PRACE NAUKOWE UNIWERSYTETU EKONOMICZNEGO WE WROCŁAWIU
Nr 48 2009
Zarządzanie finansami firm – teoria i praktyka

Grzegorz Michalski
Wroclaw University of Economics

INFLUENCE OF THE ACCOUNTS RECEIVABLE FACTORING ON THE FIRM VALUE

1. Introduction

Managing the operating cycle of the enterprise requires providing with the appropriate level of cash as well as other current assets: accounts receivable and supplies. Keeping current assets generate costs, and so it influences the profitability of the company. Factoring is one of tools allowing to shorten the operating cycle which relies on the fact that the factor is purchasing present and future accounts receivable (amounts due of the enterprise), on one's own suffering the risk of the overdue regulation liabilities. Enterprise after presenting a duplicate invoice to the factor, receives the majority of money from him (up to the 80% of the amount), and the rest part in the moment of regulating the liability by the customer. Factor in exchange for the commission takes over all duties of the enterprise resulting from the sale on the principle of trade credit [Stecki 1995, p. 52]. There is many varieties of the factoring enterprise, most beneficial of a point of view of the functionality of the enterprise exist, there is a full-service factoring which is embracing with one's scope three functions:

(a) financial (the immediate payment for financial documents received from the enterprise using the factoring and later cribbing purchased amounts due from the debtor),

(b) lowering the risk (guarantee, consisting in moving on of factor of the risk of trade credit resulting from the impossibility of cribbing the liability from the customer using the purchase on the principle).

Factoring is sometimes misused synonymously with financing of accounts receivable process. In this paper factoring is a transaction in which a firm of factor client sells its accounts receivable at a discount. Factoring is not a kind of bank loan, in fact it depends on the value of the accounts receivables and by it depends on the factor client clients not the firm of factor client itself.

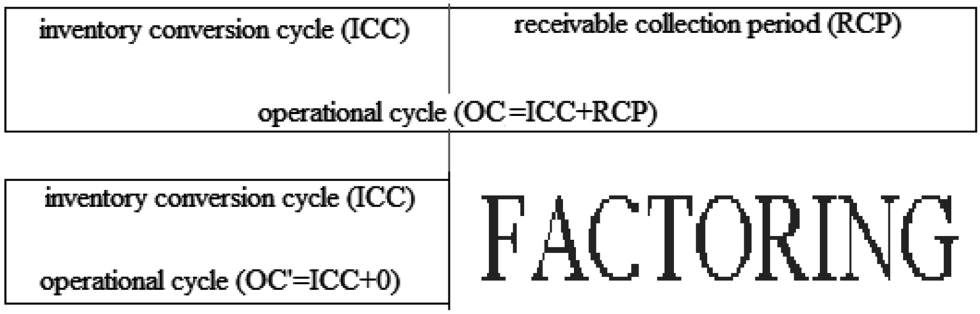


Fig. 1. Influence of the factoring on the operating cycle (CO)

Source: own study.

In factoring process we have three parties involved: the factor client (the seller of the goods or work performed), credit purchaser of the goods (the debtor), and the factor. The factor client is owed money by the purchaser of the goods sold. The factor then sells its invoices at a discount to the factor to obtain cash faster. Next the client of the factor client directly pays the factor the full value of the invoice. As we see on fig. 2, in factoring process, relation between factor and its client (the firm which sells on trade credit and uses factoring to free cash tied in its accounts receivables) is a kind of swap.

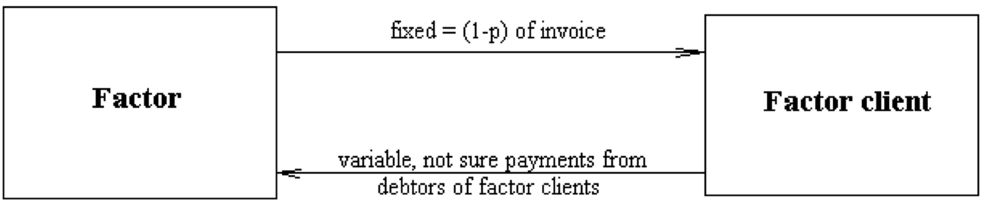


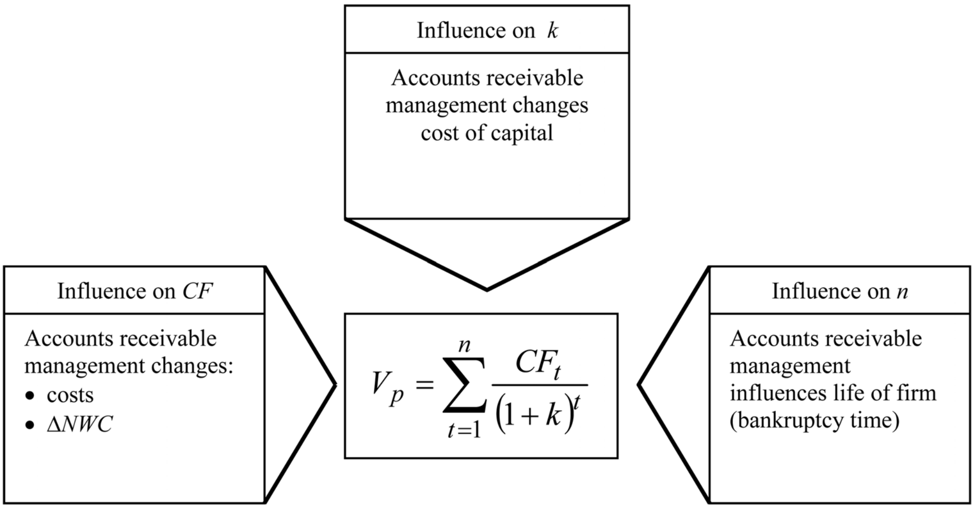
Fig. 2. The factoring as the SWAP. Exchange of assets about unsure of the size
to the influences devoid of the uncertainty

Source: own study.

(c) services (the factor leads to the thing and on behalf of accounting for the customer accountants connected with the accounts receivable management). Many other varieties are also factoring, omitting some elements of the full factoring are numerous. Using these services causes, that more effectively it is possible to manage reserves of the liquidity, because influences of amounts due are far more predictable and manageable.

2. Relation of the length of the operating cycle to the firm value

The effectiveness of operating cycle management decisions and the level of assets can be measured in a few ways. One of them is focusing on the influence on the net profit and its relation to the shareholders' equity, total assets or other item of assets. Second, assess profitability in a way that it relates to the value of the company. If given commitment of means to liquid assets, will help to increase the value of the enterprise, it will be profitable, but if it influences lowering, will be spelling unprofitable investment (in liquid balances).



Where: CF – free cash flows, ΔNWC – increase in the net working capital, k – cost of capital financing the enterprise; t – period in which generated free financial flows will be.

Fig. 3. Influence of account receivable policy on the value of the company

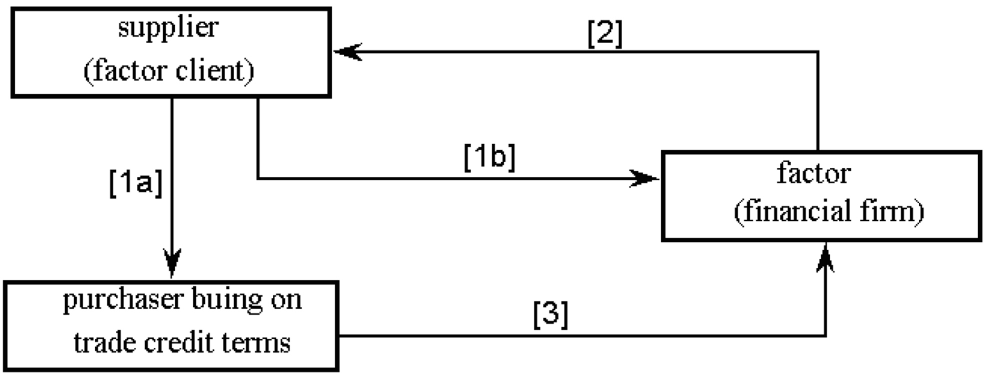
Source: own study.

As shown in fig. 3, individual elements influencing decisions in scope of the length of the operating cycle, influence the level of free cash flows (CF), and thus the value of the firm.

3. Influence of the factoring on the value of the company

From a point of view of managing the operating cycle of the enterprise, should be considered making use of factor services, or insuring the liability too as the most desired in every production company, whose sales sizes to allow credit.

The entrepreneur has an opportunity to feed with financial means of the enterprise resulting from using of factoring services. Factoring relies on it, that enterprise, causing the sale on principles of trade credit, is not expected to rafting amounts due for sold products and/or services, but receives due financial means resulting from the sale from a subsidizing financial institution services of factoring. After the time of the maturity have passed, a financial institution is regaining means handed over to the enterprise, by collecting the amount due from recipients. A commission is remunerating for the institution serving for the factoring. The enterprise, carrying the sale out on principles of trade credit which uses services of the factoring, called the supplier. The supplier should decide to use from services of the factoring, only if the use of this service influences an increase the firm value. The providing services of the factoring, named institution is a factor. Fig. 4 a scheme is describing action of the factoring in the case of applying the promotion method.



Labels: [1a] – the firm is carrying the sale out on trade credit principles handing down to the recipient products or services, [1b] – the information about the transaction is being passed on to the factor, [2] – the factor is handing the equivalent over to the supplier near to 80%-90% of the amount due directly after the transaction, and rest (reduced for the commission) in the more late time, [3] – the recipient is transferring the amount due for purchased products or services to the account of the factor.

Fig. 4. Mechanism of the factoring – traditional method

Source: [Skowronek-Mielczarek 2003, p. 98].

A key function of the factoring, is the securing financial means for the enterprise carrying the sale out is on principles of trade credit. Practicing the factoring has this virtue, that even if enterprise carrying the sale of its products out, isn't qualifying to receiving of bank loan, because of too low of the own credit credibility and/or the lack of credit rating, it is often possible applying the factoring and lending money up to the pledge of the amount due or the sale amounts due. Factor is, in the first row, isn't judging the enterprise carrying the sale out, but institutions which from it they are purchasing and it is a quality of their amount due is a base for establishing the cooperation on principles of the factoring.

Two essential methods of the transfer of financial means exist between the factor and the supplier [Skowronek-Mielczarek 2003, p. 99]. The first method relies on it, that directly after presenting a documenting duplicate invoice causing the sale on principles of trade credit, the supplier is receiving a down payment from the factor in the height about 80-90% of the invoice value. The second method, works in the way in which the factor is purchasing amounts due and immediately pay the whole of the amount due reduced for the discount resulting from the fact amounts due will be received by it later and reduced for the commission for services provided for the supplier.

The main idea of factoring at first assumed realizing the financial function. At present however, they require in order to object of the factoring apart from the assignment supplemented was also as least with two different additional services because otherwise, in the case of very financial function, a duty of making stamp duties is arising because such a factoring is treated as the transfer amounts due, in spite of, that assignment made without the factoring, differs from the factoring in it, that at the transfer, cessionary (e.g. bank which by the enterprise amounts due stayed for ceded)[1] is an owner of the amount due, but of them taking down is responsibility of a transferor (of enterprise which made the transfer), while in the case of the factoring, most often with the owner of the amount due and the subject responsible for attracting them, is a factor.

In addition to major benefits, such as reducing investing funds in the net working capital and reduction of costs of collecting receivables, using the factoring is connected with such burdens as [Słoński 2004, pp. 186-189]:

- interests, in the case of providing credit, similar with height up to a bank loan,
- the front-end fees dependent on the limit of factoring,
- commission for assuming the risk of the bankruptcy of recipients depends on the level of the assessed risk,
- administrative commissions depend on the amounts of the liability, for providing additional services in the scope of the bookkeeping, the debt collection, the term credit rating of debtors, of monitoring debtors of the enterprise and the consultancy.

Moreover, for the firms weakening contacts with customers can have grave consequences. Most often, the direct acquaintance of customers with his owner is playing a significant role. Takeover through of factor of many functions bound with the accounts receivable management and the sale on trade credit terms, is weakening this bond. Moreover a threat resulting from the problem of the agency and the asymmetry is arising of information.

[1] The topic of nonfinancial functions of the factoring and more accurate discussing its types contain: [Grzywacz 2001, pp. 42-103].

In cases, when all contacts with recipients, will be taken over through of factor (which will be making selection of recipients being able to use from trade credit), straight out lowering the sales revenue is possible, enterprises resulting from the too rigorous assessment of customers and of the lack of fitting the offer to needs of recipients which would have the greater chance of identifying in the case of traditional forms of the contact.

Example 1. The enterprise had amounts due in previous years from recipients which made purchases before the season, on level 70000€. Recipients usually received postponing the payment lengths of 45 days from the moment of the purchase. The firm took advantage of services of the factor, arranging to meet with him, that in the moment of causing the sale, a 95% will receive sale values from it (that is gave her amounts due from the 5% with discount).

In order to estimate the cost of this solution, one should divide the per cent of the discount by the per cent of the amount get from the sale after applying the factoring, that is:

$$\begin{matrix}\text{Nominal} \\ \text{cost of the factoring}\end{matrix} = \frac{5\%}{95\%} = 5{,}26\%.$$

Next, knowing that the average payment is finding its way to the enterprise after 45 days, and at the assumption that the year has 360 days, we receive the effective annual cost of the factoring:

$$\begin{matrix}\text{Effective} \\ \text{cost of the factoring}\end{matrix} = \left(1 + \frac{5\%}{95\%}\right)^{\frac{360}{45}} - 1 = 50{,}73\%.$$

So cost of the factoring applied by the firm, is considerable and it is likely that it is exceeding the cost of financing this company.

We should however remember, that of applying the factoring in the result, the company is not having incur the costs connected with the vindication of the amount due, amount 70 000€, directly will inflow into the firm and, what is more important, the factor takes the risk connected with the financial problems and eventually bankruptcy of firm customers from it. If costs of the vindication of the amount due we will mark as [A], amount of the amount due of the enterprise as [B], opportunities cost connected with freezing funds in amounts due as [C], and risk as [D] (it will lower as a result of applying the factoring), it about applying the factoring in the following way will influence the influence of the decision to the value of the company:

$$NPV = -\Delta NWC \Leftarrow [\mathrm{B}\downarrow] + \sum_{t=1}^{n\Leftarrow -[\mathrm{D}\downarrow]} \frac{\left(-\text{costs} \Leftarrow \{[\mathrm{A}\downarrow] + [\mathrm{C}\downarrow]\}\right) \times (1-T)}{\left(1 + k \Leftarrow [\mathrm{D}\downarrow]\right)^{n\Leftarrow -[\mathrm{D}\downarrow]}} - \begin{pmatrix}\text{Costs of using} \\ \text{factoring}\end{pmatrix}.$$

Costs of the vindication of the amount due [A], lowering, can influence lowering of costs (but they must not, if the cost connected with the factoring exceeds them), and it influences value of forecast financial flows and the firm value. Level of the amount due [B], as a result of lowering, is increasing the firm value as a result of freeing the amount previously tied in the working net capital. Opportunities cost [C] lowering, they are increasing the level of forecasted free cash flows and by it influence the firm value. Assumed risk through of factor [D] first influences the expected firm lifetime (*n*), and what behind it is going, contributing to the height of the value company, at the same time fall in the risk, can influence the rate of cost of capital raised by the company from different sources and in this way, by lowering it after which forecasted free cash flows are being discounted, the value of the firm is changing.

Example 2. The firm is considering use of the factoring in order to shorten the operating cycle.

Data concerning the example is in Table 1.

Table 1. Influence of the factoring on the firm value (in thousand PLN)

	Without the factoring	With the factoring	Change
CR (Cash revenues)	720	720	0
CE (Cash expenses)	316,8	324	7,2
NCE (non-cash expenses)	50	50	0
EBIT (earnings before interest and taxes)	353,2	346	–7,2
NOPAT (net operating profit after taxes)	286,092	280,26	–5,832
NCE (non-cash expenses)	50	50	0
Δ NWC (net working capital growth)	0	0	0
Capex (capital expenditures)	50	50	0
$CF_{(1...n-1)}$	286,092	280,26	–5,832
RCP	30	0	–30
ICC	20	20	0
fixed assets	350	350	0
Accounts receivable	60	0	–60
Inventory	40	40	0
Cash	21,6	21,6	0
nonfinancial current liabilities	20	20	0
k_e (rate of the cost of the shareholders equity)	30%	29%	–0,01
k_d (rate of the cost of the debt)	11%	10%	–0,01
participation of the debt in capital (D/(D+E))	50%	50%	0
$CF_{(0)}$	–451,6	–391,6	60
$CF_{(n)}$	737,692	671,86	–65,832
Rate of the cost of capital	19%	19%	–0,00905
Expected period (in years)	10	10	
NPV	846,705	915,106	68,401

Source: hypothetical data.

In this example was assumed that a full factoring was being considered. Hence we have the reduction in rates of costs of capital financing the firm resulting from the fact that the part of the operating risk is taken over through of factor thanks of the guarantee function. In another way, the effect of the reduction in the risk would be smaller in rate of the cost of capital, and result in firm value change could not appear.

As can be seen, in the example, applying the factoring is contributing to the increase in the value of the firm (NPV increase).

4. Summary

Steering the operating cycle is counting and he influences the value of the company. Applying the factoring which can also influence is one of methods of shortening this cycle for curbing the operating risk but because of that for lowering rates of the cost of capital financing the enterprise.

The basic financial purpose of an enterprise is maximization of its value. Operating cycle management should also contribute to realization of this fundamental aim. The enterprise value creation strategy is executed with a focus on risk and uncertainty. This paper presented the consequences for the firm that can result from changes in operating cycle and operating risk that are related to using factoring as instrument to short target operating cycle of the firm and advantages resulting in risk reduction caused by transferring it to factor.

Literature

Grzywacz J., *The Factoring* (in Polish: Faktoring), Difin, Warsaw 2001.

Hundley G., Jacobson C.K., Ho Park S., *Effects of profitability and liquidity on r&d intensity: Japanese and U.S. companies compared*, „The Academy of Management Journal" 1996 vol. 39, no. 6.

Kalberg J.G., Parkinson K.L., *Corporate Liquidity: Management and Measurement*, IRWIN, Homewood 1993.

Pluta W., Michalski G., *Short-term Capital Management* (in Polish: Krótkoterminowe zarządzanie kapitałem), C.H. Beck, Warsaw 2005.

Sierpińska M., Wędzki D., *Managing the Financial Liquidity in the Enterprise* (in Polish: Zarządzanie płynnością finansową w przedsiębiorstwie), WN PWN, Warsaw 2002.

Sizer J., *Some implications for operational research in the area of inflation as it affects a company's profitability and liquidity*, „Operational Research Quarterly" (1970-1977), vol. 28, no. 1, Part 2, 1977, pp. 125-137.

Skowronek-Mielczarek A., *Sources of Financing the SME* (in Polish: Małe i średnie przedsiębiorstwa: źródła finansowania), C.H. Beck, Warsaw 2003.

Słoński T., *Financing Current Financial Decisions* (In Polish: Finansowanie działalności bieżącej), [in:] *SME Finance* (in Polish: Finanse małych i średnich przedsiębiorstw), W. Pluta (ed.), PWE, Warszawa 2004.

Stecki L., *The Factoring in the Commercial Practice* (in Polish: Faktoring w praktyce handlowej), Dom Organizatora TNOiK, Toruń 1995.

FAKTORING I JEGO WPŁYW NA WZROST WARTOŚCI PRZEDSIĘBIORSTWA FAKTORANTA

Streszczenie

Podstawowym finansowym zadaniem zarządzania przedsiębiorstwem jest wzrost jego wartości. Zarządzanie cyklem operacyjnym powinno także przyczyniać się do osiągnięcia tego podstawowego celu. Strategia wzrostu wartości przedsiębiorstwa jest realizowana w warunkach ryzyka i niepewności. Niniejszy artykuł przedstawia konsekwencje dla firmy, jakie niesie ze sobą zastosowanie faktoringu jako narzędzia skracającego cykl operacyjny, i opisuje spodziewane korzyści w zakresie zarządzania wartością przedsiębiorstwa.