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Understanding and Controlling Cash Flow

Financial Management Series

U. S. Small Business Administration
May 2009

Helping Small Business **Start**, **Grow** and **Succeed**

Understanding and Controlling Cash Flow

Financial Management Series
FM-4

Ramin C. Maysami
Assistant Professor of Economics
Sangamon State University
Springfield, Illinois

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INTRODUCTION

Opportunity knocks but you cannot answer. You are temporarily short of cash!

Small business owners may easily avoid this situation with good cash flow management. This publication outlines techniques to achieve this goal.

Cash is a component of a business's net working capital and is its most liquid current asset. To understand its role in and out of a business, we look first at the concept of current assets and current liabilities.

The working capital cash conversion cycle -- also often called the cash flow cycle -- is the length of time between the payment of what a business owes -- payables -- and the collection of what a business is owed -- receivables. Businesses use several techniques to minimize the length of time funds are "tied-up" in order to reduce the amount of working capital needed for operations.

Before applying any techniques it is necessary to understand the components of working capital including:

- cash
- marketable securities
- accounts receivable
- inventories
- accounts payable
- accrued wages and taxes

We will also examine financial ratios. These help to determine the financial health of a business as compared to industry averages. They are calculated in the examples as appropriate. There also are suggestions for better management of receivables, inventories and payables.

As an important source of financing for small businesses, short-term bank loans will be examined. This includes tips for selecting a bank and suggestions on how to prepare for a successful loan application and interview. Moreover, since bank loans have many characteristics which affect true loan costs, as well as having other implications to the business, several of these traits are discussed.

Next, we will look at how businesses, without established credit ratings, can use accounts receivable and inventory financing to secure a loan. We'll discuss the rationale and the costs of pledging and selling receivables, as well as the three forms of inventory loans -- inventory blanket liens, trust receipts and warehouse receipts.

Finally, we'll look at controlling cash flow by effectively managing working capital.

ACCOUNTING PROFITS VERSUS CASH FLOW

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 of cash receipts and cash disbursements over a specific time period.

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 amortization of a loan) the cost of an asset over an arbitrary time period and, as such, affect annual net income. Cash flow, however, is not directly affected by these items. 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.

WORKING CAPITAL MANAGEMENT

Net working capital is the difference between a business' current assets and its current liabilities. Working capital policy, then, refers to decisions related to types and amounts of current assets and the means of financing them. These decisions will necessarily involve:

- the management of cash and inventories
- credit policy and collection of accounts receivables
- short-term borrowing and other financing opportunities such as trade credit
- inventory financing
- receivables financing

Working capital management is primarily concerned with the day-to-day operations rather than long-term business decisions. For example, plans for introducing new products to the market and plans for obtaining the facilities and equipment necessary to produce them are strategic in nature, as are the long-term financing needs of the firm. On the other hand, working capital management policies target short-term concerns such as the:

- availability of raw material and inventories
- continuous operation of the production line
- granting credit to customers and collecting past-due accounts
- taking advantage of credit purchases and the discounts for early payments
- the management of the cash account

These factors help promote smooth operation of the business on a day-to-day basis.

Since the average firm has about 40 percent of its capital tied up in current assets, decisions regarding working capital greatly impact business success. This is especially true for smaller businesses which often minimize their investment in fixed assets by leasing rather than buying, but which cannot avoid investing in inventories, cash and receivables. Further, small businesses tend to have a limited number of financing opportunities and less access to capital markets. This requires them to rely heavily on short-term credit such as accounts payable, bank loans and credit secured by inventories and/or accounts receivable. The use of any of these financing sources influences working capital by increasing current liabilities.

Finally, there is a direct relationship between sales growth and current asset levels. For example, higher sales volume may be achieved only if production increases. Higher production, however, requires greater investment in inventories. Additionally, if a firm buys on credit, its accounts payable increase and when it sells on credit, its accounts receivable increase. Therefore, higher sales require a larger investment in current assets which, in turn, requires greater financing. Profits result from selling the product or the service. If the goal of the business is higher profits, the importance of effective working capital management becomes obvious.

Three financial ratios allow a comparison of your business with your competitors and to industry averages. These ratios also play an important role in the granting or denial of loan requests. Small businesses should calculate and monitor these financial ratios as part of their working capital management policy.

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

$$\text{Quick, or Acid, Ratio} = \frac{(\text{Current assets} - \text{Inventories})}{\text{Current liabilities}}$$

$$\text{Debt to Total Assets Ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

The current and quick ratios measure liquidity and reveal whether the firm can meet its maturing obligations. The debt-to-asset ratio shows the degree of financial leverage. Other financial ratios such as inventory turnover and average collection period will be introduced later.

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 a service, to the point when it receives cash payment 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 aren't paid the moment their work is performed, accrued wages are generated. Eventually, the product is sold which, if the product is purchased using credit, generates an account receivable. Firms will typically start the payment of their payables before collecting cash for 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 (CCC) is defined as the length of time between the payment of the payables and the collection of receivables. 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. Short-term financing may be needed to sustain business activities for this period. 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.

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

$$CCC = ICP + RCP - PDP$$

For example, if it takes 35 days after orders are placed to receive and process the raw material into finished product, the ICP is 35 days. Assuming that 25 days after the arrival of raw material, the firm pays for them, the PDP is 25 days. Finally, if the firm receives cash payment for the sale of its product or service in 30 days, the RCP is 30 days. The CCC is thus 35+30-25, or 40 days.

As mentioned before, the CCC represents the time in which working capital is "tied up" in covering production costs. 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.

For example, assume a firm borrows working capital with a 10 percent simple interest rate for 40 days. The effective interest rate would be 10.46 percent annually. Borrowing $100,000 for this period would cost $1,162.22. However, if the firm shortens the cash conversion cycle to 20 days, the interest expense at the effective rate of 10.50 percent would only be $583.33.

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 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 and costs of short-term financing.

Figure 1 presents a few tips for shortening the CCC through faster cash collection and slower cash disbursement. We then examine techniques for managing the various components of current assets such as cash, marketable securities, accounts receivable and credit management, and inventories. Following this we'll examine the use of short-term liabilities as a means of financing operations.

Short-term liabilities include:

- accruals
- accounts payable
- short-term bank loans
- short-term credit secured with accounts receivable and inventories

Figure 1 - Suggestions for shortening of the cash conversion cycle

1. Synchronize cash flows: forecast the timing of receipts based on the past and arrange to pay suppliers accordingly.

2. For more efficient collections consider:

   a. lockbox services: centrally located post office boxes where customers may drop their payments which are then collected by the bank.

   b. pre-authorized checks: the customer signs an authorization form allowing a bank to draw checks against his account at regular intervals.

   c. concentration banking: centralize the receiving locations at one bank.

   d. depository transfer checks (DTC): ask the customers to pay with this simple and relatively inexpensive method of transferring funds.

   e. automated clearing houses (ACH): electronic transfer of funds from your customers' account to yours.

3. For more efficient payments consider:

   a. trade credit discounts for early payment: compare the cost of not taking the discount (as explained later) to the benefits of using your cash elsewhere.

   b. pre-authorized checks, depository transfer checks and automated clearing houses: you may also use these methods to pay as late as possible without passing the discount or the credit period.

   c. float: mail checks from more remote areas, then evaluate and take advantage of the time it takes the supplier to process the payment and the time it may take the bank to clear the check. You can use your cash for other purposes in the meantime.

   d. zero-balance accounts: funds are automatically transferred to these accounts by the bank when they are needed for clearance of checks.

Cash and Marketable Securities

Cash is needed for transaction purposes, for example, payment of wages, raw materials and taxes. The amount of cash held to cover day-to-day transactions is called transaction balances. Additional cash may be necessary to take advantage of special bargains, such as a supplier's clearance sale of raw materials.

The cash held for such purposes is called speculative cash balances. Moreover, a business may desire to hold some extra cash as precautionary balances for emergencies or unexpected outflows of funds. Finally, compensating balances may be maintained to help compensate lenders for their services. For example, a bank may require the small business to maintain a checking account with a minimum deposit equal to some percentage of the loan amount. Since this requirement generates additional revenues for the lender it is often included in financing packages.

Additional advantages to holding adequate cash balances include the opportunity to take trade discounts offered by suppliers for early payment of invoices. This improves the business' credit rating by keeping financial ratios in line with competitors, thus allowing the business to obtain credit.

Although there are many advantages to holding sufficient cash balances, the fact that these balances do not earn an explicit return concerns many small business owners. As an alternative, you may hold part of your liquid funds in short-term marketable securities. These instruments earn interest and can be very easily converted to cash. Several examples of such securities are:

- Treasury Bills (T-Bills) -- short-term obligations of the United States government that mature in less than one year. Sold at a discount, the buyer pays an amount less than the face value of the bill which he/she receives when the security matures. T-bills are sold quite frequently by the Treasury through public auctions. Most small investors are advised to buy them in the secondary market through a U.S. T-bill dealer/broker.

- Commercial Paper-- unsecured promissory notes of large corporations with high and well-established credit ratings. Maturities of commercial paper are typically between 15 to 45 days, but may range from 1 to 270 days. There are no secondary markets for commercial paper, but issuers generally provide liquidity by standing ready to buy back the security before it matures.

- Certificates of Deposit (CD) -- popular short-term instruments issued by commercial banks. The negotiable CD is issued in minimum denominations and may be traded in the secondary market. CD holders feel safe knowing their investment is insured by the Federal Deposit Insurance Corporation (FDIC).

Accounts Receivable and Credit Management

The profitability of a business is dependent upon its ability to successfully sell its products for more than it costs to produce them. Selling on credit generally attracts customers and increases sales volume. There are, however, direct and indirect costs to extending credit which must be weighed against any potential benefits. A successful credit policy is one in which the costs of granting credit are offset by the benefits of higher sales.

When the firm ships the goods or performs the services without receiving cash, an account receivable (AR) is generated. The dollar amount of receivables is determined by the volume of sales and the average length of time between a sale and receipt of full cash payment, and may be calculated based on the following simple formula:

AR = Credit sales per day x Length of collection period[8]

For example, if a business has credit sales of $1,000 per day and allows 20 days for payment, it has a total of $1,000 x 20 or $20,000 invested in receivables at any given time (assuming the firm's operations are stable). Any changes in the volume of sales or the length of the collection period will change the receivable position.

A credit policy refers to the actions taken by a business to grant, monitor and collect the cash for outstanding accounts receivable. Four specific factors must be considered in establishing an effective credit policy:

- credit worthiness standards
- credit period
- collection policy
- discounts for early payment

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

- 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 may be evaluated by examining the customer's previous payment habits. Relevant information may be requested from the customer's bank, previous suppliers or from 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 the 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 conditions. Credit period is the length of time allowed before the credit buyer must pay for credit purchases. 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, while a "relaxed" collection policy may increase the percentage of bad debt.

The receivable position must be monitored closely by calculating the average collection period (ACP) according to the following formula and comparing it to the industry average.

$$ACP = \frac{\text{Receivables}}{\text{Daily sales}}$$

For a business with a receivables position of $1,500 and annual credit sales of $50,000, the average collection period is ($1,500)/($50,000/360), or approximately 11 days. This means the firm must wait an average of 11 days before collecting cash for sales.

Moreover, an aging schedule must be constructed to show how long accounts receivable are outstanding by dividing the receivables position in age categories and showing the percentage of receivables in each age group. Then, the small business owner must decide what actions are appropriate for collecting the past due accounts. Usually, a letter is sent to remind the credit buyer that the account is past due, followed by a telephone call if payment is further delayed. Finally, the services of a collection agency may be necessary.

The collection process may be expensive both in terms of out-of-pocket expense and the loss of business relations. Therefore, making the decision to grant credit is an important and delicate business function requiring careful handling. Advice from other business owners and professionals is often helpful.

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 dollar cost of the discount before any decisions are made.

Figure 2 contains suggestions to help you better manage your firm's receivables.

Figure 2 - Suggestions for more effective management of accounts receivable

1. Monitor the dollar amount of your receivables position on an ongoing basis.

2. Calculate the percentage of total sales that are sold on credit.

3. Evaluate the "credit worthiness" of your customers, using the 5 Cs of credit.

4. Establish the credit period, discount percent for early payments, the discount period and surcharge for late-payers.

5. Calculate and evaluate your average collection (AC) period. As a rule of thumb: if the AC is more than one-third larger than the credit period, i.e., credit period of 30 days and an AC of more than 40 days, there may be a problem.

6. Age your receivables. Identify and pursue slow-paying customers.

7. Identify prompt-paying customers. Maintain and search for more like them by informing them of the discount for early payment and of any special sales.

8. Send invoices immediately after the sale, rather than waiting until the end of the month.

9. Identify and evaluate accelerating techniques for collecting your cash, such as lockbox services, pre-authorized checks and concentration banking.

Inventory Management

A firm's profitability depends on the successful sale of its product or service. 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 of 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?

As mentioned before, in determining how many units to have in stock, sales must be predicted and sufficient inventories held to satisfy the expected demand. Moreover, to prepare for potential sales increases, some level of "safety stocks" must also be held. The amount of safety stock is determined by comparing the cost of maintaining this additional inventory against potential sales losses. The following ratios should help in determine the optimal number of each product in your inventory.

$$\text{Inventory Turnover Rate} = \frac{\text{Cost of goods sold}}{\text{Inventory}}$$

$$\text{Inventory Turnover Days} = \frac{\text{Number of days in a period}}{\text{Inventory turnover rate}}$$

$$\text{Ideal Inventory} = \frac{\text{Cost of goods sold}}{\text{Industry average turnover rate}}$$

For example, last year your business sold goods which cost $100,000 and your average inventory for the year was worth $10,000. The inventory turnover rate for last year was $100,000/$10,000, or 10 times. Furthermore, the business' inventory turnover days were 360 days/10 or 36 days. These numbers indicate that during the past year, your inventory turned over 10 times and, on average, it took 36 days to sell the entire inventory. When compared to industry averages, the relative strength of your business' inventory management will be revealed. A low inventory turnover rate could indicate overstocking, while high inventory turnover days can represent slow sales.

Finally, if the average industry turnover rate is 12 times, your business' ideal inventory levels for the year should have been $100,000/12, or $8,333. To the extent that both your operations and the industry's operations remain stable, this figure may be used as a guideline for determining inventory levels during the current year.

The optimal order size and the frequency of order placement can be determined by the economic ordering quantity (EOQ) model. Since the goal of inventory management is to provide a sufficient amount of inventory to meet the

sales demand and to maximize profitability, the EOQ model pays special attention to inventory costs.

In general, economies of scale mean operating on a larger scale to lower the average operational costs. This principle also applies to inventory management. Usually, lower per unit costs of goods, raw materials and equipment are obtained if they're ordered in single large orders rather than if purchased in many smaller orders. However, ordering more than is needed to support current sales increases carrying costs and exposes the business to other risks such as obsolete inventory, inventory spoilage and theft.

Total inventory costs include the time value of the capital tied up in inventories, storage and handling expenses, as well as insurance, taxes and obsolescence costs. These costs are generally referred to as the inventory carrying costs. Carrying costs always increase as inventory levels rise. Ordering costs, on the other hand, include the administrative costs of placing, tracking, shipping, receiving and paying for an order. These costs are fixed for every order and remain the same regardless of an order's size.

The economic ordering quantity (EOQ) model states that given certain reasonable assumptions, the order quantity that minimizes total inventory cost may be found using the following formula:

$$EOQ = \text{square root of } \{(2 \times F \times S) / (C \times P)\},$$

Where F is the cost of placing and receiving an order; S is the annual sales in units; C is carrying costs expressed as a percentage of inventory value; and P is the purchase price the firm must pay per unit of inventory.

For example, assume sales are 10,000 units per year, the purchase price is $5 per unit, fixed costs per order are $500 and carrying costs are 20 percent of the inventory value. According to the EOQ model the amount that the firm should order each time is:

$$EOQ = \text{square root of } (2 \times \$500 \times 10{,}000) / (.2 \times \$5) = 3{,}162 \text{ units}$$

Consider the following inventory management guidelines in Figure 3.

Figure 3 - Suggestions for more effective inventory management

1. Determine the ideal inventory level based on historical sales patterns and on projected future sales.

2. Calculate EOQ -- the "economic ordering quantity."

3. Determine the lag order time and the optimal safety stock.

4. Determine the average inventory turnover rate for the industry.

5. Identify and maintain good business relations with all suppliers.

6. Forecast inventory purchase price. If possible, lock-in a favorable price by entering a supply contract.

7. Calculate the inventory turnover rate for your business: the average number of times your inventory is sold within a specific period of time.

8. Set a markdown policy for the times when a product doesn't move quickly enough at normal price levels.

    a. Be able to recognize what part of your inventory needs to be marked down.
    b. Record the mark-downs as soon as the need is recognized.

In addition to the cash flow management analysis discussed above, breakeven analysis is another useful tool in defining relationships between cost, profit and volume. See Appendix B.

SHORT-TERM CREDIT

Short-term credit is any liability with an original payment period of less than one year. Major sources of short-term credit include:

- accrued wages and taxes
- trade credit
- loans from commercial banks
- loans secured with business inventories or accounts receivable

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 thorough examination of the borrower's financial statements. Short-term credit, however, usually can be obtained fairly quickly. Moreover, small businesses with seasonal or cyclical needs for credit, will find short-term financing more suitable since it doesn't require long-term borrower commitments nor does it place constraints on the firm's future actions as might be the case in a long-term credit agreement. Finally, short-term credit generally commands a lower rate of interest which is more cost effective than long-term debt.

Even though short-term debt is often less expensive than long-term debt, short-term borrowers face the possibility of paying higher interest rates as their need for new loans develops. 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. Additionally, temporary business setbacks can subject the short term borrower to undue risk if the lender is not willing to extend the loan.

Accruals

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 fairly accurately. A business should take advantage of all the accruals it can without viewing them as a controllable source of financing.

Accounts Payable

Purchasing equipment and raw materials for a small manufacturing firm, or the purchase of office equipment and supplies for a service-oriented business, represents a large portion of total operating expenses. The cost of goods sold is between 70 to 74 percent of sales for a typical small retailer, and closer to 75 percent for most wholesale businesses. Similarly, a small manufacturing firm may spend in excess of 75 percent of total sales purchasing raw materials and converting them into finished goods. In light of this information, the importance of "intelligent

purchasing" should be clear to every small business owner.

Figure 4 - Suggestions for purchasing goods on more favorable terms

1. NEGOTIATE!

2. Develop multiple sources of supply.

3. Take advantage of discounts for early payment.

4. Do not buy more than you need, or more than you expect to sell regardless of how favorable the sale or the credit terms may be at the time.

5. If possible, negotiate for more favorable terms with your suppliers in return for buying during their "slow-selling" periods.

6. If you have available cash, offer partial and/or advance payments in return for additional discounts.

7. Set up a system to send checks on time, but just before they are due.

8. Delay payments only if it does not harm the relationship with suppliers.

Trade Credit

Trade credit is a "spontaneous" 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.

Typically, when a firm purchases goods on credit, it's 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. or 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 the 50th day. 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

Short-Term Bank Loans

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. When applying for a short-term bank loan, select a bank that best serves your needs, and then prepare for a successful loan application interview. Figure 5 presents some criteria to consider when selecting a bank. Figures 6 and 7 outline some of the areas that financial institutions examine when evaluating a loan application.

Figure 5 - Criteria for selecting a bank which may best serve your needs

1. Bank's riskiness: generally smaller banks in smaller communities tend to be more conservative in their lending practices and investment returns.

2. Availability of FDIC deposit insurance: covers up to $250,000 of a customer's accounts.

3. Maximum loan size: usually limited to 10 percent of the bank's capital account to any single customer.

4. Review the interest rate paid on your deposits and the effective rate charged on the loan.

5. Are compensating balances required?

6. Specialization: generally larger banks have separate departments specializing in different types of services.

7. Loyalty to customers: will the bank pressure your business to liquidate the loan during an economic downturn?

8. Other services: wire transfers, electronic banking, foreign currencies, lockbox services, etc.

Figure 6 - Factors that your banker may evaluate in considering your loan application

1. Your character, integrity and overall management skills.

2. Your company's track record, i.e. its sales and profits.

3. Your product and its relative importance to the market.

4. Your financial statements, preferably accompanied by a CPA's statement.

5. A description of the purpose of the loan.

6. Your company's ability to provide data to the bank both accurately and timely.

7. The primary and alternative sources of repayment.

Figure 7 - Factors that your banker may look upon negatively in approving your loan

1. Accounts receivable past due, indicating that cash is coming too slowly.

2. Accounts payable abnormally extended.

3. Poor inventory operation, such as low turnover and large back orders.

4. High debt-equity ratio, signifying large outstanding loans.

5. Large withdrawals of profits by the company's officers/owners.

6. Attempts to borrow short-term funds to meet long-term needs.

7. Insufficient financial data.

8. Poor credit rating for principal business owners/officers.

9. Personal problems of executives.

The provisions of a loan agreement must be clearly understood by the borrower if they are to know the true costs of the loan. Loan terms can include hidden costs or restrictions on business practices.

Next, we'll examine and explain some of the terms associated with short-term bank loans with different characteristics.

A line of credit is an informal understanding between a bank and a borrower that a specific amount of funds is available for future financing purposes. A revolving credit account is a formal line of credit offered to larger businesses in exchange for up-front fees and standard interest payments. In return, the bank has the legal obligation to fulfill its commitments under the formal agreement. Some banks require their borrowers to maintain compensating balances, which are an average demand deposit equal to a certain percentage of the loan amount. Finally, a lender can require a borrower to pledge collateral as security to ensure repayment of the loan's principal and interest.

The interest rate specified in a loan agreement is generally one of the three forms:

- simple
- discount
- add-on (installment)

Depending on which rate scenario is agreed upon, the true cost of the loan may be higher than the stated or nominal interest rate. Moreover, since interest rates are usually quoted on an annual basis, loans obtained for shorter periods of time may have higher actual costs than the nominal stated costs.

Accounts Receivable Financing

This is a method of obtaining secured loans for businesses which lack other collateral for short-term funds. Accounts receivable financing 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 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 uncollectible, the borrower is responsible for repaying the loan and incurring the resulting loss. As a result, the risk for loss on the receivables remains with the borrower. 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 uncollectible. The purchaser is normally notified of the sale of the receivables and is required to make payments directly to the "factor" or the lender. Before buying the receivables, the factor generally checks the quality of the receivables thus, performing three functions:

- credit checking
- risk bearing
- lending

The first two functions normally cost between 2 to 3 percent of the receivables and the lending rate is usually the prime rate plus 2 or 3 percentage points.

Inventory 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 un-established credit history, may use inventories as collateral to obtain a loan in one of the following forms:

The inventory blanket lien, which gives the lender claim against part or all of the borrower's inventories, although the borrower is free to continue to use and sell the inventories. The value of the security, thus, diminishes as sales and operations continue.

A trust receipt is to certify that certain goods are held in trust for the lender and are segregated from other portions of the inventory. If any of the trust goods are sold, the borrower is required to immediately forward the proceeds to the lender. With the issuance of a trust receipt on specific goods, a lender must regularly check the borrower's inventory to ensure compliance with the agreement. To meet this need, a public or field warehouse may be established.

A warehouse receipt is similar to a trust receipt in that it gives the lender claim to the borrower's inventory. The goods, however, are kept on a separate part of the borrower's premises, or at a field warehouse with an independent third party warehousing company, acting as the supervising agent. Alternatively, a public warehouse may be established where the goods are kept by an independent third party[24].

The fixed costs of warehousing arrangements are relatively high, often making this type of financing unsuitable for smaller businesses. A typical cost of a field warehouse is $5,000 plus 1 to 2 percent of the amount of credit extended to the borrower. Moreover, the lending institution charges interest of 2 to 3 percent over the prime rate for the loan. Generally, an efficient warehousing arrangement requires at least $1 million dollars of inventories.

CONCLUSION

Investments in current assets represent a substantial portion of a small business' total assets: up to two-thirds of total business spending may be used for purchases of supplies and raw materials. Additionally, about 40 percent of a typical firm's capital is represented by its current assets value. Therefore, proper management and use of current assets and current liabilities is crucial to the health and survival of any small business.

Summary of Recommendations

1. Understand the components of working capital and know what portion of your total assets are invested in each type of current asset.

2. Calculate the appropriate financial ratios and compare to the industry average to evaluate the relative health of your business.

3. Figure out the cash conversion cycle for your business, and try to shorten it following the guidelines presented in this report. Aim at faster collection of receivables and slower disbursement of payables.

4. Grant credit only to credit-worthy customers. Use the 5 Cs of credit to evaluate "credit worthiness."

5. Set a sound credit policy by determining the credit period, collection policy and the discount for early payment. Follow the policy.

6. Monitor your receivables position using the average collection period and the aging schedule. Pursue slow-paying customers.

7. Determine your ideal inventory level and monitor the position of your inventory through the inventory turnover ratio.

8. Order the optimal number of goods based on the equilibrium ordering quantity model. Be aware of order lead time and maintain some safety stock at hand.

9. Be a smart shopper. Follow the suggestions in Figure 4.

10. Consider all sources of short-term credit such as accruals, trade credit, bank loans and loans secured with your receivables and inventories.

11. Calculate the explicit and implicit costs of short-term financing. Compare the costs carefully before making a decision on the available choices.

12. If you decide to borrow from a bank, choose the bank that may best serve your business' needs.

13. Prepare for the loan interview. Know the factors which "command the bankers attention" (Figure 6), and what they may view negatively (Figure 7.)

14. Read the "fine print" in the loan agreement. Make sure you understand the exact interest rate scenario. Calculate or ask about the effective cost of the loan.

INFORMATION RESOURCES

The SBA offers an expansive network of business resources to assist small business customers. Use these resources to help build a successful business.

Small Business Training Network (SBTN)
The SBA operates a virtual campus featuring numerous free online courses. The courses cover a variety of topics, including how to start a business, finance, business planning, marketing, management, technology, government contracting and many other topics. Approximately 1,500 small business customers each day register for SBA's free online courses.

Small Business Development Centers (SBDC)
The Office of Small Business Development Centers (SBDC) provides management assistance to current and prospective small business owners. SBDCs offer one-stop assistance to individuals and small businesses by providing a wide variety of information and guidance in central and easily accessible branch locations. The program is a cooperative effort of the private sector, the educational community and federal, state and local governments and is an integral component of Entrepreneurial Development's network of training and counseling services.

SCORE
SCORE (Counselors to America's Small Business) is a resource partner of the SBA dedicated to entrepreneur education and the formation, growth and success of small businesses nationwide. There are more than 10,500 SCORE volunteers in 374 chapters operating in over 800 locations who assist small businesses with business counseling and training. SCORE also operates an active online training and counseling program.

Women's Business Centers (WBC)
Women's Business Centers represent a national network of nearly 100 educational centers designed to assist women. WBCs help entrepreneurs, especially women who are economically or socially disadvantaged, to start and grow successful small businesses.

SBA District Offices
In addition to its resource partners, the SBA operates full service district offices in every state of the country. Locate the district office closest to you.

Other Targeted Resources

FREE Online Course: Finance Primer: Guide to SBA's Loan Programs	http://web.sba.gov/sbtn/registration/index.cfm?CourseId=29
FREE Online Course: How to Prepare a Loan Package	http://web.sba.gov/sbtn/registration/index.cfm?CourseId=28

URL Directory of Hyperlinks

Small Business Training Network	http://www.sba.gov/services/training/onlinecourses/index.html
Small Business Development Centers	http://www.sba.gov/aboutsba/sbaprograms/sbdc/index.html
SCORE	http://www.score.org/index.html
Women Business Centers	http://www.sba.gov/services/counseling/wbc/index.html
SBA District Offices	http://www.sba.gov/localresources/index.html

Have a Question?

E-Mail SBA - answerdesk@sba.gov
Ask a SCORE counselor online
Find a SBA district office near you
Find a SBDC office near you

APPENDIX

APPENDIX A - GLOSSARY

Accounts payable -- see "payables"

Accounts receivable -- see "receivables"

Add-on interest rate or installment loan -- one in which the amount of interest is added to the principal and repaid by the borrower in equal periodic payments

Amortization -- gradual reduction of term debt by periodic payment sufficient to pay current interest and to eliminate the principal at maturity

Capital -- (1) assets less liabilities, representing the ownership interest in a business; (2) a stock of accumulated goods, especially at a specified time and in contrast to income received during a specified time period; (3) accumulated goods devoted to the production of goods; (4) accumulated possessions calculated to bring income

Carrying costs -- inventory costs associated with capital, storage, handling expenses, insurance, taxes and obsolescence

Cash conversion cycle -- the length of time between the payment of payables and collection of receivables

Cash discount -- incentive for credit customers to pay early

Certificates of deposit (CD) -- short-term instruments issued by commercial banks

Collateral -- property pledged by a borrower to assure repayment of a loan

Collection policy -- actions a business takes to collect slow-paying accounts

Commercial paper -- unsecured promissory notes of large corporations

Compensating balances -- requirements to help compensate lenders for their services

Credit period -- length of time allowed before the credit buyer must pay for credit purchases

Credit policy -- actions taken by a business to grant, monitor and collect the cash for outstanding accounts receivable

Discount interest rate -- one in which the amount of interest is deducted from the face value of the loan with the borrower receiving the remainder

Five Cs of credit -- evaluation of a potential borrower's, character, capacity to repay, capital and collateral, as well as other conditions of a loan

Fixed costs -- those costs of doing business such as rent, utilities, depreciation, taxes, etc., that remain generally the same regardless of the amount of sales of goods or services

Inventory conversion period (ICP) -- time between purchase of raw material, production of the goods or service and the sale of product

Installment loan -- see add-on interest rate loan

Interest -- amount paid a lender for the use of funds

Line of credit -- an informal understanding between a bank and a borrower related to specific amounts of funds available for future financing purposes

Maturity -- the date when payment of principal on a loan is due

Ordering costs -- administrative costs of placing, tracking, shipping, receiving and paying for an order

Payables -- what a business owes

Ratios

Current Ratio -- Current assets divided by current liabilities

Quick, or Acid, Ratio -- Current assets less Inventories divided by current liabilities

Debt to Total Assets Ratio -- Total debt divided by total assets

Payable deferral period (PDP) -- time between purchase of raw material on credit and cash payments for the resulting accounts payable

Precautionary balances -- cash held for emergencies or unexpected outflows of funds

Receivables -- what a business is owed

Receivable conversion period (RCP) -- time between sale of the final product on credit and cash receipts for the accounts receivable

Revolving credit account -- a formal line of credit offered to larger businesses in exchange for up-front fees and standard interest payments

Simple interest rate loan -- one which provides the borrower the face value of the loan; the borrower repays the principal plus interest at maturity

Speculative cash balances -- cash necessary to take advantage of special opportunities

Transaction balances -- cash held to cover day-to-day transactions

Treasury Bills (T-Bills) -- short-term obligations of the U.S. government

Variable costs -- those costs of doing business, such as raw materials, cost of goods, shipping, handling and storage, sales commissions, etc., which are directly related to the sales of goods or services

APPENDIX B - BREAKEVEN ANALYSIS

This appendix was written by Robert H. Farias, Farias Jett & Company, Glendale, California and James Ries, Ries Business Services, Fond du Lac, Wisconsin.

Part of understanding cash flow and how it affects the business, comes in knowing the inter-relationships between the various assets and liabilities of the business and the concept of breakeven analysis.

Breakeven analysis is a basic planning tool which is used to effectively establish the company's pricing policy, project the effects of changes in operations and calculate the increase in sales necessary to justify expansion or major purchases. Through breakeven analysis, we define the relationship between cost, profit and volume.

Breakeven is the point at which sales equals cost or sales minus cost equals no profit.

Sales = Cost

or,

Sales - Cost = 0

Understanding sales is simple. If you sell 100 units at $5.00 each, you have sales of $500. Two hundred units result in sales of $1,000 and 300 in sales of $1,500.

However, the cost side is a bit more complicated, particularly as volume increases. One hundred units may cost $700, 200 may cost $950 and 300 may cost $1,200. The per unit cost keeps changing. For 100, they cost $7.00 each, for 200, $4.75 each and for 300, $4.00 each.

This total cost is actually made up of two factors:

- the fixed cost
- the variable cost

Fixed costs are the bills you have to pay whether you sell anything or not. Examples of fixed costs include rent, insurance, and depreciation.

Variable costs are based solely on the amount you sell, such as cost of goods, storage and handling costs, sales commissions, etc. The total cost is the two factors added together.

Since variable costs, by definition, are directly related to sales, we can express variable cost as a percentage of sales. For example, if variable cost is $750 and sales are $1,500, the equation would look like this:

$750/$1,500 = 50 or 50%

Thus, the variable cost is 50 percent of sales.

This is all the information we need to calculate breakeven. The formula for breakeven was sales - cost = 0. For this example it is further determined the fixed costs are $450. The total cost thus becomes $450 (the fixed cost) and 50 percent sales (the variable cost). Our formula now becomes:

Sales - $450 - 50 sales = 0

Solving our equation we add $450 to each side:

Sales - 50 sales = $450

Multiply each side by ten to get rid of the decimal fraction:

10 sales - 5 sales = $4,500

Subtract 5 sales from 10 sales:

5 sales = $4,500

Divide each side by 5:

Sales = $900

Sales of $900 are the breakeven point. Since the units sell for $5.00 each, we must sell $900/$5, or 180 units to breakeven.

However, breakeven analysis does not stop here. Most people are in business to make money, not to just breakeven. It is a tool for profit planning.

There are basically four ways to increase profits:

- Raise the per unit selling price. Assuming you can raise the price of units by $1 to $6 each and still sell 300; you could make an additional $300.
- Decrease variable cost. If you could lower variable cost to 40 percent of sales, you could increase profit by $150.
- Decrease fixed cost. If you decreased fixed cost by $50, you gain $50 profit.
- Increase volume. If you could sell 100 more units, you could increase profit by $250.