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# 1. Introduction

The goal of this paper<sup>1</sup> is to provide the reader with an overview how important the cash flow issue is for small and middle sized companies (SME). Especially for SME the cash flow awareness is important because they can't get cash inflow to the same extent which is available to bigger companies. For evaluation purpose, cash flow is a blade with 2 sides because on the one hand SME's have particularly in their first years negative cash flow, and on the other hand that SME's the amount of cash flowing in and out of the company has no meaning for the profitability of the company.

In the second chapter the reader will be introduced to the cash flow. The topics "understanding of cash flows" and the knowledge of the "cash flow main parts" are relevant because here the reader will become more sensitive regarding the cash flow concept and which balance items are affected.

The third chapter will show the reader, that the cash flow has to be planned in order to predict the financial needs. The questions: "How the cash flow should be planned?" and what and who will be part of it, is going to be answered in this chapter. Also the five stages for cash flow planning will be introduced.

The fourth chapter is about the forecasting of cash flows. There will be discussed, how forecasting has advantages to the company's cash flow, their characteristics and how this will be achieved. Methods and the process of forecasting will be introduced as well to provide a complete picture about the forecasting issue.

The fifth chapter will provide the reader with suggestions how to improve the cash flow. There will some advice be given, how the company's inventory, short term debt, credit policy and accounts receivables have to be handled in order to increase the cash inflow. Also a little insight in loan issues will be granted within this chapter.

The sixth chapter is going to provide the reader with the concept of the Capital Cash Conversion Cycle. This approach will give the company the ability to have a look after the cash flow time related issues. Especially due to the time difference of producing and selling a product, the company main interest is to reduce the time between spending and receiving cash.

The seventh and last chapter will show the conclusion in which the most important findings are mentioned.

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<sup>1</sup> This paper was written as a final project paper in the entrepreneurial finance class at the Helsinki University of technology. The responsible teacher is Dr. Peter Kelly.

## 2. General overview

### 2.1. Understanding Cash Flows

Cash flow is the lifeblood of small businesses. Cash comes from sales, collections of account receivables and the sale of assets. On the other hand, cash flows go out to meet all expenses and debt obligations of the business. Cash flow is not just about the amounts of money moving in and out of the bank account but is also dependant on the timing of these movements. The goal of good cash flow management is to have enough cash on hand when you need it. Poor financial management is one of the major causes of the failure of small businesses. Many small businesses go out of business because of inadequate working capital and poor cash flow management.

Cash is a component of a business' net working capital and is its most liquid current asset. A business can survive for a short time without sales or profits, but not without cash. It is cash, which pays the bills and allows trading to continue. And if the business is growing, and extending credit to more customers, the need for cash is even greater.

Les Masonson states in his well known book<sup>2</sup> that cash flow is all about "getting the money from customers sooner, paying the bills at the last possible moment, concentrating money to a single bank account, managing accounts payable, accounts receivable and inventory more effectively, and squeezing every penny out of your daily business". This is due to the time value of money. A dollar today is more worth than a dollar tomorrow.

Cash flow management is much easier if it is possible to the peaks and troughs in advance and to take steps to reduce the impact of any periods of negative cash flow. Negative cash flow is a worst case scenario may result in paying interest. To avoid this, one will need to produce a cash flow forecast that gives to you a month by month prediction of the amount of cash the business is likely to require and spend. If accurate, cash flow forecast can gives an idea of your borrowing requirements or, alternatively, the amount of excess cash may be available for investment, development or disbursement. In addition to this, if the company needs to borrow, the bank will be often more willing if the company is able to demonstrate how it plans to cover interest and repayments. If the one also monitors how the cash actually moves through the company, it will help in making more accurate projections for future cash flow forecasts. It may also help in catching a problem before it turns into a big one.

Especially difficult to understand for a lot of small business owners, the difference between cash flow and profits is on the basis of the cash flow concept. Earnings, including profits and cash flow, although related, are two distinctly different concepts. Profits and earnings are created by accounting conventions and include non-cash items such as depreciation. Cash flow, on the other hand, is an analysis of the timing cash receipts and cash disbursements over a specific time period<sup>3</sup>.

Many financial analysts define operating cash flow as net income exclusive of depreciation. However, it is necessary to understand other income statement items in order to fully understand cash flow management. For example, depreciation and amortization are accounting conventions for expensing (in the case of depreciation) and allocating (in the case of am-

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<sup>2</sup> Masonson, Leo. Cash, Cash, Cash: The Three Principles of Businesses Survival an Success.

<sup>3</sup> Gingerich. Sue. YEBDC Small Business Information Column, Importance of monitoring Cash Flow.

ortization of a loan) the cost of an asset over an arbitrary time period, as such, affect annual net income. These items, however, do not directly affect cash flow. Moreover, prepaid items such as insurance, supplies, maintenance contracts, etc, are cash payments, which are typically made in advance. While they impact cash flow, they are charged against earnings in a subsequent period.

*revenue and expense recognition policy  
also has a key impact*

## 2.2. Main Components of Cash Flows

The cash flow is the balance of all the money, which flows into and out of the business each day. Cash flow is the actual payments of money, as opposed to what is owed by the debtors or to the creditors. There are five main components of cash flow.

- The main inflow of cash is usually the cash from sales. Today's sales are tomorrow's cash flow. If one sells on credit, cash inflow is delayed until it is actually paid. Effective credit control is important. These credits are known as accounts receivable.
- New finance provides a one-off boost to cash flow. One needs a solid financial base to underpin the cash flow of his/her business. All firms, but specially small ones should take full advantage of different types of finance available:<sup>4</sup>
  - Overdraft and loan may be limited by the security you can give to the bank.
  - Factoring allows you to raise finance based on the value of outstanding invoices. Growing business in particular often find that factoring provides a more substantial and flexible source of working capital than overdrafts or loans, although there is a slight loss due to the factoring fees.
  - Asset finance can be used to purchase computers, vehicles, plant and machinery. Both hire purchase and leasing allow you to spread the cost of the acquisition, with the asset itself providing the main security.
  - Strong financial base of equity finance is vital when a business starts up. Subsequent injections of equity finance can help the company to achieve step changes in the growth of the business.
- The main outflow of cash is the money used for expenditure, including paying for overheads. Major costs may include salaries (often the largest and most immovable cost), stock, raw materials, and any capital expenditure.
- VAT and tax are regular cash outflows that tend to be paid out in large lumps. One can be penalized heavily for late payments. Buying significant items just before VAT period ends, rather than at the start of the next one, can help the cash flow.

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<sup>4</sup> also the new valuation of real estates or the amortization it balance items might increase the cash flow. For SME's this opportunities are almost not exiting.

### 3. Cash Flow Planning

Planning and reviewing the timing and effect of cash flows is a strategic priority that is vital for organizational success. Effective management of cash disbursements and collections ultimately translate into better credit ratings that give organizations the flexibility to pursue growth strategies. Cash flow is also highly correlated with investment<sup>5</sup>. The process of managing cash extends beyond receivables and payables and includes short term financing and capital expenditure, and receipts and disbursements from fixed assets.

A growing business can quickly outstrip its cash resources as any available cash is quickly ploughed back into the business, through building up inventories or creating credit sales. It is necessary to ensure that this does not happen by looking ahead to the cash requirements of the business and by keeping a close eye on creditors and inventory levels. A well-planned and directed cash flow management strategy will make a significant contribution towards creating the most optimal value for the entity by<sup>6</sup>:

- Maintaining the lowest level of non-earning cash that is consistent with conserving liquidity and ensuring all debts can be paid as they fall due,
- Complying with any solvency requirements,
- Keeping a buffer to avoid expensive emergency funding investing any surplus funds for maximum returns.

Effective management of cash flow and liquid assets will help to ensure the business to have a stable and consistent inflow of cash. This needs to be backed up by a clear management policy, which is coordinated with internal controls and strategies that are communicated effectively throughout the firm. Sound planning is also required to ensure that the business' objectives and profit forecasts are integrated in sufficient detail and timeliness to permit orderly planning of the business' funding needs. Supporting this, there must be excellent communications between accountant and other staff or departments as well as efficient, well-trained accountant itself.

Whoever is responsible for managing cash flow must have ready and timely access to all essential information from the rest of the firm if they are to adequately plan for the entity's cash flow requirements. Even better would be the adoption of common interest programs, where every employee creates a general awareness and acceptance of cash consciousness whose actions impact on cash levels.

The manager in charge of cash flow has no role to play in the management of working capital, but he or she may have an important role in monitoring, managing and reporting on the way in which working capital affects the entity's cash flows well as the impact it may have on profitability. The manager can enhance and add value to the management of working capital through monitoring cash flow patterns and measuring the efficiency and effectiveness of cash flow generated from working capital investments. He can also create an awareness of the interest cost following on from the level of investment in working capital.

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<sup>5</sup> Worthington Paula R, 1995. Investment, cash flow, and sunk costs. *The Journal of Industrial Economics*, Vol. 43, Issue 1, 49-61.

<sup>6</sup> Heywood, Derrick. 1996. Managing cash flow: Simple in concept, complex in practice. *Australian Accountant*; Melbourne; Vol. 66, Issue 10, 49-50.

Where there are surplus funds, there is an opportunity to contribute to business profitability. But investments must be sound and with a very low risk of default. Where securities are used, they should be readily marketable for sale at short notice without any severe adverse impact on its price. That is, there should be a very liquid secondary market for those securities. Other things being equal, the yield on any chosen investment should be the highest possible. In short, there should be a balance between security, accessibility and yield. The choice depends on the entity's aversion to risk. The higher is the risk, the higher is the yield. But when the investment is used as a liquidity buffer, yield should be considered secondary to accessibility.

Strategies have surfaced lately that have proven effective. Some companies for example<sup>7</sup>, have developed some highly sophisticated techniques, changing their whole approach to pricing. The approach, called revenue management, employs a complex set of equations designed to realize maximum return throughout the overall system. Financial controls must be clear, rigorous and understood, top to bottom, and all regulations carefully monitored and observed. It is evident that mechanical, one price plans have no place in such a carefully managed system. And, finally, there must be total and clearly evident commitment on the part of top management, ensuring that every individual, at every level, is brought aboard and is informed and committed. The results, not only in terms of cash flow but also equally in terms of organizational strength, can be significant.

### **3.1. Five Stages of Cash Flow planning<sup>8</sup>:**

- Understanding the elements of cash and their business impact

The first stage involves understanding the elements of cash in the business cash flow cycle. Each of these elements has a different impact on business success depending on the industry in which the business operates.

- Encouraging accountability and internal control over key cash flow processes

Once the key elements of the cash flow cycle have been identified, ownership in key control processes should be encouraged. This would facilitate better internal control and reduce control risk. When examining the key elements of the cash flow cycle, elements like receivables and payables should not be examined in isolation. A holistic approach needs to be taken to the entire cash flow cycle, and the interaction among the various controls should be analyzed and understood.

- Developing a forecast of business inflows and outflows.

Once the cash flow elements are understood, all operating financing and investing activity cash flows should be projected according to weekly, monthly and daily time periods as part of the overall business planning process. Statistical and analytical techniques should be utilized to develop sound projections. This stage also involves the participation of the entire company and should begin with a forecast of revenue or sales. This is because the level of sales generated affects virtually every aspect of the organization's operations and cash flows. The cash forecast needs to be updated for any changes in the business-operating environment.

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<sup>7</sup> Bellas, Michael C 2003. Increasing cash flow through revenue management Beverage World, Vol. 122, Issue 1724, 32

<sup>8</sup> Sharma, Robert, Jones, Steven, 2000. Managing cash flow: Taking a strategic view, Australian CPA, Vol. 70, Issue: 1, 32-33.

- Progressively reviewing and evaluating the systems that produce the key elements of cash

This stage is important because it ensures that reliance can be placed on the actual cash flow data that emerges from the organization's information system. It also ensures that the data on which projections are based is reliable.

- Providing feedback

The final stage in the cash flow planning process is feedback. This involves the review of the underlying systems that manage cash and making recommendations, and the analysis of the forecast and actual cash flows to understand and explain differences. The feedback process also enables continuous improvement in forecasts and systems.

## 4. Cash Flow Forecasting

One of the best ways to determine the optimal cash balance is to fully understand cash flow patterns. This requires designing cash flows and preparing a forecast. Cash forecast is a presentation of cash results based upon assumptions about conditions and actions expected to exist or occur during the forecast period. Forecasts help avoid cash deficiencies as well as excessive cash balances. A cash flow forecast also answers several questions, such as how long it is possible to invest idle cash, when it will be necessary to borrow cash, and when it is possible to purchase new capital assets.

Making cash flow forecasts is the relatively recent and growing trend. Cash flow forecasts in addition to earnings forecasts are made especially in case when market participants have a relatively greater demand for cash flow information in valuing securities. For example, DeFond and Hung examined<sup>9</sup> the I/B/E/S database over the period 1993 through 1999 found that 7% of the total earnings forecasts, also include cash flow forecasts. Cash flow forecasts are associated with accounting, operating and financing characteristics that make cash flow information relatively more useful in firm valuation. Analysts tend to forecast cash flows for firms where accounting, operating and financing characteristics suggest that cash flows are useful in interpreting earnings and assessing firm viability. Cash flows are more often forecast in firms with large accruals, more heterogeneous accounting choices relative to their industry peers, high earnings volatility, high capital intensity, and poor financial health.

Accurate cash flow forecasting is also essential for projects, because it provides companies with information regarding the required amount of capital, the amount of interest that needs to be paid to support an overdraft and the evaluation of different strategies. It serves as a cost control tool during the projects. The need for simple and fast techniques in cash flow forecasting has been acknowledged and, as a result, cash flow forecasting models for different situations have been developed (e. g. Hwee, Tiong<sup>10</sup>)

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<sup>9</sup> DeFond Mark L., Hung, Mingyi 2003. An empirical analysis of analysts' cash flow forecasts. *Journal of Accounting and Economics* 35, 73–100.

<sup>10</sup> Hwee, Ng Ghim, Tiong Robert L. K. 2002 Model on cash flow forecasting and risk analysis for contracting firms. *International Journal of Project Management* 20, 351–363.

#### 4.1. Benefits and Being of Cash Flow Forecasting

The purpose of the forecast is to try planning out on paper to see what the cash effect will be before taking a course of action. There are many results that can come from regular use of cash forecasting techniques.

- Anticipating Short-Term Financing Needs
- Anticipating Financing Seasonal Business Fluctuations
- Planning Debt Reductions
- Planning Capital Expenditures (Equipment purchases)
- Taking Advantage of Purchase related Cash Discounts
- Planning Inventory Purchases
- Evaluating/Designing Credit Policies
- Planning Long-Term Financing
- Increasing Investment Income

Incorporating one or more of the above items into forecast will enables to estimate the cash effects. Frequently, however, need for the cash forecast does not revolve around a major event but is to determine what will result from day- to- day operations.

Contained within the above definition there are four points to understand.

- The forecast period for making plan and cash forecast must be defined.
- Certain assumptions about what is going to happen must be made.
- Assumptions have to be documented to project the cash result.
- Finally forecast should be done by chosen method. It is necessary to make forecast in written form, to be able to review, edit and correct it.

Forecast period is an important concept, which must be defined. The options are:

- Short-Term – one week to one month
- Medium-Term – one month to one year
- Long-Term – one year or longer

There are typically two reasons for the very short-term forecast. The more desirable reason is to take advantage of excess cash balances by making very short-term, highly liquid investments. The more common reason for very short-term forecasts is to try to make an inadequate amount of cash stretch to cover required disbursements. Generally, too frequently short-term analyses are attempts to manage with inadequate cash, rather than an attempt to maximize investment return on cash. Ultimately the solution to most small business cash management problems is not to manage cash on a daily basis, but to take a hard look at the plans and objectives of the business, and make a plan that will fit the business's ability to generate cash.

Most of forecasting efforts takes place in the medium-term and long-term category. To begin the process of making and updating cash forecasts, financial statements, income forecast, accounts receivable, collection patterns, and disbursement patterns for inventories, expenses, payroll, debt, etc are needed. The important thing is that statements are accurate, regu-



lar (preferably monthly) and timely. The research has shown that using different methods of determining of cash flow provide similar forecasts of future cash flow.<sup>11</sup>

Receipts and disbursements method of cash flow forecasting estimates the timings of cash receipts and disbursements to the impact on the cash account; requires the use of pro forma financial statements. Percentage -of -sales method is generally used to forecast over a relatively long time period (e.g., five years), to construct pro forma financial statements based on what the "normal" percentage of sales is for the item that is estimated. Items that are fixed or generally do not move relative to sales must be estimated separately. Cash flows are estimated using expected income, adjusted for non-cash items, and expected changes in assets and liabilities

#### **4.2. Cash Flow Forecasting Process**

Generally, the sales forecast process consists of the following steps:

- Dividing sales or revenues into logical categories that have similar characteristics and respond to similar variables.
- Analysing these categories over the last three years if possible.
- Doing some research in trade and economic publications about factors concerning your industry, customers or client groups, product, geographical region, etc. This serves to broaden horizon and give a larger frame of reference within which to make decisions.
- Listing and analysing the specific variables that will affect each category of sales or revenues for forecast period. This involves a very thorough process that will consider several variables, such as price, customer demographics, product availability or production capacity, marketing plans and budgets, geographical market changes.

If the business sells a significant portion of its product or service on credit, it is necessary to do analysis of accounts receivable collections in order to produce the accurate cash forecast. It means to know what the time delay is between the credit sale and the ultimate collection of the cash for the transaction<sup>12</sup>. If the results are consistent throughout the year it is possible average numbers. However, if the collection patterns vary with the time of year, it is better to use monthly data rather than averages.

There is also a provision for other cash receipts, such as investment income, investment maturities and sales of fixed assets. It is important to the integrity of forecast that all cash receipts be included.

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<sup>11</sup> Bowen, Robert M., Burgstahler, D, Daley Lane A. 1986. Evidence on the relationship between earnings and various measures of cash flow.

<sup>12</sup> In business practice the success of accounts receivable collection demand a high amount of customer interaction. Quite often it is necessary to annoy the customers in order to agree on a certain payment schedule.

### 4.3. Operating Expenses and Cash Flows

It is necessary to assess operating expenses. Again, the necessity is to note every expense in the month it will be paid, not the month it is incurred. It is necessary to include the following items in your list of operating expenses:<sup>13</sup>

- Gross wages, including anticipated overtime
- Monthly stipends to owners
- Payroll taxes and benefits, including paid vacations, paid sick leave, health insurance, and unemployment insurance
- Subcontracting and outside services, including the cost of labour and materials
- Purchases of materials for use in making product or service, or for resale
- Supplies for use in the business
- Repairs and maintenance (including occasional large expenses for remodelling, renovation, etc.)
- Packaging, shipping and delivery costs
- Travel, car, and parking costs
- Advertising and promotion, including fliers, direct mail, print or TV ads, yellow pages listings, web site maintenance and design
- Professional services such fees paid to attorneys, bookkeepers, accountants, consultants, etc.
- Rent
- Telecommunications such as phone, fax, Internet Service Provider
- Utilities such as water, heat, electricity, gas
- Insurance including fire, liability, workers' compensation, etc.
- Taxes
- Interest due on loans
- Other expenses focusing on costs specific to your business
- Miscellaneous (include a small cushion for miscellaneous expenditures)

The other ongoing costs of doing business include for instance the following items:

- Loan principal payments - vehicles, equipment purchases, etc.
- Capital expenditures - depreciable expenditures such as equipment, vehicles, construction of new or improvements to existing buildings, and improvements to leased facilities and offices
- Start-up costs - expenses incurred prior to the first month of operation and paid for over the course of the following year(s)
- Reserve or escrow - money set aside monthly for taxes paid at the end of the year, plus any money escrowed to help make payments on large insurance or machinery bills, for example
- Owner's withdrawal - payment of owner's income tax, social security taxes, health and executive life insurance, etc.

Finally it is possible to subtract total cash paid out from total cash available. The difference is cash position or cash flow for selected period. If the cash position is not positive, it is necessary to take steps to cover these anticipated shortfalls. Updating cash flow projection

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<sup>13</sup>The reduction of these expenses is known as bootstrapping.

monthly, making adjustments whenever it is possible to predict an unexpected expense or income is a good way to anticipate problems.

#### 4.4. Methods of Cash Flow Forecasting

There are also many sophisticated methods how to provide cash flow forecasting<sup>14</sup>:

- Distribution method is generally used to estimate when disbursements will clear, and thus affect the firm's available balance at the bank. To implement, the firm must determine the total amount of checks written at a particular time, and then estimate what percentage will clear each day.
- Regression analysis is statistical modelling often used to determine what variables affect cash flows, and this information is used to forecast cash flows in the future.
- Times series analysis is a statistical approach used to determine if patterns exist during common time periods (e.g. if seasonality exists). Complex models can be constructed to incorporate the non-random effects of business cycles and seasonality on cash flow patterns.
- Simulation models ties together sensitivities and input variable probability distributions. If the probabilities associated with certain events can be estimated this technique can be used to model the expected behaviour of cash flows. The output is a probability distribution that provides decision makers with a variety of possible outcomes associated with the event(s) examined. For instance, to be able to see how new investment will affect the forecast of net cash flow, it is possible to use stochastic decision tree<sup>15</sup>. If the cash manager is able to plan for further financing in any particular period, where he believes that there is a significant probability that the cash balance will fall below a critical level and can appreciate how a certain course of action (e.g. uncertain event, regional launch), he can see how a change in key variables affects the results. Among other mathematical and statistical methods for calculating cash flow forecasts belong.

Also some accounting software makes it easier to prepare budgets and revenue and expenditure forecasts for the months and years ahead. It helps to quickly update projections and make 'what if' calculations. For maximum flexibility and ease of use, it is possible to use special forecasting software. In-built graphics makes easy to detect patterns and step changes.

## 5. Cash Flow Improvements

Learning good cash flow techniques ensures that the company always has enough cash to meet its legal obligations. Adequate cash helps obtain whatever funds are required from external sources at the right time, in the right form and on the best possible terms. A shortage of cash flow could result in the loss of valuable trade discounts or, in extreme circumstances, financial embarrassment and bankruptcy.

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<sup>14</sup> Besley, Scott. Working Capital Management class notes.  
<http://www.coba.usf.edu/departments/finance/faculty/besley/>

<sup>15</sup> Franks, J. R. Bunton, C. J., Broyles, J. E: 1974. A decision analysis approach to cash flow management, *Operational Research Quarterly*, Vol. 25, Issue 4, 573-585.

## 5.1. Managing receivables

Accounts receivables are assets that are owed to the company by customers. Managing receivables is a bit of a balancing act: one wants to convert them into cash as soon as possible without alienating your customers in the process. An overly aggressive collection might backfire. Not offering trade credit to the customers deprives the company of additional sales opportunity.

The performance of the accounts receivable can be monitored by using a periodic ratio analysis. The two main ratios for evaluating how well the company is managing receivables are the followings:

Receivables turnover ratio:

- It measures the number of times the business “turns over” its receivables in a year. It is a measure of the operating efficiency in a small business. Since the more frequently the business turns over its receivables the better, a higher ratio is preferable.
- To calculate the ratio, divide sales by average accounts receivable. Only receivables that result from the sale of the core product or service that the small business offer should be included.

Average number of days of receivables outstanding:

- It measures the number of days it takes, on average, to collect your accounts receivable. This ratio is simply the inverse of the receivables turnover ratio.
- The ratio is calculated by dividing the number of days in a year (365) by the receivables turn over ratio. Since the fewer the number of days the better, the lower figure is preferable.

As we have already mentioned, selling on credit generally attracts customers and increases sales volume. There are, however, direct and indirect costs to extending credit which must be weighted against any potential benefits. This leads us to the next point of the paper.

## 5.2. Credit Policy

A credit policy refers to the actions taken by a business to grant, monitor and collect the cash for outstanding accounts receivable. A successful credit policy is one in which the costs of granting credit are offset by the benefits of higher sales. Four specific factors must be considered in establishing an effective credit policy:

- Credit worthiness standards
- Credit period
- Collection policy
- Discounts for early payment<sup>16</sup>

First, the credit worthiness of a buyer must be evaluated. Most small business measure credit quality and evaluate customer’s probability of default by examining the five Cs of credit:

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<sup>16</sup> Eugene F. Brigham, 1985. Financial Management: Theory and Practice, Fourth edition, 844-852.

- Character
- Capacity to repay
- Capital
- Collateral
- Conditions

A customer's character refers to his/her acknowledgement of a moral obligation to pay the debt as promised. It can be evaluated by examining the customer's previous payment habits. Relevant information may be requested from the customer's bank, previous suppliers or from the credit reporting agencies. The capacity to repay is the subjective judgment of customer's ability to repay the loan. An examination of the financial statements and the business plan of the credit buyer may aid in making the correct judgment. The analysis of financial ratios, especially risk ratios such as debt-to-asset and the current ratios will help in measuring capital. Finally, special attention should be paid to the collateral which the customer may offer as security and to the general economic as well as specific geographical and industry.

Second, credit period is the length of time allowed before the credit buyer must pay for credit purchases. Third, collection policy refers to actions that the business is willing to take to collect slow-paying accounts. The length of time a firm is willing to extend credit to its customers and the "toughness" of the firm in collecting its receivables may influence sales and, ultimately, its profits and its cash flows, while a "relaxed" collection policy may increase the percentage of bad debt.

The last element of the credit policy, cash discount, may be considered as an incentive for credit customers to pay early and it may reduce the average collection period. It may also attract new customers who look at cash discount as a form of price reduction. These benefits, however, must be weighed against the cost of the discount before any decisions are made.

### **5.3. Managing Short-Term Debt**

A key strategy in cash flow management is to aim to bring cash into the company as quickly as possible, and then hold onto your cash as long as possible by managing your payables. Here we refer short-term debt as any liability with an original payment period if less than one year. Major sources of short term credit include:

#### ***5.3.1 Accrued Wages and Taxes***

Firms generally pay employees at regular intervals rather than as work is performed. Similarly, Social security and income taxes withheld from employee payroll, sales taxes collected by the firm, as well as the estimated business income taxes are also paid periodically. The business has the use of such funds from the time taxes are collected or work is performed until payments are made. Since there is no explicit interest expense involved, the firm in essence, receives a form of credit which is "free". In addition, accruals generally increase as business activities rise, thereby creating a spontaneous source of credit which grows along with the firm's needs. However, since the timing of accruals is dependent upon contractual agreements or statutes, business owners have little control over the level of this type of debt, although they may predict it accurately. A business should take advantage of all the accruals it can without viewing them as a controllable source of financing.

### 5.3.2 Trade Credits

Trade credit is a source of financing which arises when businesses purchase on credit from one another. For a typical, non-financial business, accounts payable are the largest component of current liabilities, usually about 40 percent of total, short-term debt. The percentage is often higher for smaller businesses due to the unavailability of other sources of financing<sup>17</sup>.

Typically, when a firm purchases goods on credit, it is offered the option of taking a discount off the purchase price for early payment or making payment in full by the end of the credit period. For example, terms of 3/10, net 50, mean that if payment is made within 10 days after the invoice is received, a 3 percent discount may be deducted from the invoice price. Otherwise, full payment must be made on or before e.g. the 50<sup>th</sup> day.<sup>18</sup> Thus, the two components to trade credit are:

- The free trade credit arising in the discount period
- The trade credit which arises during the remainder of the credit period where the implicit cost is the foregone discount.

### 5.3.3 Loans from Commercial Banks

As a business grows, its needs for “non-spontaneous” sources of credit will grow as well. Commercial banks are major providers of short-term financing to small businesses<sup>19</sup>. When applying for a short-term bank loan it is important to take care of the following factors that the bank may look upon negatively<sup>20</sup>.

- Accounts receivable past due, indicating that cash is coming too slowly.
- Accounts payable abnormally extended.
- Poor inventory operation, such as low turnover and large back orders.
- High debt to equity ratio, signifying large outstanding loans.
- Large withdrawals of profits by the company’s officers/owners.
- Attempts to borrow short-term funds to meet long-term needs.
- Poor credit trading for principal business owners/officers.
- Insufficient financial data.
- Personal problems of executives.

The problem in getting short term loans for SME’s is that they have often a shortage of assets which might be an obstacle. Also the non existing bank history isn’t beneficial for a short term loan.

### 5.3.4 Loans Secured With Business Inventories or Accounts Receivable

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<sup>17</sup> Weston, J. Fred, Brigham, Eugene, F. 1987. Essentials of Managerial Finance, Eighth Edition.

<sup>18</sup> Normally companies try to take advantage of the discount, because the 3% discount for 10 days is equivalent to a 109% annual discount rate. Hence companies might be interested in taking a short term loan in order to pay the bill within the discount time.

<sup>19</sup> SME’s have to understand that the timeline of a loan has to be concurrent with the timeline of the investment respectively the purpose of the short loan.

<sup>20</sup> Postyn Sol, Postyn, Jo Kirschner. 1982. Raising Cash: A Guide to Financing and Controlling your Business, Lifetime Learning publications, 174.

Accounts receivable financing is a method of obtaining secured loans for businesses which lack other collateral for short-term funds. It may take the form of:

- Pledging receivables as collateral to obtain a short-term loan
- Factoring or selling receivables at a discount in return for cash.

Pledging receivables of accounts receivable provides a lender with a claim against the borrower's receivables as well as giving them recourse to the borrower: if the account receivable becomes non-collectible, the borrower is responsible for repaying the loan and incurring the resulting loss. The lender's function is simply providing short-term funds.

Factoring, or selling accounts receivable, involves actual purchase of a firm's receivables by a third party factor, who then assumes the risk of loss if the receivable becomes non-collectible. The purchaser is normally notified of the sale of the receivables and is required to make payments directly to the "factor" or the lender.

Inventory financing is in the same way of accounts receivable financing. The existence of inventories may be enough reason for a financial institution to provide an unsecured loan to a small business. Other firms, with non-established credit history may use inventories as collateral to obtain a loan.

There are both, advantages and disadvantages to using short-term credit. Speed, flexibility and lower costs are potential advantages of short-term credit. Increased risk to the borrower is considered a disadvantage. Generally, obtaining a longer term loan requires a longer period of time because of the need for a more specific examination of the borrower's financial statements. On the other hand, short-term credit can be obtained fairly quickly. Moreover, small business with seasonal or cyclical needs for credit will find short-term financing more suitable. Finally, short-term credit, normally commands a lower interest rate which means that it is more cost effective than long-term debt.

Even though short-term debt is often less expensive than long-term debt, short-term debt borrowers face the possibility of paying higher interest rates as their need for new loans develop. Consequently, borrowing in short-term subjects the borrower to uncertain interest expenses as compared with borrowers of long-term funds with locked in interest rates.

#### **5.4 Managing Inventory**

A firm's profitability depends on the successful sale of its product or service. As we have pointed out before, sales are the most important cash inflow in a firm's cash flow statement.

For non-service oriented businesses, sufficient inventories must be available to meet demand. In determining an optimal level of goods in inventory, sales must be forecast and developed. Since sales depend on many factors outside a business' control, inventory management can be very challenging. Holding inventory levels at less than what is needed to support sales will cost the firm business. On the other hand, since holding inventory involves costs such as storage and insurance expenses, excess inventory must also be avoided if minimal cost and maximum profits are desired. Typical questions in determining optimal inventory levels include: How many units of particular products must the firm hold in stock?, How many units must be ordered or produced at a given time?, When should the order be placed?.

The following ratios should help in determine the optimal number of each product in your inventory.

- **Inventory Turnover Ratio:** Cost of goods sold/Inventory  
It is normally year related figure. The higher inventory turnover ratio will increase the profitability of inventory, but will increase the order costs. A trade off between a higher and a lower ratio has to be made depending on order costs and inventory profitability.
- **Inventory Turnover Days:** Number of days in a period/Inventory Turnover ratio  
The inventory turnover rate is close related to turnover ratio. It is an absolute number, which gives an idea, how in many days the inventory has to be replenished.
- **Ideal Inventory:** Cost of goods sold/Industry average turnover ratio  
The industry average gives a good estimate, how much inventory has to be kept. But there are different characteristics for companies, which will result in a higher or a lower inventory level.

The extent in which managing inventory influences the cash flow management will be better understood after analyzing the next point of the paper which is related to the working capital cash conversion cycle.

## 6. The Working Capital Cash Conversion Cycle

The working capital cycle involves the steps a business normally takes from the time it makes the first cash commitment toward providing a product or service, to the point when it receives cash payments for its sales. The firm orders and receives the raw material, generating an account payable. It also hires additional employees to produce the goods and, since workers generally are not paid the moment their work is performed, accrue wages are generated. Eventually, the product is sold and if the product is purchased using credit, it generates an account receivable. Firms will typically start the payment of their payables before collecting cash from receivables. This produces a net cash outflow. An individual cycle ends when the full cash amount for the sale is received. Each new transaction begins the cycle again.

The Cash Conversion Cycle is defined as the length of time between the payment of the payables and the collection of receivables<sup>21</sup>. In other words, the amount of time the company's money is tied up in covering production costs of the goods and services it produces. During this cycle, a business' funds are unavailable for other purposes. Cash has been paid for purchases but cash has not been collected from sales. Since there is always a cost to such financing, a goal of any business should be to minimize the cash conversion cycle. To achieve this goal three terms must be clearly understood:

- **Inventory conversion period (ICP):** refers to the length of time between purchase of raw material, production of the goods or service, and the sale of the finished product
- **Payable deferral period (PDP):** is the time between the purchase of raw material on credit and cash payments for the resulting accounts payable.
- **Receivable conversion period (RCP):** is the time between the sale of the final product on credit and cash receipts for the accounts receivable.

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<sup>21</sup> Verlyn D. Richards, Laughlin, Eugene, J. A Cash Conversion Cycle Approach to Liquidity Analysis, 32-38.



The cash conversion cycle may be calculated by using the following formula:

$$CCC = ICP + RCP - PDP$$

Companies that require little inventory and are paid by their customers immediately in cash, have a relatively short CCC. But companies that must tie up funds in components and inventory at one end and then wait to collect accounts receivables at the other, have a fairly long CCC. If a business owner is able to shorten the CCC, the need for external financing and the resulting interest expense will be smaller, thus creating higher profits. The CCC may be shortened by:

- Reducing the ICP: processing the raw material and producing the goods as quickly as possible.
- Reducing the RCP: speeding up collections
- Lengthening the payable conversion period: slowing down payments.

These three strategies are best utilized by the small business owner who is familiar with sound inventory, receivables and payables management techniques as well as the sources of short-term financing.

## **7. Conclusion**

During the work on this paper, we realized that an appropriate cash flow management is the one of the most back office activities in a SME. Due to the relevance, the cash flow management starts with the management of the company. In the first phase of the company's life, one should take care about the company's cash flow development because of the lack of awareness will lead to the bankruptcy of the company.

In general one can state that the company should try to get as much money as possible in and as less money as possible out the company. As long the cash outflow supercedes the capital inflow, the company is not generating cash.

The maturity of a company can be seen in its ability to generate cash. Recently founded companies have no positive cash flow. But if a newly founded company generates quite fast cash, the investors will be more interested. Although the forecasting within start-ups is more optimistic, a milestone could be agreed on. Hence a good cash flow management will be advantageous for the founders.

The cash flow issue is a bottom down problem. The management has to create the emphasis on soaking up money, and giving away as less money as possible. The other important person, ought be responsible for looking after the cash flow development, is the accountant. His main task is to discover ups and downs in the cash flow in order to start countermeasures. He'll report his observation results to the management.

To put it into a nutshell, the awareness of cash flow fluctuations will be main internally task to prevent the company to go to bankruptcy. Adequate personal and communication systems have to be in charge. During the life cycle of the company, of course, the internal way of reporting changes in an evolving process.