

# 9. Financial and managerial accounting; financing your organization

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## Learning objectives

- to appreciate the importance of an accounting system
- to differentiate between financial accounting and managerial accounting
- to understand the basic types of accounts and their characteristics
- learn to set up a chart of accounts for your organization
- understand the advantages of double-entry bookkeeping; types of ledgers and basic reports
- to learn how to select and use accounting software
- to understand common options for funding a start-up

## Introduction

In this chapter, we will discuss the principles of accounting as well as some of the options you have for designing and installing an accounting system for your business. There are many computer-based accounting systems available now, for relatively low cost, that make it easier for an entrepreneur to use software on a PC or the Internet to run an accounting system. We discuss some of the software options you may want to consider in Chapter 10, “Leveraging with information technology”. Although it is possible to keep essential accounting records manually, or perhaps on a series of spreadsheets, you will find that it is much easier and more reliable to simply use accounting software from the beginning.

You may need the advice of an accounting professional to work with you in setting up your accounting records and helping you select and implement a suitable accounting package. On the other hand, you may be able to handle the task yourself. In any event, starting your business with a well-designed accounting system tailored to the needs of your business will be worth the effort.

## Why an accounting system is important

Professional accountants look at the accounting records and reports of a business from two perspectives. The term they use to describe these two perspectives is **financial accounting** and **managerial accounting**. Wikipedia has good definitions of both perspectives in order to help you understand the difference between the two.

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*“Financial accountancy (or financial accounting) is the field of [accountancy](#) concerned with the preparation of [financial statements](#) for decision makers, such as [stockholders](#), [suppliers](#), [banks](#), [employees](#), [government agencies](#), owners, and other stakeholders. The fundamental need for financial accounting is to reduce [principal-agent problem](#) by measuring and monitoring agents' performance and reporting the results to interested users.*

*“Financial accountancy is used to prepare accounting information for people outside the organization or not involved in the day to day running of the company”.*

“In short, Financial Accounting is the process of summarizing financial data taken from an organization's accounting records and publishing in the form of annual (or more frequent) reports for the benefit of people outside the organization.

“Financial accountancy is governed by both local and international accounting standards”. (Wikipedia 2009a). In addition, financial accounting records and financial statements are essential sources of information for the preparation of tax returns.

“Management (or managerial) accounting, on the other hand, is concerned with the provisions and use of accounting information to managers within organizations, to provide them with the basis to make informed business decisions that will allow them to be better equipped in their management and control functions.

In contrast to financial accountancy information, management accounting information is:

- usually confidential and used by management, instead of publicly reported
- forward-looking, instead of historical
- pragmatically computed using extensive management information systems and internal controls, instead of complying with accounting standards

This is because of the different emphasis: management accounting information is used within an organization, typically for decision-making”. (Wikipedia 2009b)

You will not need to be terribly concerned about financial accounting when your business is just beginning, inasmuch as the kinds of information you will need falls into the category of internal management information rather than information for external stakeholders. Also, note that financial accounting reports must be prepared in accordance with national and international accounting standards. In the United States the Financial Accounting Standards Board (FASB) has been the designated independent entity for established accounting reporting standards since 1973. Independent auditors of an organization's financial statements must provide written assurance in their report that such statements were prepared in accordance with Generally Accepted Accounting Principles (GAAP). While, in theory, there can be many supportable ways of presenting accounting information on such topics as business combinations, subsequent events after the date of an audit, the fair value of financial instruments and the like, FASB will typically specify the ways such information should be reported. You can find more information on FASB on their website at <http://www.fasb.org>.

Since so many organizations are global in scope, a relatively new entity, the International Accounting Standards Board (IASB) has come upon the scene. According to their website, their mission “is to develop, in the public

interest, a single set of high quality, understandable and international financial reporting standards (IFRSs) for general purpose financial statements” (IASB 2009). Finally, when your business reaches the point where you need to issue financial statements to external stakeholders, (e.g. banks, stockholders, regulatory agencies, etc.), your accountant will need to be familiar with and, ideally a member of, the national association of accountants in your country. The reason for this is that there may be national standards for generally accepted standards that are, in some ways, unique to your country. Examples of national associations are the Institute of Certified Public Accountants of Kenya (<http://www.icpak.com/>), the Malaysian Institute of Certified Public Accountants (<http://www.micpa.com.my/>), and the South African Association of Chartered Accountants (<https://www.saica.co.za>).

Accordingly, the balance of this chapter is focused on how you can use a well-designed accounting system as the basis for generating useful information to help you run your business.

### Basic types of accounts

The six basic types of accounts used in a typical accounting system, according to Wikipedia are:

- asset accounts
- liability accounts
- equity accounts
- revenue or income accounts
- expense accounts
- contra accounts

Each type of account is discussed below (adapted from Wikipedia 2009c). In subsequent sections of this chapter we will discuss how they are used in an accounting system.

- **Asset accounts:** represent the different types of economic resources owned by a business, common examples of asset accounts are cash, cash in bank, equipment, building, inventory, prepaid rent, goodwill, accounts receivable. Assets are usually broken down into three categories: Current assets, fixed assets, and intangible assets. Current assets are assets which could be converted to cash fairly quickly if necessary, certainly in less than a year. Examples of current assets include cash, cash in bank, inventory, prepaid rent, and accounts receivable. Fixed assets are assets of a more permanent nature like manufacturing equipment, buildings owned, and the like. Intangible assets, like goodwill, are monetary values assigned to intangibles like a brand name. It is typically used when accountants need to justify the purchase price of one company by another when the price cannot be justified by the monetary value of the purchased company’s assets minus liabilities. Intangible assets are beyond the scope of this chapter as they apply more to larger corporations than to a start-up business.
- **Liability accounts:** represent the different types of economic obligations by a business, such as accounts payable, bank loan, bonds payable, accrued interest. Current liabilities are liabilities which are scheduled to be paid within a short period of time, usually less than a year. Examples of current liabilities include accounts payable to creditors, like suppliers, current amounts payable to employees (payroll) and interest

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due on short term loans. Long-term liabilities (sometimes called fixed liabilities) are liabilities of a more permanent nature like loans that are not due in the current year (long-term debt), and the like.

- **Equity accounts:** represent the residual equity of a business (after deducting from assets all the liabilities). In the case of a start-up company totally financed by the founder, it is often called owner's equity and represents the capital provided by the owner. If the company is a corporation and stock has been issued to the owner and to others, it is often called stockholders' equity.
- **Revenue accounts or income:** represent the company's gross income before expenses are deducted. Common examples include sales, service revenue, commissions, and interest income.
- **Expense accounts:** represent the company's expenditures to enable itself to operate. Common examples are employee costs (payroll and fringe benefits), supplies, software, telephone bills, electricity and water, rentals, depreciation, bad debt, interest, and insurance.
- **Contra-accounts:** from the term *ciccia*, meaning to deduct, these accounts are opposite to the other five above mentioned types of accounts. For instance, a contra-asset account is accumulated depreciation. This label represents deductions to a relatively permanent asset like a building. It accumulates an annual charge in recognition that a fixed asset like a building is not used up over the course of a year, but that it has a useful life measured in multiple years. Since in certain countries and under certain economic conditions real estate tends to steadily rise in price, perhaps a better example is a truck purchased for use in the business. Its value is more likely to continue to decrease over the years. Even though the market value of a building might increase rather than decrease over the years, accountants will still reduce its value by an annual depreciation charge each year. This is a good example of how financial accounting differs from managerial accounting from the owner's perspective. Depreciation on a building or a truck reduces income for tax purposes in most countries, so it is to the owner's advantage to reflect depreciation charges in the company's accounting records. On the other hand, you can bet that the owner knows the true market value of the building when it comes time to sell it!

### Chart of accounts

Setting up an appropriate chart of accounts will take some careful thought on your part because you want to be sure that accounts are set up in each category (i.e. assets liabilities, etc.) that will enable you to accumulate accounting transactions in a meaningful way. As a starting point, you should consider the kinds of information you will need in order to run your business. You may then go on to consider other types of information that may be required for financial reporting, as we discussed earlier. Setting up a chart of accounts is best understood if we walk through an example. Let us suppose a young entrepreneur plans to start a men's clothing store and needs to develop a chart of accounts. Typically, accounts in a chart of accounts each have an account number. This is no different than you having a unique account number for companies you deal with, such as a bank or a telephone company. A number uniquely identifies you from another customer that might have exactly the same name and is easier to use in a computerized customer accounting system. In the same way, an account number in a chart of accounts uniquely identifies an account and is easier to use in a computerized general accounting system. It is common to assign a range of numbers to each type of account. One common way is illustrated in Table 6:

Table 6: Range of account numbers in a sample chart of accounts

Account Type	Account Number Range
Asset accounts	100-199
Liability accounts	200-299
Equity accounts	300-399
Income accounts	400-499
Expense accounts	500-599
Contra accounts	600-699, or in the range to which they relate

The next step is to decide the breakdown of accounts you need so that you set up an account for the detailed information you need for each account type. For example, starting with the asset account category, you may decide that you need to begin your business with at least the following accounts:

Table 7: Examples of current asset accounts in a chart of accounts

Account Number	Account Name
100	Cash on Hand (Petty cash)
105	Cash in Bank
110	Accounts Receivable
115	Inventory for resale
120	Office equipment

The same process is followed with all of the account types until your chart of accounts is complete, and contains all of the categories you believe will be needed in order to accumulate accounting information in meaningful categories.

Fortunately, there are many sources where you can obtain *sample* charts of accounts by type of business that you can use as a guide and starting point. One source of such information can be the national associations (or institutes) of professional accountants we referred to previously in this chapter. Another source is the providers of accounting software we will discuss later in this chapter and in Chapter 10. One other option is to do an Internet search for a sample chart of accounts for your type of business. For example, we did a simple Google search for a “Bed and Breakfast” (B&B) sample chart of accounts and found a 98 page document that discusses almost every issue someone who wants to start a B&B needs to know, including a sample chart of accounts, beginning on page 90 (Buchanan and Espeseth 2009).

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### Basic financial statements

Later in this chapter we will discuss some of the other types of reports you will want to be able to produce in order to plan and control your business finances, but for now, let us concentrate on the two most fundamental statements of all: The Income Statement and the Balance Sheet. The Income Statement is important because it will tell you if your business was profitable or not for any given period of time. The Balance Sheet will show you the financial condition of your business, what you own, what you owe, and the owners' financial interest. You will sometimes hear the Income Statement referred to as the Profit and Loss Statement and the Balance Sheet called the Statement of Financial Condition.

Here's a simple example of an Income Statement:

Income Statement – Bill's Bicycle Shop – Year 2009	
Sales	\$20,000
Cost of goods sold	<u>-8000</u>
Gross Margin	<u>\$12,000</u>
Payroll costs	-6000
Rent	-2000
Other expenses	<u>-1000</u>
Net Income	\$3,000.00

The only items that need additional explanation are “*Cost of goods sold*” and “*gross margin*”. The cost of goods sold is the total cost the owner of a business paid for products sold. If the owner of Bill's Bicycle Shop simply buys bicycles from the manufacturer and has them shipped to the shop, the cost of a bicycle is whatever bill paid the manufacturer plus the cost of shipping it to the shop and any labor cost that might be involved in assembling the bicycle before putting it on display for customers to see. The Cost of goods sold shown on the Income Statement (USD 8,000) is the total costs associated with all of the bicycles sold by Bill in the year 2009. This is the accounting concept of “matching”. (The Sales figure of USD 20,000 is the total of the prices paid by all of the customers who bought bicycles from Bill during the year).

Gross margin is simply the difference between Sales and the Cost of goods sold. It is an important figure for owners to watch, and you will sometimes hear business owners talk about their margins or “managing their margins”. The greater the gross margin is the more profitable a business is likely to be. For example, see if you can determine what Bill's gross margin and profit would be if he had to sell his bicycles at a discount because of competitive pressure and his sales revenue for the year amounted to USD 17,000 instead of USD 20,000.

This is, of course, a relatively simple example to illustrate the general outline of an Income Statement, but it should give you an appreciation of why the Income Statement is important to the owner of any business. Am I making money or not? And if not, why not?

Here's a simple example of a Balance Sheet:

Table 8: Balance Sheet –Bill’s Bicycle Shop– 31 December 2009

<b>Assets</b>	
Cash on hand and in bank	USD 8,000
Accounts Receivable	3000
Inventory – New Bicycles	12000
Parts Inventory	4000
Office Equipment	2000
Repair Equipment	1000
<b>Total Assets</b>	<b>USD 30,000</b>
<b>Liabilities</b>	
Accounts Payable	USD 10,000
Loan from Bank	15,000
<b>Total Liabilities</b>	<b>25000</b>
<b>Owner’s Equity</b>	<b>5000</b>
<b>Total Liabilities and Owner’s Equity</b>	<b>USD 30,000</b>

You can see why it is called a Balance Sheet. It is because the sum of the asset accounts must equal the sum of the liability and owner’s equity accounts. In other words, they must be in balance. You can also see why it is sometimes called a statement of financial position. It shows the condition of the business, in financial terms, as of a specific date.

Next, we will discuss a short history of accounting and the invention of double-entry bookkeeping, a technique that is of great assistance to accountants and bookkeepers in assuring the accuracy of accounting records and the reports that are prepared from them.

### **A short history of accounting and double entry bookkeeping**

There are many stories of how accounting began, but most writers agree that it has a long history, going back 5,000 years or so. Legend has it that wealthy individuals, wanting to keep track of their possessions (cattle, stores of grain, gold ornaments and so forth), hired scribes to keep records of additions and deletions to their lists of possessions as they bought, sold, or traded them. One supposes that that they wanted to be sure that any changes were legitimate; that losses were not due to theft, and that if 100 cattle were purchased that the herd increased by 100. From time to time, a count of possessions would be made and compared to the records maintained by the scribe. Any unexplained losses would be a signal that something was amiss and worthy of investigation.

Modern bookkeeping is generally thought to have been invented during the Italian Renaissance (around 1494 AD, according to one version:

*“Formal accounting was invented by a Franciscan friar named Luca Pacioli in 1494 in his paper "Summa de Arithmetica, Geometria, Proportioni et Proportionalita" ("Everything About Arithmetic, Geometry and Proportion").“The treatise described double-entry bookkeeping—that for every credit*

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*entered into a ledger there must be a debit, a concept created by Florentine merchants and hailed by Goethe as "one of the most beautiful discoveries of the human spirit". "Three traits shared by successful merchants, Mr. Pacioli wrote, were access to cash, a constantly updated accounting system and a good bookkeeper. His contemporary Christopher Columbus apparently knew that: On his voyage to the New World, he took a royal accountant to track his "swindle sheet when he started to figure the cost of gold and spices he would accumulate", according to Alistair Cooke's 1973 book "America." (Executive Caliber 2009)*

In my opinion, Goethe was exaggerating when he called double entry bookkeeping "one of the most beautiful discoveries of the human spirit". I can think of many other discoveries that are more beautiful, but as the old saying goes: "Beauty lies in the eye of the beholder" and perhaps Goethe was a bookkeeper at heart. At any rate, the discovery of double-entry bookkeeping was undeniably important, because, as Wikipedia explains:

*"Double-Entry Bookkeeping is a system that ensures the integrity of the financial values recorded in a financial accounting system. It does this by ensuring that each individual transaction is recorded in at least two different (sections) nominal ledgers of the financial accounting system and so implementing a double checking system for every transaction. It does this by first identifying values as either a Debit or a Credit value. A Debit value will always be recorded on the debit side (left hand side) of a nominal ledger account and the credit value will be recorded on the credit side (right hand side) of a [nominal ledger account](#). A nominal ledger has both a Debit (left) side and a Credit (right) side. If the values on the debit side are greater than the value of the credit side of the nominal ledger then that nominal ledger is said to have a debit balance".*

*"Each transaction must be recorded on the Debit side of one nominal ledger and that same transaction and value is also recorded on the Credit side of another nominal ledger hence the expression Double-Entry (entered in two locations) one debit and one credit" (Wikipedia 2009d).*

Here is a simple example to give you a feel for the way that double entry bookkeeping works:

Let us assume that the owner of Bill's Bicycle Shop, which we discussed above, bought some new bicycles on credit, for inventory. This is how the accounts would be affected:

Debit the inventory – new bicycles account: USD 2,000

Credit the accounts payable account: USD 2,000

Next let us assume that the owner had some extra cash and decided to pay down some of our bank loan. This is how the accounts would be affected:

Debit the loan from bank account: USD 1,000

Credit the cash account: USD 1,000

Note two things. First, a single transaction affects two accounts (a double-entry). Secondly, note that a debit to an asset account increases the value of the account and a debit to a liability (or owner's equity) account decreases its value. So, when USD 1,000 is paid to the bank, the debit to the loan from bank account reduces the amount we owe to the bank, and the credit to cash decreases the balance in our cash account.



## Ledgers

The version quoted above states that debits and credits must be entered into a *ledger*, so it is important that you understand what this term means, as it may be new to you. As you will see from some of the additional sources we quote, oftentimes *journal* and *ledger* are used to describe the same thing.

So, what is a ledger? A ledger is simply a collection of the accounts of your business where transactions are recorded using the double-entry bookkeeping method. If you are operating with a completely manual system, your ledgers (you will have more than one, as discussed in a moment) are on paper, usually in a bound volume pre-printed in a special way to accommodate the recording of transactions. If you are using a pre-coded application software package on a PC for your accounting system, your ledgers will be on the computer.

### Types of ledgers

Most organizations operate with two types of ledgers, the General Ledger and one or more subsidiary ledgers. The General Ledger contains a minimum of one page for each account in the chart of accounts. According to one authoritative source:

*“It is also known as G/L and The Final Book of Entry. It is a collection of all balance sheet, income, and expense accounts used to keep the accounting records of a company. A General Ledger is a perpetual record of the activity and balances of the accounts. Each company has only one General Ledger” (Universal Accounting 2009)*

However, some accounts, like accounts receivable or accounts payable, are comprised of the sum of a number of individual amounts. Let us look at accounts receivable as an example. Suppose we have a balance (i.e. total) amount of USD 3,250 in our accounts receivable account in the General Ledger. Remember, accounts receivable are amounts our customers owe us. Therefore, the USD 3,250 balance we have in our accounts receivable is the sum total of amounts owed to us by several individual customers. For the sake of convenience, we keep a subsidiary ledger of individual accounts receivable as illustrated in Exhibit 39 below.

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**Customer Name:**

**Customer Address:**

**Customer City/State:**

**Customer Telephone Number:**

**Customer email address:**

Date	Invoice Number	Sales Amount	Payment Amount	Payment Reference Number	Balance
June 27, 2009	870345980	USD 200			USD 200.00
July 6, 2009	870346001	USD 20			USD 220.00
July 15, 2009	870346125		USD 200.00	6589	USD 20.00
July 20, 2009	870346198	USD 15			USD 35.00
July 28, 2009	870346225	USD 25			USD 60.00
August 9, 2009			USD 60.00		USD 0.00
August 24, 2009	870346552	USD 55			USD 55.00

Exhibit 39: Accounts Receivable Subsidiary Ledger example

The Accounts Receivable Subsidiary Ledger has one page for each customer who has earned the right to be extended credit, and is expected pay off their outstanding balance each month. The sum of the customer balances in the Accounts Receivable Subsidiary Ledger must equal the Accounts Receivable balance in the company's General Ledger.

In the case of the Accounts Receivable example, when a sale is entered in the ledger, a corresponding entry is made in a Sales Journal. And, when a payment is received and posted to a customer's account in the Accounts Receivable ledger, a corresponding entry is made in a Cash Receipts Journal.

Similar subsidiary ledgers are created any time there is a sufficient number of detail accounts to warrant it. Detailed accounts may be employee accounts for payroll, or product numbers for inventory, for example. Setting up subsidiary ledgers and journals for special purposes like this shields the General Ledger from an excessive amount of detail and, at the same time, preserves the principle of double-entry accounting, makes reconciliations easier and, in general, promotes accuracy in a company's accounting records. In real life, of course, things can get more complicated, but this is the basic approach that is followed.

In Chapter 10, we discuss the many opportunities that small businesses have to use computer software to set up and maintain records of all sorts for their business, from accounting, payroll, customer relationship management, inventory control and the like. Going much beyond this is beyond the scope of this chapter. You can expect the most popular accounting software packages to assume you do not know a lot about accounting. Therefore, most offerings will lead you through the process of setting up a chart of accounts that is appropriate for your business and help you decide which basic reports you should have. Over and above that, most will permit you to prepare the advanced reports and analyses discussed in the following section, as well as custom reports tailored to your specific needs.

There are several sources on the Internet that compare the functions, features, and prices of software packages for accounting to help you make the proper selection. One especially good one is "Accounting Software Review 2009 – TopTenREVIEWS" (Accounting Software Review 2009). Quoting from their website:

"Opening a small business in today's fast-paced economic climate can be an exciting, complicated and expensive endeavor. On the surface, it seems simple—just make sure you're selling your goods for more than it costs to produce them, right? Wrong. Without proper bookkeeping, your blooming company can take an abrupt dive towards bankruptcy.

"This is why accounting is a key component in any small business's success. It should play a role in every financial decision you make—from purchasing vehicles, equipment and supplies to increasing production, stocking inventory and determining salaries.

"But if you, like most people, lack an extensive background in accounting, where do you begin? Today's accounting software has the solution—giving you the tools and the information you need to keep your financial records in check, while aiding you in making the most of your company's cash flow.

"Unfortunately, there are about as many software packages for accounting as there are types of small businesses and determining which one best meets the needs of your company can be a tricky transaction—but that's where we can help.

"Within this site, you'll find [articles on accounting](#) and [comprehensive reviews](#) to help you make an informed decision on which accounting software is right for your business. At TopTenREVIEWS, we do the research so you don't have to!" If you have access to the Internet, we highly recommend exploring this site for ideas on how to move forward with your accounting system.

Here is an excerpt from the website where they compare ten software packages feature by feature. In the table reproduced here, we only show the names of the packages and their prices. For more detail you will need to visit the Accounting Software Review 2009 website itself (see the end of chapter references for the link).

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Table 9: 2009 Accounting Software Review Product Comparisons

Package Name	Overall Ranking	Price in US Dollars
Peachtree Complete	Excellent	\$249.99
MYOB Business Essentials	Very Good Plus	\$99.00
Quickbooks Pro	Very Good	\$178.95
NetSuite Small Business	Very Good	\$1188.00
Cougar Mountain	Very Good	\$1499.00
Bookkeeper	Very Good	\$29.99
Simply Accounting	Good Plus	\$149.99
CYMA IV	Good Plus	\$595.00
Accounting for Windows		
DacEasy	Good Plus	\$499.99
Bottom Line Accounting	Good	\$399.00

As you can see, there is a wide range of prices, from USD 29.99 to USD 1499.00, and the package which sells for USD 29.99 is rated the same as the one that sells for USD 1499.00. Clearly, this shows that some analysis is necessary before settling on a specific accounting software package. You may need to engage the service of a professional accountant or, at least, a colleague who has studied accounting and accounting software packages to help you make the right selection for your business. Here is some good advice from the Accounting Software Review 2009 website:

“With all the accounting software available, it's hard to know which program is the best fit for your business finances. Below are the criteria TopTenREVIEWS used to evaluate small business accounting software.

- **Ease of Use** – We look for finance software that is simple to install, set up, and understand. The best accounting programs make navigating intuitive, so you never have to guess where you are or what to do next.
- **Accounting Modules** – Accounting modules are categories required to successfully maintain your business finances (such as Accounts Payable and Accounts Receivable). Does the accounting software have all the basic accounting modules you'll need? All the bells and whistles of the software aren't relevant if the basics aren't covered. Will the finance software grow with your company? We look for accounting software that lets you grow and customize your system to fit your individual business needs.
- **Reporting Categories** – Consider accounting software that offers a wide range of reports. You should be able to print at least one kind of report for every module. Reporting features are often built into each section, but it's better if you can create reports from anywhere in the program. Customizable reports save you time; look for accounting software that will let you set your own criteria. With detailed financial reporting, you can analyze what is and isn't working for your business.

- **Help Documentation** – Look for email and phone support; toll-free phone and live support, online help is a bonus. Online, we look for indexed help topics that can be searched easily. You'll want quick access for both technical help and accounting help for your software. Accounting software companies should have qualified people (both technicians and accountants) answering these tough questions.

“With the right accounting software, you will be able to manage your company books quickly and easily”.  
(Accounting Software Review 2009)

### Advanced reports and analyses

This section discusses some of the more common reports prepared from an accounting system that have, over the years, proven to be valuable tools for managing a business.

#### Cash flow forecasts

There is a saying in business that “Cash is King”. One of the worst things that can happen to a company is to run short of cash unexpectedly. This can make it difficult to pay suppliers and employees without scurrying around to raise needed cash quickly, and when you must raise cash quickly you often find it a difficult and expensive task. Business owners are not always successful in raising cash quickly and in the worst cases, must go bankrupt. This is why cash flow forecasts are prepared. They are easy to prepare and can be quickly done using a spreadsheet program. They can also be prepared manually. What a cash flow forecast does is estimate cash inputs and outputs over a period of time, usually at least 90 days in order to give you assurance that your business will have the cash necessary to meet its obligations to others. If the cash flow forecast shows, for example, that you are in a deficit position two months out, you will have time to raise the necessary cash you need and avoid a sudden cash crisis. Cash flow forecasts are often prepared for longer periods of time as well, depending on circumstances. In addition, they are often prepared using various assumptions about the future (e.g. general economic conditions, sales growth, increased expenses, etc).

As one authoritative website states: “By knowing your cash position now and in the future, you can:

- Make certain you have enough cash to purchase sufficient inventory for seasonal cycles;
- Take advantage of discounts and special purchases;
- Properly plan equipment purchases for replacement or expansion;
- Prepare for adequate future financing and determine the [type of financing](#) you need (short term credit line, permanent working capital, or long-term debt).
- Show lenders your ability to plan and repay financing.

“For a new or growing business, the cash flow projection can make the difference between succeeding and failure. For an ongoing business, it can make the difference between growth and stagnation”.

Preparing a cash flow projection is a something like preparing your budget and balancing your checkbook at the same time. Unlike the income statement, a cash flow statement deals only with actual cash transactions. Depreciation, a non-cash transaction, does not appear on a cash flow statement. Loan payments (both principal and interest) will appear on your cash flow statement since they require the outlay of cash.

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Cash is generated primarily by sales. But in most businesses, not all sales are cash sales. Even if you have a retail business and a large percentage of your sales are cash, it is likely that you offer credit (charge accounts, charge cards, term payments, layaway, trade credit) to your customers. Thus, you need to have a means of estimating when those credit sales will turn into cash-in-hand. (Smallbusinessnotes.com 2009)

### Working capital analyses

Working capital is commonly defined as the funds a business needs to support its normal operations. In some ways, a working capital analysis is similar to a cash flow forecast, but it differs in its focus on the operating cycle of the business.

Quoting from the website Entrepreneur.com, “the operating cycle analyzes the accounts receivable, inventory and accounts payable cycles in terms of days. In other words, accounts receivable are analyzed by the average number of days it takes to collect an account. Inventory is analyzed by the average number of days it takes to turn over the sale of a product (from the point it comes in your door to the point it is converted to cash or an account receivable). Accounts payable are analyzed by the average number of days it takes to pay a supplier invoice.

“Most businesses cannot finance the operating cycle (accounts receivable days + inventory days) with accounts payable financing alone. Consequently, working capital financing is needed. This shortfall is typically covered by the net profits generated internally or by externally borrowed funds or by a combination of the two.

“Most businesses need short-term working capital loans at some point in their operations. For instance, retailers must find working capital to fund seasonal inventory buildup between September and November for Christmas sales. But even a business that is not seasonal occasionally experiences peak months when orders are unusually high. This creates a need for working capital to fund the resulting inventory and accounts receivable buildup”. (Entrepreneur.com 2009) A working capital analysis is prepared in a manner similar to what we described for a cash flow forecast in that assumptions are made about the impact on working capital as a result of activities during the forecast period in order to provide the business owner with assurance that adequate working capital to support operations will be generated by normal business operations. If not, alternative sources of working capital must be lined up, and the earlier such a need is recognized, the better.

### *Break-even analysis*

A break even analysis is designed to show you how much revenue must be generated to cover your fixed and variable costs. Revenue below the breakeven point means the business is losing money and revenue above the breakeven point means the business is profitable.

Let us look at a simple example, one that assumes your business is selling only one product. In order to calculate the breakeven point you will need to know three things:

- Your fixed costs
- Your variable cost
- Your unit selling price

Once the breakeven point is passed and revenue continues to rise, your business will be profitable. This is why knowing your breakeven point in terms of unit sales is so important. The website [About.com:Entrepreneurs](#) contains an easy to understand formula for calculating your breakeven point:

To conduct your breakeven analysis, take your fixed costs, divided by your price minus your variable costs. As an equation, this is defined as:

$$\text{Breakeven Point} = \text{Fixed Costs} / (\text{Unit Selling Price} - \text{Variable Costs})$$

This calculation will let you know how many units of a product you will need to sell to break even. Once you have reached that point, you have recovered all costs associated with producing your product (both variable and fixed).

Above the breakeven point, every additional unit sold increases profit by the amount of the unit contribution margin, which is defined as the amount each unit contributes to covering fixed costs and increasing profits. As an equation, this is defined as:

$$\text{Unit Contribution Margin} = \text{Sales Price} - \text{Variable Costs}$$

Recording this information in a spreadsheet will allow you to easily make adjustments as costs change over time, as well as play with different price options and easily calculate the resulting breakeven point. You could use a program such as Excel's Goal Seek, if you wanted to give yourself a goal of a certain profit, say USD 1 million, and then work backwards to see how many units you would need to sell to hit that number. (This [online tutorial](#) will show you how to use Goal Seek.)”(About.com: Entrepreneurs 2009).

### Profitability analyses (e.g. by customer, product, region)

There are many types of analyses that managers prepare in order to gain a deeper insight into the operations of their businesses. One of the most important of these is profitability analyses. Managers, know, intuitively, that some customers are more profitable than others, that they make more gross margins on some products than others, and if the business has more than just local coverage, that some geographical regions are more profitable than others. While it is good to know such things intuitively, it is better to know them for sure. And knowing them for sure requires that systematic analyses be prepared.

According to Wikipedia, “Customer profitability (CP) is the difference between the revenues earned from and the costs associated with the customer relationship in a specified period”.

“Although CP is nothing more than the result of applying the business concept of profit to a customer relationship, measuring the profitability of a firm's customers or customer groups can often deliver useful business insights.

“Quite often a very small percentage of the firm's best customers will account for a large portion of firm profit. Although this is a natural consequence of variability in profitability across customers, firms benefit from knowing exactly who the best customers are and how much they contribute to firm profit.

“At the other end of the distribution, firms sometimes find that their worst customers actually cost more to serve than the revenue they deliver. These unprofitable customers actually detract from overall firm profitability. The firm would be better off if they had never acquired these customers in the first place” (Wikipedia 2009e).

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“The biggest challenge in measuring customer profitability is the assignment of costs to customers. While it is usually clear what revenue each customer generated, it is often not clear at all what costs the firm incurred serving each customer”. So, accountants try and develop some sort of reasonable method of allocating fixed and variable costs to customers. A typical method is to analyze each cost and try to determine the proportion attributable to each customer. A simple and clear-cut example is a situation where a store has both walk-in and on-line customers. The costs of renting and maintaining the physical store could reasonably be allocated to the customers who purchase goods in person, based on the number of visits or more likely on the amount of sales to each customer. On-line customers could have the costs of developing and maintaining the website allocated to them. With this information in hand, a customer profitability analysis can be prepared. It is usually prepared in descending order by customer profitability, as illustrated in Exhibit 40:

<b>Your Restaurant Supply Company Year to Date 2009</b>			
Customer Name	Gross Sales	Allocated Costs	<b>Profit</b>
Rose's Restaurant	USD 12000	USD 7000	USD 5000
Bill's Bar B Q	USD 10000	USD 5500	USD 4500
Cal's Coffee Shop	USD 8000	USD 3500	USD 4500
Alice's Cafe	USD 5000	USD 3000	USD 2000
Paul's Pizza Hut	USD 4000	USD 3500	USD 500
Total	USD 39000	USD 22500	USD 16500

Exhibit 40: Customer Profitability Analysis

Assume you are the owner of the restaurant supply company illustrated in the exhibit. What kinds of useful information can you gather from an analysis such as this?

Many companies prepare a similar type of analysis at the gross margin level and skip the step of trying to allocate costs to individual customers. In this case, cost of goods sold is substituted for “allocated costs” in column three of Exhibit 40, and column four will show gross margin by customer instead of profitability by customer. For many managers, gross margin by customer gives them the essential information they need without going through the additional step of trying to allocate costs to customers, which is clouded by its inherent inaccuracies.

### **Budgets, forecasts, and alternative scenarios**

#### **Budgets**

Earlier, we discussed cash flow forecasts and how they are used. An extension of the cash flow forecast concept is the operating budget. Most organizations have them. A budget is the financial expression of an organization's operating plan for a period of time, usually at least a year. Prior to the beginning of the year, managers prepare a plan for what they hope to accomplish in the coming year in terms of revenue, expenses, and net profit.

A more formal definition of a budget is:



“A **budget** is a financial document used to project future income and expenses. The budgeting process may be carried out by individuals or by companies to estimate whether the person/company can continue to operate with its projected income and expenses.

A budget may be prepared simply using paper and pencil, or on computer using a spreadsheet program like Excel, or with a financial application like Quicken or QuickBooks.

The process for preparing a monthly budget includes:

- Listing of all sources of monthly income
- Listing of all required, fixed expenses, like rent/mortgage, utilities, phone
- Listing of other possible and variable expenses”. (Biztaxlaw.about.com 2009)

Then, as the year unfolds, actual income and expenses are posted to the accounting records, and compared to what was budgeted, and a variance from budget for each item budgeted (e.g. sales, selling expenses, advertising costs, etc) is calculated. Managers responsible for the various income and expense items then examine each variance and, if it is substantial, search for an explanation. For example, it is one thing if electricity costs are 20 per cent higher than what was budgeted for one month because workmen were using power tools to repair the roof. In that case, we can expect costs to return to normal when the repair work is completed. It is quite another thing if costs are higher because the electric company raised its rates. In that case, we can expect that costs will be at least 20 per cent higher in the future.

### Forecasts

Most organizations take budget variance to date into consideration each month, and then prepare a *revised budget (or forecast)* for the balance of the year. This step is particularly important if variances to date vary from the original budget in a major way. For example, if sales are less than projected because market conditions are less favorable than anticipated when the budget was prepared, managers may look for ways to increase sales or reduce expenses in order to avoid a loss for the year.

### Scenarios

There are many other forecasts that managers ask for in order to try and anticipate what the future might hold so they can prepare contingency plans in case of unforeseen events. Examples of unforeseen events that may well affect future outcomes are the arrival of a new competitor, a change in the overall economic outlook which could affect costs and/or revenues either positively or negatively, or even the arrival of a new company in another line of business that could raise prevailing wage rates in your region.

So, what managers like to do is to develop forecasts of sales, costs, cash, profits, interest rates and the like using different assumptions which, of course, result in different outcomes, some good and some bad. Another word for such forecasts is *scenarios*. For example, let us assume that a forecast of the income statement for a business at the end of the year assumes that sales will grow by 8 per cent over the previous year and costs will grow by 6 per cent. A manager might ask for an alternative scenario where sales increase by 12 per cent and costs increase by 9 per cent and another scenario where sales decrease by 3 per cent and costs increase by 1 per cent.

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The Wall Street Journal had a story recently on how businesses use scenarios for planning purposes. Quoting from it: “Each spring, executives at JDS Uniphase Corp. plan for three potential sales scenarios for the coming fiscal year, which begins in July. Last year, rattled by financial-market turmoil, they included an extremely pessimistic sales outlook and outlined potential cost cuts.

“The planning proved useful when the economy stalled and customers began delaying orders later in the year. “We knew what levers to pull”, says Dave Vellequette, chief financial officer at the Milpatis, Calif., maker of fiber-optic telecommunications equipment.

“The experience highlights the value of scenario planning, or preparing responses to imagined changes in conditions. “It’s not about predicting the future”, says Peter Schwartz, a partner at Monitor Group, a Cambridge, Mass. Consulting firm. “Scenario planning is a tool for learning” and making better decisions.” (Wall Street Journal 2009).

### Sources of financing for your organization

Once you have your accounting system established, you can take your plans for the initial months and years of operation of your organization, and prepare scenarios of the financial results of operations for your own peace of mind or as documents to discuss with potential investors. Keep in mind that potential investors are interested in something they call the “path to profitability” or P2P. In other words, while they expect that your organization will not be profitable immediately, they will want some assurance that it will be profitable relatively soon before they help you get started. While potential investors may like you as an individual, they want to be sure they will get a return on their investment. The way you do this is to go over your business plan with them, including the financial analyses that shows them the path to profitability. They will ask you questions to make sure your assumptions are reasonable, so make sure you do your “homework” in advance, anticipate their questions, and have good answers ready for them. The author of Chapter 2 discussed several possible sources you can explore to obtain the start-up financing you will need:

- savings
- friends and family
- micro-financers
- governmental support
- barter
- bank loans
- networking
- online network
- memberships

**Savings:** If you have been saving your money and have accumulated enough to provide the funds you need to finance your start-up, this is the best way for you to go. It can be difficult to convince third parties that your start-up is a good investment, and, in some cases, you may have to relinquish some degree of ownership (and

management control) over your business to an investor. This can lead to disagreements which, if serious enough, could cause your investor to demand his or her money returned to them at an inconvenient time.

However, only a small percentage of entrepreneurs are fortunate enough to be able to fund their start-up costs with personal funds, so most are forced to seeking funding elsewhere. Many entrepreneurs in the US, for example borrow from their credit cards or take out a higher mortgage on their homes to avoid having to get funds from others. While this is common, it can result in personal financial disaster if the start-up fails.

**Friends and family:** Asking friends and families to invest is another common way that start-ups are funded. Often the potential entrepreneur is young, energetic, and has a good idea for a start-up, but does not have much in the way of personal savings. Friends and family may be older and have some money set aside. While your parents, or other family members should not risk all of their retirement savings on your start-up, they may be willing to risk a small percentage of it to help you out. Sometimes friends your own age are willing to work for little or no wages until your cash flow turns positive. The term “sweat equity” is often used for this type of contribution as the owner will often reward such loyalty with a small percentage ownership of the organization in lieu of cash. A variation on this is **barter** or trade. As mentioned in Chapter 1, this is a method by which you could provide a needed service such as consulting/management advice in return for the resources needed for your start up. This needs to be accounted for in your accounting records also.

**Networking, online networks, and memberships** all can be ways of meeting managers who have either successfully launched a star-up or who are in the process of moving their organization forward on the “path to profitability”. Adding to some of the examples given in Chapter 1, you may wish to consider your local chamber of commerce, a Rotary Club, or a local organization comprised of entrepreneurs. For example, if your start-up is located in Africa, the Africa Business Communities portal could be a good source for you to locate networking opportunities in your community. According to their website:

“The African continent is enjoying a period of unprecedented economic growth. The idea that business is the key to sustainable development in Africa is gaining ground rapidly worldwide.

“Africa Business Communities is a portal website that brings the visitor into the heart of the African economy, by granting access to African entrepreneurs. Currently Africa Business Communities hosts 35 Africa business networks, in the future that will be hundreds”. (African Business Communities 2009).

**Bank loans** (as stated in Chapter 1) “are not usually available to early-stage entrepreneurs unless you have a track record of a previous success and/or the assets to put up (as collateral) such as a home you own in return for securing the bank loan”.

**Angel investors, venture capitalists:** Venture capitalists are usually not interested in start-ups. They tend to invest in young companies after they have demonstrated that they are clearly on a path to profitability and they need additional capital to help them grow quickly. Angel investors, on the other hand, are interested in start-up companies and, unlike venture capitalists who tend to seek control of the organization, angel investors like to leave management of the organization to its founder(s). Angel investors are always available to provide advice and counsel, however. This can be extremely valuable to a young entrepreneur as angel investors are usually successful entrepreneurs themselves. For example, a recent article in Business Week magazine describes a USD 300 million

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angel investment firm co-founded by Marc Andreessen, of Netscape Communications fame. Named Andreessen Horowitz, the firm's investors (in addition to Andreessen's business partner Ben Horowitz) include "prominent tech industry players including Reid Hoffman, founder of the social networking site LinkedIn, and Peter Thiel, former CEO of the payment service PayPal". The article goes on to say that "Andreessen Horowitz is expected to concentrate on making investments in technology, with an emphasis on corporate services and Internet businesses that cater to consumers. Investors who have heard the firm's pitch say it is adopting a "super angel" strategy in which a modest-size venture firm invests morsels of money into many startups. "They want to sprinkle as many seeds in the ground as possible," says one investor who was approached to invest in the firm but declined".

"There's a twist though: While most super angels finance the first round of a startup and work closely with the company to launch a product, the investor says Andreessen and Horowitz told him they intend to take a more hands-off approach: They'll invest in 70 or 80 companies with minimal involvement in most, and then double or triple down on the dozen or so winners that emerge. The strategy will allow Andreessen to back many more startups than the average venture firm, but with less control" (BusinessWeek.com 2009).

**Micro-financers** If you do the Google search suggested in Chapter 1 you will find a number of organizations that give small loans to budding entrepreneurs in developing economies. One such example is Microfinancing Partners in Africa. Here is a quote from their website where they describe their program:

"Microfinancing Partners in Africa (MPA) develops sustainable businesses and economically viable communities. We work with community-based organizations to create and support funding systems that furnish small, collateral-free, low-interest business loans. Grants are given to organizations that provide business, health and nutrition classes.

"Very often, all that is required are loans as small as \$20 to bring a business into full production. Realistic microfinancing terms, comprehensive training and the development of a community-based support network result in a high percentage of on-time repayments. This funding system provides the financial basis for the provision of additional training, loans and business creation.

"Ultimately, these thriving business communities provide the economic foundation for community development projects, including schools, health centers, power sources, etc." (Microfinancing Partners in Africa 2009)

The one aspect of microfinancers is that their loans are truly "micro". They may be too small to be helpful in getting your business started. But, you never know. Microfinancing organizations can be a good place to start, and if your needs exceed their normal limits they may be able to refer you to other sources of funding. There may be microfinancing resources available through UN programs, Rotary.org and other sources.

Finally, **governmental support** is also a possibility. As an example, here is a quote from a website describing government grants available to start-ups in the US, along with some of the reasons why the US government is allocating federal funds to private business start-ups:

"Economic development is very important for every country. The economic conditions are unpredictable and volatile and so every country needs all the help it can get to improve its overall standing. Businesses are the major contributors to the success of the economy and so the government is always willing to extend the needed financial aid.

“Some entrepreneurs are hesitant to get assistance from the government. But if you're one of those entrepreneurs with capital problems, don't hesitate to ask for help from the government. The government has a huge fund allocation for the grants. If you want to know more about the government grants, you can simply log on to the internet and search for these entrepreneur grants.

“Before an entrepreneur decides to put up a business, he conducts a lot of studies to determine if the business is feasible or not. If he can prove the feasibility of his business proposal, the government will immediately provide the needed capital assistance through the entrepreneur grants.

“If the working capital that you've raised from family, relatives, and friends are insufficient, try to contact the local government and ask for the requirements in order to avail the government entrepreneur grant. You can either do this online or you can visit the physical office of the local government of your state or country”. (BusinessStartUpAssistance.com 2009)

Does your country have a program of assistance for entrepreneurs?

### Chapter summary

In this chapter we discussed the importance of having a well-designed accounting system for your organization as well as the distinction between financial and managerial accounting. While both financial and managerial accounting statements and reports are required and important, managerial accounting statements and reports are more likely to contain the kinds of information you will need to help manage the operations of your organization.

We explained the six different types of accounts, their characteristics, and how they are used to create a detailed chart of accounts which is tailored to the specific needs of your organization. Next we covered the advantages of the system of double-entry bookkeeping and how, together with ledgers and other accounting records, it enhances the accuracy of information maintained in an accounting system, whether it is manual or computer-based.

Next, since the cost of computers and software has dropped to the point where even many small organizations can afford them, we covered some of the accounting software packages that are available, their costs, criteria for selection, and the advantages of using them.

Finally, we discussed the common options for obtaining funds for your start-up organization, some of the pros and cons of each, and the advantage you will have in approaching lenders or investors with accounting reports that demonstrate a clear path to profitability.

### Discussion questions

- Explain the difference between financial accounting and managerial accounting. Which one is most important to owner/managers of a start-up organization and why?
- List and give examples of the six basic types of accounts. What are the characteristics of each?
- Why is it important to have a chart of accounts that is tailored to particular types of organizations rather than one chart of accounts that applies to all types of organizations?
- Where can you find sample charts of accounts that apply to your type of organization?
- Explain the advantages of double-entry bookkeeping. Do you agree with Goethe's description of double-entry bookkeeping as Goethe as "one of the most beautiful discoveries of the human spirit"?

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- Please discuss the advantages and disadvantages of using computer software packages for your accounting system.
- What sort of difficulty can you imagine the manager of an organization would be in if the organization did not routinely prepare cash flow forecasts and working capital analyses?
- Why is it important for managers to understand the concept of a break-even point?
- Please give examples of how information from a customer profitability report could be used?
- Why is it important for an organization to prepare and use a budget (or financial plan)?
- Please give examples of alternative scenarios an organization should prepare and how they might be used.

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