Shortening of Business Processes as an Effective Vehicle of the Cash Management Improvement

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Abstract

Commodity producers nowadays perform their activities in a business environment which requires from them a continuous improvement and shortening of business processes which is a conditio sine qua non for maintaining and increasing their competitiveness. Shortening of business processes leads towards costs reduction, which gives commodity producers an opportunity to sell their products and services at a lower cost price and/or with a higher profit margin. After all it surely improves cash management, and thus contributes to better cash flow of the commodity producer.

We can advocate a thesis that cost reduction and/or a higher positive profit margin of products and services (= profit) is a function of improvement and shortening of business processes. In order to maximize this function commodity producers are forced to continuously improve and innovate their business processes. One of the relevant parameters in this function is time duration of a business process. If emphasis is placed only on the time horizon of a business process and if, in addition, the cash aspect is taken into account under the ceteris paribus assumption, the above function can be written as follows: Financial effects = max f (shortening of business processes).

The shorter a business process and the sooner products and services are sold, the faster money gets transferred to a bank account which results in lower conversion costs of basic elements of a business process and in higher financial savings for a commodity producer. Here a simple question is being posed: What can commodity producers do in order to shorten a business process? Some answers to the question will be provided in this paper, which mainly focuses on a simple cash conversion cycle: Cash \rightarrow Purchasing of raw material \rightarrow Production \rightarrow Inventories of finished goods \rightarrow Sale of products/services \rightarrow Accounts receivable \rightarrow Cash⁺ and deals with net working capital management as one of the key drivers of the business efficiency of commodity producers. The author of this paper also refers the commodity producers to continuous improvement and shortening of business processes on some empirical cases with emphasis on cash conversion cycle.

Key words: business process, re-engineering of business processeses, net working capital, cash conversion cycle, asset turnover ratio, cash management

1 Time and money aspect of shortening of business processes

Commodity producers nowadays operate in conditions that require them to continuously improve business processes, which is a conditio sine qua non for maintaining and increasing their competitiveness. Improving business processes leads to costs reduction, which enables commodity producers to sell products and services at a lower cost price and a higher profit margin.

We can argue that reducing costs and increasing positive margin of goods and services (= profit) is the function of improving business processes. In order to maximize this function, commodity producers are forced to constantly renovate and innovate their business processes. One of the relevant parameters in this function is the duration of a business process. If we focus only on the time aspect of a business process and if in so doing we also consider its money aspect, ceteris paribus, the above function can be written as follows:

Financial effects = max f (shortening of business processes)

The shorter a business process and the sooner products and services are sold, the faster money gets transferred to a bank account which results in lower conversion costs of basic elements of a business process and in higher financial

savings for a commodity producer. Here a simple question is being posed: What can commodity producers do in order to shorten a business process? Leaving aside the distinction between core and supporting business processes and focusing only on a simple cash conversion cycle, we can note the following:

 $Cash \rightarrow Purchasing of raw material \rightarrow Production \rightarrow Inventories of finished goods \rightarrow Sale of products/services \rightarrow Accounts receivable \rightarrow Cash^+$

then there's a key question left open: how to shorten this business process so that a commodity producer, who initially has to invest certain cash assets (cash) would as soon as possible come to the end of this cycle with more cash assets (cash') than he is invested. The real sector is witnessing an increasing number of cases where commodity producers complete their business processes with the amount of money that is smaller than the one initially invested in those processes. There is no escape for such cases in the long run. Therefore it holds true for both, those who complete their business processes with more cash (cash +) and those who complete them with less cash (cash -), that maximizing the above described function is one of the ways of maintaining and increasing their competitiveness as well as chances of survival.

For a better understanding of the cash conversion cycle let us present the full course of cash flows by the following two schemes in Figure 1 and Figure 2 (Scherr, 1989, p. 4).



Figure 1: Cash flow directions with commodity producers - working capital cycle





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A Commodity producer can shorten a business process in a variety of ways, for example, with a technological modernization of a production process, through better organization of labour, by optimizing the internal flow of goods and materials (break-through), by increasing time standards, with a better allocation of machinery and equipment (layout), with improved internal and external logistics, with a greater transparency of information flows, etc. Costs reduction and an increase in cash savings in the above measures are obvious. Of course, implementation of such measures requires a mix of skills (technical, organizational, informational, etc.), experiences and often, in a large part, logic, concern and commitment of a good master.

2 Shortening of business processes in conjunction with effective management of working capital

2.1 Increase in net working capital as a result of shortening of business processes

Commodity producers who borrow cash assets from a bank often say: "Last year we achieved record sales and profits, but we are still unable to return loans." Companies (especially gazelles) require additional net working capital for their growth, which often exceeds their profits. Net working capital is equal to the difference between current assets and current liabilities. It can also be calculated as follows:

Net working capital = equity + long-term liabilities - long-term assets

According to Bergant (2008, p. 7) working capital is actually part of liabilities to long-term resources of a company. It is therefore a long-term category, which finances part of its short-term investments. Current assets management plays an important role in business processes, especially in maintaining the financial health of commodity producers. Their financial stability can be estimated by the very net working capital. Consequently my article touches in particularly upon that area of shortening business processes that relates to working capital management.

In order to achieve the highest possible return on their investments, commodity producers have to manage effectively all their assets and finance their operations with the cheapest alternative sources because the key problem of business finance lies in providing a sufficient volume of financial resources in an appropriate time structure and at the most favorable prices (Bukvič, 2008, p. 19). This raises a fundamental question of how commodity producers should avoid being "profit rich and cash poor" in their business operations.

Leaving aside money and money equivalents as the most liquid form of a commodity producer's property and focusing on inventories and short-term investments (receivables and given short-term loans) on one side and on short-term business (accounts payable) and financial liabilities (short-term loans from banks) on the other, then we have to first and foremost be interested in how effectively a commodity producer manages his working capital. Because the change in cash assets, according to Bergant (2009, p. 10), solely depends on the change in deficit or surplus of working capital and on the change in company's net short-term debt. Net working capital as a positive difference between current assets and current liabilities may, according to Sauvageot (1997, p. 27), also be presented shematically and numerically in the projection of a balance sheet in Figure 3 on next page.

Net working capital also indicates liquidity, which means that a commodity producer is solvent, if he shows sufficient liquid assets which can help him settle his current liabilities on the due date of these obligations. Fridson (1996, p. 310) warns us that the net working capital is good as a general indicator of liquidity, but requires more carefulness in explaining its value.¹

The question whether a commodity producer who shows a positive net working capital, can maintain his financial structure at a relatively low share of capital is answered by Vernimmen (1998, p. 212. and 213) as follows. Firstly, in the case of normal business operations, real assets are much more important than the absolute value of positive net working capital. Secondly, a commodity producer who shows a positive net working capital responds to the event of crisis (recession) much faster. It is worth noting here that net working capital can be augmented by an increase in capital (as accounting categories), by an increase in long-term liabilities, by selling off long-term assets (disinvestment), etc.

¹ Balance sheets of some corporations that are heavily indebted show a modest or even negative net working capital. Such economic subjects manage their inventories very carefully and take advantage of long payment period of their suppliers which manifests in chronically »indebted balance sheets« (trade payable balances). In such cases there is no threat of insolvency, as more liabilities than assets will be "liquidated" in the current business cycle.



Figure 3: Net working capital in the projection of a balance sheet

Further increase in short-term liabilities to suppliers (of course within the contractually stipulated maturity) provides a commodity producer with a high-quality (free) source of funding the increased volume of business and current assets. These are the so-called interest-free loans given to commodity producers by suppliers. It is therefore in the interest of every commodity producer to obtain from his suppliers as long payment period as possible. It is right the opposite with the customers. Every commodity producer aims at attaining the shortest payment period with his customers, thus causing his customers to liquidate his assets as soon as possible. By all means, a commodity producer should make sure that his customers pay his invoices sooner than he has to pay invoices of his suppliers.

Commodity producers have their cash assets tied up also in inventories, either on the input or the output side. If the latter, then more cash assets are tied up in these inventories because the major part of a business process which caused costs (costs as valuations in terms of money of expenditures covering basic elements of a business process) on one side, on the other side also required its funding, had already finished. Inventories of finished products in a business process represent a certain part of short-term assets of a commodity producer, but this does not necessarily mean that it will be fully absorbed by the market (market sale) and that a commodity producer will have the goods fully repaid.

A commodity producer will successfully complete his business process and start with a new one, only if there is an effective demand for his products/services. In other words, does a commodity producer have buyers who are also liquid and solvent? They are such if they settle their obligations with a commodity producer in time, so that they are reliable payers, or if we depend on Garhammer (1996, p. 56), who defines this liquidity as the ability of a commodity producer to meet his payment obligations exactly on the date of maturity and in the specified amount. For this purpose he uses a temporal structure to show financing in three phases, as shown in Figure 4.



Figure 4: A three-phase scheme of financing a commodity producer

Naturally serious liquidity problems occur if commodity producers face the problem of selling their products / services (a sudden decrease in demand), or if they encounter customers who are themselves faced with serious liquidity

problems and thus become insolvent. This may result in a halted business process and thus the cash conversion cycle does not complete or it completes only partially. If a business process stops in inventory of unsold finished products, sales function has to play its role. If a business process stops in receivables from customers, the terms of which have already become due, finance function along with the sales must play its part. Sales function makes a deal and sets the payment terms, which obligates it to take part in the money recovery. If buyers are insolvent and a commodity producer, in spite of that wants to conclude a cash conversion cycle and get money (money +) as soon as possible, he will have to look for different ways of realizing his receivables. A longer path is a legal recovery, which does not necessarily lead to concluding a cash cycle. Customers may be put into administration but the bankrupt's estate may not suffice to repay the payables.

One of the ways a commodity producer can liquidate his receivables as soon as possible, is factoring. Selling receivables to a factor (a financial institution that deals with buying receivables) will be feasible and not too burdensome (discount) for a commodity producer if, inter alia, the commodity producer's receivables are still within their maturity period. When it comes to quality receivables, and these are such only if buyers are reliable payers, a commodity producer can, for example, pledge them for a lombard loan from his bank. Cases where buyers do not settle their obligations with a commodity producer in any way, or where a commodity producer is unable to liquidate his receivables with customers, which can often lead to the conversion of these receivables as real inputs into buyer's capital, will not be discussed in this article.

As a hypothetical example, let us take an X commodity producer, which plans to increase the growth of his net sales and profit in a way shown in Table 1 and the graph in Figure 5.

| Year | Sales in | Rate of sales | Share of profit in | Profit in € |
|------|----------|---------------|--------------------|-------------|
| | € 000 | growth in % | sales % | |
| 1 | 500 | | 5 | 25 |
| 2 | 1.000 | 100 | 5 | 50 |
| 3 | 1.500 | 50 | 6 | 90 |
| 4 | 2.000 | 33 | 6 | 120 |
| 5 | 2.500 | 25 | 7 | 175 |
| 6 | 2.750 | 10 | 8 | 220 |
| 7 | 2.750 | 0 | 8 | 220 |

Table 1: Projection of sales and profits for the X commodity producer



Growth of sale and profit

Figure 5: Growth in sales and profits for the X commodity producer Source: Table 1

Let us neglect the long-term assets and focus on the net working capital. Suppose the amounts are as follows:

- Cash assets
- Accounts Receivable 9.7% of sales with an average payment period of 35 days pay

2.8% of net sales

- Inventories 16.7% of sales and
- Accounts payable 4.2% of sales

The data indicates that the value of net working capital accounts for 25% of net sales. From Table 2 we can see that in such a declining growth of sales net profit does not suffice to finance additional net working capital. Assuming ceteris paribus, the X commodity producer sees the beginning of growth established entirely by his own resources only after four years of current operations. For every deficit in cash assets a commodity producer has to incur debts.

Table 2: The deficit of cash assets to finance the net working capital of the X commodity producer with customers' payment period of 35 days

| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------|------|-------|-------|-------|-------|-------|-------|
| Sales | 500 | 1.000 | 1.500 | 2.000 | 2.500 | 2.750 | 2.750 |
| NWC at 25 % | 125 | 250 | 375 | 500 | 625 | 688 | 688 |
| Profit | 25 | 50 | 90 | 120 | 175 | 220 | 220 |
| - NWC change | 125 | 125 | 125 | 125 | 125 | 63 | 0 |
| = Net profit | -100 | -75 | -35 | -5 | 50 | 158 | 220 |
| Cumulative total | -100 | -175 | -210 | -215 | -165 | -8 | 213 |

2.2 Changing payment deadlines in business processes and their impact on net working capital

Let us go back to the commodity producer who is not faced with the problem of selling his products / services and whose customers also have no special liquidity problems (profit rich and cash rich).

Let us assume that the commodity producer has a coordinated maturity of his assets and liabilities, which means that customers pay him sooner than he has to repay his suppliers. Being a good manager such a condition does not satisfy him and instead he wants to increase the turnover ratio of his inventories and receivables and therefore release days of his cash assets being tied up and he will try to reorganize his business processes to shorten his cash conversion cycle and get more money (money +) than it was brought into the process (money) even sooner. For a commodity producer shortening a cash conversion cycle means more free cash flow. With this a commodity producer may either reduce his short-term liabilities, which results in lower costs of financing in the future, or he may finance his growth with this i.e. increase volume of business operations and thus exploit a business opportunity offered to him by the market. Later on, we consider the case where buyers of the X commodity producer unfortunately has no other choice than to simply reconcile himself with this fact. Let us continue from the baseline data, where we made a projection of time trends in net working capital for our X commodity producer, and when we took into consideration the customers' average payment period of 35 days.

Let us first of all look at what happens when customers start paying in 60 days, assuming ceteris paribus. The payment period is therefore extended by 25 days. In Table 3 we can see what the new time projection of the movements of the net working capital looks like. Ceteris paribus, the net working capital now accounts for 32% of the net sales (previously 25%). Not only does the need for additional working capital increase (as much as 28% due to the increase of accounts receivable), but also the time period required for the X commodity producer to fully cover requirements for the working capital out of his net profit extends. These changes are also reflected in the graphic display in Figure 6. Worse terms of payment on the customers' side require the X commodity producer to borrow additional sources of funding. These increase financial obligations and, of course, have their own price, which renders the production of the X commodity producer more expensive and undermines his ability to compete.

Table 3: The deficit of cash assets to finance the net working capital of the X commodity producer with customers' payment period of 60 days in € 000

| | | | | | | | 111 * |
|------------------|------|-------|-------|-------|-------|-------|-------|
| Year | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Sales | 500 | 1.000 | 1.500 | 2.000 | 2.500 | 2.750 | 2.750 |
| NWC at 32 % | 160 | 320 | 480 | 640 | 800 | 880 | 880 |
| Profit | 25 | 50 | 90 | 120 | 175 | 220 | 220 |
| - NWC change | 160 | 160 | 160 | 160 | 160 | 80 | 0 |
| = Net profit | -135 | -110 | -70 | -40 | 15 | 140 | 220 |
| Cumulative total | -135 | -245 | -315 | -355 | -340 | -200 | 20 |

v € 000

What if customers start settling the invoices that they received for the goods 15 days earlier with regard to the baseline data, i.e. within 20 days? Such a case is rarely found in practice and is probably without any discounts (cassasconto) for an early payment rather an exception than a rule.



Requirements funding

Figure 6: Requirements for additional working capital when changing customers' payment terms Source: Table 3

Let us stay realistic and rather consider the case where the X commodity producer manages to agree with his suppliers (i.e. the input side), for example, for a payment period extended by 15 day. It is obviously easier for a commodity producer, especially the one that has a significant position in the marketplace to extend his suppliers' payment periods, rather than to cut payment periods to their customers. Let us mention here Melville's (1997, p. 276) view of the relationship between money received and suppliers. The relationship between the money received on the transaction account of a commodity producer from customers in the accounting period and the realization (net turnover) in the same period are written as follows:

Cash receipts = Increase in accounts payable + Operating revenue - Decrease in accounts payable

Depending on whether the accounts payable increase or decrease in an accounting period, Melville's equation can be taken into pieces as follows:

Either cash receipts = Operating Income - Increase in accounts payable

or cash receipts = Operating Income + Decrease in accounts payable

Thus an increase in accounts payable needs to be deducted from the profit from operations (operating profit) and a decrease in accounts payable needs to be added to the operating profit in considering whether a commodity producer has a positive net cash flow from operations.²

Let us now try to assess the effect of a 30-day extension period for payments to suppliers. The balance sheet in Figure 7 reveals that the X commodity producer now has free cash of \in 914 thousand, which would otherwise with the initial payment period (say, 45 days) have to be paid to his suppliers. These cash assets are for the X commodity producer practically free of charge and his suppliers credit him without interests. The X commodity producer can use these cash assets either for new purchases of goods and services (both would result in increased inventories in the current assets – see the third column below) or for a repayment of his short-term bank loans (this would mean that for the same amount as accounts payable have increased, the bank loans and credits would be reduced and the value of liabilities would

² Similar considerations apply to increases and decreases in prepayments, inventories and receivables (Melville, 1997, p. 276).

remain unchanged). However, in the latter case the X commodity producer would reduce costs of financing and at the ceteris paribus assumption improve net profits. Subject to, say 8% of the price of borrowed capital, such savings would on an annual basis amount to \notin 73,1 thousand.

| in | € | 000 |
|----|---|-----|
| | | |

| | Payment terms of suppliers | | | | | | |
|----------------------------------|----------------------------|---------------------|------------------------|--|--|--|--|
| | 45 days | 75 days | | | | | |
| Impact on \rightarrow | | Inventories | Short-term liabilities | | | | |
| | | | | | | | |
| Fixed assets | 17.372 | 17.372 | 17.372 | | | | |
| Intangibles | 100 | 100 | 100 | | | | |
| Fixed assets | 10.905 | 10.905 | 10.905 | | | | |
| Long-term financial investments | 6.367 | 6.367 | 6.367 | | | | |
| Current assets | 7.115 | <mark>8.029</mark> | 7.115 | | | | |
| Inventories | 1.371 | <mark>2.285</mark> | 1.371 | | | | |
| Short-term financial investments | 1.818 | 1.818 | 1.818 | | | | |
| Accounts receivables | 3.773 | 3.773 | 3.773 | | | | |
| Cash | 153 | 153 | 153 | | | | |
| Accruals | 4 | 4 | 4 | | | | |
| Assets Total | 24.491 | <mark>25.405</mark> | 24.491 | | | | |
| | | | | | | | |
| Equity | 3.227 | 3.227 | 3.227 | | | | |
| Common stock | 1.449 | 1.449 | 1.449 | | | | |
| Capital reserves | 1.077 | 1.077 | 1.077 | | | | |
| Reserves out of profit | 648 | 648 | 648 | | | | |
| Net profit | 53 | 53 | 53 | | | | |
| Long-term liabilities | 4.587 | 4.587 | 4.587 | | | | |
| Short-term liabilities | 16.622 | <mark>17.537</mark> | <mark>16.623</mark> | | | | |
| - bank loans and credits | 914 | 914 | 0 | | | | |
| - accounts payable | 15.709 | <mark>16.623</mark> | 16.623 | | | | |
| Accruals | 54 | 54 | 54 | | | | |
| Liabilities Total | 24.491 | <mark>25.405</mark> | 24.491 | | | | |

Figure 7: The effect a longer payment period for suppliers has on the balance sheet and cash flow Source: Balance sheet of X company for 2009

3 Duration of cash conversion cycle as an appropriate indicator for monitoring the success of shortening of business processes

According to Brigham (1995, p. 694) cash conversion cycle (CCC) may simply be defined as the length of time from payment of bills for goods supplied to the realization of the receivables for goods sold, or as Erhardt and Brigham (2011, p. 648) say, all firms follow a "working capital cycle" in which they purchase or produce inventory, hold it for a time, and then sell it and receive cash. This process is known as the CCC. We can write this in the following equation:

Cash conversion cycle = inventory turnover (days) + accounts receivables turnover (days) – accounts payables turnover (days)

Authors Lee, Alice, John and Cheng (2009, p. 743) named the same indicator cash flow cycle and wrote it down in the form of the following equation:

Cash flow cycle= average collection period + average number of days in stock (inventory turnover ratio) – average age of payables

Let us have a look at each of the segments of a business process.

Inventory turnover ratio (the average age of inventories) is the average time needed by a commodity producer to transform inputs into finished products and later on sell them to customers. This time, expressed in days, is calculated by dividing the value of the inventory by sales (net receivables turnover) on a given day.³

Average collection period (average age of accounts receivable) is the average time needed by a commodity producer to convert his receivables into cash, that is, to recover money from his buyers for the goods sold. This period is expressed in days and calculated by dividing the value of receivables by credit sale (net receivables turnover) on a given day.

³ Creditworthiness of customers to whom company approves deferment of payment, determines the extent of unpaid invoices and ultimately the illiquidity and a company's loss due to bad credit (Mramor, 1993, p. 309).

Average age of payables (average age of accounts payables) is the average time that elapses from the purchase of intermediate materials and labor to their repayment. This time, expressed in days, is calculated by dividing the accounts payable by the value of purchases (material costs and the cost of trading goods) and labor costs, calculated on a given day.

Cash conversion cycle, which is actually a net effect of all the three time periods, equalizes the length of time elapsed between the actual cash expenditures incurred by a commodity producer with his production resources (inputs and labor) and his own cash receipts which he receives by selling his products to customers. According to Brigham (1995, p. 695) cash conversion cycle equalizes the length of time when euro is tied up in the short-term assets. Let us illustrate the idea of cash conversion cycle also schematically in Figure 8.

A commodity producer may shorten his CCC by (1) reducing the time his inventory is tied up (inventory turnover ratio), i.e. by producing and selling his products faster (2) shortening the time of the realization of accounts receivables by speeding up the recovery of money from his buyers, and / or (3) achieving with his suppliers a longer payment period for goods received. A commodity producer should carry out all these measures without increasing his costs or decreasing his sales.



Figure 8: Cash conversion cycle

Let us now use this indicator on a real and concrete case of the X company operating in the automotive industry (Bukvič, 2010, p. 396). The company wishes to remain unnamed. We are dealing here with a case, where relatively long payment periods exist for customers as well as suppliers. The left side of the following table shows by months in the period from December 2008 to December 2009 the movement of accounts payable at a value of purchases of raw materials and reproductive material considering the average payment period of 78 days.

In the same table on the right we may note the changes in the accounts receivable from customers, while they on average settle their obligations with the X company within 73 days.

From this graphical representation we can conclude that the X company had a relatively favorable maturity of its assets and liabilities - apart from the first month of the year 2009, when its buyers paid five days earlier than the business obligations of the X company fell due - and in the displayed period, the X company had no serious liquidity problems in the performance of its main activities.

In other words, the X company generated a positive cash flow from its operations in 2009, which cannot be stated for the year 2008, when the picture of maturity is just the mirror opposite. On average, the X company had to settle its suppliers' obligations five days before receiving its customers' payments. At the beginning of 2009 the company already improved the maturity with the payment terms. It achieved longer payment periods with its suppliers and with its largest customer it managed to attain that that the payment period started running immediately after the invoice date and not only after the end of the month following the invoice date, as it had been before. Let us remark that despite relatively long payment periods customers of the X company are very reliable payers and the X company has not got many outstanding debts. The X company was not able to achieve anything more than that with its buyers.

The company was more successful with its suppliers. Due to liquidity crunch, which had still not receded by 2009, the X company in negotiations with the suppliers participating in its reproduction chain managed to conclude some of the so called rescheduling – it deferred payment of overdue obligations for a fixed period, say a few months - and it attained a longer payment period for new deliveries.

The last column of the same table also shows movements of all inventories of the X company by months. From this one-year time series, it appears that average inventory period significantly reduced in the last quarter of the last year by comparison with the same period in 2008, almost by a quarter. Among inventories a significant share represent inventories of finished products, although the inventories of raw materials and components amount to a relatively large proportion of so called spare parts for hardware, which have quite long average inventory period and come from the past when the company invested a lot in growth and technological upgrading of its production facilities.

An important component of the X company's sales policy is so called safety inventories of finished products. The X Company has a number of overseas consignment warehouses from which shipments of products to its OEM (Original Equipment Manufacturer) customers are sent directly to the factories of automobile manufacturers (Just in Time deliveries). Customers require from the X company 50-10 day safety inventories, and these have not changed for years. Another aspect to be considered by the X company is partly a seasonal effect in the automotive industry. The summer months of July and especially August (public holidays) and the winter month of December are months, when production facilities are not in full swing. But it is a fact that OEM car manufacturers require a normal supply with automotive parts immediately after the end of these months. This means that the X company during this time has to increase its inventories of finished products to be able to supply its customers normally later. This is evident from Table 4 for December 2008 and August 2009. The item for December 2008, which was by inventory period very prominent (105 days) can be explained by the decision of the management of the X company. Due to financial and economic crisis that occurred in the last quarter of 2008 the management consciously increased inventories of finished products relying on the fact that the buyers after having exhausted their inventories of cars would again turn to their suppliers with new orders. This also happened mainly due to the measures of the German and French governments with financial incentives carried out to generate demand for cars. The X company succeeded in the first quarter of 2009 to reduce their inventories back to the original level.

Based on the information presented on the movement of accounts payable, accounts receivable and values of inventories, we can in the optics of days of binding of all of these balance sheet items calculate "cash conversion cycle - the CCC" for the X company.

For 2009, there were altogether 63 days of binding (cash conversion cycle - CCC). This is far from the objective pursued by the X company in its outlined progress plan (30 days). However, the X company certainly made some progress with this indicator. In one year its CCC shortened by 8 days. Let's look at how this progress is reflected on the basis of the data in Table 4. If we compare the total days of binding for the X company at the end of 2009 and the end of 2008, on the basis of this indicator we may only confirm the fact that the X company in late 2008 and early 2009 had certain liquidity problems. Throughout the whole past year, the X company managed to lower the value of this indicator, which shows a positive trend. The X company only has to continue with this in the year 2010. This year, receivables collection period stabilized at 73 days and payables deferred period stabilized at 79 days. Inventory conversion period reduced from 105 days in December 2008 to 66 days in December 2009.

Although it would be very simple to write the following among the measures prescribed for shortening of business processes: extending payables payment period, shortening receivables payment period and reducing inventory (shortening inventory conversion period), we are well aware of the fact that in practice this is hardly achievable especially considering the fact that the X company constantly puts great effort in optimizing the maturity on all of these segments. By all means success of such measures depends on various factors, most of all on the X company's economic power and its role in the marketplace. Thus, it is not irrelevant for the customers, whether the company is in oligopoly position (in addition to the pricing policy it also has hold of other leverages, such as payment period), whether the company is the strategic, developmental and number 1 automotive supplier. Common are also examples when the OEM customers choose for their developmental and systematic suppliers, both of which the X company is, their own suppliers for certain components and parts, which are often very inflexible in terms of payment. As well as it is not irrelevant for the suppliers, whether the company represents an important buyer in their realization or whether the company supplies strategic raw materials (aluminum, scrap iron, ferrous alloys, pig iron, ...), where the movements of stock exchange prices, currency prices etc.. are also of importance. It is difficult to be wise today regarding the management of inventories since the market conditions have changed significantly. In particular, the downturn in the market has resulted in a high degree of uncertainty, so that in short term it is difficult to adjust the production to the amended motion of customer orders.

Table 4: Changing in receivables, payables and inventories of the X company in the year 2009 as the components of the »cash conversion cycle« indicator

| | Accounts | Accounts | Liabilities | Acoounts | Accounts | Receivables | Average | Days |
|------|---------------|----------------|-------------|----------------|----------------|-------------|-----------|-----------|
| | payable-total | payable – | | receivable- | receivable - | | Inventory | Inventory |
| Date | value of | payment | | total value of | payment | | Value | |
| | purchases | periods of the | | supply | periods of the | | | |
| | | x purchases | | | x supply | | | |

| EM | in €000 | in €000 | Days | in € 000 | in € 000 | Days | in € 000 | Days |
|--------|---------|-----------|------|----------|------------|------|----------|------|
| 2008 | 46.780 | 3.491.280 | 75 | 141.291 | 11.157.547 | 79 | 62.889 | 67 |
| Dec.09 | 4.560 | 326.618 | 72 | 10.689 | 857.727 | 80 | 65.122 | 105 |
| Jan.09 | 5.330 | 373.256 | 70 | 23.556 | 1.713.044 | 73 | 58.297 | 91 |
| Feb.09 | 4.773 | 362.367 | 76 | 19.221 | 1.417.701 | 74 | 55.008 | 82 |
| Mar.09 | 5.819 | 441.295 | 76 | 23.524 | 1.674.794 | 71 | 53.416 | 81 |
| Apr.09 | 6.137 | 471.497 | 77 | 21.373 | 1.486.356 | 70 | 51.921 | 85 |
| May 09 | 5.681 | 431.768 | 76 | 22.604 | 1.609.855 | 71 | 50.177 | 69 |
| June09 | 6.668 | 532.278 | 80 | 25.401 | 1.837.508 | 72 | 48.608 | 59 |
| July09 | 7.393 | 617.144 | 83 | 21.442 | 1.597.091 | 74 | 48.668 | 65 |
| Aug.09 | 4.968 | 387.405 | 78 | 15.902 | 1.120.217 | 70 | 50.049 | 91 |
| Sep.09 | 6.891 | 536.072 | 78 | 21.667 | 1.608.566 | 74 | 47.873 | 54 |
| Oct.09 | 8.268 | 646.810 | 78 | 28.519 | 2.061.962 | 72 | 45.014 | 52 |
| Nov.09 | 7.360 | 602.909 | 82 | 28.103 | 2.071.258 | 74 | 45.109 | 49 |
| Dec.09 | 7.148 | 562.842 | 79 | 22.249 | 1.638.095 | 74 | 46.718 | 66 |
| Year | 76.441 | 5.965.648 | 78 | 273.565 | 19.836.452 | 73 | 50.071 | 68 |

Source: Internal data from the X company progress plan



Zaloge – inventories Terjatve – accounts receivables Cilj - objective

Figure 9: Duration of cash cycle (cash conversion cycle) for the X company in 2009 Source: Tabele 4

4 Conclusion

Despite the fact that at the first glance and theoretically, financial effects of the measures with which commodity producers can directly and quickly affect the shortening of their business processes, what can also be considered as an effective tool of cash management, and thus hasten cash conversion cycle (e.g. extension of payables payment periods, inventories reduction, shortening of receivables payment periods) are very quick and relatively big, this is very difficult to achieve nowadays in practice, where strained liquidity conditions dominate.

Commodity producers will have difficulties convincing their suppliers to extend the payment period. By contrast, more and more common are cases where suppliers require a prepayment for their supplies. The situation looks no better on the part of buyers (customers). Instead of achieving shorter payment periods with their customers, the latter even condition their further purchases with longer payment periods of the accounts that they receive. Instead of shortening a cash conversion cycle, cash assets in business processes keep dwelling longer and longer. But we should not get despondent. From the few examples presented in this paper, we may have found out that with a persistent effort put in trying to decrease a CCC merely on three segments of the whole business process, certain financial results can be

achieved. From the presented cases, we may have found out that financial effects of shortening of business processes mainly reflect in a release of cash assets and in an increase in net working capital. Kilig (2006, p. 367) argues that commodity producers should constantly hold to the premise that equity is financed by long-term liabilities. It is absolutely clear that cash assets are a resultant of two conflicting elements: net working capital, which has a positive effect on cash assets and a need for current liabilities, which has a negative effect on cash assets. However, only a positive working capital allows commodity producers to continue with their business operations.

Therefore, commodity producers should continuously strive to improve their business processes, as improvements in the direction of slenderness and speed of assets turnover evidently have a positive impact on business results and cash flow, or if this is slightly paraphrased, generating revenue from sale is vanity, profit is reasonableness and money reality. So let us be reasonable and realistic.

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