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A.N. Leventsov, V.A. Leventsov

THE EVALUATION OF AN ACCOUNTS RECEIVABLE REDUCTION IMPACT ON THE FINANCIAL PERFORMANCE OF AN ENTERPRISE

А.Н. Левенцов, В.А. Левенцов

ОПРЕДЕЛЕНИЕ ВЛИЯНИЯ СНИЖЕНИЯ РАЗМЕРА ДЕБИТОРСКОЙ ЗАДОЛЖЕННОСТИ НА ФИНАНСОВЫЕ РЕЗУЛЬТАТЫ ПРЕДПРИЯТИЯ

The article discusses the major definitions of accounts receivable, the generation of an enterprise's accounts receivable management system, and the minimization of bad debts appearance risk. The main factors for assessment of the accounts receivable turnover are presented; an approach to evaluate the impact of accounts receivable reduction on the financial performance of an enterprise is proposed.

ACCOUNTS RECEIVABLE OF AN ENTERPRISE. REDUCTION OF ACCOUNTS RECEAVABLE. FINANCIAL PERFORMANCE. ACCOUNTS RECEIVABLE MANAGEMENT. ACCOUNTS RECEIVABLE RETURN.

Рассматриваются основные определения дебиторской задолженности, построение системы управления дебиторской задолженностью предприятия, минимизация риска возникновения у него безнадежных долгов. Представлены основные показатели оценки оборачиваемости дебиторской задолженности, предложен подход по определению влияния снижения размера дебиторской задолженности на финансовые результаты предприятия.

ДЕБИТОРСКАЯ ЗАДОЛЖЕННОСТЬ ПРЕДПРИЯТИЯ. СНИЖЕНИЕ РАЗМЕРА ДЕБИТОРСКОЙ ЗАДОЛЖЕННОСТИ. ФИНАНСОВЫЕ РЕЗУЛЬТАТЫ. УПРАВЛЕНИЕ ДЕБИТОРСКОЙ ЗАДОЛЖЕННОСТЬЮ. ОБОРАЧИВАЕМОСТЬ ДЕБИТОРСКОЙ ЗАДОЛЖЕННОСТИ.

When companies conduct their business and operations, dispatch products, execute work or provide services in a market, in most cases, they do not get money from their customers immediately. As a result, from the moment when the work is executed or the service is provided and until the moment when the money is obtained, the supplier ends up with the so called 'accounts receivable', and practically all enterprises, at some point, encounter problems in recovering them.

Nowadays, economists introduce a number of definitions for accounts receivable. Thus, to name just a fur, accounts receivable are 'total debt which results from sale of products (work, services) under conditions of payment deferment and which is to be returned to a company by its counteragents' [1], 'debts of various companies and individuals to an organization, which result from its business operations' [2], 'the right of an organization to demand financial and non-financial assets which emerge from liabilities of other companies and individuals due to agreements in business operations in order to assure an acceptable financial stability level [3], 'the amount of debts to be paid to an enterprise, firm, company on the part of other enterprises, firms, companies and individuals who are their debtors' [4]. To sum up, in general, amounts receivable are debts of companies and individuals (debtors) to an enterprise for the work of service the former has executed but has not been paid for. It corresponds with both international and Russian accounting standards.

In case debtors do not comply with the obligations they have accepted (i. e. they do not pay for the goods or services provided in due time), an enterprise deals with the so-called 'overdue' accounts receivable. Moreover, the funds they comprise are extracted from its business turnover, which affects the financial condition of the enterprise. Growing accounts

receivable cause an increase in the expenditures for the enterprise's borrowed capital and contribute to costs of the enterprise, which brings along a decrease in profitability and liquidity of the enterprise's working capital and, eventually, negatively influences its financial stability.

To manage the enterprise's accounts receivable means to regulate them using both quantitative and qualitative indicators. As for the optimization of the enterprise's business operations, it is essential to generate an effective system of recovering accounts receivable, because their growth entails a decrease in liquidity of the enterprise and in its economic results.

In the conditions of continuing recession of the world economy and, therefore, decline in the consumer's demand, Russian companies use deferment of payments for the goods supplied or services provided as one of the major ways to increase sales. If the payment discipline is not high enough, their credit risks go up. In addition, when a dispatch volume and a payment deferment increase, the sales turnover and warehouse stock volume grow and accounts receivable increase. Correspondingly, the increment of an enterprise's assets causes an increment of liabilities and increases the company's credits and loans servicing costs.

All these can contribute to a general decrease in an enterprise's financial stability.

At this point, an important issue is to evaluate the impact of a decrease in the amount of accounts receivable on the financial performance of an enterprise, as financial experts, asa rule, assess the accounts receivable turnover coefficient and the duration of its one turnover cycle.

Most common problems encountered by enterprises which credit their clients are:

1) the lack of comprehensive and reliable information about debtors;

2) insufficient control over overdue accounts receivable operations;

3) the fragmentation of data on current accounts receivable which is caused by the underdevelopment of the internal communication system between departments and divisions, branches and head offices, etc.

When generating an accounts receivable management system, the management of an enterprise has to sort out the following tasks:

– to organize up-to-date monitoring of accounts receivable and their analysis in the previous period;

– to develop rules for accounts receivable operations which are precise and clear for the company's employees and counteragents;

– to define possible amount of the working capital directed to accounts receivable due to the provision of deferment for the customers;

– to set a credit conditions system for the customers, including a system of discounts and penalties;

– to create standards for customers' assessment and differentiation of conditions for credit granting;

– to develop staff motivation schemes for employees engaged in the return of accounts receivable;

– to elaborate procedures for the collection of accounts receivable, including the ones related to the recovery of overdue payments both single-handedly and in court;

– to build an efficient control system for the flows and the timely collection of accounts receivable [5].

The efficient management of accounts receivable calls for a complex and systematic approach which cannot be narrowed down to sorting out particular problems (a search for an ideal customer, debt recovery in court, etc.). The purpose of the management system is to decrease the enterprise's risks, to optimize activities of all its employees, and to save time when it comes to management decisions.

To minimize risks of bad debts, T. Karimova and N. Plaskova suggest a three step algorithm, which, in our opinion, is of practical interest [6]:

Step 1. Elaboration of analytics for record keeping. At this stage, it is important to collect the necessary information about:

– distribution channels;

– types or categories of products to be sold;

– risks, related to certain counteragents.

Step 2. Preparation of report on accounts receivable status. In order to receive the information about overdue periods and expected dates of getting the money from counteragents, a management report on accounts receivable status should be prepared with due consideration of:

– the time when money is expected to arrive for the deferment payment delivery that has been executed;

− an overdue period of payment;

− the amount of overdue debt.

Step 3. Reconsideration of current delivery conditions. The main purpose of this step is to minimize risks, i. e. to understand the consistence of the terms of the previously made contracts with the enterprise's interests. This task can be solved through individual talks with wholesale companies by shifting operation conditions with small retailers to prepayment.

The research, which has been done by the journal '*Finansovy Director'(Financial Director)* and factoring company *NFK* in order to find ways to reduce risks related to a product delivery on deferment payment conditions, has revealed that the best option is to work with reliable customers. Thus, more than 70% of the companies in the survey grant deferment only to the trustworthy clients [7, 12]. These include the companies which have been involved in cooperation for a period of not less than 6-8 months.

An efficient accounts receivable management requires the creation of a continuous debt monitoring and analysis system, the elaboration of the precise rules to determine counteragents who can be given payment deferment as well as regulations when cooperating with 'problem' debtors.

The efficiency of an accounts receivable management system is evaluated by financial experts of enterprises by various criteria. Thus, K. Zharaspaev, *Rover Computers* Vice-President, believes that the key criterion when assessing the efficiency of the accounts receivable management system is accounts receivable return. For E. Ageeva, Financial Director of *OOO Golder-Electronics*, the key criterion is correspondence of actual accounts receivable turnover figures, their average payment period, and the share of problem debts in the total volume of debt to the planned indices. S. Vorobiev, Financial Director of *OOO Relief − Centre*, assesses the efficiency of the accounts receivable management system primarily by current overdue debt, its volume, the period of overdue payment, and the prospects of getting these amounts from the customers. Y. Lutsenko, Director of the financial department of *ZAO Mezhdunarodnaya Torgovaya Kompania 'Alisa'*, supposes that the accounts receivable management system is efficient if the volume and duration of the overdue debt and the

turnover of the total accounts receivable are lower than the established standards, the customers' credit limits are not exceeded, and the debt return history is positive. M. Konovalova, Financial Director of the *laStyle* company thinks that one of the important factors is the balance between accounts receivable and the total sales volume. Furthermore, the company has established a limit which prevents funding accounts receivable when it becomes unprofitable and when sales promise losses [8, 13].

To determine how efficiently working assets are used (to evaluate accounts receivable turnover and their change dynamics), the following major indices, being general analysis tools, are traditionally calculated [9]:

1. Accounts receivable return coefficient (C_{ARR}):

$$C_{ARR} = \frac{S}{\overline{AR}},\qquad(1)$$

where S − sales return on goods, work, services and other property (excluding indirect taxes) for the period reviewed; AR− average amount of the accounts receivable balance.

This coefficient reflects the number of accounts receivable turnover cycles in the period reviewed, i. e. how many times they emerge and are paid within this period.

2. The coefficient of fund consolidation in accounts receivable (C_{CAR}), characterizes the amount of accounts receivable for 1 ruble of sales revenue and is the index opposite to the return coefficient:

$$C_{CAR} = \frac{\overline{AR}}{C}.\qquad(2)$$

The lower the consolidation coefficient is, the more efficiently the funds that have been advanced into accounts receivable are used.

3. The average duration of one accounts receivable turnover cycle in days (recovery period) (D_{ART}):

$$D_{ART} = \frac{D \cdot \overline{AR}}{R},\qquad(3)$$

where D − number of days in the period reviewed (30, 90, 180, 270, 360).

This index demonstrates the average number of days needed for accounts receivable payment (recovery). The higher it is, the more mobile the structure of the enterprise's property is. Growth

of this index indicates a decrease in the liquidity of accounts receivable.

However, as A. Klementiev rightly believes, there is a problem with a correct evaluation of this index and, consequently, there is a risk of making wrong decisions [10]. The most common mistake is to use the net profit index from the profit and loss account in this formula, i. e. profit minus indirect taxes (VAT and excise taxes). Since accounts receivable comprise indirect taxes, there appears a problem related to the incomparability of the indices. In such a case, the period of turnover, calculated by the aforementioned formula (3) becomes worse than it really is, especially when the company pays excise taxes.

But even if the sales revenue figure is correct, this index can be significantly distorted as the revenue from sales of products is usually defined upon dispatch, whereas accounts receivable decrease at the moment the money is paid. The dispatch of products entails accounts receivable growth and, at the same time, increases its turnover, since it is the denominator in the formula. There can be no real decrease in the period of turnover, because there is no payment for the goods dispatched. This problem is common for enterprises which aggressively increase volumes of sales through payment deferment enlargement.

The problem can be avoided if we add to the formula (3) not the return 'on dispatch' but the amount of money actually paid for the products, goods or services that have been delivered or provided. In this case, the financial director can project cash flows and accounts receivable more precisely for the forthcoming periods and, eventually, increase the quality of planning.

Also, it is reasonable to apply the method which is often used when analyzing accounts receivable and which allows the evaluation of their 'real value' with due consideration of payment time and payment delay period. This method helps define the discounted cost of accounts receivable [11]:

$$PV = \sum_{k=1}^{N} (p_k FV_k e^{-it}),\qquad(4)$$

where PV — present value index of accounts receivable; p_k — possibility of k group accounts receivable payment (value 0-1), to be assessed in the expert way on the basis of payment guarantee which the customer provides or through the analysis of debt in the context of payment dates; FV_k — amount to be paid into account in future (corresponds to the balance cost of k group accounts receivable); e — constant ($e = 2,718282$); i — discount rate which characterizes the opportunity costs of assets ownership (for example, refinancing rate, bank crediting rate); t — expected period for accounts receivable payment (as a rule, one month).

The knowledge of accounts receivable discounted cost can also be used when calculating reductions offered to customers. For example, if it is 5% lower than its actual value with the payment period of one month, the enterprise can offer its customer 5% discount without damaging sufficiency of the working capital upon a condition of full prepayment for the goods delivered or service provided.

The results obtained from calculation should be used when identifying trends in accounts receivable change and when taking relevant management decisions.

It is recommended to carry out a general analysis of the enterprise's accounts receivable in the following directions [11].

Current condition analysis. At this stage, the current condition of accounts receivable is studied. The information is focused on the counteragents and the dates of the debt, which allows the enterprise to control the dates of payments for products, work, service and obtained advances in due time.

To simplify the count of inventory with counteragents and to reveal the overdue obligations of the customers, it is worth carrying out the *analysis by dates of accounts receivable.* When the data are provided in such a form, it becomes possible to control the quality of the enterprise's accounts receivable as a whole and with its groups. Moreover, if there are considerable debt amounts with more than three months' delay, it might be reasonable to initiate bankruptcy procedure in relation to particular counteragents or to use this argument as a leverage to influence the deliberate non-payers.

At the same time, it is not sufficient just to know the time when accounts receivable appear in order to understand their condition. The analysis has to be accompanied by the *analysis of accounts receivable by payment dates.*

Comparing data on volumes of dispatched products and payments, one can calculate the average payment rates by months and identify the average share of products which remains unpaid. In this case, dispatch should be understood as the volume of credit sales, i. e. it is only part of credit turnover in the 'Sales' account of the accounting records. Amounts of prepayment are not to be included in the calculation.

In addition to the suggested analysis, we recommend to conduct *a recovery coefficient analysis*. The calculation of this coefficient is one of the efficient methods which makes it possible to characterize the current condition of accounts receivable and forecast them. The essence of the method is to range accounts receivable (AR) as of certain dates by components according to the date when they appeared, for example: up to 1 month, from 1 to 2 month, from 2 to 3 months, etc.:

$$AR = AR_t + AR_{t-1} + ... + AR_{t-n}, \qquad (5)$$

where AR − amount of debt which appeared in the t period.

Then, *recovery coefficiencies* (C) will be calculated in the following way:

$$C_t = AR_t / S_t, \qquad (6)$$

where S − volume of sales with deferment in the t period.

The calculated *recovery coefficient* shows the percentage of debt which appeared in the corresponding month and remained unpaid by the end of the analyzed period.

Apart from the dates of payment and analysis of recovery coefficients, one can carry out an *ABC analysis*. It is based on the Pareto principle: a relatively small number of causes lead to the majority of possible effects. In practice, it is mostly used in the altered form as the '80 to 20 rule'. This means that 80% of amounts receivable is caused by 20 % of debtors.

In accordance with the *ABC method*, all debtors have to be classified as groups. Group *A* includes a small number of debtors with the highest level of specific weight in the accumulated amount of accounts receivable. Group *B* consists of an average number of counteragents with an average level of specific weight. Group *C* comprises of the majority of customers with insignificant amount of debt in relative terms. After debtors have been ranged by the degree they influence the liquidity of the company as a whole, the easiest way to follow is to analyze debt by date of appearance and payment, to calculate recovery coefficients, i. e. to use methods that have been described above.

When carrying out the analysis, it is worth considering that $\overline{AR}$ can be subordinated to the sales volume and average time period between sales of goods and receipt of revenue, which is defined by average duration of one accounts receivable turnover cycle in days:

$$\overline{AR} = \frac{R}{D} \frac{D \cdot \overline{AR}}{R} = R_{DA} D_{ART}, \qquad (7)$$

where R_{DA} − average daily revenue from sales of products, goods, work and service within the period analyzed.

After planning the average annual amount of accounts receivable for the year succeeding the financial one (for instance, after leaving it equal to the amount corresponding to the level at the end of the financial year) and after altering the formula (3) into the following one:

$$R_P = \frac{D \cdot \overline{AR}_P}{D_{ART_P}}, \qquad (8)$$

we, all other conditions being equal, get the volume of revenue for the next (planned) year.

In this formula $D = 360$ days;

$D_{ART\,P}$ − average duration of one accounts receivable turnover cycle in days in the planned year; $\overline{AR}_P$ − average annual amount of accounts receivable in the planned year.

Knowing the amount of sales revenue for the next year, it is possible to define the planned coefficient of amounts receivable turnover:

$$C_{ART_P} = \frac{R_P}{AR_P}. \qquad (9)$$

The change in the coefficient of accounts receivable turnover in comparison with its value in the financial year can be calculated by the next formula:

$$\Delta C = C_{ART_P} - C_{ART} = \frac{R_P}{AR_P} - \frac{R}{AR}. \qquad (10)$$

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After transforming this formula (10), we can define the increment of revenue ΔR in the planned year due to an increase of accounts receivable turnover:

$$\Delta R = R_P - R = \\ = C_{ART\,P} \cdot \Delta \overline{AR}_P - C_{ART} \cdot \Delta \overline{AR}_P. \qquad (11)$$

Knowing this, we can use general methods to evaluate the enterprise's economic efficiency. Thus, in this case, the increment of revenue ΔR can be seen as an accounts receivable management economic effect. If we know costs C, related to the achievement of this effect,

we can evaluate its management economic efficiency:

$$E = \frac{\Delta R}{C}. \qquad (12)$$

To sumup, unlike traditional methods for the evaluation of the working assets employment efficiency, which are based, as a rule, on the assessment of accounts receivable turnover, the authors of the present paper propose an approach which makes it possible to evaluate the impact of decreasing accounts receivable amount on the financial performance of the enterprise and, finally, to calculate the economic effect and economic efficiency of accounts receivable management in a classical way.

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LEVENTSOV Alexander N. — St. Petersburg State Polytechnic University.

195251. Politekhnicheskaya str. 29. St. Petersburg. Russia. E-mail: drlev@mail.ru

ЛЕВЕНЦОВ Александр Николаевич — доцент кафедры «Управление в социально-экономических системах» Санкт-Петербургского государственного политехнического университета, кандидат экономических наук, доцент.

195251, ул. Политехническая, д. 29, Санкт-Петербург, Россия. E-mail: drlev@mail.ru

LEVENTSOV Valery A. — St. Petersburg State Polytechnic University.

195251. Politekhnicheskaya str. 29. St. Petersburg. Russia. E-mail: vleventsov@spbstu.ru

ЛЕВЕНЦОВ Валерий Александрович — директор Инженерно-экономического института, доцент кафедры «Экономика и менеджмент в машиностроении» Санкт-Петербургского государственного политехнического университета, кандидат экономических наук.

195251, ул. Политехническая, д. 29, Санкт-Петербург, Россия. E-mail: vleventsov@spbstu.ru