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FACTORING AND THE FIRM VALUE

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Abstract. *The basic financial purpose of an enterprise is the 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 presents 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.*

Key Words: *Corporate risk management, operating risk, factoring, operating cycle, current assets, firm value.*

1. INTRODUCTION

Managing the operating cycle of the enterprise requires providing the appropriate level of cash as well as other current assets: accounts receivable and supplies. Keeping current assets generates costs, and therefore influences the profitability of the company. Factoring is one of the 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 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[1]. There are many varieties of the factoring enterprise, but most beneficial from the point of view of the functionality of the enterprise is full-service factoring which is embracing three functions in one scope:

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[1] L. Stecki, *The Factoring in the commercial practice* (in Polish: *Faktoring w praktyce handlowej*, Dom Organizatora TNOiK, Toruń 1995, s. 52.

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

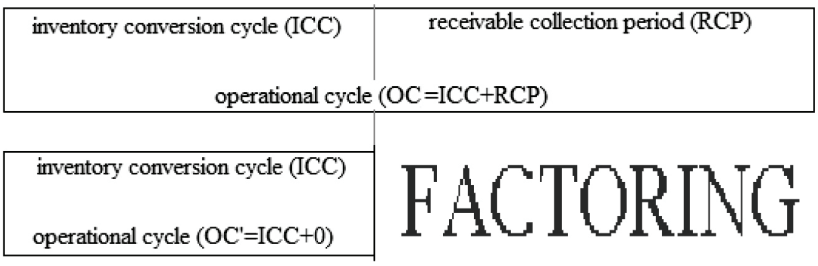

Fig. 1. Influence of the factoring on the operating cycle (CO)
Source: own study

(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 therefore depends on the factor client clients, not the firm of factor client itself.

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 purchaser of the goods sold owes the factor client money. 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 in 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.

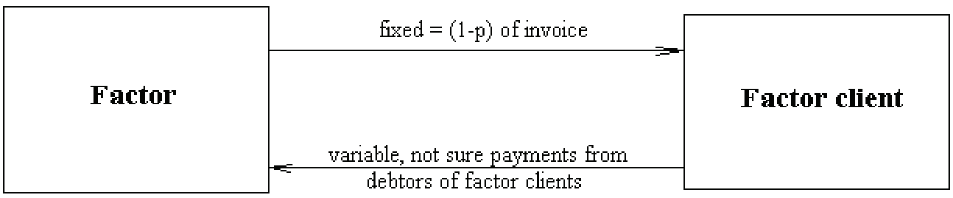

Fig. 2. The factoring as the SWAP. Exchange of assets about unsure of the size to the influences devoid of the uncertainty.
Source: own study.

(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; examples with omitting some elements of the full factoring are numerous. Using these services makes managing reserves of the liquidity more effective, 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. The second one assets 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, that will be spelling unprofitable investment (in liquid balances).

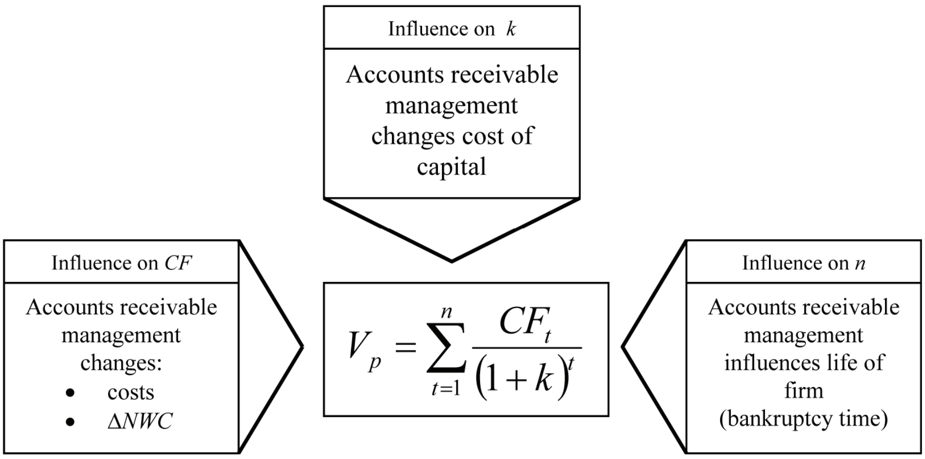

Fig. 3. Influence of account receivable policy on the value of the company
Where: *CF* – free cash flows, ΔNWC – increase in the net working capital,
k – cost of capital financing the enterprise; *t* – period in which generated free financial flows will be.
Source: own study

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 the point of view of managing the operating cycle of the enterprise, one should consider making use of factor services, or insuring the liability too, as the most desired in every production company whose sales' size allow credit.

The entrepreneur has an opportunity to feed with financial means of the enterprise resulting from using factoring services. Factoring relies on the idea that the enterprise, causing the sale on principles of trade credit, is not expected to raft 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 has 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, calls the supplier. The supplier should decide to use services of the factoring only if the use of this service influences an increase in the firm value. The institution providing services of the factoring is named a factor. In fig. 4., a scheme is describing action of the factoring in the case of applying the promotion method.

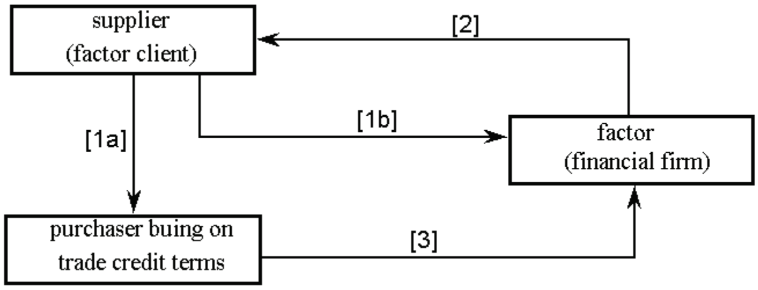

Fig. 4. Mechanism of the factoring – traditional method.
Labels: [1a] - the firm is carrying the sale out on trade credit principles handing down to the recipient products or services, [1b] - the information about the transaction is being passed on to the factor, [2] - the factor is handing the equivalent over to the supplier near to 80%-90% of the amount due directly after the transaction, and the rest (reduced for the commission) at a later time, [3] - the recipient is transferring the amount due for purchased products or services to the account of the factor.
Source: A. Skowronek-Mielczarek, *Sources of financing the SME* (in Polish: Małe i średnie przedsiębiorstwa: źródła finansowania), C.H. Beck, Warsaw 2003, s. 98

The key function of the factoring is securing financial means for the enterprise carrying the sale out on principles of trade credit. Practicing the factoring has this virtue that even if the enterprise carrying the sale of its products out is not qualified to receive a bank loan, because of too low credibility and/or the lack of credit rating, it is often possible to apply the factoring and lending the money up to the pledge of the amount due or the sale amounts due. Factor is not primarily judging the enterprise carrying the sale out, but institutions from which they are purchasing and it is the quality of their amount due that is the basis 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[2]. The first method relies on the concept that directly after presenting a documenting duplicate invoice causing the sale on principles of trade credit, the supplier receives a down payment from the factor in the amount of about 80%-90% of the invoice value. The second method works in the following way: the factor is purchasing amounts due and immediately pays the whole of the amount due reduced for the discount resulting from the fact that 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, it is required to supplement at least two different additional services in order to differentiate the factoring apart from the given assignment because otherwise, in the case

[2] A. Skowronek-Mielczarek, *Małe i średnie przedsiębiorstwa. Źródła finansowania*, C.H. Beck, Warszawa 2003, p. 99.

of very financial function, an obligation of making stamp duties is arising, because such a factoring is treated as the transfer amounts due, in spite of the fact that assignment made without the factoring differs from the factoring in the fact that at the transfer, cessionary (e.g. bank which by the enterprise amounts due stayed for ceded)[3] is the owner of the amount due, but taking them down is the 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 the 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[4]:

- interests, in the case of providing credit, similar in amount up to that of 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, there can be grave consequences. Most often, the direct acquaintance of customers with the owner plays a significant role. Takeover by the factor of many functions connected 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.

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

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

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

[3] The topic of nonfinancial functions of the factoring and more accurate discussing its types contain: J. Grzywacz, *The Factoring* (in Polish: Faktoring), Difin, Warsaw 2001, p.42-103.

[4] T. Słoński, *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, p. 186–189.

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

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, the 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 by applying the factoring in the result, the company does not have to incur the costs connected with the vindication of the amount due, and the amount of 70 000€ will directly inflow into the firm and, what is more important, the factor takes the risk connected with the financial problems and eventual bankruptcy of firm customers from it. If the costs of the vindication of the amount due are marked 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), applying the factoring in the following way will influence the decision to the value of the company:

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

Costs of the vindication of the amount due [A] lowering can influence lowering of costs (but they need not, if the cost connected with the factoring exceeds them), and it influences the 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 thus influence the firm value. Assumed risk of factor [D] first influences the expected firm lifetime (*n*), and what is going behind it, contributes to the height of the company value, and at the same time the decrease of 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 the 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.

In this example, it 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 by the factor thanks to the guarantee function. In other words, the effect of the reduction in the risk would be smaller in rate of the cost of capital, and resulting firm value change could not appear.

Table 1. Influence of the factoring on the firm value

	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
$CF_{(1\ldots n-1)}$	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
Non-financial 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	846,7047442	915,1060078	68,40126361

Source: hypothetical data

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

4. CONCLUSION

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

The basic financial purpose of an enterprise is the maximization of its value. Operating cycle management should also contribute to the 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 an instrument to short target operating cycle of the firm and advantages resulting in risk reduction caused by transferring it to the factor.

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FAKTORING I VREDNOST FIRME

Grzegorz Michalski

Osnovna finansijska svrha preduzeća je maksimiranje njegove vrednosti. Upravljanje operativnim ciklusom može doprineti realizaciji ovog osnovnog cilja. Strategija stvaranja vrednosti preduzeća sprovodi se sa fokusiranjem na rizik i neizvesnost. U ovom radu govori se o posledicama za firmu koje mogu biti rezultat promena u operativnom ciklusu i operativnom riziku koji je u vezi sa upotrebom faktoringa kao instrumenta kratkog ciljnog operativnog ciklusa preduzeća i o prednostima koje proizilaze iz smanjenja rizika transferom ka faktoru.

Ključne reči: *upravljanje korporativnim rizikom, operativni rizik, faktoring, operativni ciklus, vrednost firme*