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Innovative Financial Methods for Optimising the Solvency of Accounts Receivable and Their Impact on the Efficiency of a Company's Operations

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► **Abstract.** Timely optimisation of accounts receivable is important for the development of business and the overall economy, because it actively contributes to reducing the "frozen" debt funds, reducing the need for additional sources of financing, and, accordingly, increases the company's liquidity, which, in turn, improves its reputation as a reliable partner. Due to the imperfection of the financial system and the unpopularity of modern debt optimisation measures at Ukrainian enterprises, it is particularly relevant to analyse the real problems of forming accounts receivable and investigate promising areas for its reduction. The purpose of the study is to consider and test innovative financial methods for optimising counterparty debt to the enterprise in Ukraine, including factoring and insurance of accounts receivable. The practical significance of the study is as follows: based on the analysis of the current state of accounts receivable, the use of factoring services for its optimisation is proposed; using the modelling method, key forecast indicators of liquidity at the enterprise under study are determined, the areas of insurance of accounts receivable are formed, the effectiveness of the proposed measures is substantiated. The study summarises the theoretical foundations of optimising accounts receivable in the system of ensuring the efficiency of an enterprise. The analysis of the financial and economic state of the business is carried out. The analytical support of a system of indicators and assessment of the quality of accounts receivable generation is investigated. Forecasting and optimisation of the level of accounts receivable based on innovative financial methods was performed to ensure effective business operations. Ways to improve the management of accounts receivable of the enterprise are provided. The positive impact of measures on the efficiency of the enterprise based on financial indicators – liquidity and turnover ratios – is proved. The problems of widespread use of the proposed methodology are indicated, and suggestions for solving these problems are given. The practical significance of the results obtained lies in the applied orientation of innovative financial methods described in the paper, the use of which will improve the process of optimising accounts receivable at the enterprise level, improve the process of managing accounts receivable, increase the level of liquidity and profitability of the business. The materials of the study would be useful for researchers who deal with the management and optimisation of accounts receivable, and can be comprehensively used in the business activities of "Energo Zbut Trans" LLC

► **Keywords:** factoring, insurance, management, business, liquidity, forecast indicators

► Introduction

At the present stage, during the period of business globalisation, increased risks of financial losses, and increased competitiveness, which significantly affect the activities of organisations, financial stability is an essential condition for their survival. The company needs not only to survive, but also to improve its financial results. Modern business conditions require progressive, scientifically based, and innovative approaches and methods for optimising accounts receivable at the enterprise, which is inextricably linked with the need to reduce the threat to the economic security of the organisation. It is effective to use methods of structural and logical analysis and economic and mathematical modelling to develop a holistic conceptual approach to the object under study [1; 2].

Mutual obligations with counterparties constantly arise in the process of carrying out any economic activity of the organisation. Contractors can be both suppliers and contractors, as well as buyers and customers. Optimisation of financial relations between them is one of the conditions for ensuring the financial stability of an enterprise.

Methodological approaches to determining financial stability are the basis for substantiating

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factors influencing the financial stability of an enterprise, including in modern conditions of instability of the economic situation. The type of financial stability of an enterprise can be absolute, satisfactory, unstable, and crisis [3].

An alternative method is to analyse relative indicators of financial stability. In the event of a crisis, it is extremely important to quickly look for ways to improve the financial stability of the enterprise. For example, it is possible to achieve a sharp increase in the financial stability of a business entity based on an increase in the level of capitalisation [4], or by reducing accounts receivable. Moreover, the debt is affected by various factors. O. Ugwudioha and L. Onmonya developed a model and proved a direct relationship between the repayment period of accounts receivable, the time of the company's existence, and the tools for ensuring financial stability: gross profit and financial leverage [5].

Along with traditional methods of optimising accounts receivable, such as assessing the financial condition of customers, timely invoicing and monitoring their movement, there are a number of innovative methods, for example, resale of debt collection rights (forfeiting, factoring), insurance of accounts receivable.

Of the innovative accounts receivable management tools considered, factoring is the most popular and in demand. It was investigated by such Ukrainian and foreign researchers as S. I. Derevianko [6], O. V. Smyrna and O. A. Bereslavets [7], W. Jin, and C. Wang [8]. As noted by O. V. Smyrna and O. A. Bereslavets, "to solve the problem of accounts receivable, enterprises, organisations, and corporations from developed countries began to use new unique financial security tools 20-30 years ago. One of such services is a factoring service as a way to increase the speed of capital turnover and improve the management of financial flows" [7]. According to the researchers, in European countries, the turnover of factoring is approximately 6% of GDP [7]. However, for Ukraine, this method is innovative, since it is only at the stage of development and is almost not used by Ukrainian enterprises. The study by Bi Keran, Hua Zheng et al. is devoted to the analysis of accounts receivable insurance [8]. For Ukraine, this method is completely new, since Ukrainian insurers do not currently provide such a service, although in developed countries it is mentioned in the absolute majority of calculations for optimising trade debt.

Optimisation of accounts receivable directly affects the profitability of the company, increases financial stability, and, accordingly, reduces threats to the economic security of the organisation. In addition, optimisation of accounts receivable determines the discount and credit policy for inefficient buyers, ways to speed up the repayment of debt amounts and reduce bad debts.

Thus, the state of accounts receivable, its volume, and quality have a direct impact on the financial situation of the business, and therefore, on the level of its economic and financial security.

Accordingly, the relevance of the study is conditioned by the fact that insufficient attention to the management of accounts receivable at the enterprise can lead, first of all, to the loss of funds and a decrease in the level of financial stability. This is proved by M. I. Ivanova et al. [9], V. Ya. Havran et al. [10]. This issue is especially important for energy sales companies, since the growth of debt dependence on debtors leads to a decrease in revenue growth and a decrease in the level of liquidity of the organisation.

V. Ya. Havran et al. prove that "accounts receivable has a positive and negative impact on the company's activities; positive – stimulating sales growth, establishing stable and long-term relationships with the consumer, forming a competitive assortment, and others. The negative impact of accounts receivable on the company's activities is caused by the following factors: withdrawal of funds from circulation, additional costs for managing accounts receivable; the risk of non-repayment, losses caused by inflation and a decrease in profit, etc." [10]. Optimisation of accounts receivable involves the search for new solutions that can help debt and its changes have a positive impact on doing business.

Modern theoretical, methodological, and practical aspects of managing the company's accounts receivable were investigated by Ukrainian and foreign researchers, who, in particular, considered the development of the theory of financial factoring as a method of debt management [11], the company's trade and credit policy [12], the relationship of accounts receivable and such financial categories as profit, margin, liquidity, etc. [13], monitoring the company's operations with cash flow analysis [14], etc.

The purpose of the study is to work out methods for optimising accounts receivable, identify innovative financial methods, and substantiate their impact on the efficiency of the enterprise.

▸ Materials and Methods

The following research methods were used when writing the paper: experiment (an attempt to use factoring to optimise debt at the enterprise under real business conditions), comparison (determining the effectiveness of the research object before and after the implementation of the proposed measures), generalisation (proving specific theses based on basic financial categories and concepts), forecasting (predicting numerical values of reporting items for the forecast period), graphical and tabular methods, modelling (imitation of the situation in which the debt insurance service is provided under the conditions established by the author). To reveal the essence and content of categories, methods of theoretical generalisation were used – synthesis and analysis, deduction and induction, a systematic approach, analogy, comparison, and abstraction.

The information base was scientific and periodical sources for 2018-2022 [1-2; 4-14; 15], laws and regulations [16], Internet resources [3; 17-19], financial statements of "Energo Zbut Trans" LLC [20].

The relevance of using the proposed methods is proved by their popularity and effectiveness in developed European countries, which may become one of the stages of Ukraine's integration into the European Economic Area.

The initial stage of the study was the analysis of accounts receivable of the enterprise under study, namely, its share in the total amount of assets. The result of the analysis proved the need for further optimisation of the specified balance sheet item. To fulfil the purpose of the study, the use of a factoring scheme based on the conditions of the Ukrainian bank Radabank was modelled, and its effectiveness in reducing the amount of debt was established.

Accounts receivable insurance as one of the potential financial methods of debt optimisation was modelled in such a way that a pre-issued insurance policy covers part of the trade accounts receivable, and the one that was overdue during the policy's validity period is reimbursed by the insurer. Planned revenue values are calculated using the average growth over the past three years, and accounts receivable – using the average turnover ratio over the past three years. The values found varied depending on the financial methods used. The effectiveness of the proposed methodology for improving the efficiency of the enterprise's activities based on liquidity and turnover indicators is substantiated.

In modern business conditions, it is necessary to quickly and effectively respond to changes in the asset management policy, because the stability of the enterprise's functioning and profit maximisation depend on it. The level of liquidity, solvency, and financial sustainability depends on the right way of development and the further use of assets by modern business entities. To avoid a shortage or surplus of assets that causes either losses or loss of profit, it is necessary to improve their management system. That is why it is necessary to combine existing methods and introduce qualitatively new ones in the process of using assets in a modern enterprise, which in the future would increase its potential, and affect the final result of all its work [3].

▸ Results and Discussion

Accounts receivable is the amount of debt owed by debtors to an enterprise as of a certain date, where debtors are legal entities and individuals who, as a result of past events, owe the enterprise certain amounts of money, their equivalents or other assets [16]. That is, it is the result of settlements between two business entities, for example, a sales company and a customer company, which result in a debt obligation of one party (accounts payable) and a monetary claim for the other (accounts receivable). Accounts receivable are "frozen" resources reflected in the balance sheet of the creditor company's accounting records. An increase in its size negatively affects the financial condition of the latter. Firstly, it should be borne in mind that the amount of money received in the future has a different value than the amount received at the present time, that is, there is a process of "depreciation" of money over time. This means that a lender that delays payment to its customers carries the risk of losing the benefit. Secondly, in addition to the risk of lost profits, the company has a risk of non-payment from debtors, that is, bad accounts receivable may arise. Thirdly, in practice, an economic organisation often faces another difficulty – the need for financial resources. In this case, it is forced to resort to borrowing money, that is, an increase in accounts payable, which violates the ratio between the source of financing (accounts payable) and accounts receivable, which, according to I.P. Soboleva et al., "must be at least 1" [14]. On the other hand, M. Madaleno and her co-authors argue that "there is no fixed level of accounts receivable and payable that an enterprise should have. This level is influenced by many factors: the desire of suppliers to differentiate prices, the disparity of information between suppliers and customers, the market structure, the stages of economic cycles, and the creditworthiness of customers" [13]. Thus, a paradoxical situation is formed when money is accounted for on the balance sheet, but in fact, it is not. Separately, it is necessary to focus on the importance of the indicator of turnover of accounts receivable: in the research of A. A. Lemishko, it is proved that an increase in asset turnover, among other things, encourages an increase in the efficiency of total capital and reproduction processes at the enterprise [2].

According to M.I. Ivanova, "the level of accounts receivable has a direct impact on the level of economic security" [9], so the testing of innovative methods of managing accounts receivable is an important factor in the effective operation of business.

The most popular tool for optimising accounts receivable in developed countries is factoring – the acquisition by a bank from a supplier of the right to claim customers' accounts receivable for products shipped by it, considering the risk of fulfilling such a requirement [7]. The main advantages of factoring for the supplier company are shown in Figure 1.

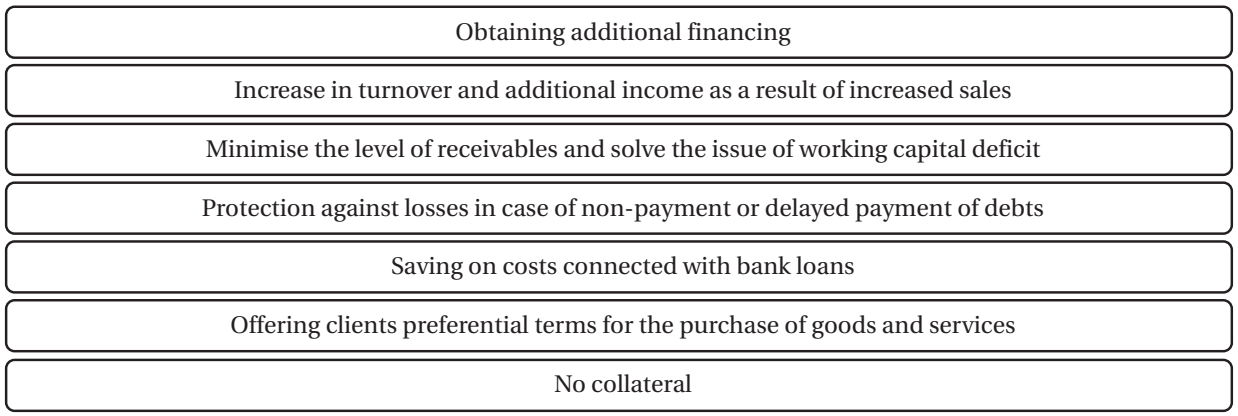

Figure 1. Competitive advantages of using a factoring service for a supplier company
Source: compiled by the author based on the study by [7; 11]

In particular, W. Jin and C. Wang identify three strategies for financing accounts receivable based on factoring methods [8]:

1. Single trade credit: the retailer uses the trade credit provided by the supplier, while the supplier uses only internal capital to support production.

2. Hybrid strategy with full factoring: the supplier provides trade credit to the retailer and sells all accounts receivable to the factor. When the loan expires, the seller pays the obligation to the factor based on the principle of limited liability.

3. Hybrid strategy with partial factoring: the supplier provides trade credit to the retailer and sells part of the accounts receivable to the factor. To better understand the role of factoring, it is assumed that the supplier's accounts receivable are divisible. According to this strategy, an arbitrary distribution of the retailer's credit risk is allowed.

According to S. I. Derevyanenko, "factoring services are still of limited use in Ukraine". She claims that "the level of development of the factoring services market in Ukraine is low... Popular types of factoring services, such as discounted invoice purchase and payment to the factor (bank), bank servicing of all sales accounting operations of companies with the maintenance of accounts of their debtors and submission of detailed reports, provision of guarantees of full payment even when the buyer is late or fails to pay, are not often practised in Ukraine. As a rule, customers prefer such service when the bank buys accounts of debtors at a discount, receiving payment in its favour" [6]. Therefore, the author describes the following reasons for the expediency of using factoring in Ukraine (Fig. 2). Based on research data from S. I. Derevyanenko, O. V. Smyrna and O. A. Bereslavets, it can be concluded that the innovation of factoring in Ukraine lies in the fact that it is a real alternative to bank lending and encourages the use of Ukraine's significant financial potential. At the level of leading European countries, the demand for factoring is constantly growing, which should be taken into account for the development of this type of financial service in Ukraine as a European state.

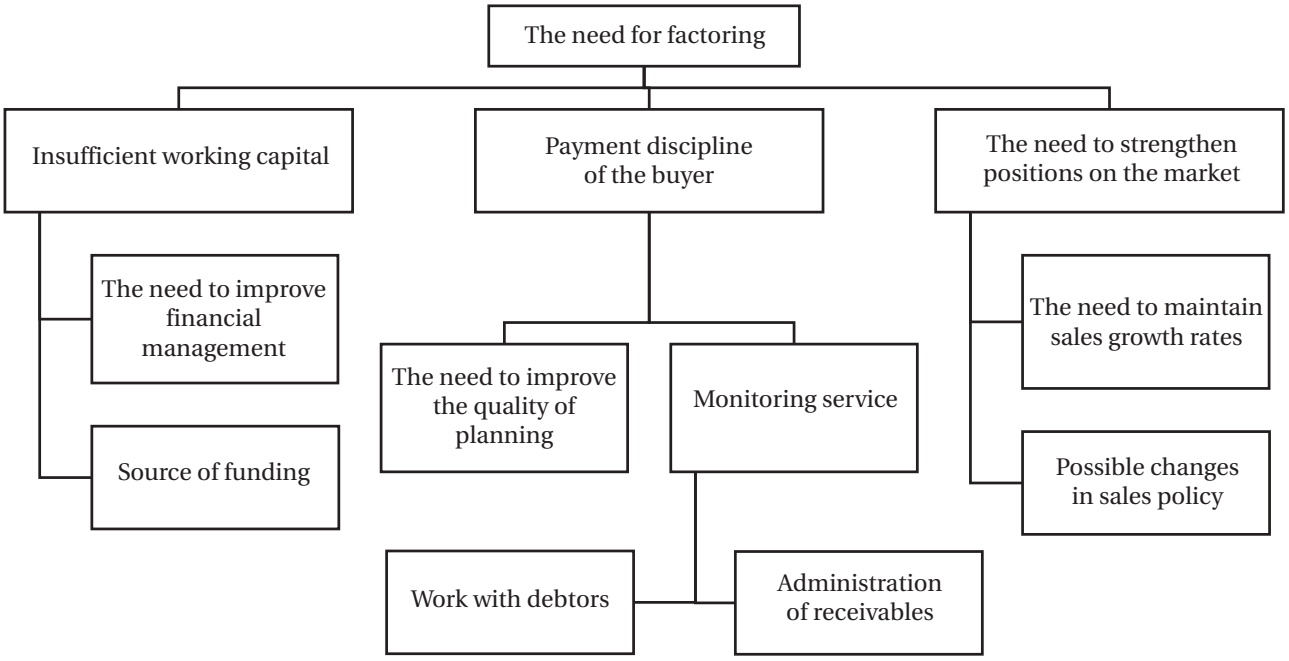

Figure 2. Reasons for the expediency of using factoring in Ukraine
Source: modified by the author based on the study by S. I. Derevyanenko [6]

Next, the study considers the use of factoring to reduce accounts receivable on the example of "Energo Zbut Trans" LLC. As can be seen from Table 1, accounts receivable amount to 89.42% of the company's current assets as of December 31, 2021. This is a factor of "freezing" money in settlements, which leads to the need to finance debt not at the expense of revenue, but the additional attraction of borrowed sources (accounts payable), and, accordingly, reduces the liquidity of the business. The authors of this study agree with the conclusions obtained by Ala'a Adden Abuhommous and Tareq Mashoka, who proved that the level of accounts receivable at the micro level should not exceed 15% of total assets [12].

Table 1. Current assets of "Energo Zbut Trans" LLC as of 12/31/2021

Asset item	Amount, thsd UAH	Share in total assets, %
Inventory	0	0
Accounts receivable	368,707	89.42
Including for products, goods, and services	172,277	41.78

Table 1, Continued

Asset item	Amount, thsd UAH	Share in total assets, %
Based on calculations for issued advances	120,752	29.29
Based on calculations with the budget	50,468	12.24
Other debt	25,219	6.12
Money and its equivalents	6,480	1.57
Deferred expenses	550	0.13
Other current assets	34,415	8.35
Total assets	412,316	100

Source: compiled by the author based on financial statements of "Energo Zbut Trans" LLC [20]

To use factoring through Radabank bank at the enterprise under study, the terms of service were as follows: payment amount – up to 95% of the delivery amount, administration commission – 0.12% of the transaction face value, advance payment – 0.5-8.0% of the transaction face value [17]. Since the maximum amount of financing is not specified, the nominal value of the transaction will be 42.8% of trade accounts receivable, or 20% of all accounts receivable, in the amount of UAH 73,741 thousand. Accordingly, the calculations performed provided the following results regarding the use of factoring (Table 2).

Table 2. Result of using factoring in Radabank bank

Indicator	Value	Amount, thsd UAH
Transaction amount	100%	73,741
Payment amount	95%	70,054
Remaining amount (paid after payment of the debt by debtors)	5%	3,687
Administration fee	0.12%	88
Advance payment	8.0%	5,899
Financial result of the transaction	–	64,066

Source: compiled by the author based on [17] and data from Table 1

It can be concluded that the amount received from the factoring service will amount to 86.88% of the initial amount with the possibility to receive the remaining 5% of the transaction amount in case of payment of debt by debtors within the established time limit. The proposed method will increase sales revenue by UAH 64,066 thousand and get rid of part of accounts receivable, which significantly increases the level of efficiency of the enterprise. Thus, the use of factoring is appropriate for these financing conditions.

An absolutely innovative financial tool for optimising accounts receivable for Ukraine is accounts receivable insurance, also called commercial loan insurance. It provides for insurance of risks against late repayment of funds by the buyer or its bankruptcy. The use of this tool can be particularly effective for energy sales companies operating in a competitive market, and unable to dictate their own terms of sale or plan to conquer new market niches. This study has established that as of 01/01/2022, this type of insurance is not used in Ukraine. At the same time, in the developed countries of the world, this type of insurance is actively used at the micro level. According to the international factoring association Factors Chain International, interest in this financial service is constantly growing, which indicates an increase in the share of factoring operations in GDP [18].

According to Bi Keran and Hua Zheng, "supply chain financing on accounts receivable based on commercial credit insurance is essentially a closed ring of financing, and differs from conventional financial methods in that it has a great advantage in controlling the sources of credit risks" [15]. The authors substantiate the need for this type of insurance as follows: "credit insurance used in the financing of supply chains for accounts receivable refers to an operation in which insurance is covered by a financial company, accepting a loan from the main enterprise as an object. When the main enterprise goes bankrupt due to force majeure, the appropriate and unpaid amount of money will be paid by the insurance company, and a limited payment of compensation will also be made to the service bank" [15].

Such a method of optimising accounts receivable as its insurance is fundamentally important for reducing the risks of non-payment of debt by debtors. Substantiation of the need for its use is carried out by analysing the quality of trade accounts receivable of "Energo Zbut Trans" LLC, which is presented in Table 3. Based on analytical calculations, the total share of overdue debt is 6.26%, and the delay period is more than one year, that is, the ability to repay the debt is extremely low and potentially this debt can be transferred to uncollectible. In the case of its preliminary insurance, this amount can be reimbursed by the insurance company almost in full, reducing credit risks for the business, which is one of the factors for ensuring financial security. In other words, the use of accounts receivable insurance as an innovative financial instrument is very important for practical financial activities at the micro level.

Table 3. Classification of trade accounts receivable of "Energo Zbut Trans" LLC by delay groups as of 12/31/2021

Asset item	Amount, thsd UAH	Share, %
Non-overdue accounts receivable	168,014	93.74%
Up to 30 days	–	–
31-90 days	–	–
91-120 days	–	–
121-180 days	–	–
181-365 days	–	–
366-730 days	10,658	5.95%
More than 730 days	560	0.31%
Unrecoverable debt	–	–
Total trade accounts receivable	179,232	100

Source: compiled by the author based on financial statements of "Energo Zbut Trans" LLC [20]

The study suggests that accounts receivable insurance is not common in Ukraine, including due to the undeveloped legal support of this financial procedure. Considering the innovation of accounts receivable insurance for the domestic financial system, the study will model the possibility of its application on the example of the enterprise. Assume that an insurance company insures accounts receivable in the amount of up to UAH 100,000 thousand. Insurance is performed at real value – the insurance amount is equal to the actual value of the property at the time of the conclusion of the contract. The insurance contract is concluded for one year. The insurance fee (insurance premium) is 0.5% of the transaction amount. The deductible is 1% of the refund amount. Next, the study calculates the usefulness of this method for optimising accounts receivable at the analysed enterprise, if trade accounts receivable are insured in the amount of UAH 100,000 thousand, and the current 6.26% of all debt was overdue and not paid during the insurance period. The calculation results are summarised in Table 4.

Table 4. Determining the performance indicators for the use of accounts receivable insurance of "Energo Zbut Trans" LLC

Indicator	Amount, thsd UAH
Insurance amount	100,000
Amount of damage	11,218
Insurance payment	500
Franchise	112.18
Financial result of the transaction	10,605.82

Source: compiled by the author

Thus, since the amount of damage is less than the insured amount, in case of delay of debt by debtors in the amount of UAH 11,218 thousand, the company would be able to receive compensation in the amount of UAH 10,605.82 thousand, which is 94.54% of the loss amount. Next, the study analyses the effectiveness of the methods used to optimise accounts receivable at "Energo Zbut Trans" LLC, namely their impact on the revenue received from sales of products, the amount of debt and, accordingly, the money received from its repayment using factoring and insurance, and the turnover of accounts receivable as the main factor for its assessment (Table 5).

Table 5. Effectiveness of testing methods for optimising accounts receivable (based on factoring and insurance of accounts receivable) of "Energo Zbut Trans" LLC

Indicator	Fact 2021	Plan 2022	Result of taking measures	Forecast for 2022 (after action)	Change			
					Without taking action		After taking action	
					Abs.	%	Abs.	%
Sales revenue, thsd UAH	8,905,733	9,602,607[1]	+64,066 +10,606	9,677,279	696,874	+7.83	771,546	+8.66

Table 5, Continued

Indicator	Fact 2021	Plan 2022	Result of taking measures	Forecast for 2022 (after action)	Change			
					Without taking action		After taking action	
					Abs.	%	Abs.	%
Volume of accounts receivable, thsd UAH	368,707	297,019	-73,741 -11,218	212,060	-71,688	-19.44	-156,647	-42.49
Amount of funds, thsd UAH.	6,480	19,661	+64,066 +10,606	94,333	13,181	+203.4	87,853	+1,355.8
Turnover ratio of accounts receivable, units	24.15	32.33[2]	–	45.63	8.18	+33.87	21.48	+88.96
Cash turnover ratio, units.	1,374.34	488.4[2]	–	102.59	-885.94	-64.46	-1,271.8	-92.53
Turnover period of accounts receivable, days	14.91	11.14	–	7.89	-3.77	-25.29	-7.02	-47.09

Note: [1] – value considering the average revenue growth over the past 3 years of 7.83%; [2] – average value for the last 3 years
Source: compiled by the author

According to the results of the analysis, it can be seen that the proposed measures can increase sales revenue by 8.66%, increase cash on the balance sheet by 1,355.8%, reduce the volume of accounts receivable by 42.49%, and reduce its turnover period from 14.91 to 7.89 days, or by 47.09%.

To confirm the effectiveness of these methods to improve the financial security of the enterprise, the study will compare liquidity indicators as a basis for assessing the current and future state of the company's solvency (Table 6).

Table 6. Forecast liquidity indicators of "Energo Zbut Trans" LLC

Indicator	Standard[1]	Fact 2021	Plan 2022	Forecast for 2022 (after action)	Change			
					Without taking action		After taking action	
					Abs.	%	Abs.	%
Cash, thsd UAH	–	6,480	19,661	94,333	13,181	+203.4	87,853	+1,355.8
Accounts receivable, thsd UAH	–	368,707	297,019	212,060	-71,688	-19.44	-156,647	-42.49
Current assets (minus cash and accounts receivable), thsd UAH	–	34,965	56,533[2]	56,533[3]	21,568	+61.68	21,568	+61.68
Current liabilities, thsd UAH	–	398,851	279,742[4]	279,742	-119,109	-29.86	-119,109	-29.86
Absolute liquidity ratio, units	0.2 - 0.5	0.02 (< norm.)	0.07 (< norm.)	0.34 (= norm.)	0.05	+332.6	0.32	+1,975.6
Quick liquidity ratio, units	0.6-0.8	0.94 (> norm.)	1.13 (> norm.)	1.1 (> norm.)	0.19	+20.34	0.15	+16.44
Current liquidity ratio, units	-106.0	1.03 (< norm.)	1.33 (= norm.)	1.3 (= norm.)	0.31	+29.74	0.27	+26.16

Notes: [1] – determined based on methodological recommendations developed by M. Kohan [19]; [2] – calculated based on planned revenue and the average value of the turnover ratio for 3 years; [3]– since optimisation methods convert accounts receivable into cash, the measures do not affect the forecasting of the volume of inventory and other current assets, but are conditionally equal to the planned value; [4] – calculated based on the exponential trend line for the last 3 years

Based on the results of forecast calculations, the following conclusions can be drawn:

The usual planning of the volume of accounts receivable and other current assets, based on the average turnover indicator, raised all the values of liquidity ratios, among which the current one is above the standard level (planned 1.33 versus actual 1.03 with the standard ≥1.2). However, it can be seen that the absolute liquidity is less than the optimal one – 0.07 with a standard of 0.2-0.5 – which means insufficient solvency of the business in the event of the deadline for payment of creditors' debt in the near future. The result of the introduction of measures to optimise accounts receivable increased absolute liquidity to the standard range of values up to 0.34. At the same time, fast and current liquidity decreases slightly – by 0.03 units compared to the planned ones. However, the values without measures were higher than the standard ones, and the results after optimisation are no less critical, so this difference can be ignored, since in this case, all liquidity ratios indicate the solvency of the enterprise in the short term.

Conclusions

The paper considered the theoretical foundations of the concept of "accounts receivable", its problems for effective business operation. The state of accounts receivable and its share in assets at "Energo Zbut Trans" LLC are analysed. It turned out that its share is 89.42% of the company's assets, and, consequently, the company spends significant resources on financing accounts receivable and does not receive a significant part of revenue. It is proposed to use the factoring service through Radabank bank, which is still new for Ukraine, with the specified terms of provision. This would reduce the value of debt by 20%, increasing revenue by UAH 64,066 thousand. The state of trade accounts receivable by groups of delinquencies is investigated, it is revealed that 6.26% of the volume is overdue, and the need for insurance of accounts receivable is justified. Since such a service as accounts receivable insurance is not yet provided in Ukraine, its application was modelled. The innovation of this method lies in the ability to attract insurance companies to the sales process of manufacturing enterprises as a potential source of profit for the former and ensure the reliability of settlements of the latter with their counterparties. The results of testing the financial method showed that in the case of insurance of debt, of which those 6.26% will be overdue, they will be reimbursed by the insurance company. Thus, accounts receivable will decrease by the amount overdue, and revenue will increase by UAH 10,606 thousand. The forecast of accounts receivable and revenue for 2022 with and without taking into account the proposed measures is made, it is proved that if the proposed methodology is used, it is possible to increase revenue by 8.66% against 7.83% without applying measures, reduce accounts receivable by 42.49% against 19.44%, and reduce the period of its turnover by 47.09% against 25.29%. Despite the optimality of fast and current liquidity indicators (1.1 and 1.3, respectively), which does not change when applying the methodology, absolute liquidity would reach an optimal value of 0.34 with a standard of 0.2-0.5, which is not achieved without the proposed measures.

The results obtained indicate the effectiveness of the proposed methods in the case of their testing in a separate enterprise, but the global application is impossible for the following reasons:

– different types of economic activity have certain differences in the management of accounts receivable. Some enterprises, in particular those that sell products to the end user (including energy sales companies), exist at the expense of sales on credit;

– the need to use the services of banks and insurance companies by many enterprises at once will lead to the collapse of the country's financial and credit system, in particular, in the event of force majeure. Financial companies simply do not have enough funds to reimburse the required amount of accounts receivable even if a small part of the claims is confirmed;

– the emergence of a sharp decline in production by enterprises with significant debt, the breakdown of trade ties with some debtor customers, and an aggressive policy of "debt collection";

– disruption of the production and financial cycle in most businesses that are part of the supply chain.

Partial solutions to these problems can be the provision of these services for VIP clients of financial organisations, in particular, based on the analysis of their credit policy and the state of accounts receivable and payable, the introduction of restrictions on the types of economic activities of clients, restrictions on the provision of financial services in case of a crisis, the involvement of other financial institutions and organisations. These offers would allow limiting the circle of customers to the most reliable and those who really need to use the above-mentioned financial products.

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Інноваційні фінансові методи оптимізації дебіторської заборгованості та їх вплив на ефективність діяльності підприємства

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► **Анотація.** Своєчасна оптимізація дебіторської заборгованості має важливе значення для розвитку бізнесу та економіки в цілому, тому що це активно сприяє зменшенню «заморожених» у заборгованості коштів, зниженню потреби у додаткових джерелах її фінансування, та, відповідно, підвищує ліквідність компанії, що, в свою чергу, сприяє покращенню її репутації як надійного партнера. У зв'язку з недосконалістю фінансової системи та непопулярністю сучасних заходів оптимізації боргу на підприємствах України, особливої актуальності набуває здійснення аналізу реальних проблем формування дебіторської заборгованості і дослідження перспективних напрямів її скорочення. Метою дослідження є розгляд та апробація інноваційних для України фінансових методів оптимізації заборгованості контрагентів перед підприємством, серед яких факторинг та страхування дебіторської заборгованості. Практичне значення проведеного дослідження полягає у наступному: на основі проведеного аналізу поточного стану дебіторської заборгованості, запропоновано використання послуги факторингу для її оптимізації; за допомогою методу моделювання визначено ключові прогнозні індикатори ліквідності на досліджуваному підприємстві, сформовано напрями страхування дебіторської заборгованості, обґрунтовано ефективність запропонованих заходів. У статті узагальнено теоретичні основи оптимізації дебіторської заборгованості в системі забезпечення ефективності діяльності підприємства. Проведено аналіз фінансово-економічного стану бізнесу. Досліджено аналітичне забезпечення системи показників та оцінка якості формування дебіторської заборгованості. Виконано прогнозування та оптимізацію рівня дебіторської заборгованості на основі інноваційних фінансових методів з метою забезпечення ефективної діяльності бізнесу. Наведено шляхи вдосконалення управління дебіторською заборгованістю підприємства. Доведено позитивний вплив заходів на ефективність діяльності підприємства на основі фінансових показників: коефіцієнтів ліквідності та оборотності. Вказано проблеми повсюдного застосування запропонованої методики, надано пропозиції щодо вирішення цих проблем. Практичне значення отриманих результатів полягає у прикладній спрямованості інноваційних фінансових методів, викладених у роботі, використання яких покращить процес оптимізації дебіторської заборгованості на рівні підприємства, вдосконалить процес управління дебіторською заборгованістю, підвищить рівень ліквідності та прибутковості бізнесу. Матеріали статті будуть корисні науковцям, які займаються питаннями управління та оптимізації дебіторської заборгованості, та можуть бути комплексно використані у господарській діяльності ТОВ «Енерго Збут Транс»

► **Ключові слова:** факторинг, страхування, управління, бізнес, ліквідність, прогнозні індикатори