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BLOCKCHAIN TECHNOLOGIES AS A FACTOR OF THE FINANCIAL SUSTAINABILITY MANAGEMENT OF THE ENTERPRISE AND THE E-COMMERCE DEVELOPMENT

OLHA POPELO[1*], SVITLANA TULCHYNSKA[2], OLENA ANDRIUSHCHENKO[3], SVITLANA SHEPELENKO[4], MYKYTA FALKO[5], SERHII SHUT[6]

[1]Department of Management and Administration,
Chernihiv Polytechnic National University, Chernihiv, Ukraine
[2]Department of Economics and Entrepreneurship,
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv, Ukraine
[3]Department of Marketing and Trade Entrepreneurship,
Ukrainian Engineering, Pedagogical Academy, Kharkov, Ukraine
[4]Department of Economics and Management, Ukrainian Engineering, Pedagogical Academy,
Kharkov, Ukraine
[5]Department of Economics and Entrepreneurship,
National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv, Ukraine
[6]Department of Economics, Classical Private University, Zaporizhzhia, Ukraine
E-mail: [1]o.popelo@stu.cn.ua, [2]tuha@ukr.net, [3]Helan17@ukr.net,
[4]svitlana7388@qmail.com, [5]nikita.megawatt@gmail.com, [6]serhii.shut@ukr.net

ABSTRACT

The rapid development of digital technologies fundamentally changes the essence of business and the direction of its development. This opens up new opportunities for managing financial stability of enterprises, including through the blockchain technology, which is also a factor in the e-commerce development. The purpose of the article is the justification of the feasibility of implementing blockchain technologies as a factor in managing financial stability of the enterprise and the e-commerce development is presented. Achieving the outlined goal using the methodology of the system approach gave the opportunity to prove the feasibility of implementing blockchain technologies as a factor in financial sustainability management of the enterprise and the e-commerce development, which, unlike existing approaches, involves: firstly, taking into account the stages of the tokenization process; secondly, a methodical approach to the calculation of costs for the emission and tokenization of securities; thirdly, determining the economic effect of the emission and tokenization of securities through the calculation of the difference between the income from the sale of share tokens and the costs of their creation. Highlighting the varieties of an alternative approach to improving the level of the financial stability management of enterprises and the e-commerce development made it possible to find out the advantages of the asset tokenization model. The use of a systematic approach enabled the authors to propose a methodical approach for calculating the costs of the emission and tokenization of securities and determining the economic effect of the emission and tokenization of securities. Before approbation of the proposed methodical approach, the prerequisites of tokenization of securities were analyzed using the example of the institutional environment of Ukraine and indicators of the business activity of economic entities. This analysis proved the possibility and expediency of implementing blockchain technologies as a factor in managing financial stability of enterprises and the e-commerce development. The approbation of the proposed methodical approach to determining the efficiency of the additional issue of shares and their subsequent tokenization was carried out based on the data of the annual financial statements of the current Ukrainian enterprise Interpipe NTZ PJSC - an enterprise of the Interpipe Holding, which carries out production activities.

Keywords: *Blockchain Technology, Financial Stability, Enterprise, Business Entities, E-Commerce, Business, Tokenization, Token, Smart Contract, Fractionalization, Share Issue, Cryptocurrency, Liquidity.*

1. INTRODUCTION

The intensification of hostilities throughout the country had a negative impact on the economy's ability to self-finance, which necessitated attracting external financing. This approach may be effective in the short term, but in the future, it may lead to negative consequences. Accordingly, it is necessary to restore and develop internal sources of income, the main of which are tax revenues. In turn, this is possible by increasing the business activity of business entities (enterprise development), for which it is necessary to accumulate additional financial resources, that is, to form a stable financial potential and ensure a high level of its management. It is possible to do this in modern conditions by using alternative sources of financing based on modern technologies, among which is the blockchain, based on which it will be possible to attract funds both from institutional investors, and from minority ones through P2P lending, tokenization of assets, etc.

In addition, the implementation of the technology of distributed and managed construction will have a positive impact on the e-commerce development by simplifying payments for goods / services and the purchase / sale of tokenized securities. This will lead to the expansion of sales markets with a corresponding increase in sales, which will lead to an increase in tax revenues of the state.

Accordingly, consideration of the theoretical aspects of managing the stability of the financial potential of the enterprise using blockchain technologies is relevant.

The purpose of the article is to justify the feasibility of implementing blockchain technologies as a factor in managing financial stability of the enterprise and the e-commerce development. To achieve the set goal, the authors proposed and achieved the following research tasks:

- the relevance and expediency of this study are substantiated in accordance with modern global challenges of social progress and the e-commerce development, which is based on an analytical and monographic study of the latest scientific publications in this area;
- based on the analytical data on the example of Ukraine (relative indicator of liquidity of enterprises, structure of current assets of enterprises, structure of liabilities of enterprises), the feasibility of implementing blockchain technologies as a factor of managing financial stability of the enterprise and the e-commerce development has been proven;
- the trend of the volumes of alternative financing, which involves the use of financing methods that go beyond the traditional banking system in the world and Europe, is analyzed;
- varieties of an alternative approach to improving the management level of financial stability of enterprises and the e-commerce development are singled out, namely, equity, debt and asset tokenization models;
- tokenization is clarified as a model for managing financial stability of an enterprise and a factor in the e-commerce development;
- based on the analysis of the trading volume in corporate securities in Ukraine, the number of shares issued and institutional support for the functioning of the stock exchange, it has been proven that tokenization will have a positive impact on the financial stability management of enterprises and the e-commerce development;
- the effect of the introduction of blockchain technologies for managing financial stability of the enterprise and the e-commerce development is singled out;
- the tokenization process is presented, which consists of preparation stages, the real emission stage, and the tokenization stage;
- a methodological approach is proposed for calculating the costs of the emission and tokenization of securities and determining the economic effect of the emission and tokenization of securities through the calculation of the difference between the income from the sale of share tokens and the costs of their creation;
- the proposed methodical approach to determine the effectiveness of the additional issue of shares and their subsequent tokenization was tested based on the data of the annual financial statements of the operating Ukrainian enterprise Interpipe NTZ PJSC - an enterprise of the Interpipe Holding, which specializes in the production of wheels, rims, axles and wheel pairs for cargo, passenger and locomotive railway transport.

Defining the purpose and tasks of the research gives grounds to put forward a hypothesis regarding the expediency of implementing blockchain technologies as a factor in financial sustainability management of the enterprise and the e-commerce development. Based on the use of a systematic approach, the authors improved the methodical approach of calculating the costs of the emission and tokenization of securities and determining the economic effect of the emission and tokenization of securities through the calculation of the difference between the income from the sale of share tokens and the costs of their creation.

2. LITERATURE REVIEW

Undoubtedly, the chosen topic of the article is extremely relevant. Blockchain technologies are gaining more and more popularity as an innovative factor in the e-commerce development and managing financial stability of an enterprise. Publications by scientists from different countries, who, within the scope of their articles, investigated various aspects of this problem: research on the operational strategies of small and medium-sized enterprises with limited capital based on the blockchain technology [1], introduction of a corporate data warehouse with the integration of the blockchain and artificial intelligence technology in investment risk management [2], analysis of the implemented model of the blockchain technology in small and medium-sized enterprises [3], managing the financial supply chain of the enterprise using the blockchain technology [4], researching the cost of implementing the blockchain-based technology [5], evaluating the role of management in implementing the blockchain technology at enterprises [6], using blockchain to exchange credit information of enterprises in the financial supply chain [7], features of the use of the blockchain technology and the enterprise resource planning system [8, 9], analysis of the ICT sector in the economic development of Eastern European countries [10], development of a methodical approach to economic analysis and enterprise management [11], analysis of the ecosystem of the VAT administration in e-commerce based on the experience of Eastern European countries [12], etc. Let's consider the research results presented in scientific papers on this topic in more detail.

According to scientists [13], businesses operating in electronic commerce are often exposed to fair risks and intense competition. In this case, the use of Blockchain as a digital database with the characteristics of truthfulness, confidence, accountability and complexity is becoming more and more relevant. According to the researchers, the integration of e-commerce platforms and blockchain networks aims to help SMEs overcome security difficulties, while conventional e-commerce platforms and storage depend on authorized intermediary networks or distributed cloud storage.

The result of scientific work [14] is an analysis of the application of the blockchain technology in the exchange of information about the financial accounting of the enterprise. The authors have solved the problems associated with information opacity, data falsification and data security in current practice. The authors prove that the implementation of blockchain-based information exchange methods will contribute to the reliability and security of data.

Article [15] analyzes the determinants of the blockchain technology implementation in small and medium-sized enterprises. The authors revealed the main mechanism and boundary conditions under which technological, organizational and environmental factors predict the implementation of the blockchain technology.

The authors [16] are convinced that the potential benefits of the blockchain technology are becoming more and more evident for maritime cargo companies. The researchers considered the factors affecting the implementation of the blockchain technology in the maritime freight sector, which will help government agencies, transport companies and blockchain service providers in planning for successful implementation and increasing competitiveness.

The scientific paper [17] considers the use of the blockchain technology for digital transformation of the company's financial accounting management, which will contribute to increasing the security and reliability of data management. According to the authors, the conducted research will be useful for management of enterprises in the digital era of financial accounting management. This will help enterprises maintain their advantages in the fierce market competition, while ensuring data security and effective management.

Article [18] proves that with the continuous development of the blockchain technology and the capital market, asset management is the focus of attention of modern enterprises. The authors are convinced that using the blockchain technology, it is possible to build an accounting system for asset management, combining a system of cost control and responsibility.

Within the framework of article [19], the characteristics and functionality of the blockchain technology are explored and blockchain-based solutions are identified to solve the problems of tracking consumer goods, as well as to highlight the advantages of implementing blockchain-based tracking systems.

Scientists [20] analyzed the impact of using the blockchain technology on the enterprise productivity, as well as the mechanism of enterprise risk and the quality of information disclosure on this impact process. The results of the study prove that manufacturing enterprises can reduce risks by combining with the blockchain technology in production, management and other aspects, which will contribute to improving the productivity of the

enterprise and contributing to sustainable development of its economy.

The result of the study [21] is an analysis of the application of blockchain technologies in the field of auditing. The research proves that the audit methodology is uncertain, and it is appropriate to consider two approaches: a combination of direct evidence, indirect evidence, account-level and organizational-level evidence, and increasing indirect evidence and organizational-level evidence.

The research [22] is relevant, in which it is proposed to apply the blockchain technology to a digital supply chain platform. The authors prove that the entire process of supply chain management with the help of blockchain algorithms and innovative management methods, which can enable enterprises to develop on a digital supply chain platform, will contribute to the digital construction of the supply chain and ensure the sustainable development of enterprises.

The aim of the paper [23] is to explore the relationship between blockchain technologies and supply chains through integration to fill empirical gaps. The authors are convinced of the expediency and effectiveness of implementing blockchain technologies for enterprises, which is aimed at achieving system-wide integration aimed at sustainable results.

It has been established [24] that the blockchain technology is used by many companies to improve their production processes and reduce costs. The authors found that the scale of corporate assets and investment in research and development are important factors driving the adoption of the blockchain technology. It has been proven that the implementation of the blockchain technology helps improving the efficiency of corporate business.

Article [25] proposed a model for tracking and storing data about enterprise expenses based on the basic blockchain technology. The authors developed a decentralized network system, and also proposed a way to build a four-core cloud-based cost management platform using the cloud computing technology, cryptography technology, consensus mechanisms, and smart contracts.

Scientists [26] are sure that the blockchain technology is an effective IT solution that meets modern requirements and successful development of enterprises. The article analyzes the level of awareness of the blockchain technology among managers and specialists of large companies, as well as the peculiarities of the blockchain technology implementation.

As a result of research [27] is the development of a system for combining and exchanging financial information of the enterprise based on the blockchain technology. The experiment demonstrated that the system has a low error of combining financial information and promotes the efficiency of financial information exchange and is characterized by the accuracy of the data authentication.

The conducted analytical study of published scientific works in this scientific field makes it possible to note that authors in various fields of science actively research aspects of the use of blockchain technologies. However, it should be noted that the application of blockchain technologies as a factor in financial sustainability management of the enterprise and the e-commerce development using the tokenization process requires further research and justification of a methodical approach to the calculation of costs for the emission and tokenization of securities and the determination of the economic effect of the emission and tokenization of securities.

3. METHODOLOGY

It should be noted that from a technical point of view, tokenization of securities is quite possible. This is confirmed by the experience of big American companies, such as Apple, Tesla and Netflix. Some securities of these companies have been tokenized and now are freely traded on the Currency.com cryptocurrency exchange [28]. In addition, successful tokenization of military bonds also took place in Ukraine [29].

Accordingly, issuing the company's shares and their subsequent tokenization as one of the methods of using blockchain technologies is expedient in Ukraine and technically possible, and this procedure can also be considered as a factor in managing financial stability of the company and the e-commerce development (Fig. 1).

The preparation stage includes determining the legal aspects of tokenization and the preliminary search for necessary intermediaries, among which the following can be distinguished:

- legal company (provided there is no corresponding division at the enterprise) – which is responsible for the civil-law control by issuing the shares and their further tokenization;
- audit company - to conduct an audit of financial statements to confirm the financial condition of the business entity. It is relevant if, before tokenization, the company did not meet the criteria for a mandatory audit;
- consulting company - to evaluate the value of the company's shares in the consulting company;

- depository institutions - necessary for keeping records of additional shares of the enterprise;
- IT company - for tokenization of securities.

In Fig. 2, the tokenization process is shown, which consists of three stages – preparation, actual emission and tokenization [30].

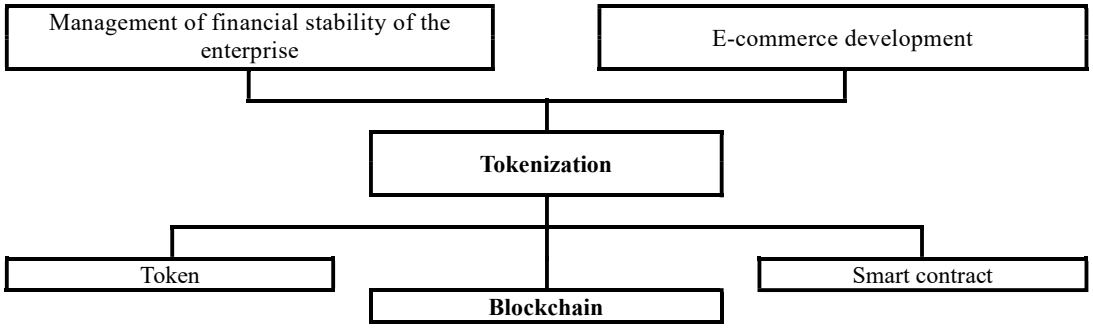


Figure 1: The effect of the introduction of blockchain technologies for managing financial stability of the enterprise and the e-commerce development

Source: compiled by the authors

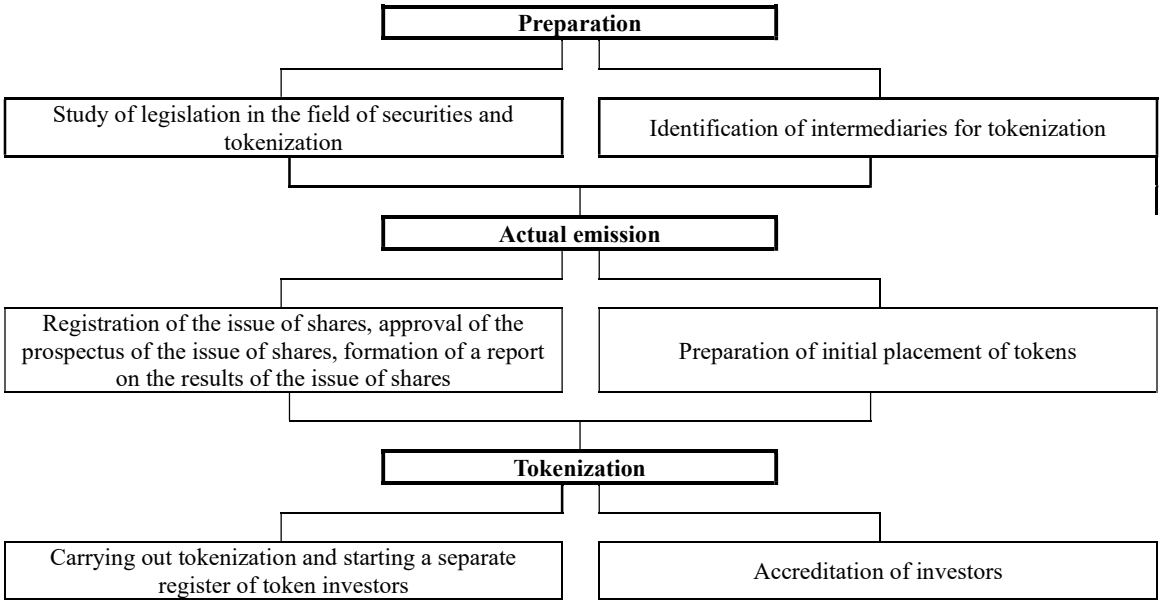


Figure 2: The general algorithm for issuing and tokenizing company shares

Source: compiled by the authors

At the next stage, a direct issue of shares is carried out, which will be tokenized as a result . At the same time, it is necessary to register the issue, approve the issue prospectus and prepare a report on the results of the issue. At the stage of the actual issue, it is also necessary to choose a crypto exchange for the initial placement of tokens - it is necessary to conclude an agreement with the crypto exchange regarding the listing of tokenized shares, that is, to determine the terms and conditions of the initial placement of investment tokens. It will also be appropriate to organize an advertising company on the Internet to draw attention to the listing of tokenized shares.

At the final stage, it is necessary to tokenize shares, create a special register for keeping records of the company's capital in terms of token investors, and ensure the possibility of introducing certain restrictions on the transfer of ownership rights and transactions with these securities in case of possible threats. Next, it is necessary to check the personal information of the token investor (KYC, Know Your Client - "Know your client"), examine the

documents confirming the identity of the investor (passport, document certifying the place of residence, etc.). At this step, the investors' electronic wallets are also checked to identify the presence of debts to the budget, initiated criminal proceedings, etc.

Accordingly, the costs of the emission and tokenization of securities can be represented in the form of formula (1):

$$TC = LS + AS + SI + RoSI + SV + \\ + SA + DS + T + PoL + L \quad (1)$$

where TC – tokenisation costs, USD,
AS – audit service, USD,
LS – legal service, USD,
SI – registration of the share issue and approval of the prospectus, USD,
RoSI – registration of the report on the results of the share issue, USD,
SV – share valuation services, USD,
SA – opening a securities account, USD,
DS – depository services, USD,
T – tokenisation, USD,
PoL – promoting the listing of token-shares, USD,
L – listing of token-shares, USD.

In turn, the economic effect of the emission and tokenization of securities is calculated as the difference between the income from the sale of share tokens and the costs of their creation. This can be represented in the form of formula (2):

$$EB = (AI * PL) - TC, \quad (2)$$

where: EB – economic benefit, USD,
AI – amount of additional issue, shares,
PL – price of token-shares at listing, USD,
TC – tokenisation costs, USD.

At the same time, it should be noted that the issue of shares will increase the authorized capital of the company, and due to the sale of token shares on the stock exchange at a price above the nominal value, additional capital will increase in the liabilities of the balance sheet and cash in assets. Raised financial resources can be used to finance investment projects or repay liabilities.

In turn, the effect of the issue and tokenization of securities on liquidity and financial stability can be determined by calculating and comparing generally accepted relative indicators of these components of the financial state before and after the implementation of the offer.

4. RESULTS

Currently, there are many variants of the definition of the "financial potential" category. At the same time, each researcher focuses on financial resources, the possibilities of their involvement or combines the above approaches. According to the authors, it is most appropriate to consider the financial potential as the amount of available financial resources of the enterprise and possibilities of their formation or attraction with further distribution and use for the development of the economic entity.

From the established definition of the "financial potential" category, management of its sustainability can be defined as a rational and complex influence on the available and possible financial resources regarding their formation and attraction with further distribution and optimal use for the implementation of operational activities and development of the business entity.

Over the last decade, the level of management of financial stability of enterprises in Ukraine has deteriorated, which confirms non-compliance with normative values and the negative trend of relative liquidity indicators (Fig. 3).

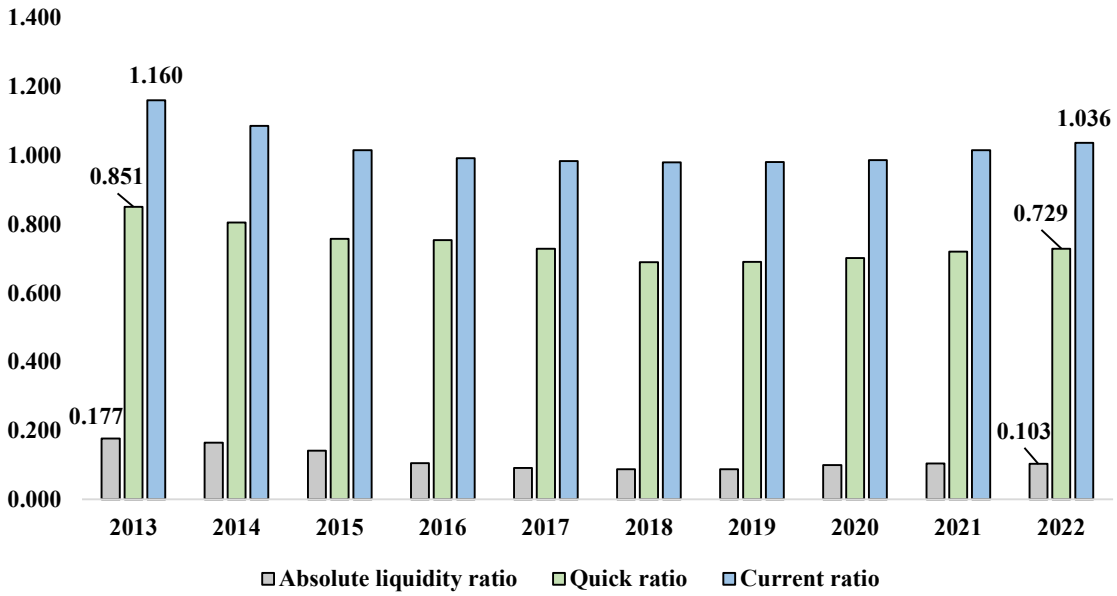


Figure 3: Relative indicators of liquidity of enterprises of Ukraine for 2013-2022

Source: compiled on the basis of [31]

It should also be noted that in the structure of current assets of enterprises, a significant share is accounted for by receivables, which gives grounds to assert, on the one hand, about an increase in the volume of sales of products and services, but also about a low level of effectiveness of managing receivables (Fig. 4).

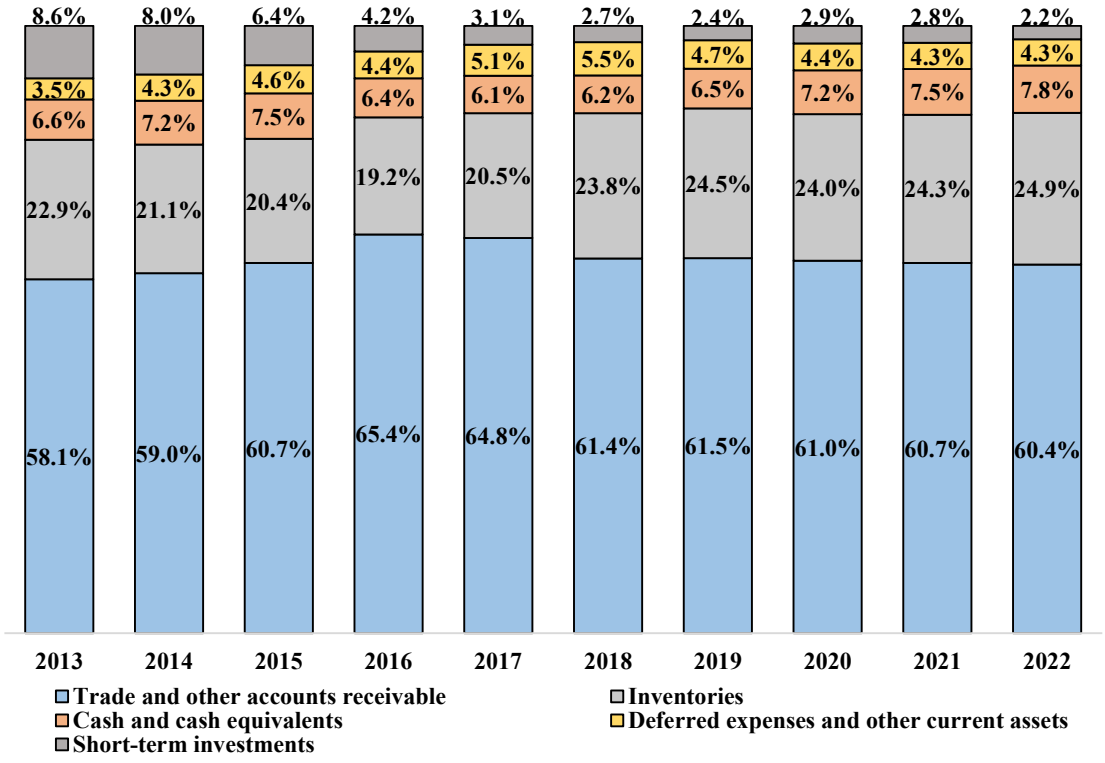


Figure 4: The structure of current assets of Ukrainian enterprises for 2013-2022

Source: compiled on the basis of [31]

The low level of management of the stability of financial potential of enterprises is also confirmed by the decrease in the share of equity capital in the structure of liabilities - over the period from 2013 to 2022, the share of equity capital decreased from 34.8% to 28.2%, while the share of current liabilities increased in the structure loans and guarantees from 46.6% to 58.6% (Fig. 5).

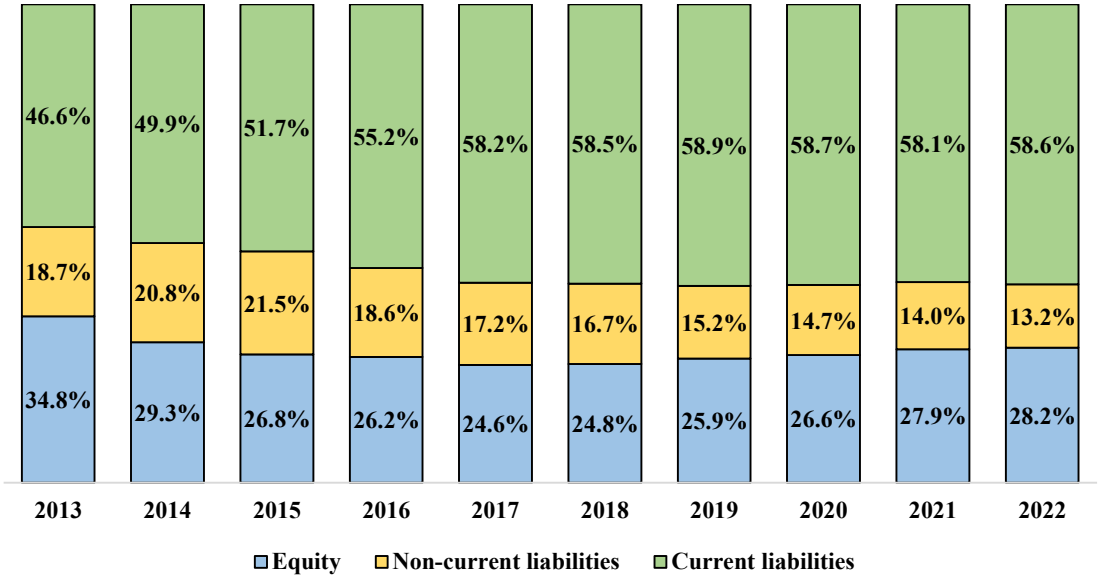


Figure 5: Structure of liabilities of Ukrainian enterprises for 2013-2022

Source: compiled on the basis of [31]

To improve the level of the financial stability management of the enterprise and the e-commerce development it is necessary to take measures to revise the enterprise resource management system. Conventionally, they can be divided into two approaches:

- firstly, classical - it is based on organizing the asset structure and the liability management system in such a way as to ensure the high efficiency of the company's work, while maintaining the established levels of solvency, liquidity and quick turnover. This approach, in turn, has two directions: organizational and resource;
- secondly, alternative - involves the use of financing methods that go beyond the traditional banking system. It is focused on the use of online platforms and blockchain technology to attract funds.

Let's focus on an alternative approach. Every year, the volume of funding raised with the help of alternative finance is growing. Excluding China, from 2015 to 2020, the volume of alternative financing in the world increased by 69 billion US dollars, which is equivalent to a growth of 2.6 times. Of this amount, the increase in Europe amounted to 16.6 billion US dollars, or 3.7 times (Fig. 6).

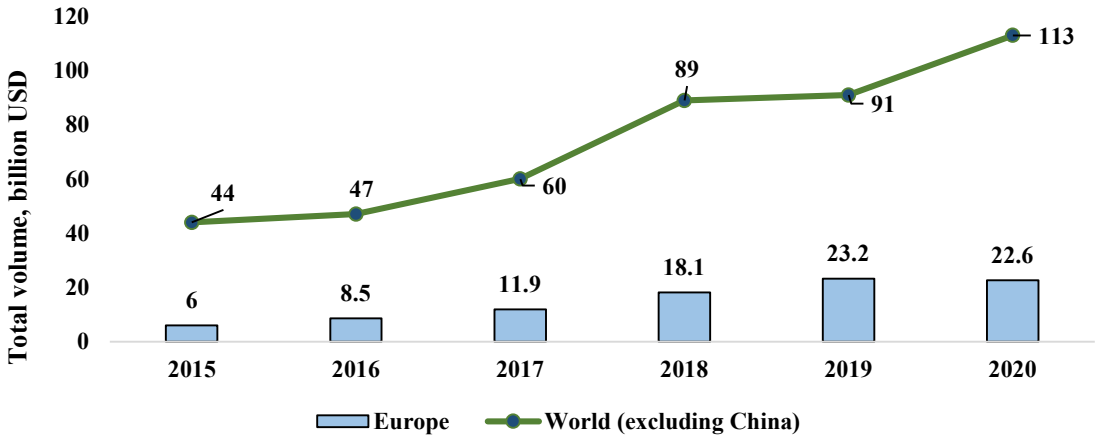


Figure 6: Volumes of alternative financing in the world and Europe for 2015-2020

Source: compiled on the basis of [32]

In general, to an alternative approach to improving the level of the financial stability management of the enterprise and the e-commerce development, three models can be attributed: equity, debt and asset tokenization model, the features of which are presented in Fig. 7.

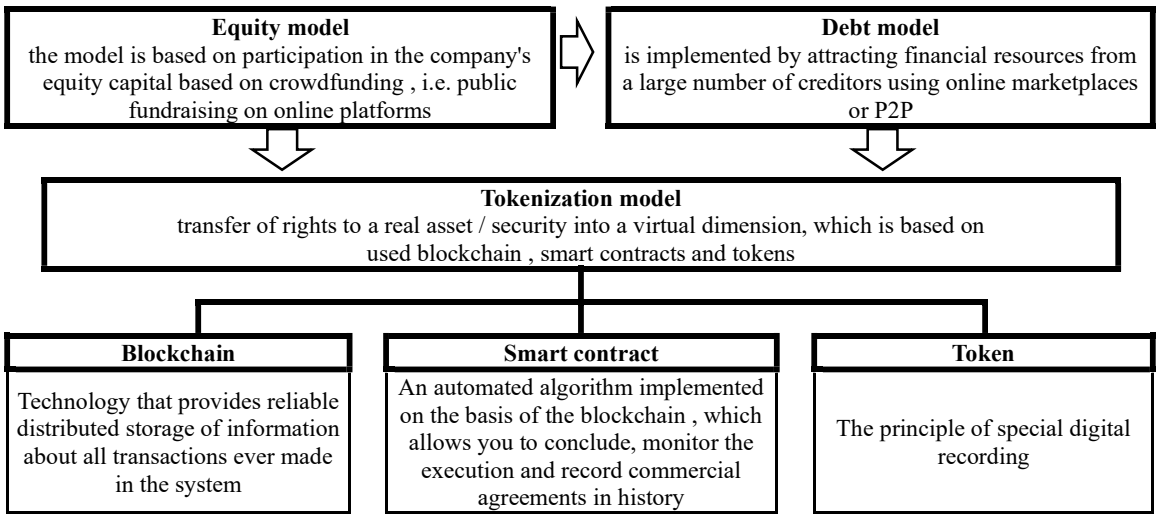
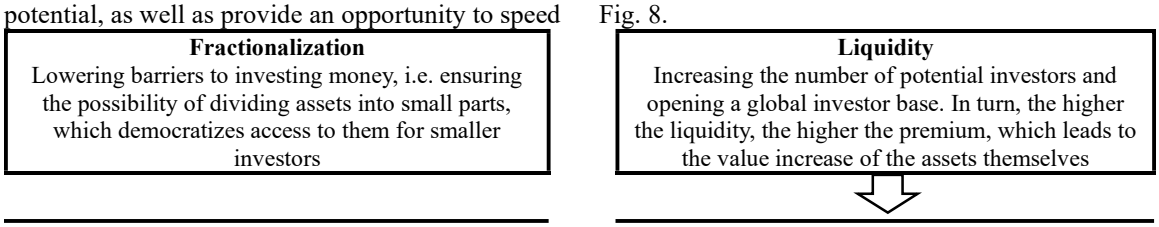


Figure 7: Models of the alternative approach to managing financial stability of the enterprise and the e-commerce development

Source: compiled by the authors

The most promising and flexible in use is the tokenization model, because it can be integrated into the classic approach, which will ensure the growth of economic efficiency and increase financial potential, as well as provide an opportunity to speed up and simplify the process of buying / selling assets, make it as secure as possible and increase the range of potential investors by property and geography. The advantages of tokenization are presented in Fig. 8.



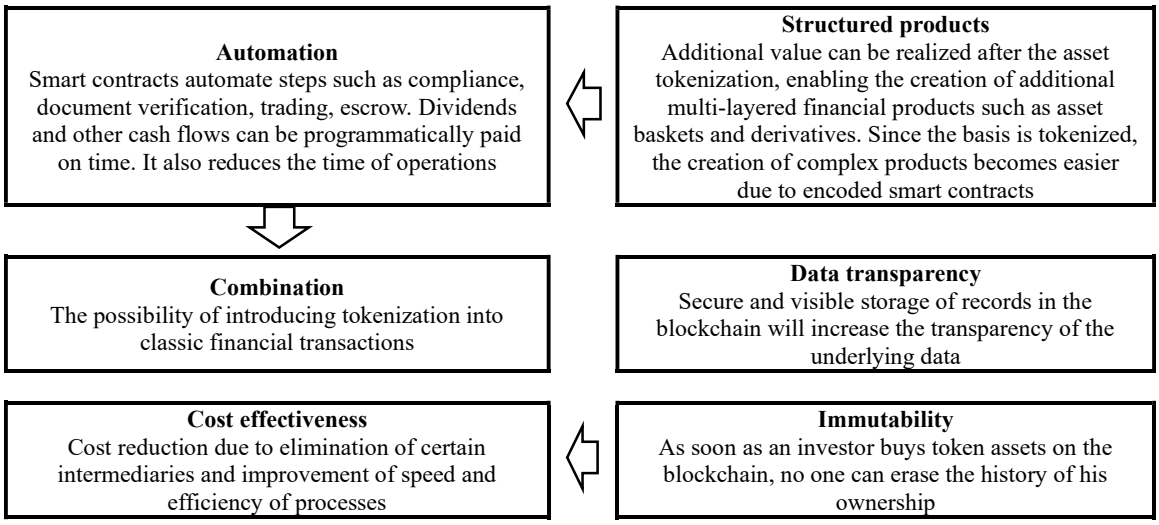


Figure 8: Advantages of tokenization as a model of managing financial stability of the enterprise and a factor in the e-commerce development

Source: compiled by the authors

In turn, relying on the advantages given above (Fig. 8), it can be assumed that tokenization will have a positive impact on the e-commerce development, which should be understood as activities for the sale of goods, services, real estate, securities, etc., which occurs by using information and communication technologies. According to the authors of the study, such a synthesis will have the greatest positive effect precisely for the trading of financial instruments.

Examples of the application of this model can be the additional issue of company shares with their subsequent tokenization. Let's consider this process in more detail.

The essence of tokenization of securities consists in their emission with subsequent transformation into virtual assets and distribution as tokens on crypto exchanges. The expediency of using such an approach is evidenced, firstly, by the fact that in Ukraine there is a low level of development of the stock market, which is evidenced by the decrease in the volume of trade in corporate securities, see Fig. 9, as well as the decrease in the amount of their emission, see Table 1.

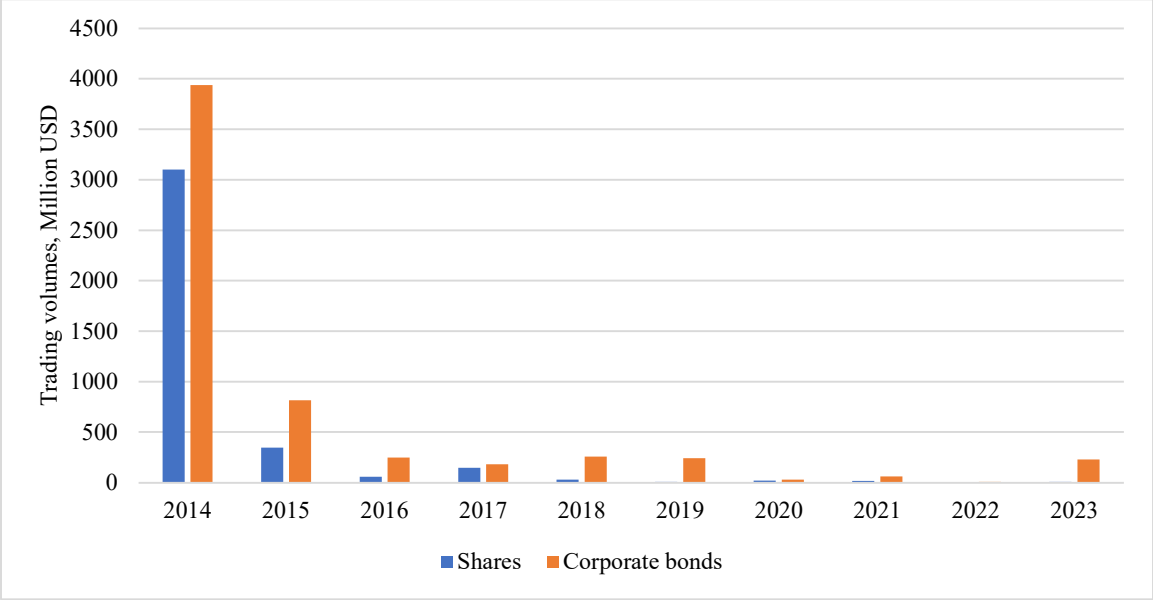


Figure 9: Trading volumes of corporate securities in Ukraine for 2014-2022

Source: compiled on the basis of [33]

Table 1: The number of share issues in Ukraine for 2014-2022.

Year	Share issue volume, mln USD	In % to GDP	Number of releases
2014	16924	9.2	-
2015	7693	6.5	-
2016	5502	8.8	128
2017	9321	11.2	118
2018	558	0.6	93
2019	1732	1.6	78
2020	1003	0.8	71
2021	1105	0.8	86
2022	910	0.9	20
2023	238	0.1	30

Source: compiled on the basis of [33]

Secondly, international analytical services found that virtual assets are very popular in Ukraine. For example, according to Triple A data for 2023, Ukraine ranks ninth in the world in terms of the share of the population that owns cryptocurrency [34]. In addition, the analytical platform Chainalysis notes that Ukraine took fifth place in the ranking of the global index of acceptance of cryptoassets according to the data of 2023 [35].

Thirdly, Ukraine has developed a legal framework for virtual assets, namely the Law of Ukraine "On Virtual Assets" No. 2074-X of February 17, 2022. However, this law has not yet entered into force, as the Tax Code of Ukraine has not been amended to regulate the taxation of transactions with virtual assets. It is worth noting that Law No. 2074-IX contains a definition of the term "virtual asset", as well as a classification of its types. Despite the fact that this legal act has certain shortcomings, it has the potential to become a driving force for the digital economy development in Ukraine [34].

To prove the effectiveness of the additional issue of shares and their further tokenization, we propose to conduct calculations based on the data of the annual financial statements of the operating enterprise Interpipe NTZ PJSC - an enterprise of the Interpipe Holding, which specializes in the production of wheels, rims, axles and wheel pairs for cargo, passenger and locomotive railway transport [36]. The calculation of the economic effect from the additional issue and tokenization of shares is given in Table 2.

Table 2: Economic effect of the additional issue and tokenization of PJSC "Interpipe NTZ" shares.

Indicator	Value
Amount of additional issue, shares	200,000,000
Nominal value of the share, USD	0.007
Initial price of the tokenized share, USD	0.52
Projected amount of involved resources, thousand USD	**103,896**
Expenses for:	
legal services, USD	649
audit*, USD	0
registration of the issue of shares and approval of the issue prospectus, USD	1299
registration of the report on the results of the share issue, USD	364
stock valuation services, USD	1299
opening an account in securities, USD	26
depository services per year, USD	9351
tokenization , USD	25974
promotion of the listing of token shares, USD	3896
listing of investment tokens , USD	3636
Economic effect, thousand USD	**103,850**

*performed annually, not included in tokenization costs
Source: developed by the authors

103,850 thousand will be received after the offer is implemented in USD. At the same time, the amount of equity will increase by the same amount - 1,299 USD will be attributed to the authorized capital and 102,551 thousand USD - to additional. In turn, the funds raised should be used to reduce accounts payable. General changes in the balance sheet that will occur as a result of the additional issue and tokenization of shares are presented in Table 3.

Table 3: Impact of additional issue and tokenization of shares on the balance sheet of Interpipe NTZ PJSC.

Balance sheet	Balance as of 12/31/2022	Impact of tokenization	Repayment of payables	Balance after implementation of offers
Assets				
Current assets , thousand USD	**427 447**	**103,850**	**-57 117**	**474 180**
Accounts receivable for goods, works and services , thousand USD	301 611	-	-	301 611
Cash and their equivalents , thousand USD	5 134	103,850	-57 117	51,866
Passive				
Equity , thousand USD	**112,901**	**62,291**	**-**	**175 192**
Authorized capital , thousand USD	2,597	1,299	-	3,896
Additional capital , thousand USD	4 111	102,551	-	106,662
Current liabilities , thousand USD	**313,510**	**-**	**-57 117**	**256 393**
Accounts payable for long-term obligations , thousand USD	79,784	-	-16,673	63 111
Accounts payable for goods, works and services ,thousand USD	35,390	-	-8 568	26,822
Accounts payable according to settlements with the budget , thousand USD	119	-	-200	-81
Accounts payable for payroll , thousand USD	314	-	-263	51
Other current commitments, thousand USD	133,718	-	-31,415	102 303
Balance currency, thousand USD	**516 370**	**103,850**	**-57 117**	**563 103**

Source: based on [36]

It is also appropriate to note that as a result of the additional issue of shares and their subsequent tokenization, the level of the company's financial potential will increase (Table 4), namely: Interpipe NTZ PJSC will ensure adequate absolute liquidity (increase from 0.016 to 0.203) and increase the level of financial autonomy (from 0.219 to 0.448), and will also form the basis for further improvement of solvency and financial stability, respectively, development of financial potential (Table 4).

Table 4: Economic effect of the issue and tokenization of shares on the liquidity and financial stability of Interpipe NTZ PJSC.

Indicator	Value		Absolute deviation
	2022	After implementing tokenization	
Liquidity and solvency			
Absolute liquidity ratio	0.016	0.203	0.186
Intermediate liquidity ratio	1.281	1.675	0.394
Total liquidity ratio	1.363	1.748	0.385
Financial stability			
Coefficient of autonomy	0.219	0.448	0.229
Debt ratio	0.781	0.585	-0.196
Coefficient of financial dependence	4.574	2.233	-2.341
Financial risk factor	3.574	1.411	-2.162
Coefficient of long-term financial independence	0.393	0.606	0.214

Source: compiled on the basis of [36]

In general, it is possible to note the positive impact of the implementation of the additional issue of shares and their subsequent tokenization at the enterprise.

5. CONCLUSIONS

The article analyzed the management of the company's financial stability as a factor in the e-commerce development and it was determined that its level is low. Based on this, two approaches to increasing its level have been developed and proposed: classic (management by using classic measures of the modern financial system) and alternative (based on the use of modern online platforms and blockchain technology). At the same time, it is determined that the second alternative approach in the world is developing at a fast pace.

The scientific novelty of this study is the substantiation of the feasibility of implementing blockchain technologies as a factor in managing financial stability of the enterprise and the e-commerce development, which involves the stages of the tokenization process, which consists of the stages of preparation, the stage of real emission and the stage of tokenization , a methodical approach for calculating the costs of emission and tokenization of valuable of securities and determination of the economic effect of the emission and tokenization of securities through the calculation of the difference between the income from the sale of share tokens and the costs of their creation.

The systematization of theoretical issues regarding alternative financing made it possible to justify the classification according to which three models were classified - equity, debt and tokenization. The advantages of the tokenization model are defined as one of the ways to implement the additional issue of shares with their subsequent tokenization. The expediency and technical possibility of carrying out this process in Ukraine was proved, and the algorithm for the emission and tokenization of the company's shares was developed.

The next stage was proving the effectiveness of the proposed offer to increase the level of the financial stability management of the enterprise as a factor in the e-commerce development on the example of Interpipe NTZ PJSC, namely, the economic effect on the balance sheet and relative indicators of liquidity and financial stability from the additional issue of shares and their tokenization was calculated.

The proposed methodical approach of determining the definition of the economic effect of the emission and tokenization of securities through the calculation of the difference between the income from the sale of tokens-shares and the costs of their creation can be used at enterprises of various spheres of economic activity to ensure an increase in the level of financial sustainability management of economic entities.

It is worth noting that it is advisable to continue further scientific research in the direction of an alternative approach to the financial stability management of the enterprise and the e-commerce development. Among the promising directions, it is possible to single out the introduction of blockchain factoring of receivables; tokenization of the company's debt securities; providing payments on the basis of the blockchain.

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