The Efficiency of the Financial Resources Management Allocated to Clients as Debts

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Abstract: Client credits and advance money to suppliers represent a capital assigned in advance, generating a necessary to be financed in the exploitation activity. In this paper we proposed an integrated and correlated approach, not an individual one, of the efficiency analysis allocated to clients as debts, this approach having the advantage of pointing out the influence the change in the debts structure has on the debts allocated to clients in the company's business, indirectly noticing the period of time in which it pays its invoices.

Key-Words: client credit, clients management ratio, conversion coefficient, credit policy, stakeholders, average rotation period.

1. Introduction

The debts from exploitation represent the short-term rights of patrimony institutions against third parties as a consequence of the exploitation cycle and which are compensated by exploitation incomes. Sometimes, debts are compensated by accounts which do not influence the result account, but which refer to exploitation accounts.

The management of clients and suppliers is represented by the methods and instruments which use as efficiently as possible the capitals tied up in commercial credits.

Taking into consideration the terms of payment criterion, the settlements of accounts with the third parties can be classified in:

- immediate settlement (up-front payment), through cash payment or bank transfer after a minimum number of days for invoice settlement;
- payment at a stated date, after a period of time agreed by the partner (period of commercial credit).

Extending the definition of commercial credit we distinguish:

a) sale credits, which represent the sale of goods, respectively the supply of services on credit, the company having the possibility to find itself in two situations:

- creditor, the client credit representing the sale of goods, the supply of services on credit to the company's clients;
- debtor, the supply credit representing the fact that the company purchases goods, respectively services on supply credit.

b) buying credits, which represent the payment in advance for goods and services, on credit, the company having the possibility to find itself in two situations:

- creditor, representing advance payments granted to suppliers, which mean prepayments for goods, respectively services on credit to the company's suppliers;
- debtor, representing advance payments received from clients, which mean advance receipts for the future sale of goods, respectively supply of services by the company to its clients.

Client credits and prepayments to suppliers represent a capital which is assigned in advance, generating a necessary to be financed in the

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operating activity. Supplier credits and prepayments received from clients represent a capital which is recovered in advance, generating a financing source in the financial management.

The efficient management of commercial credits points out two important aspects, which sometimes are contradictory, namely:

a) The reduction of the necessary to be financed and the increase of the financing sources, through:

- actions on clients (to reduce the client credit duration, to increase the received prepayments);
- actions on suppliers (to increase the supplier credit duration, to reduce the prepayments given to suppliers).

The actions on clients, if they exceed an allowable limit, may have a side effect, the dissatisfaction of this category of stakeholders, which will cause their leaving and thus the reduction of the turnover. The actions on suppliers, if they exceed an allowable limit, may have a side effect, the dissatisfaction of this category of stakeholders, which will cause their leaving and thus the increase of expenses, especially on the basis of their change [2].

b) The increase of the necessary to be financed and the reduction of the financing sources, through:

- actions on clients (to increase the client credit duration, to reduce the received prepayments);

- actions on suppliers (to reduce the supplier credit duration, to increase the prepayments given to suppliers).

The actions on clients may have positive effects which will lead to the increase of the turnover, and the actions on suppliers may lead to the reduction of some supply expenses. If they exceed an allowable limit, they may have as an effect the increase of the necessary to be financed above the limit that can be supported by the company.

2. The efficiency analysis of the financial resources allocated in credit clients

The management efficiency of the financial resources allocated to clients in debts requires, on the one hand, the analysis of the management ratio levels and, on the other hand, the analysis of the management rate dynamics on the basis of influence factors.

2.1. The analysis of the management ratio levels

A first method is the *clients' management ratio* (the rotation speed of debts to clients). It is calculated under the form of the rotation speed (more frequently) or under the form of the rotation number (more rarely).

The clients' management ratio shows us which the medium interval is in days between the invoice of the goods and services to clients and the receipt of their value. It represents the medium commercial credit duration actually realized.

It is calculated by the formula:

$$dz_{CL} = \frac{CL_t}{CA_t}T \text{ or } dz_{CL} = \frac{\overline{CL}}{CA_t}T \qquad (1)$$

where:

$\overline{C}L$ - medium balance of debts to clients

CL_t – debts to clients in moment t

CA_t – turnover of that period

T = the number of days of that period (T = 360 days for a year, 180 days for a semester, 90 days for a quarter, 30 days for a month).

In order to correspond to a company's commercial policy, the average duration of client credit rotation dz_{CL} must be compared to the duration of the client commercial credit *dcf* applied by the company, there being 3 situations:

a) if dz_{CL} < dcf, then the company collects its debts more rapidly than it planned to, and it benefits of a positive interval with a positive financial impact, expressed by the reduction of the need to finance;
b) if dz_{CL} = dcf, then the company collects its debts from clients exactly within the normal limits of commercial credit it practices;
c) if dz_{CL} > dcf, then the company does not collect its debts from clients within the normal limits of commercial credit it practices, there are delayed payments, the company endures an unfavorable interval with a negative financial impact, expressed by the increase of the need to finance.

The second method in represented by the conversion coefficient (the number of rotations) which shows us how many times the clients rotate on average in the turnover, it being a measure of the total uncollected invoices [11].

It is calculated by the formula:

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$$nrot = \frac{CA_t}{CL_t} \text{ or } nrot = \frac{CA_t}{\overline{CL}} \qquad (2)$$

The first method is the most used when surveilling the clients management.

An essential element must be taken into consideration. The management rates are obtained by reporting a stock type measure (which measures the level of a phenomenon for a given moment) to a flow type measure (which measures the level of a phenomenon for a given period of time). For this reason, special attention must be paid to the interpretation of the indicator [8].

The factors which influence the level of the client credits are:

a) the company's and the clients' strength is the main factor: if the company is stronger than the clients, the durations will be reduced or they will not exist; if the clients are stronger, the durations will be longer.
b) the relations established with clients, when a longer term will be given to traditional clients which benefit of trust; sometimes to new clients, in order to attract them; to companies which have a strategic importance; to clients to which the company has participation (downstream integration); to foreign or famous clients which allow the company to expand its export activity; to clients that present serious guarantees.
c) the credit policy practiced in that sector of activity: the leaders have their own policy; the small and medium companies tend to allign to the average;
d) the company's position on the market and the stage of the business cycle in which it is situated: companies in start-up stage and in expansion generally tend to give a longer payment term to clients, compared to their competitors in order to stimulate sales; companies in the maturity stage tend to ask payments in advance.
e) the activity specificity: for the perishable goods the interval is shorter; for industrial equipments the interval is longer; for commercial companies the interval is shorter; for the construction companies the interval is longer.
f) the economic situation determines: the allocation of a longer period of time if it is favorable; the allocation of a shorter period of time if it is unfavorable.
g) the interest levels practiced by banks may influence the client credit as it follows: if the interest rates increase, the duration of the client credit will decrease; if the interest rates decrease, the duration of the client credit will increase.

The company's credit policy must pursuit the increase of sales if these sales bring their contribution to the profit increase.

When analyzing the level of the client credit, it is necessary to take into consideration three essential aspects:

a) related to the signification of the rotation speed level:

- a low rotation speed (a long duration in days) means that clients use for a long period of time the company's financial resources, and the company faces a higher necessary to be financed;

- a high rotation speed (a short duration in days) means that clients use for a short period of time the company's financial resources, and the company benefits a lower necessary to be financed;

b) related to the difficulty signals:

- if the rotation duration in days exceeds the normal duration of commercial credit, there are signals that the company faces difficulties in collecting the invoices;

- if the rotation duration in days is situated below the normal duration of commercial credit, there are signals that the company collects without difficulty the invoices.

c) related to the correlation with the supply credit:

- if the duration in days of the client credit is longer than the duration in days of the supply credit, than a deficit of financial resources appears in the company, with an unfavorable impact on the operating treasury;

- if the duration in days of the client credit is shorter than the duration in days of the supply credit, than an excess of financial resources appears in the company, with a favorable impact on the operating treasury.

2.2. The analysis of the management rate dynamics on the basis of influence factors

The analysis of dynamics efficiency implies the quantification of influences induced by the constitutive elements, using several methods, but the most used method is **the decomposition methods of indexes variation.**

In its case, the dynamic indicators are calculated:

a. absolute deviation;
b. growth index;
c. relative deviation.

Let's take for example the duration in days of clients' rotation. The dynamics can be measured for example with the deviation from one period to another. As an example too, we will use the method of chain substitutions.

The indicator which measures the phenomenon:

a) duration in days: $dz_{CL} = \frac{CL_t}{CA_t} T$ (3)

b) number of rotations: $nrot = \frac{CA_t}{CL_t}$ (4)

Absolute deviation of indicator (with the basis in chain) from one period to another will be given by:

a) for the duration in days:

$$\Delta dz_{(t,t-1)} = dz_t - dz_{t-1} = \frac{CL_t}{CA_t} xT - \frac{CL_{t-1}}{CA_{t-1}} xT = \tag{5}$$
$$= \Delta dz_{(\Delta CA)} + \Delta dz_{(\Delta CL)}$$

b) for the number of rotations:

$$\Delta nrot_{(t,t-1)} = nrot_t - nrot_{t-1} = \frac{CA_t}{CL_t} - \frac{CA_{t-1}}{CL_{t-1}} = \tag{6}$$
$$= \Delta nrot_{(\Delta CA)} + \Delta nrot_{(\Delta CL)}$$

The influence factors are: turnover and debts to clients.

Between the turnover and the level of resource consumption there is a mutual conditioning. Because of that, there is no clear delimitation in establishing the qualitative factor. The increase of the turnover at a given consumption of resources or a higher turnover at a given consumption of resources means the increase of the efficiency with which the resources are used. In opposite situations, there takes place an efficiency reduction. Clients represent frozen financial resources. Although the two factors of rotation speed are mutually conditionated, they have their own factors which determine their evolution [6].

From a quantitative point of view, the contribution of the turnover and of the clients' balance can be estimated on the basis of the chain substitution method which separates the participation of the two factors in changing the rotation speed:

A. Duration in days:

$$dz_{CI} = \frac{CL_t}{CA_t} T \tag{7}$$

1. Absolute deviation of indicator (with the basis in chain) from one period to another will be for the duration in days:

$$\Delta dz_{(t,t-1)} = dz_t - dz_{t-1} = \frac{CL_t}{CA_t} xT - \frac{CL_{t-1}}{CA_{t-1}} xT = \tag{8}$$
$$= \Delta dz_{(\Delta CA)} + \Delta dz_{(\Delta CL)}$$

2. The modification of the duration is made:

a) On the modification of the turnover:

$$\Delta dz_{(\Delta Ca)} = \frac{CL_{t-1}}{CA_t} xT - \frac{CL_{t-1}}{CA_{t-1}} xT \tag{9}$$

b) On the modification of the balance from clients:

$$\Delta dz_{(\Delta CL)} = \frac{CL_t}{CA_t} xT - \frac{CL_{t-1}}{CA_t} xT = \frac{\Delta CL}{CA_t} xT \tag{10}$$

B. Number of rotations:

$$nrot = \frac{CA_t}{CL_t} \tag{11}$$

1. Absolute deviation of indicator (with the basis in chain) from one period to another will be for the number of rotations:

$$\Delta nrot_{(t,t-1)} = nrot_t - nrot_{t-1} = \frac{CA_t}{CL_t} - \frac{CA_{t-1}}{CL_{t-1}} = \tag{12}$$
$$= \Delta nrot_{(\Delta CA)} + \Delta nrot_{(\Delta CL)}$$

2. The modification of the number of rotations is made:

a) On the modification of the turnover:

$$\Delta nrot_{(\Delta Ca)} = \frac{CA_t}{CL_{t-1}} - \frac{CA_{t-1}}{CL_{t-1}} = \frac{\Delta CA}{CL_{t-1}} \tag{13}$$

b) On the modification of the balance from clients:

$$\Delta nrot_{(\Delta CL)} = \frac{CA_t}{CL_t} - \frac{CA_t}{CL_{t-1}} \tag{14}$$

3. Proposal of integrated and correlated approach to analyse the client credits

We propose an individual and correlated approach, not an individual one, of the efficiency analysis allocated to clients as debts.

a) The analysis of speed duration in days depending on the turnover structure on clients and the individual rotation duration for each client:

$$dz_{CL} = \frac{CL_t}{CA_t} T = \sum_{i=1}^{n} g_{si}^{CA} x dz_i \qquad (15)$$

Factors of influence:

- turnover structure on clients (g_{si}^{CA})
- individual rotation duration for each client (dz_i)

The model has the advantage of pointing out the influence of client modification in the company business, pointing out too the term in which they pay their invoices.

Note: Because it is possible that not all the clients benefit of commercial credit, for the clients that pay in advance or pay immediately we will place the 0 value in the model.

b) The analysis of rotation number depending on the structure of client debts and on the individual rotations of each client:

$$nrot_{CI} = \frac{CA}{CL} T = \sum_{i=1}^{n} g_{si}^{CL} xnrot_i = \sum_{i=1}^{n} g_{si}^{CL} x \frac{1}{dz_i} \qquad (16)$$

Factors of influence:

- debt structure on clients (g_{si}^{CL})
- individual rotation number for each client ($nrot_i$)

Note: Because we want to correlate the structure of turnover on clients with the structure of debts on clients, it is essential to take into consideration all the clients, and those that do not benefit of commercial credit will be mentioned with 0 value.

c) Establishing the correspondence between the two models:

from:

$$dz_{CL} = \frac{T}{nrot_{CL}} \Leftrightarrow \sum_{i=1}^{n} g_{si}^{CA} xdz_i = \frac{1}{\sum_{i=1}^{n} g_{si}^{CL} x \frac{1}{dz_i}} \qquad (17)$$

The relations between the two structures can be emphasized using Gini-Lorenz concentration curve.

The model has the advantage of pointing out the influence of debt modification on clients in the company business, catching indirectly the term in which they pay their invoices.

The financial management is interested in identifying the clients:

- that have a low value in the turnover but a high value in debts;
- that have a medium value in the turnover but a medium value in debts;
- that have a high value in the turnover but a low value in debts.

Depending on this information, corrective measures can be taken.

Another advantage is represented by the identification of the individual rotation duration positioning of clients, and the position compared to the medium rotation duration. Thus, if the importance of those with individual durations higher than the average will increase, we will face the increase of the global rotation duration, while if the importance of those with individual durations lower than the average will increase, we will benefit of a reduction of global rotation duration.

When analyzing the dynamic of client credit, the following aspects must be taken into consideration:

a) Related to the unfavorable tendency of rotation speed:

- if the tendency of rotation speed (duration in days) is to grow when the turnover is maintained or increased, in the absence of a change in the commercial policy, the analysis of bad payer clients is required;
- if there is noticed an increase of the client credit, in the absence of a sales growth, it can be a sign that the company's situation is getting worse, and it has to change its credit policy in order to maintain its clients. To maintain the situation means to lose the position on the market as well as difficulties to pay the beneficiaries as a consequence of the unfavorable situation

b) Related to the favorable tendency of rotation speed

- if the client credit reduces when the turnover increases, it means that the management of client credit improves when it grows on the market, or as a consequence of the change in the credit policy, or of the transfer towards specialised financial institutions which mobilize them.

- if the client credit reduces when the turnover reduces, it means that there takes place a masked improvement of the client credit management, when it reduces on the market, as a consequence of the change in the credit policy.

c) *Related to significant changes*

Sometimes significant changes may take place because companies may apply different credit policies for different products, depending on the market situation, the product life cycle. If these elements have as an immediate impact a negative effect, the long term effects must not be neglected [4].

4. Conclusion:

The position of stakeholders' financial interests is very important compared to the rate level and the management rate dynamics:

a) on one hand, the shareholders are the ones who want a rate as small as possible because the company's money is used and they are the owners;
b) clients need quality goods and services, at reduced prices and at advantageous payment terms. If they do not like the company's goods or services they will go to competitors, the company will lose them, reducing its turnover. To reduce the price means to reduce the profit, fact which must be compensated and exceeded with an increase in sales. The commercial credit given by the company to its clients must be efficient, that is it must increase more the sales and not the negative effects it has on the tying up of financial resources.
c) financial institutions may have two positions:
   - if they are financial institutions which take the debts through transfer from the economic agent and discount them, they win from these operations;
   - if they are direct creditors (they lend), they may have two positions:
     - if they lend money on long term they are interested to increase the business volume of the company;
     - if they give credit on short term, they are interested in liquidity, thus rates as small as possible;
d) the state owned companies or the ones which benefit of government subsidies, are the worse bad payers.
e) the management must optimize all these interests apparently in contradiction, because at the end everyone is interested in the company's good development.

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