CHAPTER 6

Cash Flow Management

INTRODUCTION

Nothing is as important to a business as positive cash flow. As I often tell my students, "For any business, depending on the entrepreneur's gender, positive cash flow is King or Queen!" Without cash, an entrepreneur will not be able to buy inventory or equipment, make payroll, pay bills and utilities, or repay debt. Cash is necessary not only to keep a business going, but also to grow the business. Seth Godin is the founder of Yoyodyne, an online direct-marketing company that he later sold to Yahoo! for $30 million. As an entrepreneur who bootstrapped his business for the first few years, he notes that happiness for a business owner boils down to one simple thing: positive cash flow.[1] Companies that cannot achieve positive cash flow are essentially nonvoluntary not-for-profit organizations that eventually become insolvent. That is the reason why so many dot-com companies became dot-bombs.

TYPES OF CASH FLOW

A business's cash flow is commonly referred to as EBITDA, which is an acronym for earnings before interest, taxes, depreciation, and amortization. EBITDA is the cash available to service debt (i.e., make principal and interest payments), pay taxes, buy capital equipment, and return profits to shareholders after paying all of a

company's operating expenses. A company's EBITDA is calculated as shown in Equation 6-1.

EQUATION 6-1

EBITDA

	Net Earnings
plus	Interest
plus	Taxes
plus	Depreciation
plus	Amortization
equals	**EBIDTA**

It should be noted that a company's true cash position includes the adding back of depreciation and amortization. While these two items can be expensed on an income statement, they are noncash expenditures, as was explained in Chapter 4. Their presence on an income statement helps the company's cash flow by reducing its taxable profits. This practice of adding back depreciation and amortization is the reason why a company with negative net earnings on its income statement can still have a positive cash flow.

While EBITDA and free cash flow, or FCF, are important for the entrepreneur to understand, she must also understand that these are simply cash flow descriptions used for cash flow statement purposes. They describe what the cash flow of the company should ideally be. Unfortunately for entrepreneurs, the ideal and actual are often miles apart. It is common to hear entrepreneurs say, "On paper my cash flow numbers show the company to be rich and making plenty of money, but in reality we are cash-poor and starving." The reason this comment is so often made is that money owed to the company has not been paid. For example, the company could have had an extraordinary month of growth in revenues such that all of the actual cash had to be used to finance that growth by paying overtime to employees and paying for the raw materials used to make the product. About 90 percent of the month's products were shipped on the last day of the month, and the terms are net 30. Such a scenario describes a situation in which, on the income statement for that month, the cash flow looks strong, but the reality is that the

cash will not actually arrive until at least 30 days later. This "paper-rich, cash-poor" situation resulted from taking advantage of the opportunity to increase profitable revenues.

Paper-rich, cash-poor as it relates to poor cash flow management occurs when the money from the customer is past due. To succeed, the entrepreneur must be an absolutely vigilant bulldog about maximizing the actual day-to-day cash flow of the business.

Ensuring that a company has adequate cash on hand to fund its operations and pay off its obligations is essential. It is important to put a system in place that enables the entrepreneur to properly monitor and manage both expected cash receipts (i.e., cash inflows) and payables (i.e., cash outflows). The lack of an efficient cash flow management system can have severe negative consequences for a company's bottom line. For example, for service companies, whose expenses are heavily front-loaded into labor costs, profits diminish with every additional unnecessary week that it takes to get costs reimbursed. For manufacturers, this problem is even more severe, since they often have to spend large amounts of money up front on materials, production, and inventory, and they have long lag times between cash outflows and the receipt of money from customers. How does the delay in cash receipts diminish profits?

The importance of managing a company's cash needs accurately is highlighted by the following example. The Gartner Group is a high-tech consulting firm that generated $1.06 billion in revenues in 2006. When founder Michael Fernandez and his cofounders were raising capital for the company, they decided to limit the capital they raised to $30 million, even though they could have raised twice as much. They placed this limit because they wanted to restrict the amount of equity they would have to give up. However, they did not anticipate the problems they would face as they tried to develop a new product for their company, nor did they adequately assess their cash needs during this crucial period.

One problem that arose was that the manufacturer of the disk drives for the company's laptops went out of business. Given that there was only one company equipped to manufacture these drives, Gartner experienced production delays until a second manufacturer could be found. Once this manufacturer was identified, Gartner had to spend several months redesigning the disk drive so that the new manufacturer could produce it. In the meantime, the

company ran out of money and was forced to file for Chapter 11. The lesson that Fernandez learned, the hard way, is that it is essential to focus on cash flow. As he notes, "We were obsessed with revenues and profits and trying to hold on to the equity," rather than on cash flow.[2] Today he insists that his executives and employees look at cash flow every single day. However, this is an area that few entrepreneurs focus on, particularly when they are starting their companies.

There are endless examples of entrepreneurs who neglect to pursue prudent cash flow management, particularly when their company is doing well. As Godin noted in 1998, "We think about this [cash flow] every day. But there are a lot of people who forget, when times are as good as they have been over the past few years, that the business world is cyclical and that you need money to make money."[3] The stronger the economy is and the faster a company is growing, the easier it can be to overlook cash flow controls, sometimes without suffering immediate negative consequences. But eventually, when there is a downturn in the economy, the entrepreneur may face a cash crunch. As a CPA once told me, "The best thing about volatile economic conditions is that they remind managers to refocus their attention on the basics." In fact, during a cash flow crisis, fast growth usually exacerbates the problems because companies spend cash on supplies and payroll—often at an accelerated rate because of fast growth—while waiting long periods to collect receivables.

A case in point is Douglas Roberson, president of Atlantic Network Systems, a data and voice systems integrator, whose company's revenues quadrupled from $100,000 in its first year to $460,000 in the next. During this growth period, the members of his staff did not concern themselves with cash flow because sales were growing at such a phenomenal rate. "I actually believed that the more money companies owed us, the better shape we were in," Roberson confessed.[4] It was not until his company went through an extended period in which it was unable to collect its receivables that he realized the importance of managing cash. His company had to use all its existing lines of credit to keep its operations going while waiting for bills to be paid. It was a real-life lesson. He, like most entrepreneurs, learned that managing cash flow was different from just accumulating sales. As he noted, "If you don't do serious

projections about how much cash you'll need to handle sales—and how long it will take to collect on invoices—you can wind up out of business, no matter how fast you're growing."[5]

CASH FLOW FORECASTS

Preparing a cash flow forecast allows an entrepreneur to determine a business's financing needs. If an entrepreneur finds that the business has a forecasted cash shortage as a result of rapid growth, then it might be necessary to raise external money to meet the company's financial needs. A good cash flow forecast will allow the entrepreneur to determine the exact amount of cash needed and also when it is needed. In general, there are several reasons why businesses raise outside capital. First, seasonal needs, such as holiday sales, may require the purchase of additional materials and the payment of additional production expenses to meet this temporary increase in demand. Second, more capital may be needed to finance long-term sales growth. As a company's sales grow, more inventory must be purchased and additional workers will be needed. All these activities will require additional cash, which may not be on hand. A good cash flow forecast will allow an entrepreneur to forecast financing needs for these activities. Third, an entrepreneur may have to purchase expensive capital equipment or make expensive repairs to existing equipment.

Entrepreneurs must know that projected cash flow determines the amount of capital a company needs in the future. The following steps should be taken to make that determination:

- Prepare a 3- to 5-year (i.e., monthly annual projection) cash flow projection.
- To make the projection, use FCF *plus* debt obligations (i.e., interest and principal payments), which is called net cash flow.
- Choose the largest cumulative negative cash flow number—this is the capital needed.

To better illustrate these steps let's look at the 5-year net cash flow numbers for the Johnson Company, shown in Table 6-1.

With the information in Table 6-1, the Johnson Company can easily determine its capital needs by completing the chart in Table 6-2.

TABLE 6-1

Projected Net Cash Flow Calculation

Year	Projected Net Cash Flow
1	−100
2	−90
3	−70
4	85
5	100

TABLE 6-2

Cumulative Net Cash Flow Calculation

	Year 1	Year 2	Year 3	Year 4	Year 5
Projected NCF	−100	−90	−70	85	100
Cumulative projected NCF	−100	−190	−260	−175	−75

By plugging in the numbers from the cash flow projection, the Johnson Company would determine that $260 is needed because that is the largest cumulative number over the projected time frame.

The obvious question now is, when should you get the cash? There are two schools of thought in response to this question. The first is that you should get only what you need from year to year, or a "series of funding." The second is that you should get the maximum that you will need at once. Both have advantages and disadvantages, as shown here.

Obtain Series of Funding

Pros

- It keeps the entrepreneur disciplined and minimizes wasting money.
- The entrepreneur is paying only for current expenses.
- The new series of capital comes in at a higher valuation, thereby allowing less equity to be surrendered.

Cons

- There is no certainly that more capital will be available in the future.
- Resources must be allocated to securing additional funding.

Obtain All Funding at One Time

Pros

- There is no need to allocate resources to raise future funding.
- It avoids the risk of capital not being available in the future.

Cons

- Forecasts may be wrong as a result of incoming cash flows occurring earlier than Year 4, requiring less up-front capital. Additionally, in the case of an equity capital investment, too much equity is surrendered, or in the case of a debt capital investment, interest on unnecessary capital will be paid.
- Receiving too much capital at one time spoils the inexperienced entrepreneur and could lead to unnecessary waste of the capital.
- Invested capital comes in at a lower valuation.

CASH FLOW MANAGEMENT

Cash flow management can be as simple as preserving future cash by not spending as much today. For example, in order to deal with seasonal sales, a company may choose not to spend as much in October if December—when October's bills come due—is traditionally a poor sales month and won't generate enough receipts to cover those bills.[6] Cash flow management can also involve making somewhat complicated decisions about delaying payments to a supplier in order to use cash resources to temporarily increase production. Or it can involve making decisions about borrowing or

using factoring companies to generate cash quickly to meet short-term cash shortages.

The relationship between the sources and uses of cash are shown in Equation 6-2.

EQUATION 6-2

Sources and Uses of Cash

$$\text{Sources of cash} - \text{uses of cash} = \text{net cash flow} \rightarrow \text{Fund operations and return to investors}$$

Sources of Cash or Cash Inflows

- Accounts receivable
- Cash payments
- Other income (i.e., income from investments)
- Borrowing

Uses of Cash or Cash Outflows

- Payroll
- Utilities—heat, electricity, telephone, and so on
- Loan payments—interest plus principal
- Rent
- Insurance—health, property, and so on
- Taxes

Key Cash Flow Goals

The goal of good cash management is obvious: to have enough cash on hand when you need it. The major goal of prudent cash flow management is to ensure there is enough cash on hand to meet the demands for cash at any given time. This is done by getting cash not only from operations (i.e., managing cash inflows, including accounts receivable) and disciplined spending (i.e., managing accounts payable), but also through the use of external capital (i.e., borrowing). While this may appear to be a simple concept,

in reality it is a process that even the most experienced financial officers and executives find difficult to carry out successfully.

The trick to handling cash flow is in the timing—as an entrepreneur, you want your customers to pay as soon as possible (if possible in advance), while you pay your suppliers and vendors as late as possible without jeopardizing your relationship with them or your credit standing. The idea is that money that is collected in receivables today, and that does not have to go out as payables, is, in fact, an important source of internally generated working capital.

While it may not be the most fun thing to do, it is important for an entrepreneur to spend time (at least an hour a day) working on cash flow. It is without a doubt one of the most crucial things an entrepreneur can do for a business. This exercise forces an entrepreneur to think about what he is doing in terms of cold, hard cash.

Cash Flow Ledgers and Projections

The cash flow ledger provides important information about the balance of the cash account, enabling the entrepreneur to assess the company's ability to fund its operations and also meet debt payments as they come due. It indicates, on a transaction basis, all cash received and disbursed during a month's period. Successful entrepreneurs are those who know their company's actual cash position on any given day. Therefore, it is recommended that the entrepreneur, especially the inexperienced and those in the early stages of their ventures, review their cash flow ledger at least weekly.

In addition to the ledger, a weekly cash flow projection summary, as discussed in Chapter 4, should be prepared when opening a business and every month thereafter. This projection indicates the anticipated cash inflow during the month along with the cash payments to be made. By doing this kind of projection each month, the entrepreneur can schedule payments to suppliers to match expected cash receipts. This planner allows the entrepreneur to be proactive with regard to the money owed to suppliers and enables the entrepreneur to let specific vendors know in advance that a payment will probably be late. The cash flow ledger and planner are simple and very useful tools that should be used to manage cash flow successfully. It is important to be consistent and work through each line item so that forecasts can be as accurate as possible.

To prepare cash flow forecasts, the entrepreneur should first look at historical cash flow, if this information is available. Construct monthly historical cash flows for at least the past year or, if possible, the past few years. It will be easier to forecast many items, such as utility bills, if what has been spent in the past is known.

Using these historical figures, prepare forecasts for the weekly cash flows for a month at a time. First, determine the cash inflows for each month—usually cash sales and accounts receivable. Then determine the cash outflows—utilities, payroll and other employee-related expenses, inventory, equipment purchases, and so on. Compare inflows with outflows to determine the company's net cash position.

The cash flow forecast allows an entrepreneur to track actual performance against forecasts and plans. Each month, an entrepreneur should compare the forecast with the actual results and calculate the variance between the actual amount incurred and the forecast line by line. Then calculate the percentage variance (i.e., the actual minus the forecast divided by the forecast). Focus on the areas where overspending occurred, looking at the dollar amount and percentage over the budget. Where the difference is significant, determine whether the expenditure was justified, and, if not, how to reduce it. By doing this every month, an entrepreneur will find that he can control expenses much more effectively.

ACCOUNTS RECEIVABLE

The major area of vulnerability for many entrepreneurs is accounts receivable. On any given day, it is estimated that 5 million businesses are behind on their bills.[7] As stated earlier, many entrepreneurs, particularly in the early or fast-growth stages of their business, focus more on generating sales than they do on collecting receivables. While this is never a good idea, it can turn into a disastrous situation if the economy slows down and more customers take longer to pay their bills—usually the result is a cash crunch for a company.

This problem is not unique to American entrepreneurs. In Australia, a survey conducted by Dun & Bradstreet and Roy Morgan Research showed that the majority of small and medium-sized enterprises no longer expect to be paid on time. As for the old

standard 30-day payment period, only 30 percent of these firms expect to be paid within that time by their customers. In the U.K., 67 percent of small businesses indicated that late payment from other businesses was a cause of cash flow difficulties.[8] Every year, Dun & Bradstreet surveys small-business owners. The survey is designed to give an overview of current issues and problems facing these business owners, as well as a brief look at expectations for the coming year. In 2001, for the twentieth annual survey, small-business owners were asked about their priorities. For example, in the coming year, would they put more of an emphasis on increasing sales? What about collecting debt? The answers given are shown in Table 6-3, and they suggest that collecting customer debt is a secondary concern.

TABLE 6-3

Dun & Bradstreet Small-Business Survey

	Sales	Control Costs	Financing	Uncollected Debt
Increase emphasis	67%	53%	16%	21%
Decrease emphasis	3%	4%	10%	7%
Same emphasis	28%	40%	59%	50%
Don't know/not applicable	2%	3%	16%	21%

Source: Dun & Bradstreet 20th Annual Small Business Survey.

In a similar study, the National Federation of Independent Business (NFIB) conducts a survey every 5 or 6 years to establish the priorities of small businesses. The results of this survey are enlightening: cash flow wasn't even a top ten concern. In fact, it is number 34![9]

Alan Burkhard, president of The Placers, Inc., a Wilmington, Delaware–based temporary placement and permanent job search firm, initially did not value the importance of having good financial controls for accounts receivable. He notes, "I always told myself that accounts receivable didn't create sales, so they weren't worth paying attention to."[10] This was his belief until a time when, although his company was generating record sales, he was having

difficulty running his company because of cash problems. The root of the problem: an inefficient accounts receivable system.

"None of our customers paid us in any kind of timely fashion. And 60–70% of our delinquent accounts were actually owed by our regular customers. Every single week we had to pay salaries and payroll taxes for every temp we placed on a job. But it was taking us 60 or 90 days or longer to collect our bills from the companies that were hiring those temps."[11] By allowing its customers to take so long to pay, The Placers was actually giving them an interest-free loan to cover their own payroll costs.

Unfortunately, it is quite common for entrepreneurs to complain about their need for more working capital when in fact the company already has the money in accounts receivable. When you are an entrepreneur, you had better be an absolutely vigilant bulldog (as noted at the beginning of this chapter) when it comes to collecting your receivables. This is the lifeblood of the business—collecting your receivables as quickly as possible. Candidly, when I first owned my business, I was a bit of a wimp. I was scared that if I called the customers and said something, well, they would no longer do business with me. I learned very quickly that if you do not say something, you are not going to be sitting around for very long saying, "Where's my money?" Instead, you're going to be saying, "Where's my business?" The money simply needs to be collected by whatever means necessary. As one entrepreneur stated, "I get on the phone and beg."[12]

Accounts Receivable Systems

A good accounts receivable collection system is proactive. It also allows the entrepreneur to do business with customers that may not have a credit history, or even those who have a bad credit history. The major components of an effective system include these steps:

- Before you go into business, perform an analysis of the industry's payment practice. Is this an industry characterized by historically slow-paying customers, such as the government or health insurance companies? Figure 5-2 lists periodicals that can be used as part of an industry analysis. If an industry is characterized by slow-paying customers, this does not necessarily mean that you

should not enter it; it simply means that you should be even more diligent about developing and maintaining a disciplined system.

- Have all new customers complete a credit report before you provide any services or products. The report should be simple but thorough and should contain the following information:
  - The age of the company
  - The owner(s) of the company
  - Whether the company has ever declared Chapter 7 or 11 bankruptcy and whether the owner has ever declared Chapter 13
  - The current name of the company and any previous names
  - The maximum credit level desired
  - The telephone numbers and fax numbers and/or addresses of three supplier references, along with the length and terms of the relationship with these suppliers
  - The name of the company's primary bank, its account number(s), and a contact number for the bank officer responsible for managing the company's accounts
  - Whether or not the company agrees to pay invoices according to your terms
- Consider the following options if a potential customer does not have a credit history or has a bad one:
  - At the time of order receipt, require an up-front payment equal to the cost of goods sold for the order, with the balance due at the time of shipment. This ensures that your costs are covered if the customer cancels the order after production has begun.
  - Obtain a 100 percent payment before work on the order can begin.
  - Require a 100 percent payment before or at the time of delivery (COD).
  - Request a 33 percent payment at order receipt and 33 percent at the time of shipment, with the balance due 30 days later.

- Contact all references immediately and inquire about their credit experience with the prospective customer. Questions should include:
  - How many years have they had this customer?
  - What is the maximum amount of credit they have provided this customer? Have there been any increases or decreases in the credit limit? If so, why?
  - What are their invoice terms?
  - Does the customer typically pay within 10, 30, 60, or 90 days?
  - Have they ever received any checks from this customer, and have any of them bounced?
  - Do they recommend this company as a good customer?
  - Have they had any problems doing business with this company?

If all references are satisfactory, inform your customers that their orders will be processed immediately. Also remind customers of the company's invoice terms and ask if they have any problems adhering to them. Specifically, ask customers how they normally pay their bills. The reason behind this question is that some companies have their own system for paying bills, regardless of the supplier's invoice terms.

Successful entrepreneurs know how their key customers pay their bills. For example:

- Some customers pay their bills once a month, typically on the thirtieth or thirty-first. To be paid on the thirtieth, the merchandise must be received by the tenth; otherwise, the payment will be made on the thirtieth of the next month.
- Some pay 30 days after receipt of the goods or services. Therefore, the supplier is penalized if the shipment is delayed by the carrier.
- Some pay 30 days after products that were damaged during delivery have been replaced.

It is also important to ask customers for the name of the accounts payable clerk who will be responsible for paying invoices. When I operated my business, you'd better believe that I knew

every accounts payable clerk at every one of my customers. I knew their names, their kids' names, the flowers they liked. Heck, their employers must have wondered why we were so cozy. You know why? Any edge I could gain in getting my bills paid earlier was well worth a few timely cards, a few nice words, and flowers on a birthday.

Other important key steps toward the effective management of accounts receivable include the following:

- All invoices should be mailed on the same day that the product is shipped or services rendered. Do not hold invoices until the next day or the end of the week, and do not wait and send invoices once a month. Such a practice will certainly delay payment.
- Make sure that the invoice highlights the payment terms in bold capital letters or in a different color from the rest of the invoice. The terms should be printed at the top of the page of the invoice. The most common invoice terms are "2/10, net 30." This means that if the customer pays within 10 days of the invoice date, she is allowed a 2 percent discount. Otherwise, the entire invoice amount is due within 30 days of the invoice date.
- Manage the collection of accounts receivable. It is naïve to expect all customers to pay in a timely fashion. In the business of collecting receivables, the squeaky wheel does in fact get the oil.
- The entrepreneur should have a weekly receivables aging report showing the customer accounts that are outstanding for 30 days or more.
- For invoices that have not been paid seven days after the due date, automatic action of some kind should be taken.
- Excellent payment history is no longer than 10 days more than the invoice terms. If the terms are net 30 and payment occurs in 50 days, then no future orders should be sent before receipt of some kind of payment, as mentioned earlier.

Collecting accounts receivable can be an intimidating experience, especially for the inexperienced entrepreneur. In many

instances, the new entrepreneur is afraid to implement a system similar to the one discussed here because of the fear of losing revenue if the customer gets offended. Such a concern is foolish and naïve. It is also a good idea to have someone other than you send the strong letters and make the tough phone calls. At my company, a woman named Angela—our CFO—was our resident pit bull. We had a system in place where our terms were net 30, and if we weren't paid by the thirty-fifth day, an automatic reminder went out to the customer—a neon green sheet of paper in a neon green envelope. It said, "Just a reminder if you've forgotten us." If we hadn't been paid five days after that, another notice—this one hot pink—went out. I had one customer call me to say, "Steve, every time I open one of these doggone notices, I get blinded by the sheets of paper. Why don't you stop sending them to me?" I replied, "Listen, I just own the company. Angela runs everything out there. Now the way that I can get Angela to stop is for you to simply pay on time. It's a simple solution."

But everyone has his own system, and occasionally the entrepreneur needs to show a little "tough love." I love the story that a business broker in Richmond, Virginia, Bette Wildermuth, tells about one of her clients. "This gentleman owns an excavation company. He always does excellent work, meets the developers' time schedule, and makes sure his crews clean up after themselves. Usually he gets paid within 10 days of completing the job. But every once in a while, a developer really drags things out. The excavator's solution: he puts on his muddiest contractor boots and goes to the developer's fancy office with the nice oriental rugs. When he arrives, he announces in a very loud voice that he has come to pick up the overdue check and plans to sit in the lobby until it's ready. Needless to say, this does tend to speed up the process."

For the entrepreneur who just doesn't have the stomach for collections, one option is to get "credit insurance," where the insurer pays the claim within 60 days and then assumes the responsibility for collection. Baltimore, Maryland–based American Credit Indemnity Company, the country's largest issuer of credit insurance, charges 1 percent of the sales insured and will insure only receivables from customers who historically have paid within 30 days.[13]

Remember, good customers typically expect to pay their bills within five to ten days after the due date unless they have a special payables system, as was mentioned earlier. Even those customers plan to pay, but according to their system. A bad customer is one who is very cavalier about paying bills. These types of customers will pay only when they are forced to do so, even when they have the money. Ultimately, the experienced entrepreneur sees that the latter are not profitable customers and does not mind losing them.

When such a decision has been made, extreme action should be taken, such as hiring a lawyer, at a cost of approximately $2,000, to get a "writ of attachment" within 60 days against the delinquent customer's corporate bank account. This action generally gets the customer's immediate attention for settling the delinquency.[14]

Before leaving the subject of an accounts receivable system, here are a few don'ts:

- Don't be rude to customers. Don't threaten them.
- Don't assume that a slow-paying customer is a thief or a bum. It may be that the customer has fallen on temporary tough economic times.
- Don't take legal action against a customer until the bill is at least 45 days past due and you have personally spoken to the customer and tried to get payment.
- Don't pay independent sales representatives until you receive payment from the customer. Some sales representatives do not care if a customer is a known delinquent payer. Taking an order from such a customer may not bother the salesperson, since she is not the one investing in raw materials. Therefore, discourage such action with a policy that specifies that sales representatives will not receive their full commission if payment is received more than a certain number of days late. For example, if the payment is 15 days late, the commission is reduced by 15 percent.

To check on the quality of accounts receivable, several ratios can be used. The first step in checking the quality is to determine what the company's collection ratio, or "days receivable" or "accounts receivable turnover," is. This ratio measures the quality

of a company's accounts receivable. It shows the average number of days it takes to collect accounts receivable. To look at it another way, this ratio indicates the number of days, on average, that it takes a business to convert receivables to cash. Equation 6-3 shows the equation to calculate days receivable.

EQUATION 6-3

Days Receivable

Outstanding receivables/annual sales/365 days

The same formula can be restated as Equation 6-4.

EQUATION 6-4

Days Receivable

Outstanding receivables/average daily sales

In this case, average daily sales can be calculated using Equation 6-5.

EQUATION 6-5

Average Daily Sales

Average daily sales = annual sales/365 days

The goal is to get the customers to pay as soon as possible. Therefore, a low number is desirable. At a minimum, a company's days receivable should be equal to the industry's average. Also, it should not exceed the company's days payable ratio, because if it does, this indicates that bills are being paid faster than payments are being received.

For example, a company with $5 million in annual revenues and $800,000 in accounts receivable has an accounts receivable turnover ratio of 58.4 days, calculated as shown in Figure 6-1.

FIGURE 6-1

Receivables Turnover Ratio Calculation

$5 million in sales/365 days = $13,699 (average daily sales)
$800,000 in receivables/$13,699 = 58.4 days

This number would indicate that, on average, it takes the company approximately 58 days to convert receivables into cash. Is this good or bad? Well, most importantly, it depends on the invoice terms. If the terms are 30 days, this is bad even if the industry average is more. This says that customers are paying almost one month later than they should. That is money that could be reinvested and could generate returns if the company received it closer to the invoice terms.

Companies usually do not understand the importance of collecting their accounts receivable quickly and consistently. Entrepreneurs usually focus their resources on boosting sales, rather than on faster collection of receivables, because the benefits of higher sales are easier to quantify. Entrepreneurs sometimes ignore the costs of inefficient collection systems because they usually do not understand the effects of these inefficiencies on the company's bottom line. However, it is easy to quantify the benefits of faster collection of accounts receivable in terms of dollars saved. Faster collection means that the company will not have to use external financing for current payables. Equation 6-6 is the formula for calculating dollars saved as a result of faster collection of accounts receivable.

EQUATION 6-6

Dollars Saved

(Gross annual sales × annual interest rate) × days saved/365 days = dollars saved

In calculating dollars saved, use the most recent complete year's sales figures unless the company is growing rapidly and has a good projection for the current year. For the annual interest rate,

include the cost of debt capital. To find the days saved, subtract the company's improved days sales outstanding (DSO) from its original DSO. The equation for DSO is shown in Equation 6-7.

EQUATION 6-7

Days Sales Outstanding[15]

$$\frac{\text{Average accounts receivable balance over past 3 months} \times 90 \text{ days}}{\text{Total sales over past 3 months}}$$

For example, suppose a $4 million company, borrowing at the prime rate of 6.75 percent plus 2 points (i.e., 2 percent), improves its days sales outstanding by 5 days. The total amount of dollars the company saves by improving its collection of accounts receivable is shown in Figure 6-2.

FIGURE 6-2

Accounts Receivable Collection Savings

($4,000,000 × 8.75) × 5 days/365 days = $4,795 in savings

ACCOUNTS PAYABLE

The ideal situation is to collect all your receivables quickly while paying your outstanding bills as late as possible without jeopardizing the service you get from your suppliers. However, delaying payables is not always necessarily a good thing. If you have cash on hand or can borrow at low rates, should you take discounts? Yes. As Jay Gohz, the author of *The Street Smart Entrepreneur,* explains:

> Suppose your supplier terms are 2, 10 net 30—2% discount if you pay in 10 days; the entire balance is due in 30 days. You don't take a discount and pay in 40 days instead of 30. Basically, you have borrowed from your vendor for 30 days, which is essentially one-twelfth of a year. The loan cost equals 2% (i.e., the 10-day discount) of the invoice annualized, which is 24%. If every month you lose a 2% discount, it is like paying 24% over the course of a year.

To determine whether or not the company's accounts payable are what they should be, analyze the accounts payable turnover ratio and compare it with the industry average. This ratio measures the average number of days it takes the company to pay its bills. The ratio can be calculated as shown in Figure 6-3.

FIGURE 6-3

Accounts Payable Turnover Ratio Calculation

COGS/365 days = average daily costs
Accounts payable/average daily costs = number of days it takes to pay

Management of Accounts Payable

To improve the accounts payable days, the entrepreneur can take the following actions recommended by several professionals:

- Negotiate better payment terms, such as net 45 or net 60, instead of net 30.
- Time payments according to their due dates, such as 30 days following the receipt of material, rather than on some artificial schedule.
- Plan cash flow realities. For example, to avoid big cash outflows, some companies pay their employees' payroll biweekly and then pay their outstanding bills during the other two weeks of the month.
- Avoid interest penalty charges. If you have to stretch out your own payables because of temporary cash flow problems, make sure you are not late with those bills that incur additional interest charges.
- Communicate with your suppliers. If you establish a good working relationship with a supplier and make regular payments, you can usually avoid paying late charges by contacting the owner in advance if you expect to make a late payment or if you need to request a payment extension.
- Set scheduling goals. Try to establish a final date by which all payables are to be paid. While it is unrealistic to assume that you will always be on schedule, it is important to keep the accounts payable as close to the scheduled goal date as possible.

- Be organized. Keep a paper trail and keep close track of details, especially of the aging of bills. Invest in a good accounts payable system.
- Look for warning signs, including low cash levels, that could result in future problems paying vendors and suppliers. Reevaluate your collection controls to ensure that you are collecting cash as soon as possible.
- Prioritize. You can't devote the same amount of time to all payables. Prioritize payables based on some type of priority rating. For example, fixed expenses such as rent may be paid first, utilities second, and then other bills.
- Identify problems early. Look for accuracy of information on invoices from suppliers.
- Provide supervision from the top.
- Have specialists monitor the accounts payable daily.
- Try to stretch your accounts payable as much as possible without hurting your relationships with vendors and without damaging your credit status.

THE CASH GAP

You now own a business. Whether it's a manufacturing, retail, or service firm, you soon discover a simple truth: first *you* pay for the goods or services, and then eventually someone else—*your* customer—pays you. The period between payment of cash and receipt of cash is called the *cash gap* or *cash conversion cycle.* How long do your goods sit in inventory? How many days is it before you have to pay your supplier? Finally, how many days does it take your customers to pay you? The answers to those three questions are plugged into the cash gap formula, shown in Equation 6-8.

EQUATION 6-8

Cash Gap Calculation

	Inventory days
plus	Days receivable
minus	Days payable
equals	Cash gap

That interval between the payment of cash and the receipt of cash must be financed. The longer the time, the more interest a company must pay on capital borrowed from a lender, thereby using working capital. The wise way to reduce the need for working capital is to decrease the gap. The entrepreneur's goal must be to continually shorten the gap, because for each day that it is decreased, the daily interest cost saved goes entirely and directly to pretax profits.

Let's explore this concept in more detail, using an example and illustrations. We can make the following assumptions for the Varnadoe Company:

- Days inventory carried*: 40.5
- Days payable*: 40
- Days receivable*: 35
- Annual revenues: $50 million
- Gross profit*: 30 percent
- Cost of debt: 6 percent

Therefore, the cash gap can be calculated as shown in Figure 6-4.

FIGURE 6-4

Cash Gap Calculation

	Inventory days	40.5
plus	Days receivable	35.0
minus	Days payable	40.0
equals	Cash gap	35.5 days

To determine the savings from reducing the cash gap by one day, the calculation shown in Figure 6-5 should be made.

As you can see from the figure, for every day that the cash gap is reduced, the savings of $5,753 will go directly to profits before taxes, thereby increasing the Varnadoe Company's cash flow. Using the Varnadoe Company's information, Figure 6-5 illustrates the cash gap concept.

* The formulas for these ratios can be found in Chapter 5.

FIGURE 6-5

Cash Gap Reduction Calculation

Determine the company's daily revenues:
$50 million ÷ 365 = $136,986

Determine the cost of goods sold:
1.00 − 0.30 (gross profit) = 0.70

Determine the COGS for one day of revenue:
0.70 (COGS) × $136,986 (daily revenue) = $95,890

The cash gap:
35.5 days

Determine how much Varnadoe Company needs to borrow to cover 35.5 days of COGS:
35.5 × $95,890 (COGS for 1 day's revenue) = $3,404,109

Determine the interest expense to be paid on the borrowed money:
3,404,109 × 0.06 (cost of debt) = $204,246

Determine the savings from reducing the cash gap by 1 day:
$204,246 ÷ 35.5 (cash gap) = $5,753

There are only three ways in which a company can reduce its cash gap: (1) increase the number of days it takes to pay for inventory, (2) decrease the number of days it takes to collect receivables, or (3) increase the inventory turns. Let's analyze each.

Increase Days Payable

Most companies allow their customers up to two weeks past the due date before they consider the invoice seriously delinquent. Therefore, every entrepreneur should take advantage of these extra days by paying no earlier than two weeks after the due date. This shortens the cash gap because it extends payments that may have been due in 30 days to 44 days. Using the information from the Varnadoe Company, if days payable were increased 4 days to 44, the cash gap would be 31.5 instead of 35.5. Such a decrease would save the company $23,012 in interest payments (4 days × $5,753).

Decrease Days Receivable

This topic was discussed in great detail in Chapter 5. Some industries historically have lower days receivable than others. For example, manufacturing companies typically expect payment in 30 days, whereas retailers such as Amazon.com usually get paid immediately upon sale. They have no receivables because payment is required at the time of the order. In fact, in 2006 Amazon.com reported 13 days receivables, 80 days payables, and 39 days of inventory. The result was that Amazon.com's cash gap was a beautiful negative 28 days (13+39−80=−28), which means that it raised interest-free money from its customers for almost a month. Specifically, with average cost of sales, which at the time was $22.6 million, the company raised $631 million ($22.6 million × 28 days), which it used to help pay overhead expenses.[16] Using the Varnadoe Company data again, if the days receivable were reduced from 35 to 29, the effect would be a 6-day reduction in the cash gap and therefore a $34,518 cash savings.

Increase inventory Turnover

The faster a company converts inventory into cash, the less cash it needs because it can reduce its days of inventory carried and decrease its inventory carrying costs, which was discussed in Chapter 5. A company that has successfully increased its inventory turns is Wal-Mart, known in some circles as the world champion of lean. Its inventory turnover was 4.1 in 1990 and 7.6 in 2005, an average increase of 3.1 percent per year. Another company that has been successful in improving its cash flow by turning inventory faster is Dell. It turns its inventory an amazing 83.7 times per year, compared with less than 5 times for traditional computer manufacturers.[17]

The hope is that, as a result of this rich discussion, it is now clear that every entrepreneur must know why cash gap analysis is important and how to use it as a proactive tool for operating the company. Every entrepreneur should do the complete analysis explained in this section at least annually and use the information for strategic planning for next year.

What is the ideal cash gap? It varies by industry. An industry comparison should be made annually using the Risk Management

TABLE 6-4

Cash Gaps by Industry, 2006

	Receivables	+	Inventory	−	Payables	=	Cash Gap
Manufacturing							
Bread and bakery	25		19		23		21
Bottled soft drinks	29		30		31		28
Women's dresses	41		54		26		10
Wholesale							
Office supplies	40		28		31		37
Auto	17		66		13		70
Toys, hobby goods	50		94		39		104
Retail							
Gasoline stations	5		9		13		0
Drugstores	20		50		32		38
Shoes	2		130		30		103
Service							
Equipment rental	7		N/A		N/A		7
Motels and hotels	8		N/A		N/A		8
Accounting firms	64		N/A		N/A		64

Source: Risk Management Association (formerly Robert Morris Associates), 2006.

Association (formerly Robert Morris Associates) guide. A few of the industries are highlighted in Table 6-4.

WORKING CAPITAL

The procurement, maintenance, and management of working capital seem to be some of the most common and challenging tasks facing entrepreneurs. Therefore, let's devote a little more time to the subject.

As was stated earlier in this chapter, the interval between a company's payment and receipt of cash must be financed. The money for this is called *working capital*, which consists of funds invested in all current assets, including inventory, accounts receivable, and cash. Gross working capital is used to finance only the company's current assets. Net working capital, which is a measurement of a company's solvency, is current assets minus current

liabilities. The goal is to have positive net working capital. The greater the net working capital, the stronger the company's cash position relative to its ability to service its other expenses, including long-term debt.

Very few companies are able to finance their working capital needs internally. Therefore, external financing in the form of debt or equity is inevitable. How much working capital is ideal? One expert, Skip Grandt, a commercial lender with 20 years of experience, says that he likes to see a company have net working capital levels at 3 to 6 times its annual fixed costs.[18] A great resource for finding working capital levels for different industries is *CFO Magazine*'s annual working capital survey, which can be found on *CFO*'s Web site (www.cfo.com).

FINDING CASH

Entrepreneurs have frequently asked me to help them raise external financing from debt and/or equity investors. Most of the time, after reviewing the financial statements, I have told them that they do not need outside capital. They simply need to reduce their inventory and/or accounts receivable levels. That's right. Cash is often readily available to entrepreneurs who carry excessive amounts of these two assets.

What is the ideal level of inventory that an entrepreneur should carry? The formula to make this determination is shown in Equation 6-9.

EQUATION 6-9

Ideal Inventory Calculation

$$\text{Ideal inventory} = \text{COGS/targeted inventory turns}$$

Let's use the information from the Hoy Company to show how an entrepreneur can raise internal cash by applying this formula. The Hoy Company had the following numbers for 2008:

- Revenues: $30,848,000
- Cost of goods sold (COGS): $13,989,000

- Inventory: $9,762,000
- Inventory turns: 1.43 times
- Average industry inventory turns: 2 times
- Accounts receivable: $5,996,000
- Days receivable: 71
- Average days receivable for industry: 40

If in 2009, the revenues and COGS remained the same as in 2008, but the entrepreneur was able to turn inventory 2 times rather than 1.43 times, the cash savings would be dramatic. The ideal level of inventory is $6,994,500, determined by $13,989,000/2. The actual savings based on the 2008 inventory level would be $2,767,500 in cold, hard cash!

What is the ideal level of accounts receivable that an entrepreneur should carry? The formula to make this determination can be seen in Equation 6-10.

EQUATION 6-10

Ideal Level of Accounts Receivable

$$\text{Ideal level of accounts receivable} = \text{average daily sales} \times \text{targeted days receivable}$$

Using the same information for the Hoy Company, if days receivable can be reduced from 71 to 40 days, the cash savings would be significant. To compute average daily sales, the annual revenue must be divided by 365. Therefore, $30,848,000/365 generates average daily sales of $84,515. This figure multiplied by 40 days receivable shows that the Hoy Company's ideal level of receivables should be $3,380,600. The actual savings based on the 2001 accounts receivable, or $5,996,000, would be $2,615,400 in cold, hard cash!

NOTES

1. Jill Andresky Fraser, "Riding the Economic Rollercoaster," *Inc.*, December 1998, p. 126.
2. Michael Fernandez, "My Big Mistake," *Inc.*, December 1998, p. 123.
3. Fraser, "Riding the Economic Rollercoaster."

4. "Running on Empty," *Inc.*
5. Ibid.
6. Fraser, "Riding the Economic Rollercoaster."
7. Gini Graham Scott and John J. Harrison, *Collection Techniques for a Small Business* (Grants Pass, Oregon: Oasis Press, 1994).
8. U.K. Survey of Small Businesses, 2005.
9. Bruce D. Phillips, "Small Business Problems and Priorities," National Federation of Independent Business, June 2004.
10. Jill Andresky Fraser, "Getting Paid," *Inc.*, June 1990.
11. Ibid.
12. *Wall Street Journal*, October 25, 1999, p. 9.
13. *Chicago Sun-Times*, May 25, 1999, p. 48.
14. Ibid.
15. Source: Jill Andresky Fraser, "Collection: Days Saved, Thousands Earned," *Inc.*, November 1995.
16. *Journal of Accountancy*, October 1999, p. 29.
17. Dell company financials as compiled by Hoovers, July 2007.
18. Skip Grandt, interview with author.