮ СТІЙКІСТЮ ПІДПРИЄМСТВ ТОРГІВЛІ ІЗ ЗАСТОСУВАННЯМ БІЗНЕС-АНАЛІТИКИ ТА ШТУЧНОГО ІНТЕЛЕКТУ

Забезпечення фінансової стійкості підприємств торгівлі в умовах цифрової трансформації економіки потребує впровадження сучасних підходів до управління

¹ Kyiv National University of Technologies and Design. Ukraine.

² National Forestry University of Ukraine. Ukraine.

³ Victor von Hraff 'Velykanadol'skiy Forestry Technical Applied College. Ukraine.

фінансовими ресурсами, які поєднують аналітичні можливості цифрових технологій із методами інтелектуальної обробки даних. У дослідженні розглянуто особливості формування системи управління фінансовою стійкістю із застосуванням бізнес-аналітики та технологій штучного інтелекту, визначено їх роль у підвищенні ефективності фінансового менеджменту, прогнозуванні фінансових ризиків і підтримці прийняття управлінських рішень. Основну увагу приділено інтеграції цифрових інформаційних платформ у процес аналізу ліквідності, платоспроможності, оборотності капіталу, прибутковості та інших ключових фінансових показників підприємств торгівлі. У статті розроблено авторський методичний підхід до комплексного оцінювання фінансової стійкості, який ґрунтується на використанні коефіцієнта фінансової аналітичної стійкості, індексу ефективності бізнес-аналітики та індексу інтелектуальної підтримки фінансових рішень. Практичну апробацію запропонованого підходу виконано на прикладі діяльності ТОВ «АТБ-Маркет», ТОВ «Епіцентр К» та ТОВ «НОВА ЛІНІЯ». Проведено порівняльне оцінювання рівня цифровізації фінансового менеджменту, визначено ефективність використання бізнес-аналітики та технологій штучного інтелекту, систематизовано напрями їх застосування у забезпеченні фінансової стійкості підприємств торгівлі та сформовано концептуальну модель сучасної системи фінансового управління. За результатами дослідження встановлено, що інтеграція бізнес-аналітики, інтелектуальних алгоритмів прогнозування та цифрових інформаційних платформ сприяє підвищенню якості фінансового планування, прискорює оброблення управлінської інформації, забезпечує своєчасне виявлення потенційних фінансових ризиків і підвищує обґрунтованість управлінських рішень. Практичне використання запропонованих методичних положень дозволяє зміцнити фінансову стійкість підприємств торгівлі, оптимізувати використання фінансових ресурсів, підвищити ефективність управління оборотним капіталом та забезпечити довгострокову конкурентоспроможність суб'єктів господарювання в умовах цифрової економіки.

Ключові слова: фінансова стійкість; підприємства торгівлі; фінансовий менеджмент; бізнес-аналітика; штучний інтелект; цифровізація; цифрові технології; прогнозування; фінансові ризики; бізнес-інтелект; управлінські рішення; конкурентоспроможність; оборотний капітал; цифрова трансформація.

Problem statement. The financial stability of trading enterprises is formed under the influence of a significant number of interrelated factors, among which a special place is occupied by the speed of capital turnover, the structure of financing sources, the level of liquidity, the dynamics of consumer demand, the stability of supply and the ability of the enterprise to timely adjust financial decisions. For trading businesses, these factors are of particular importance, since even a minor violation of commodity and monetary circulation can lead to the accumulation of excess inventory, a shortage of working capital, an increase in accounts payable and a deterioration in solvency. Therefore, maintaining financial balance requires constant monitoring not only of the final results of operations, but also of operational changes in the structure of sales, expenses, inventories and cash flows. Traditional methods of financial analysis are mostly based on the use of accounting data for the completed period. This approach makes it possible to assess the already formed financial condition, but does not always ensure the timely detection of negative trends. For trading enterprises, where management decisions are made daily, late information significantly limits the ability to prevent cash gaps, reduce unproductive costs, or adjust assortment policy. There is a need to move from retrospective control to constant analytical monitoring of financial processes. The development of business analytics is changing the content

of financial stability management. Information on sales, inventory, purchases, payments to suppliers, receivables, and cash flow can be combined in a single digital environment and processed virtually without time delay. This creates an opportunity to build a system of indicators that reflects the actual state of the enterprise, allows it to be compared with planned parameters, and automatically detect deviations. As a result, financial management receives not separate reporting forms, but a holistic picture of the functioning of the trading system. Business analytics is of particular value for controlling working capital. For trading enterprises, a significant part of resources is concentrated in inventories, the efficiency of which directly affects liquidity and profitability. Excessive accumulation of products slows down the turnover of funds, increases storage costs and creates the risk of loss of consumer value of goods. At the same time, insufficient inventory levels lead to loss of sales and deterioration of the quality of customer service. Analytical systems make it possible to assess the speed of sales of product positions, determine seasonal fluctuations in demand, compare the profitability of assortment groups and form informed decisions on purchases. Artificial intelligence expands these capabilities through the use of forecasting algorithms, pattern recognition and scenario modeling. Unlike standard analytical tools, which mainly generalize available data, intelligent models can determine likely future changes in financial indicators. This applies to forecasting sales volumes, working capital needs, the likelihood of a liquidity deficit, changes in credit load and the impact of pricing decisions on the profitability of the enterprise. Thanks to this, financial stability management gradually becomes preventive in nature.

For trading enterprises, the use of artificial intelligence is also important in the field of risk management. Algorithms can analyze significant data sets on the behavior of buyers, terms of settlements with counterparties, fluctuations in purchase prices, the speed of goods turnover and the dynamics of costs. The combination of such data allows you to identify atypical transactions, detect signs of deterioration in the financial condition and assess the likelihood of crisis situations. In this case, the financial management system ceases to respond only to already formed problems and receives tools for their early warning. At the same time, the use of business analytics and artificial intelligence is not limited to installing software. The effectiveness of digital solutions depends on the quality of primary data, the compatibility of information systems, the accuracy of setting up analytical models and the ability of management personnel to correctly interpret the results obtained. In the absence of unified standards for information processing, even complex algorithms can form contradictory or insufficiently substantiated conclusions. Therefore, the digital transformation of financial management must be accompanied by the improvement of internal procedures for collecting, verifying and using data. A separate problem is ensuring the transparency of decisions generated by artificial intelligence. The company's management must understand what factors influenced the forecast, why the system determined a certain level of financial risk, and how the recommended actions will affect the financial balance. Uncritical use of automated recommendations can lead to erroneous decisions, especially in conditions of sharp changes in the market environment. That is why it is advisable to consider artificial intelligence not as a replacement for the financial manager, but as a tool for expanding his analytical capabilities. The importance of the above-mentioned issues is enhanced by the instability of the con-

ditions of functioning of Ukrainian trade enterprises. Fluctuations in the purchasing power of the population, disruption of logistics routes, increasing the cost of resources, changing lending conditions, and risks of physical loss of assets make it difficult to maintain an acceptable level of financial stability. Under such circumstances, enterprises need to quickly review budgets, change the structure of inventories, optimize costs, and find alternative sources of financing. The use of digital analytics creates the basis for accelerating these processes and reducing the dependence of management decisions on subjective assessments. Financial stability in this context should be considered more broadly than the ratio of equity and debt. It encompasses the ability of an enterprise to maintain the continuity of payments, ensure financing of current activities, adapt the structure of assets and liabilities to market changes, maintain profitability and create reserves for development. Business analytics and artificial intelligence allow combining these parameters in a single monitoring system and form a multidimensional assessment of financial condition. In scientific research, the issues of financial stability, digitalization of management and the use of artificial intelligence are mostly considered separately. Some works focus on traditional liquidity ratios, autonomy, profitability and business activity, others on the capabilities of digital platforms or predictive algorithms. At the same time, the methodological principles of combining financial indicators, business analytics tools and intelligent forecasting within a single system for managing trade enterprises are not sufficiently disclosed.

Therefore, the current task is to develop an approach that will allow assessing the financial stability of a trading enterprise based on operational data, predicting its possible changes and timely determining the directions of managerial influence. Such an approach should take into account the specifics of commodity circulation, the speed of transformation of inventories into cash, the structure of financing and the quality of digital analytical support. Its application will contribute to increasing the validity of financial decisions, reducing the risk of loss of solvency and strengthening the adaptability of trading enterprises to changes in the market environment.

Analysis of publications. The work of Shevchuk et al. considers the formation of the human resource potential of the enterprise management system for managing financial risks and rehabilitation processes in the context of digitalization [1]. Hnatenko and Khaustova highlight the institutional prerequisites for the development of trade and innovative entrepreneurship based on economic freedom [2]. Tygach systematizes the tools for ensuring the economic security of enterprises during digital transformation [3], while Zos-Kior focuses on personnel assessment as a component of effective corporate governance [4]. Dokienko et al. identify the key factors influencing the management of enterprise financial stability [5]. Okhrimenko et al. reveal the managerial and marketing foundations of entrepreneurship development in the context of globalization [6]. Aleskerova and Vasalatii propose directions for improving the financial stability management system [7], whereas Kovtun et al. substantiate the possibilities of modeling innovation clusters within the system of socioeconomic security [8]. Stepanenko and Kanelska analyze the risks and threats affecting enterprise financial stability under martial law and identify possible ways to overcome them [9]. Vdovenko et al. investigate the transformation of foreign trade regulation for agricultural products under decentralization [10]. Yaremko examines economic instruments for managing the financial and economic stability of trade

enterprises [11], while Zos-Kior et al. highlight modern aspects of enterprise competitiveness management [12]. Bazilinska and Panchenko consider financial stability an integral component of strategic enterprise management [13]. Hnatenko analyzes the development of trade clusters in a digital society [14]. Hereha defines strategic guidelines for managing the financial and economic stability potential of trade enterprises [15], whereas Antypenko et al. connect resource-saving financial management with an anti-crisis development strategy [16]. Kashchena and Mukhina substantiate approaches to assessing the financial security of trade enterprises and instruments of prospective management [17]. Zos-Kior and Semeniuta examine the personnel assessment system in a competitive business environment [18]. Hubanov reveals the peculiarities of managing the financial stability of a commercial enterprise under martial law [19], while Zhyvko et al. analyze clustering within the strategic management system of an innovative economy [20]. Naumov and Drazhnytsia focus on assessing the liquidity and solvency of retail enterprises [21]. Goncharov et al. investigate the investment component of agricultural enterprise development [22]. Zos-Kior et al. highlight the prospects for land management [23], while Purdenko et al. examine the financial management of innovative eco-entrepreneurship [24].

The generalization of these studies indicates that researchers have extensively examined financial stability, liquidity, economic security, digital transformation and strategic enterprise management. Nevertheless, the integrated application of business analytics, artificial intelligence algorithms and financial indicators within a unified system for managing the financial stability of trade enterprises remains insufficiently explored.

Presentation of the main results. Ensuring the financial stability of trade enterprises in modern conditions requires the formation of a fundamentally new management system that combines traditional financial methods, business analytics tools and artificial intelligence capabilities. Unlike classical financial management models, which are based mainly on periodic analysis of accounting statements, the modern approach involves continuous receipt, processing and interpretation of financial information in real time. This allows for timely detection of negative trends, forecasting changes in the financial condition of the enterprise and promptly making management decisions to maintain its financial stability.

For trade enterprises, the speed of information processing is of particular importance, since the financial results of their activities directly depend on the intensity of trade turnover, the efficiency of inventory management, the level of receivables and payables, the structure of costs and changes in consumer demand. That is why digital business analytics technologies provide integration of accounting data, financial reporting, CRM systems, ERP platforms, inventory management systems and e-commerce in a single information space. The use of Business Intelligence tools allows you to automatically create financial dashboards, monitor the implementation of financial plans, analyze deviations from regulatory indicators and predict possible financial risks. At the same time, artificial intelligence algorithms are able to analyze hidden relationships between individual financial indicators, predict future changes in liquidity, profitability, capital structure and asset turnover rate, which significantly improves the quality of financial management. Unlike traditional models of assessing financial stability, the proposed approach involves the use of an integral indicator that

simultaneously takes into account the financial stability of the enterprise, the level of use of business analytics and the effectiveness of the use of artificial intelligence tools. This approach provides a comprehensive assessment of the enterprise's ability to maintain financial balance in conditions of constant change in the external environment. For quantitative assessment, it is proposed to use the coefficient of financial analytical stability of the enterprise, which is determined by the formula:

$$Kfas = \frac{Fs + Ba + AI}{3}$$

where: *Kfas* – coefficient of financial analytical stability; *Fs* – integral assessment of the financial stability of the enterprise; *Ba* – level of use of business analytics tools; *AI* – level of integration of artificial intelligence technologies into the financial management system.

The proposed indicator allows for a comprehensive assessment not only of the actual financial condition of the enterprise, but also of the level of digital maturity of financial management, which is especially important for modern trade enterprises.

For practical testing of the methodological approach, the results of the activities of three large Ukrainian trade enterprises were used:

LLC "ATB-Market";

LLC "Epicenter K";

LLC "NOVA LINIYA".

The choice of these enterprises is due to the high level of digitalization of their business processes, the use of modern information management systems, significant volumes of turnover and active implementation of analytical platforms to support financial management decisions. Before conducting a quantitative assessment, the values of the components of the integral indicator of financial analytical stability were determined, which are given in Table 1.

Table 1. Assessment of the components of the coefficient of financial analytical stability of trade enterprises, proposed by the authors

Enterprise	Financial stability <i>Fs</i>	Business Analytics <i>Ba</i>	Artificial Intelligence <i>AI</i>	<i>Kfas</i>
LTD "ATB-Market"	0,93	0,95	0,90	0,93
LTD "Epicenter K"	0,90	0,91	0,88	0,90
LTD "NOVA LINE"	0,84	0,82	0,79	0,82

The calculations show that the highest level of financial analytical stability is possessed by LLC ATB-Market, which is explained by the high level of digitalization of financial processes, the use of modern BI platforms and the wide application of predictive analytics algorithms. Slightly lower values of the integral indicator are characteristic of LLC Epicenter K, however, the company also demonstrates a high level of digital support of financial management. For LLC NOVA LINIYA, it is advisable to further expand the use of artificial intelligence technologies, automate financial analysis and improve the financial risk forecasting system. The results obtained

confirm that the integration of business analytics and artificial intelligence significantly increases the efficiency of financial stability management of trade enterprises, creates the prerequisites for timely management decision-making and ensures increased adaptability of enterprises to changes in the market environment. That is why further improvement of financial management is advisable to be carried out on the basis of the integrated use of digital technologies, modern analytical platforms and intelligent systems to support management decision-making. The assessment confirms the feasibility of using an integrated approach to analyzing the financial stability of trade enterprises. At the same time, comprehensive management of financial resources requires taking into account not only the current level of digitalization of financial management, but also the effectiveness of using analytical tools in the process of making management decisions. In modern conditions, business analytics is transformed from an auxiliary analysis tool into an independent factor in increasing the financial stability of the enterprise, providing management with timely information on changes in financial indicators, cost structure, turnover and efficiency of working capital use. The use of modern BI platforms allows you to automatically generate interactive analytical reports, monitor budget execution, analyze the profitability of individual product groups, forecast product sales volumes and promptly identify deviations from planned financial indicators. This significantly reduces the time for making financial decisions, improves the quality of planning and ensures timely response to changes in the market situation. In order to assess the level of use of business analytics, an index of analytical efficiency of financial management has been proposed, which is determined by the formula:

$$Iba = \frac{Ap + Rd + Fm + Vc}{4}$$

where: *Iba* – index of efficiency of use of business analytics; *Ap* – level of automation of financial processes; *Rd* – level of use of analytical reports; *Fm* – level of financial monitoring; *Vc* – efficiency of visualization of management information.

The proposed indicator characterizes the degree of integration of business analytics into the financial management system of the enterprise and allows to assess its impact on efficiency of making management decisions.

Table 2. Assessment of efficiency of use of business analytics by trade enterprises, proposed by the authors

Indicator	LLC "ATB-Market"	LLC "Epicenter K"	LLC "NOVA LINE"
Automation of financial processes <i>Ap</i>	0,95	0,92	0,84
Use of analytical reports <i>Rd</i>	0,94	0,91	0,83
Financial monitoring <i>Fm</i>	0,96	0,90	0,82
Operational efficiency of management analytics <i>Vc</i>	0,94	0,89	0,81
Index <i>Iba</i>	0,95	0,91	0,83

The presented results show that the highest level of use of business analytics tools is characteristic of LLC "ATB-Market", where almost all financial processes are inte-

grated into a single digital management system. High index values are also demonstrated by LLC "Epicenter K", which actively uses manager's dashboards, automated budgeting and predictive financial analytics. LLC "NOVA LINIYA" is characterized by a sufficient level of digital transformation of financial management, however, there is potential for further development of automated financial decision-making support systems. The obtained results confirm that the effectiveness of business analytics directly affects the financial stability of the enterprise, as it ensures timely detection of negative trends, increases the reliability of financial forecasts and contributes to the adoption of more informed management decisions. That is why the integration of analytical platforms into the financial management system is one of the key areas of digital transformation of modern retail enterprises. Further improvement of financial stability of trade enterprises largely depends on the ability of management not only to analyze the current financial condition, but also to predict future changes under the influence of internal and external factors. It is at this stage that artificial intelligence technologies begin to play a key role, providing automated processing of large amounts of information, building forecast models and forming alternative scenarios for the development of the financial situation. Unlike traditional statistical methods, artificial intelligence algorithms are able to take into account the nonlinear nature of the relationships between financial indicators and quickly adapt to changing market conditions. This is of particular importance for trade enterprises, since the financial results of their activities depend on a large number of variables: seasonal fluctuations in demand, consumer behavior, speed of goods turnover, changes in purchase prices, logistics costs, credit policy of suppliers and many other factors. The use of intelligent algorithms allows you to identify hidden patterns, assess the likelihood of financial risks and timely formulate recommendations for adjusting the financial policy of the enterprise. Unlike classical financial analysis, artificial intelligence operates in a continuous learning mode, using new data to refine forecasts. Thanks to this, the enterprise gets the opportunity not only to respond to existing financial problems, but also to prevent their occurrence by making timely management decisions. To assess the effectiveness of the use of artificial intelligence technologies, an index of intellectual support for financial decisions has been proposed, which is determined by the formula:

$$IAI = \frac{Pf + Rm + Ad + Sp}{4}$$

where: *IAI* – index of use of artificial intelligence in financial management; *Pf* – accuracy of financial forecasting; *Rm* – level of automated management of financial risks; *Ad* – level of automation of financial decision-making; *Sp* – speed of processing of financial information.

The proposed index allows to comprehensively assess the degree of use of artificial intelligence technologies in the financial management system of the enterprise and to determine their impact on ensuring financial stability.

The results obtained demonstrate that the highest level of use of artificial intelligence technologies is characteristic of LLC "ATB-Market", where predictive analytics algorithms are integrated into the processes of financial planning, budgeting and cash flow control. Significant results were also achieved by LLC "Epicenter K", which

actively uses intelligent systems for demand analysis, forecasting of goods turnover and automated control of financial indicators. For LLC "NOVA LINIYA", the results indicate the feasibility of further expanding the use of machine learning tools, developing digital forecasting platforms and implementing automated financial management support systems.

Table 3. Assessment of the effectiveness of use of artificial intelligence in the financial management of trade enterprises, proposed by the authors

Indicator	LLC "ATB-Market"	LLC "Epicenter K"	LLC "NOVA LINE"
Financial forecasting accuracy Pf	0,96	0,92	0,84
Automated risk management Rm	0,94	0,90	0,82
Automated financial decisions Ad	0,95	0,89	0,81
Financial data processing speed Sp	0,97	0,93	0,85
Index IAI	0,96	0,91	0,83

A comparison of the results of tables 1–3 confirms the presence of a direct relationship between the level of digital maturity of the enterprise and its financial stability. Enterprises that actively use business analytics and artificial intelligence tools demonstrate higher indicators of financial stability, respond more quickly to changes in the market environment and have wider opportunities for optimizing the capital structure, managing liquidity and minimizing financial risks. This indicates the feasibility of a comprehensive digital transformation of financial management as one of the key areas of strengthening the competitiveness of trade enterprises. The calculations conducted confirm that the effectiveness of financial management of trade enterprises is determined not only by the level of digitalization of individual business processes, but also by the ability to integrate the results of business analytics and artificial intelligence into the strategic management process. At the same time, the use of individual digital tools without their interaction does not ensure the achievement of maximum financial stability. That is why the next stage of the study is to determine the areas of use of business analytics in the financial management system of trade enterprises. Business analytics performs not only the function of accumulating financial information, but also provides support for strategic and operational management decisions. The use of integrated information platforms allows the management of the enterprise to receive consolidated information on the profitability of individual product categories, the speed of inventory turnover, the efficiency of working capital use, the structure of cash flows and the dynamics of financial risks. It is the comprehensive analysis of these indicators that creates the basis for maintaining the financial balance of the enterprise.

In addition, digital analytical platforms allow modeling alternative scenarios for the development of the enterprise depending on changes in external and internal factors. This makes it possible to timely assess the consequences of changes in pricing policy, product range structure, terms of cooperation with suppliers or credit policy

of the enterprise. Due to this, management decisions become more justified, and the risk of financial instability is significantly reduced. To generalize the areas of use of digital analytics in the financial management system, it is advisable to systematize its functional capabilities (Table 4).

Table 4. Main areas of use of business analytics in the financial stability management system of trade enterprises, proposed by the authors

Application	Information support	Management result
Liquidity analysis	Cash flows, cash balances	Maintaining solvency
Inventory management	Goods turnover, ABC-XYZ analysis	Accelerating capital turnover
Profitability analysis	Marginal income, profitability of product groups	Optimizing assortment policy
Cost control	Fixed and variable costs	Reducing unproductive costs
Financial performance forecasting	BI Dashboard, forecasting models	Increasing the accuracy of financial planning
Accounts receivable management	CRM, financial databases	Reducing financial risks
Financial stability monitoring	Integrated financial indicators	Timely making management decisions

As the results of the systematization show, the greatest effect from the use of business analytics is achieved if it is integrated into all stages of financial management. Unlike traditional financial reporting analysis, modern digital information systems provide continuous accumulation, updating and interpretation of financial data, which allows you to respond in a timely manner to the slightest changes in the financial condition of the enterprise. A particularly important advantage of business analytics is the ability to simultaneously analyze a large number of financial indicators without increasing the time for making management decisions. This allows the management of trade enterprises to carry out constant control of financial stability, timely identify potential risks and form a set of measures to minimize them. As a result, digital analytics becomes one of the key tools for ensuring the long-term financial stability of enterprises and increasing the efficiency of using their financial potential. The integrated use of business analytics and artificial intelligence allows you to move from operational financial control to the formation of an adaptive system for managing the financial stability of trade enterprises. In such a system, the key is not only the timely receipt of information, but also the ability to predict changes in the financial condition, evaluate alternative scenarios and automatically generate recommendations for optimizing the financial policy of the enterprise. It is the combination of analytical platforms with machine learning technologies that provides a fundamentally new level of support for management decisions. An important advantage of modern digital solutions is the ability to continuously analyze a large number of financial indicators without increasing the burden on the financial services of the enterprise. Automatic information processing allows you to timely detect changes in liquidity, capital structure, inventory turnover, cash flow dynamics, profitability and other indicators that characterize the financial stability of the enterprise. Thanks to this, management is able to promptly adjust financial policy in accordance with the current economic situation.

A special role in this process is played by artificial intelligence, which provides the construction of predictive models for the development of the financial condition of the enterprise. Using historical data and current information flows, intelligent algorithms are able to determine the most likely scenarios for changes in financial stability, assess the level of potential risks and offer the most effective options for minimizing them. This allows significantly increasing the adaptability of financial management and ensuring more rational use of financial resources. To summarize the practical possibilities of applying modern digital technologies, it is advisable to systematize the main areas of use of artificial intelligence in the system of managing the financial stability of trade enterprises (Table 5).

Table 5. Functional capabilities of using artificial intelligence in managing the financial stability of trade enterprises, proposed by the authors

AI Usage	Main functions	Expected result
Cash Flow Forecasting	Analysis of income and expenses, scenario forecasting	Maintaining the liquidity of the enterprise
Trade Turnover Forecasting	Analysis of seasonality and customer behavior	Optimization of purchases and inventories
Financial Risk Management	Identification of critical deviations, risk forecast	Reducing financial losses
Budgeting Automation	Formation of forecast budgets	Increasing the accuracy of financial planning
Profitability Analysis	Estimation of profitability of product categories	Increasing sales efficiency
Identification of Anomaly Transactions	Control of financial transactions	Preventing financial violations
Formation of Management Recommendations	Generation of alternative financial solutions	Improving the quality of financial management

The results of the systematization confirm that artificial intelligence technologies are already going beyond the boundaries of classical financial analysis and are gradually turning into a full-fledged tool for supporting strategic management of an enterprise. Their use is especially effective for forecasting financial stability, assessing risks, automating budgeting and forming recommendations for optimizing financial policy. Unlike traditional analytical methods, intelligent algorithms are able to take into account the simultaneous influence of a large number of interrelated factors, which significantly increases the reliability of forecasts. Thus, the combination of business analytics and artificial intelligence technologies forms a new model for managing the financial stability of trade enterprises, which is based on the principles of continuous digital monitoring, predictive analytics, adaptability and information integration. The proposed approach allows not only to assess the current financial condition of the enterprise, but also to identify potential threats in advance, promptly adapt financial policy to changes in the external environment and ensure long-term financial stability of enterprises in the digital economy. In order to generalize the results of the study, a conceptual model of financial stability management of trade enterprises using business analytics and artificial intelligence is proposed (Fig. 1). Unlike traditional financial management models, the proposed approach is based on

continuous digital analysis of financial indicators, integration of modern information technologies and use of artificial intelligence algorithms to support financial decision-making. The central place in the model is occupied by a business analytics system that ensures the transformation of financial data into practical management decisions aimed at maintaining the financial balance of the enterprise (Fig. 1).

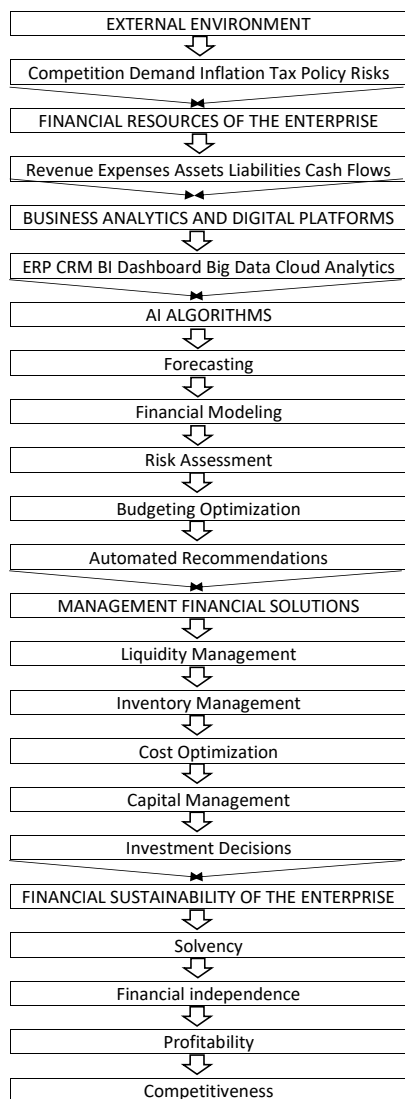


Fig. 1. Conceptual model of financial stability management of trade enterprises using business analytics and artificial intelligence, proposed by the authors

The proposed conceptual model demonstrates that ensuring the financial stability of trade enterprises is formed as a result of the complex interaction of financial

resources, digital information technologies, business analytics and intelligent algorithms for supporting management decisions. Unlike traditional approaches, where financial analysis is carried out mainly after the end of the reporting period, the proposed model provides for constant digital monitoring of financial indicators, automated forecasting of possible risks and prompt adjustment of the enterprise's financial policy. The implementation of this approach contributes to increasing the adaptability of trade enterprises to changes in the market environment, more efficient use of financial resources and strengthening their long-term financial stability.

Conclusions. As a result of the study, it was found that ensuring the financial stability of trade enterprises in the digital economy requires a transition from traditional financial management models to a comprehensive management system based on the use of business analytics and artificial intelligence technologies. It is proven that modern financial stability management should be based not only on the analysis of financial reporting, but also on constant digital monitoring of financial indicators, forecasting of possible risks and automated support for making management decisions. This allows significantly increasing the speed of response of enterprises to changes in the external environment, ensuring timely identification of financial threats and maintaining an appropriate level of solvency and financial independence. The study proposes an author's methodological approach to assessing the financial stability of trade enterprises, which involves the use of the coefficient of financial analytical stability, the index of business analytics efficiency and the index of intellectual support of financial decisions. Unlike existing approaches, the proposed system of indicators integrates traditional financial characteristics with the level of digitalization of financial management and the use of artificial intelligence algorithms, which provides a comprehensive assessment of the financial stability of the enterprise. The practical testing of the proposed methodological provisions was carried out on the example of the activities of LLC "ATB-Market", LLC "Epicenter K" and LLC "NOVA LINIYA". The calculations confirmed that enterprises that actively use business analytics, integrated information systems and modern predictive analytics algorithms demonstrate a higher level of financial stability, manage working capital more effectively, adapt faster to changes in the market environment and provide more stable financial results. At the same time, the results of the study showed that there is significant potential for further expansion of the use of artificial intelligence tools in the field of financial risk forecasting, budgeting automation and support for strategic financial planning.

The proposed conceptual model of financial stability management of trade enterprises proves that the maximum efficiency of financial management is achieved under the condition of systematic interaction of financial resources, digital infrastructure, business analytics and intelligent algorithms for decision support. The implementation of such an approach creates the necessary prerequisites for increasing the financial flexibility of enterprises, optimizing the capital structure, strengthening liquidity, minimizing financial risks and ensuring the long-term competitiveness of business entities. The use of the proposed approach will contribute to increasing the efficiency of using financial resources, strengthening the financial stability of enterprises and ensuring their sustainable development in the conditions of digital transformation of the economy.

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