UDC 657.412.4

JEL Classification: M41

O.I. Ilyash, Doctor of Economics, Professor, Vice-Rector for Research and International Activity, International University of Finance, Professor of Theoretical and Applied Economics Department, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

O.O. Trofymenko, Ph.D.in Economics, Associate Professor of Economics and Entrepreneurship Department, International University of Finance,

**V.O. Dmytrenko**, postgraduate student, Economics of enterprise Department, International University of Finance

## METHODS FOR MANAGEMENT OF THE ENTERPRISE'S ACCOUNTS RECEIVABLE

The article analyses the peculiarities of the formation of current assets at enterprises, investigates the economic essence of accounts receivable and their typology. The article deals with the consideration of theoretical and methodological approaches to the management of receivables of enterprises. To achieve the objectives, we carried out the analysis of the process of the formation and repayment of accounts receivable at the enterprise BNH Ukraine Ltd. The results of the statistical analysis of the accounts receivable management at the enterprises of the wholesale trade in petroleum-based products are given. On the basis of the conducted researches, we have generalized the results of the experimental implementation of a differentiated credit policy of the enterprise in terms of controllability of receivables.

**Key words:** accounts receivable, credit policy, refinancing of accounts receivable, a stage of the life cycle, differentiation.

Problem statement in general terms and its relation to important scientific or practical challenges. In the course of its operation, any enterprise, regardless of its field of activity, country of location or any other factors, cooperates with contractors. Quite often, there are situations when contractors need a delay in a certain payment. Due to this delay, accounts receivable arise. To pay off receivables, an enterprise is frequently forced to raise funds from other sources — bank loans, credits, etc., which results in lowering the financial sustainability of that enterprise. In addition, sometimes receivables become doubtful, which may lead to the situation when an enterprise can simply lose its money.

The foregoing points out the importance of proper management of accounts receivable. With the help of effective work of managers, the accounts receivable management should be aimed at their swift repayment and the reduction of their volumes.

Analysis of recent studies and publications in which the solution to the issue was initiated and on which the author relies, highlighting some of pending issues of the general problem to which this article is devoted. The problems related to the efficient management of accounts receivable were considered by many domestic and foreign economists, in particular M.D. Bilyk [1], I.O. Blank

[2], V.F. Palii [3], D. Stone and K. Hitching [4]. The study of economists' data provides the definition of accounts receivable, their classification, the reasons for their occurrence and their effective management.

The selection of previously unsolved parts of the general problem. The previous studies lack a common view on optimizing the management of accounts receivable and creating a single integrated system.

The purpose of the article. The article aims to research the development of theoretical provisions and the formulation of scientific and methodological recommendations concerning the management of accounts receivable of the enterprises engaged in the wholesale trade in petroleum-based products.

Presentation of basic research material with the justification of the obtained scientific results. An enterprise's balance sheet consists of two parts: assets and liabilities. The assets of an enterprise are its economic resources in the form of property used in the process of economic activity in order to receive profits [5, p. 59]. In turn, liabilities are a set of obligations of an enterprise, which are formed due to the debts of an enterprise when conducting its economic activity [6].

The assets of a company are divided into current and non-current. The term «current assets» means the

totality of funds that are necessary for an enterprise to ensure the circulation of working capital [7, p. 149].

It is well-known that in the process of its functioning, any enterprise, regardless of its field of activity, country of location or any other factors, cooperates with contractors. In this case, there are often such situations when contractors need to receive a delay in a certain payment, as a result of which receivables arise.

We agree that receivables are part of the company's current assets. This indicator shows the amount of debts on a certain date [8]. At the same time, current assets are a set of funds, which are necessary for an enterprise to ensure the circulation

of working capital [7, p. 149]. In other words, they are the resources of an enterprise, expressed both in monetary (tangible) and in natural (intangible) forms, which are formed as a result of cooperation of an enterprise with its contractors and they are subject to return. Typically, receivables arise when an enterprise sells goods on credit to regular customers. However, in case of a significant amount of debt, a company may go bankrupt, which requires an examination of the efficiency of the accounts receivable management. Accounts receivable can be of different types. The main classification is shown in Fig. 1.

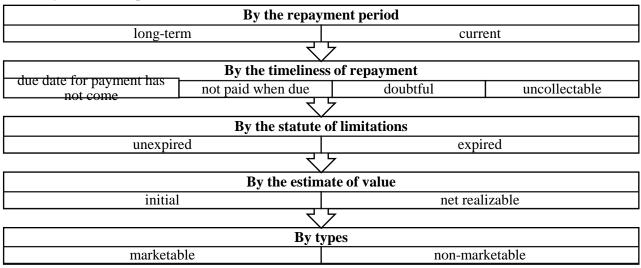


Figure 1 – The classification of accounts receivable

Compiled on the basis of [1; 2;10]

The above classification is not exhaustive, but it is enough to understand the nature of receivables.

After analysing the main problems of the management of accounts receivable, which enterprises face, one can distinguish the following ones:

- there is no reliable information on the date the companies-debtors must discharge their obligations;
- unregulated work with overdue accounts receivable;
- there is no data on the growth of expenses associated with an increase in the amount of receivables and the time of their turnover;
- there is no assessment of the creditworthiness
   of buyers and the efficiency of commercial lending;
- such functions as to collect funds, analyse receivables and make a decision on giving a loan, are distributed among different departments.

To address these problems and improve the financial position of enterprises, it is appropriate to define a clear methodology and stages to manage accounts receivable at enterprises.

We want to mention that the consideration of methods for managing receivables is conducted using the company BNH Ukraine Ltd. as an example. Thus, the enterprise under study operates in the wholesale market of petroleum-based products and is the economic entity, which owns foreign capital. It should be noted that we have investigated a number of enterprises of the wholesale trade in petroleum-based products using the ratio between accounts receivable and receipts from foreign investments as a criterion, which reflects the averaged data in the industry. Afterwards, we have selected the object of the experimental introduction of a mechanism for the formulation of a differentiated credit policy based on

the principles of controllability of accounts receivable.

Thus, based on the results of the statistical analysis of how efficiently the investigated enterprise with foreign investments manages the current level of accounts receivable, we have found:

- the absence of a system of assessing the customer's creditworthiness under the terms of delayed payment;
- in the contracts for the supply of goods under the terms of delayed payments, fines for late repayment of arrears are not imposed;
- there is no system of discounts for early repayment of debts for goods that were shipped under the terms of deferred payment;

- planning of labour relations with customers that purchase products, is carried out without taking into account the differentiation of loan conditions depending on the class of credit and a credit policy;
- a system of differentiation of terms of delays in payment, a clear system of fines or a system of discounts for early payment of services are absent;
- the collection of debts is unsystematic in nature, which includes only legal means of an influence by collecting debts in court.

Table 1 serves as a continuation of the research into the processes of the account's receivable management at BNH Ukraine Ltd. and it presents the dynamics of receivables in 2013-2017.

Table 1 – Accounts receivable of BNH Ukraine Ltd in 2013-2017

UAH, thousand

Assets	2013	2014	2015	2016	2017	Growth rates 2017/2013, %
Accounts receivable for products, goods, works, services	46 500	49 126	59 010	10 698	20 598	- 56,0
Settlements receivable						
advances paid	10 359	14 325	36 416	26 420	135 178	12,05 p.
Budget	5 672	1 751	6 551	4 128	1 371	- 76,0
including income tax	250	250	•	10	-	ı
other current accounts receivable	979	944	1 560	90 160	35 742	35,51 p.
Total accounts receivable	63 510	66 146	103 537	131 406	192 889	2,04 p.

Compiled on the basis of financial statements of the enterprise

The data in Table 1 indicate that the enterprise's debt grows annually. In addition, based on the analysis of the financial statements of this enterprise, we came to the conclusion that the share of receivables in the total volume of current assets was constantly increasing. It suggests a reduction in the mobility of the property structure of the enterprise and is a negative factor that makes the company dependent on its own debtors.

At the same time, we believe that due to an efficient policy on the management of debtors, the company is able to increase its market shares, boost profits and become more competitive in the market and avoid potential unforeseen events, including, bankruptcy.

The accounts receivable management should comprise 6 stages: (Figure 2).

1. This stage is a basic one. Managers analyse and structure accounts receivable, which makes it

possible to arrange the return of the enterprise's funds.

- 2. On the basis of the second stage, it becomes possible to develop individual conditions for giving commercial loans for each buyer.
- 3. At this stage, the permissible volume of the receivables portfolio is determined.
- 4. One monitors all debtors and develops measures to manage the debt.
- 5. The necessity of changes in the enterprise's credit policy is substantiated.
- 6. The possibilities of refinancing of accounts receivable are estimated.

Taking into account theoretical achievements in the methodology of managing accounts receivable, the next step will be the development of a system of assessment and analytical procedures regarding the hierarchical presentation of methods for managing accounts receivable of the companies engaged in the wholesale trade in petroleum-based products.

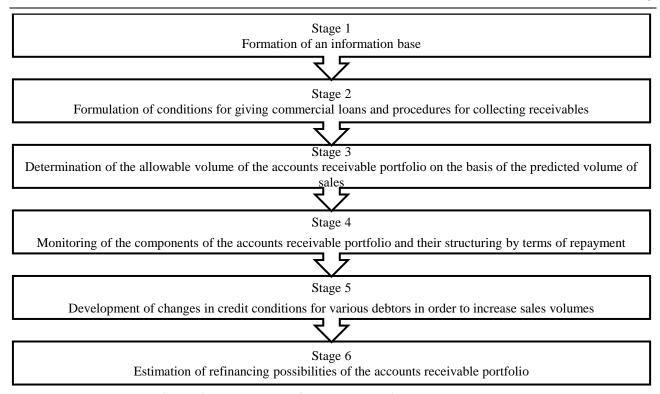


Figure 2 – The stages of accounts receivable management

Compiled on the basis of [8]

Let us consider the multi-criteria system for assessing the manageability of receivables (Table 2).

Taking into account the goal set, it is expedient to carry out a complex research and development of a single indicator that will characterize the level of controllability of accounts receivable. The calculation of the integral index of controllability of the enterprise's receivables is the next and final stage of the evaluation of their management in accordance with the methodical approach that was proposed above.

Thus, the effectiveness of the management of accounts receivable depends on the availability of a development strategy of the enterprise, a balanced sales policy and optimal parameters for managing receivables. Therefore, the organization and ongoing work with accounts receivable require constant attention of the enterprise's management, as it is one of the most effective ways to optimize the costs of the enterprise.

It was necessary to select an object of the experimental introduction of a mechanism for the formulation of a differentiated credit policy based on the principles of controllability of accounts receivable. That is why we have investigated a number of enterprises engaged in the wholesale trade in petroleum products as well as the enterprise with

foreign investments BNH Ukraine Ltd. using the criterion of the ratio between accounts receivable and receipts, reflecting thr averaged data in the industry. Based on the results of the statistical analysis of how efficiently one manages the present accounts receivable at the enterprise with foreign investments BNH Ukraine Ltd., we have identified:

- 1. the absence of a system to assess the customer's creditworthiness under the terms of delayed payment;
- 2. in the contracts for the supply of products under the terms of delayed payments, fines for late repayment of arrears are not imposed;
- 3. the system of discounts for early repayment of debts for goods that were shipped under the terms of deferred payment, is not provided;
- 4. planning of labour relations with customers that purchase products is carried out without considering the differentiation of loan conditions depending on the class of credit and a credit policy; a system of differentiation of terms of a delay in payment, a clear system of fines and a system of discounts for early payment of services are absent;
- 5. the collection of debts is unsystematic in nature, which includes only legal means of an influence by collecting debts in court.

Table 2 – The multicriteria system for assessing the manageability of accounts receivable

	Types of manageability of accounts receivable						
Criteria of	L	Unmanageable					
manageability	High	Medium	Low				
	[7,75 – 10]	[5,5-7,75)	[3,25-5,5)	[1,0-3,25)			
1. Collectability	0,7-1,0	0,4-0,7	0,1-0,4	0 - 0,1			
$(K_1)$	$K_1: 0,7 \le p \le 1,0$	$K_1: 0,4 \le p < 0,7$	$K_1: 0, 1 \le p < 0,4$	$K_1: 0 \le p < 0,1$			
2. Statute of limitations (K <sub>2</sub> )	Due date for payment has not come	Overdue from 30 to 365 days	Overdue from 365 days to 3 years	More than 3 years			
	K <sub>2</sub> : 0≤ T ≤30	$K_2$ : 30< T $\leq$ 365	$K_2$ : 365< T $\leq$ 1095	$K_2$ : T > 1095			
3. Violations of contractual	Have not been violated	Minor violations	Serious violations	Have been completely violated			
conditions (K <sub>3</sub> )	$K_3$ : $D = D_{norm}$	$K_3$ : $D \le D_{norm}$	K <sub>3</sub> : D < D <sub>norm</sub>	$K_3$ : $D \neq D_{norm}$			
4. Security for accounts receivable (K <sub>4</sub> )	Secured by a bank guarantee, a surety agreement, insurance	Secured by a bill of exchange (draft) or mortgaged property of a debtor	Secured by a promissory note	Unsecured			
	$K_4$ : $Z = Z_{max}$	$K_4: Z \leq Z_{max}$	$K_4$ : $Z = Z_{min}$	$K_4: Z \neq Z_{max}$			
5. Credit rating of a	A	Б	В	Г, Д			
debtor (K <sub>5</sub> )	$K_5$ : $R = A$	$K_5$ : $R = F$	$K_5$ : $R = B$	К₅: R = Г, Д			

Compiled on the basis of [10; 2]

Offering discounts for customers is an important tool in the process of managing receivables. Discounts are available to customers in the following cases:

- a) prepayment or quick payment for products (used by the enterprise with a lack of funds);
- b) the purchase of large volumes of products; the purchase of products of lower quality in order to attract new customers and to maintain a business relationship with old customers or with those that are «valuable» for the enterprise.

Rapid payment for products frees up money that can be re-invested in production, i.e., incomes and profitability of the enterprise rise. However, the size of discounts should not exceed the benefits of fast payment or prepayment. In this regard, in the process of formulating a credit policy, the enterprise's management should develop a scale of discounts in accordance with the terms of fast payment and a scale of fines for late payments.

Providing a larger amount of discounts than it is calculated will be economically unprofitable for the enterprise. However, in some cases, if the client is important for the enterprise and there is the likelihood of long-term cooperation, it is appropriate for the management of the company to agree to lose some profit in the short-term period (if the enterprise has such economic opportunities) in order to keep a good customer (expand the market for selling goods) and earn a profit in the long term.

To reduce the risk of non-payment of debts, it is necessary:

- to develop a set of measures regarding the permanent monitoring of potential debtors (the assessment of their financial status and solvency, market reputation, image, etc.).
- to introduce into the practice of management the limitation of receivables both in total volumes and per one debtor (existing or potential) and periodically review the maximum amounts. In this case, it is obligatory to determine the optimum amount of receivables, which would not excessively immobilize the financial resources of the enterprise and would not create any obstacles to ensuring an uninterrupted process of supply, production, sales and payments of the enterprise in accordance with its obligations;
- to ensure timely control over the ratio between receivables and payables. A significant excess of current receivables poses a threat to the financial

stability of the company and makes it necessary to attract additional sources of financing;

- to study the financial position of buyers in order to have complete confidence in their solvency;
- to draw up a procedure for collecting overdue debts [12, p.176].
- Thus, in order to obtain complete and up-todate information on the current situation and prospect of repayment of arrears by contractors, it is expedient to ensure the efficient organization of this field of accounting, namely:
- to systematize the information on the terms when enterprises-debtors must discharge their obligations with the purpose of organizing internal control over accounts receivable at the enterprise;
- to monitor the debtors' financial condition and the effectiveness of granting delays in payments;
- to create a reserve of doubtful debts and specify the procedure for its determination in the accounting policy of the enterprise.

Conclusions from this study and prospects for further exploration in this direction. The aforementioned leads to the conclusion that the system of managing accounts receivable is not comprehensive; it is not adapted to the market conditions of the operation of those companies engaged in the wholesale trade in petroleum-based products and it requires profound changes.

The implementation of an effective policy towards managing the enterprise's receivables should lead to an increase in sales volumes, long-term business relationships, maximization of profits while maintaining liquidity and solvency of the enterprise, the reduction of risk and improvements to financial security. Hence, if an efficient system of managing accounts receivable is implemented, the enterprise, based on qualitative accounting information, is able to achieve an appropriate increase in the overall efficiency of economic activity and the growth of the profitability of its production and economic activity.

## References

- 1. Bilyk, M. D. (2003), "Management of the enterprise's accounts receivable", *Finansy Ukrainy*, vol. 12, pp. 24 36.
- 2. Blank, Y. A. (2004), *Fynansovyj menedzhment* [Financial management], Nyka-Tsentr El'ha, Kyiv, Ukraine.
- 3. Palyj, V. F. and Palyj, V. V. (1998), *Fynansovyj uchet* [Financial accounting], FVK-PRESS, Moscow, Russia.
- 4. Stoun, D. and Khytchynh, K. (1998), Bukhhalterskyj uchet y fynansovyj analyz [Accounting and financial analysis], Moscow, Russia.
- 5. Blank I.A. (1999), *Ocnovy financovoho menedzhmentu* [The basis of financial management], Nykatsentr, Kyiv, Ukraine.
- 6. Petrenko, N. I. (2011), "Scientific approaches to the definition of "passive" in the accounting and economic literature", *Problemy teorii ta metodolohii bukhhalters'koho obliku, kontroliu i analizu*, [Online], available at: http://pbo.ztu.edu.ua/article/view/47267/43848 (Accessed 20 february 2018).
- 7. Pokropyvnyj, S.F. (2001), *Ekonomika pidpryiemstva: pidruchnyk* [Business Economics], KNEU, Kyiv, Ukraine.
- 8. Ministry of Finance of Ukraine (1999), "On Approval of the Regulation (Standard) of Accounting 10 "Accounts Receivable", available athttp://zakon2.rada.gov.ua/laws/show/z0725-99 (Accessed 20 february 2018).
- 9. Skliar, Ye.V. and Khraplyvyj, Ye.V. (1993), "Theoretical principles of the study of accounts receivable and payables", *Molodyj vchenyj*, vol. 5(32), pp. 153 156.
- 10.Dubrovs'ka, Ye.V. (2010), "Multicriterial system for assessing the controllability of accounts receivable of wholesalers of petroleum products", *Visnyk ekonomiky transportu i promyslovosti*, vol. 31, pp. 165 168
- 11. State Statistics Service of Ukraine (2018), available at: http://www.ukrstat.gov.ua (Accessed 27 may 2018).
- 12.Moskaliuk, H.O. (2012), "Accounting and control of accounts receivable: existing problems and ways to solve them", *Visnyk Natsional'noho universytetu "L'vivs'ka politekhnika"*, vol. 721, pp, 173 178.

- **О.І. Іляш**, доктор економічних наук, професор, проректор з наукової та міжнародної діяльності Міжнародного університету фінансів, професор кафедри теоретичної та прикладної економіки Національного технічного університету України «Київський політехнічний інститут імені Ігоря Сікорського»
- О. О. Трофименко, кандидат економічних наук, доцент, доцент кафедри економіки та підприємницитва Міжнародного університету фінансів
- **В.О. Дмитренко**, магістрантка кафедри економіки та підприємництва Міжнародного Університету Фінансів

## Методи управління дебіторською заборгованістю підприємства

У статті наведений аналіз особливостей формування оборотних коштів на підприємствах, досліджена економічна сутність дебіторської заборгованості та її типологія. Проведений аналіз теоретико-методологічних підходів щодо управління дебіторською заборгованістю підприємств. Для досягнення поставлених завдань був проведений аналіз процесу формування та погашення дебіторської заборгованості на підприємстві ТОВ «БНХ Україна». Сформовані результати статистичного аналізу управління дебіторською заборгованістю на підприємствах оптової торгівлі нафтопродуктами. Представлена динаміка дебіторської заборгованості за продукцією та розрахунками досліджуваного підприємства. Визначені основні проблеми в управлінні дебіторською заборгованістю на дослідженому підприємстві. Сформовані та охарактеризовані етапи управління дебіторською заборгованістю підприємства та визначені заходи для розроблення системи оціночноаналітичних процедур щодо ієрархічного представлення методів управління дебіторською заборгованістю підприємств оптової торгівлі нафтопродуктами. Обґрунтовано доцільність використання багатокритеріальної системи оцінювання керованістю дебіторської заборгованості з використанням таких критеріїв керованості як: вірогідність погашення, строк позовної давності, порушення договірних умов, забезпеченість дебіторської заборгованості, кредитний рейтинг боржника. Визначена доцільність розрахунку інтегрального показника керованості дебіторської заборгованості підприємства згідно запропонованого методичного підходу. На основі проведених досліджень узагальнені результати експериментального впровадження диференційованої кредитної політики підприємства на засадах керованості дебіторської заборгованості.

**Ключові слова:** дебіторська заборгованість, кредитна політика, рефінансування дебіторської заборгованості, етап життєвого циклу, диференціювання.

Стаття надійшла до редакції 18.01.2018 р.