Getting Personal with GYMFLOW

Co-Founders

JIMMY LIU

BS in Entrepreneurship and Finance, University of Southern California, Summer 2013

JIANGYANG ZHANG

PhD in Engineering, University of Southern California, Spring 2014

Dialogue with Jimmy Liu

BEST ADVICE I'VE RECEIVED
Fail hard, fail fast

MY BIGGEST WORRY AS AN ENTREPRENEUR
Making it to the next month

MY BIGGEST SURPRISE AS AN ENTREPRENEUR
How little "guarding the company's secrets" matters

FIRST ENTREPRENEURIAL EXPERIENCE
Selling paper airplanes for $0.10 apiece in 1st grade

BEST PART OF BEING A STUDENT
Playing the student card with potential customers

CHAPTER 8

Assessing a New Venture's *Financial Strength* and Viability

OPENING PROFILE

GYMFLOW

Managing Finances Prudently

• *Web: www.mygymflow.com* • *Facebook: Gymflow* • *Twitter: @mygymflow*

Have you ever gone to a gym only to have your heart sink because the machines you planned to work out on were already in use? If so, you would be interested in joining a gym that features GymFlow. GymFlow is a mobile app that helps people determine before they show up just how crowded a gym is. It works by tapping into a gym's IT center to provide real-time traffic data.

GymFlow is the creation of Jimmy Liu and Jiangyang Zhang, two USC students. In the nearby photo, Jiangyang Zhang is on the left and Jimmy Liu is on the right. Liu was a double major in entrepreneurship and finance, while Zhang was a PhD student in engineering. The two met in fall 2012, in USC's Viterbi School of Engineering's "Building the High Tech Startup" course. The course combines business and engineering students to conceive and develop new product ideas. Liu and Zhang identified a two-sided problem that gyms face. Gym members are often frustrated when they show up at the gym and it's more crowded than they anticipated. At the same time, gym owners are frustrated by low retention rates. About 40 percent of the people who belong to gyms turn over every year. This is a huge problem for gyms. If a gym has 1,000 members, it must gain 400 new members a year just to stay even.

To solve the two-sided problem that gyms and its members face, Liu and Zhang developed a mobile app called GymFlow. Although there are now over one million apps in the Apple App Store alone, Liu and Zhang found a gap. There was no app that accurately showed how busy a gym was at any given point in time. GymFlow was set up to do two things. First, show the user in real time how crowded a particular gym is. And second, forecast future traffic flows to help the user plan workouts and avoid waiting time for equipment at the gym. The benefit to the gym would be more satisfied users, a smoothing out of when people come to the gym, and higher member retention. The app would be free to the member. Gyms would be charged for the back-end technology needed to make the system work. The app would have no ads. Liu and Zhang wanted the user experience to be as high quality as possible.

LEARNING OBJECTIVES

After studying this chapter you should be ready to:

1. Learn about the importance of understanding the financial management of an entrepreneurial firm.
2. Identify the four main financial objectives of entrepreneurial ventures.
3. Describe the process of financial management as used in entrepreneurial firms.
4. Explain the difference between historical and pro forma financial statements.
5. Describe the different historical financial statements and their purposes.
6. Discuss the role of forecasts in projecting a firm's future income and expenses.
7. Explain the purpose of pro forma financial statements.

After the class concluded, Liu and Zhang decided to pursue GymFlow further. From the beginning, they were mindful of the costs and financials involved. To make sure they were on the right track, the two talked to both gyms and gym members prior to spending any money. They found that gym members saw the value of the app instantly. Gym owners were a tougher sell. Still, the feedback was sufficiently positive to move forward. Early 2013 was spent building the app. Zhang, a former Google employee, had programming skills that he used to write the code for the app himself. The pair's first funding was $20,000 in cash from the Virerbi Startup Garage, a start-up accelerator affiliated with USC. GymFlow was one of 10 USC start-ups, out of 100 applicants, accepted into the accelerator. Beyond the money, the accelerator program provided Liu and Zhang access to mentors and an entrepreneurial network to plug into. An additional $5,000 came from an innovation grant and another $5,000 came from winning a pitch competition.

To avoid loan payments or pressure to grow quickly from investors, Liu and Zhang decided to rely on the money mentioned above and bootstrap the remaining costs needed to get GymFlow up and running. While their initial plan was to work on GymFlow full time, they decided to pursue the venture part time and maintain jobs on the side. Prior to marketing GymFlow beyond USC, Liu and Zhang conducted a pilot study at USC's Lyon Recreational Center. The first month that GymFlow was available it was downloaded by 2,000 USC students and was used over 20,000 times. The pilot test was successful and provided Liu and Zhang the confidence to press forward and market GymFlow to a wider audience.

As of August 2014, GymFlow was in seven gyms on three college campuses, all in Southern California. The company has encouraging prospects for expansion, not only in the United States but abroad. Liu and Zhang remain focused on GymFlow's finances. One thing that's helped them, particularly from a cash flow standpoint, is that the app required very little capital to build and the company started earning revenue as soon as the first GymFlow system was deployed. As a result, GymFlow has not experienced the type of cash-flow gaps that B2B (business-to-business) companies often experience when they incur substantial up-front expenses for a product run or job, and then have to wait 30 to 60 days to get paid. While Liu and Zhang did not write a formal business plan, they did complete financial projections, which they felt were useful. They have found that projecting future income is one of their most difficult challenges. They've also found that this is one of the most important things an entrepreneur can do. Other things have worked to Liu and Zhang's advantage when it comes to managing finances. For example, selling via the Apple App Store and Google Play (primary source for Android Apps) is an advantage for an app-based company. Apple and Google Play essentially act as GymFlow's distributor for the app. This relieves a company like GymFlow of the financial burden of building its own distribution platform.

In terms of overall financial management, Liu and Zhang are comfortable with where GymFlow is today. Many lessons have been learned, however, about the importance of cash flow and the need for sharp financial management for a growing company.

In this chapter, we'll look at how new ventures manage their finances and assess their financial strength and viability. For the purposes of completeness, we'll look at how both existing firms and entrepreneurial ventures accomplish these tasks. First, we'll consider general financial management and discuss the financial objectives of a firm and the steps involved in the financial management process. **Financial management** deals with two activities: raising money and managing a company's finances in a way that achieves the highest rate of return.[1] We cover the process of raising money in Chapter 10. This chapter focuses on how a company manages its finances in an effort to increase its financial strength and earn the highest rate of return. Next, we'll examine how existing firms track their financial progress through preparing, analyzing, and maintaining past financial statements. Finally, we'll discuss how both existing firms and start-up ventures forecast future income and expenses and how the forecasts are used to prepare pro forma (i.e., projected) financial statements. Pro forma financial statements, which include the pro forma income statement, the pro forma balance sheet, and the pro forma statement of cash flows, are extremely helpful to firms in financial planning.

Introduction to Financial Management

LEARNING OBJECTIVE

1. Learn about the importance of understanding the financial management of an entrepreneurial firm.

An entrepreneur's ability to pursue an opportunity and turn the opportunity into a viable entrepreneurial firm hinges largely on the availability of money. Regardless of the quality of a product or service, a company can't be viable in the long run unless it is successful financially. Money either comes from external sources (such as investors or lenders) or is internally generated through earnings. It is important for a firm to have a solid grasp of how it is doing financially. One of the most common mistakes young entrepreneurial firms make is not emphasizing financial management and putting in place appropriate forms of financial controls.[2]

Entrepreneurs and those managing established companies must be aware of how much money they have in the bank and if that amount is sufficient to satisfy their firm's financial obligations. Just because a firm is successful doesn't mean that it doesn't face financial challenges.[3] For example, many of the small firms that sell their products to larger companies such as Apple, General Electric (GE), and The Home Depot aren't paid for 30 to 60 days from the time they make a sale. Think about the difficulty this scenario creates. The small firm must buy parts, pay its employees, pay its routine bills, build and ship its products, and then wait for one to two months for payment. Unless a firm manages its money carefully, it is easy to run out of cash, even if its products or services are selling like hotcakes.[4] Similarly, as a company grows, its cash demands often increase to service a growing clientele. It is important for a firm to accurately anticipate whether it will be able to fund its growth through earnings or if it will need to look for investment capital or borrowing to raise needed cash.

The financial management of a firm deals with questions such as the following on an ongoing basis:

- How are we doing? Are we making or losing money?
- How much cash do we have on hand?
- Do we have enough cash to meet our short-term obligations?
- How efficiently are we utilizing our assets?
- How do our growth and net profits compare to those of our industry peers?
- Where will the funds we need for capital improvements come from?
- Are there ways we can partner with other firms to share risk and reduce the amount of cash we need?
- Overall, are we in good shape financially?

A properly managed firm stays on top of the issues suggested by these questions through the tools and techniques that we'll discuss in this chapter.

Financial Objectives of a Firm

LEARNING OBJECTIVE

2. Identify the four main financial objectives of entrepreneurial ventures.

Most entrepreneurial firms—whether they have been in business for several years or they are start-ups—have four main financial objectives: profitability, liquidity, efficiency, and stability. Understanding these objectives sets a firm on the right financial course and helps it track the answers to the previously posed questions. Figure 8.1 describes each of these objectives.

Profitability is the ability to earn a profit. Many start-ups are not profitable during their first one to three years, while they are training employees and building their brands, but a firm must become profitable to remain viable and provide a return to its owners.

Liquidity is a company's ability to meet its short-term financial obligations. Even if a firm is profitable, it is often a challenge to keep enough money in the bank to meet its routine obligations in a timely manner. To do so, a firm must keep a close watch on accounts receivable and inventories. A company's **accounts receivable** is money owed to it by its customers. Its **inventory** is its merchandise, raw materials, and products waiting to be sold. If a firm allows the levels of either of these assets to get too high, it may not be able to keep sufficient cash on hand to meet its short-term obligations.[5]

Efficiency is how productively a firm utilizes its assets relative to its revenue and its profits. Southwest Airlines, for example, uses its assets very productively. Its turnaround time, or the time that its airplanes sit on the ground while they are being unloaded and reloaded, is the lowest in the airline industry. As Southwest officials are quick to point out, "Our planes don't make any money sitting on the ground—we have to get them back into the air."[6]

Stability is the strength and vigor of the firm's overall financial posture. For a firm to be stable, it must not only earn a profit and remain liquid but also keep its debt in check. If a firm continues to borrow from its lenders and its **debt-to-equity ratio**, which is calculated by dividing its long-term debt by its shareholders' equity, gets too high, it may have trouble meeting its obligations and securing the level of financing needed to fuel its growth.

An increasingly common way that small companies improve their prospects across several of these areas is to join buying groups or co-ops, where businesses band together to attain volume discounts on products and services. Gaining access to products and services this way facilitates smaller firms' efforts to compete on more of a "level playing field" with larger, more established companies. The way buying groups work, and how they're able to help businesses cut costs without adversely affecting their competitiveness, is described in this chapter's "Partnering for Success" feature.

The Process of Financial Management

LEARNING OBJECTIVE

3. Describe the process of financial management as used in entrepreneurial firms.

To assess whether its financial objectives are being met, firms rely heavily on analyses of financial statements, forecasts, and budgets. A **financial statement** is a written report that quantitatively describes a firm's financial health.

FIGURE 8.1
Primary Financial Objectives of Entrepreneurial Firms

Profitability	Liquidity	Efficiency	Stability
A company's ability to make a profit	A company's ability to meet its short-term obligations	How productively a firm utilizes its assets	The overall health of the financial structure of the firm, particularly as it relates to its debt-to-equity ratio

PARTNERING FOR SUCCESS

Organizing Buying Groups to Cut Costs and Maintain Competitiveness

One challenge that businesses confront is cutting costs in ways that do not erode their ability to remain competitive. Many cost-cutting techniques, such as scaling back on hiring, lowering marketing expenses, or reducing inventory, may save money but may also decrease a business's chances of remaining competitive. Joining or organizing a buying group is one technique that can help to conserve a product-based business's financial assets without adverse side effects.

A buying group, or buying co-op, is a partnership that bands small businesses and start-up firms together to attain volume discounts on products and services. An example is Intercounty Appliance, a buying co-op for 105 independent appliance stores in the Northeast. The co-op aggregates the purchasing power of its members to get volume discounts on appliances and other items such as flat-screen TVs. A similar buying group is ADO, a group that services eye care professionals. ADO Buying Group has relationships with a large number of vendors to obtain discount prices on glasses, contacts, and other supplies for its members.

An example of a much larger buying co-op is the Independent Pharmacy Cooperative (IPC) which was founded in Madison, Wisconsin, in 1984. It has since grown into the nation's largest purchasing organization for independent pharmacies with over 4,500 pharmacy members. IPC is one of the major reasons that independent pharmacies are able to compete against Walgreens, Walmart, and CVS. There are similar buying co-ops in other industries.

The beauty of buying groups is that they generally allow businesses to obtain the exact same product for a lower price, with no undesirable impact (other than the membership fee) on the other parts of their operations. The money that's freed up can go directly to a business's bottom line or be used to invest in customer service or other methods to increase competitiveness. There is no national directory of industry buying groups. The best way to find out whether there are buying groups servicing an industry is to conduct Internet research and ask industry participants.

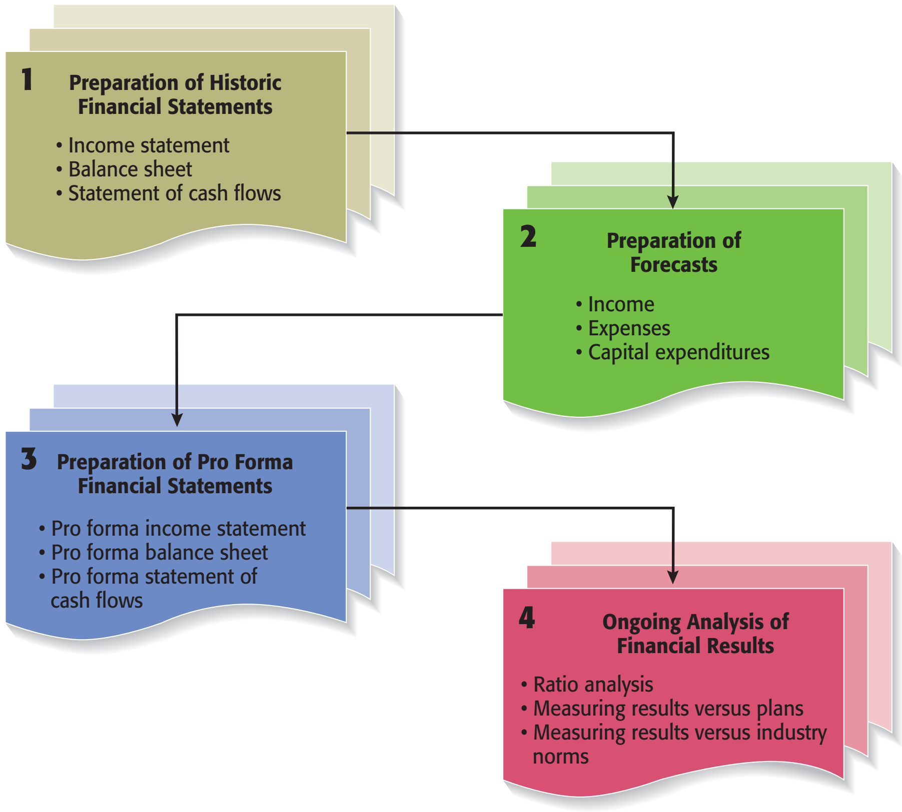
Questions for Critical Thinking

1. Which of the four financial objectives of a firm, profitability, liquidity, efficiency, or stability, does participating in a buying cooperative contribute to the most?
2. Do some Internet and/or library research to try to discern whether there is a small business buying group or groups that New Venture Fitness Drinks, the fictitious company introduced in Chapter 3 and used as an example throughout this chapter, could benefit from. New Venture Fitness Drinks's products contain all the ingredients used to make smoothies and similar fitness drinks and shakes.
3. Identify three ways, other than buying cooperatives, that small businesses partner with other small businesses to cut costs without sacrificing their competitiveness.
4. In an effort to improve the financial position of their firms, do you think the majority of entrepreneurs spend an equal amount of time focusing on (1) cost cutting and (2) increasing revenues? If not, which of the two do you think they spend more time on and why?

The income statement, the balance sheet, and the statement of cash flows are the financial statements entrepreneurs use most commonly. **Forecasts** are an estimate of a firm's future income and expenses, based on its past performance, its current circumstances, and its future plans.[7] New ventures typically base their forecasts on an estimate of sales and then on industry averages or the experiences of similar start-ups regarding the cost of goods sold (based on a percentage of sales) and on other expenses. **Budgets** are itemized forecasts of a company's income, expenses, and capital needs and are also an important tool for financial planning and control.[8]

The process of a firm's financial management is shown in Figure 8.2. It begins by tracking the company's past financial performance through the preparation and analysis of financial statements. These statements organize and report the firm's financial transactions. They tell a firm how much money it is making or losing (income statement), the structure of its assets and liabilities (balance sheet), and where its cash is coming from and going (statement of cash flows). The statements also help a firm discern how it stacks up against its competitors and industry norms. Most firms look at two to three years of past financial statements when preparing forecasts.

FIGURE 8.2
The Process of Financial Management



The next step is to prepare forecasts for two to three years in the future. In turn, forecasts are used to prepare a firm's pro forma financial statements, which, along with its more fine-tuned budgets, constitute its financial plan.

The final step in the process is the ongoing analysis of a firm's financial results. **Financial ratios**, which depict relationships between items on a firm's financial statements, are used to discern whether a firm is meeting its financial objectives and how it stacks up against its industry peers. These ratios are also used to assess trends. Obviously, a completely new venture would start at step 2 in Figure 8.2. It is important that a new venture be familiar with the entire process, however. Typically, new ventures prepare financial statements quarterly so that as soon as the first quarter is completed, the new venture will have historic financial statements to help prepare forecasts and pro forma statements for future periods.

It is important for a firm to evaluate how it is faring relative to its industry. Sometimes raw financial ratios that are not viewed in context are deceiving. For example, a firm's past three years' income statements may show that it is increasing its sales at a rate of 15 percent per year. This number may seem impressive—until one learns that the industry in which the firm competes is growing at a rate of 30 percent per year, showing that the firm is steadily losing market share.

Many experienced entrepreneurs stress the importance of keeping on top of the financial management of a firm. In the competitive environments in which most firms exist, it's simply not good enough to shoot from the hip when making financial decisions. Reinforcing this point, Bill Gates, the founder of Microsoft, said,

> The business side of any company starts and ends with hard-core analysis of its numbers. Whatever else you do, if you don't understand what's happening in your business factually and you're making business decisions based on anecdotal data or gut instinct, you'll eventually pay a big price.[9]

Financial Statements

LEARNING OBJECTIVE

4. Explain the difference between historical and pro forma financial statements.

Historical financial statements reflect past performance and are usually prepared on a quarterly and annual basis. Publicly traded firms are required by the Securities and Exchange Commission (SEC) to prepare financial statements and make them available to the public. The statements are submitted to the SEC through a number of required filings. The most comprehensive filing is the **10-K**, which is a report similar to the annual report except that it contains more detailed information about the company's business.[10] The 10-K for any publicly traded firm is available at www.freeedgar.com.

Pro forma financial statements are projections for future periods based on forecasts and are typically completed for two to three years in the future. Pro forma financial statements are strictly planning tools and are not required by the SEC. In fact, most companies consider their pro forma statements to be confidential and reveal them to outsiders, such as lenders and investors, only on a "need-to-know" basis.

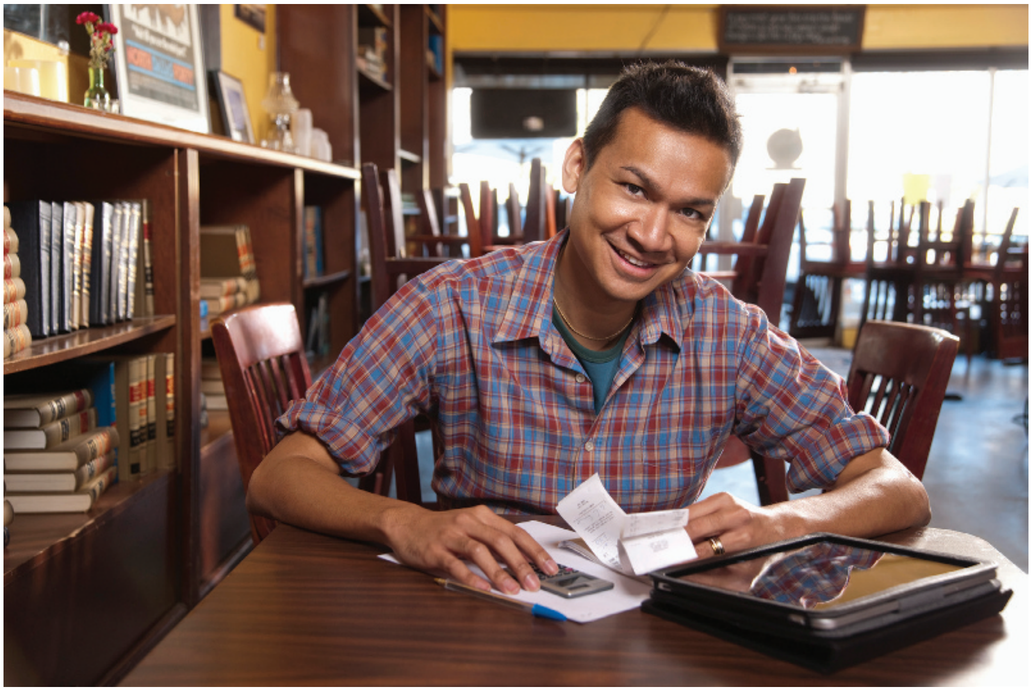
To illustrate how these financial instruments are prepared, let's look at New Venture Fitness Drinks, the fictitious sports drink company to which you were introduced in Chapter 3. New Venture Fitness Drinks has been in business for five years. Targeting sports enthusiasts, the company sells a line of nutritional fitness drinks. It opened a single location in 2012, added a second location in 2014, and plans to add a third in 2015. The company's strategy is to place small restaurants, similar to smoothie restaurants, near large outdoor sports complexes. The company is profitable and is growing at a rate of 25 percent per year.

Historical Financial Statements

LEARNING OBJECTIVE

5. Describe the different historical financial statements and their purposes.

Historical financial statements include the income statement, the balance sheet, and the statement of cash flows. The statements are usually prepared in this order because information flows logically from one to the next. In start-ups, financial statements are typically scrutinized closely to monitor the financial progress of the firm. On the rare occasion when a company has not used financial



DreamPictures/Blend Images/Corbis

Keeping good records is the first step toward prudent financial management. This entrepreneur, who is the owner of a barbeque restaurant, takes a minute at the end of a busy day to add several receipts to his records.

statements in planning, it should prepare and maintain them anyway. If a firm goes to a banker or investor to raise funds, the banker or investor will invariably ask for copies of past financial statements to analyze the firm's financial history. If a firm does not have these statements, it may be precluded from serious consideration for an investment or a loan. Let's look at each of these statements.

Income Statement The **income statement** reflects the results of the operations of a firm over a specified period of time.[11] It records all the revenues and expenses for the given period and shows whether the firm is making a profit or is experiencing a loss (which is why the income statement if often referred to as the "profit-and-loss statement"). Income statements are typically prepared on a monthly, quarterly, and annual basis. Most income statements are prepared in a multiyear format, making it easy to spot trends.

The consolidated income statement for the past three years for New Venture Fitness Drinks is shown in Table 8.1. The value of the multi period format is clear. It's easy to see that the company's sales are increasing at the rate of about 25 percent per year, it is profitable, and its net income is increasing. The numbers are used to evaluate the effect of past strategies and to help project future sales and earnings.

The three numbers that receive the most attention when evaluating an income statement are the following:

- **Net sales: Net sales** consist of total sales minus allowances for returned goods and discounts.
- **Cost of sales (or cost of goods sold): Cost of sales** includes all the direct costs associated with producing or delivering a product or service, including the material costs and direct labor. In the case of New Venture

TABLE 8.1 Consolidated Income Statements for New Venture Fitness Drinks, Inc.

	December 31, 2014	December 31, 2013	December 31, 2012
Net sales	$586,600	$463,100	$368,900
Cost of sales	268,900	225,500	201,500
Gross profit	317,700	237,600	167,400
Operating expenses			
Selling, general, and administrative expenses	117,800	104,700	90,200
Depreciation	13,500	5,900	5,100
Operating income	186,400	127,000	72,100
Other income			
Interest income	1,900	800	1,100
Interest expense	(15,000)	(6,900)	(6,400)
Other income (expense), net	10,900	(1,300)	1,200
Income before income taxes	184,200	119,600	68,000
Income tax expense	53,200	36,600	18,000
Net income	131,000	83,000	50,000
Earnings per share	1.31	0.83	0.50

Fitness Drinks, this would include the ingredients that go into the fitness drinks and the labor needed to produce them.

- **Operating expenses: Operating expenses** include marketing, administrative costs, and other expenses not directly related to producing a product or service.

One of the most valuable things that entrepreneurs and managers do with income statements is to compare the ratios of cost of sales and operating expenses to net sales for different periods. For example, the cost of sales for New Venture Fitness Drinks, which includes the ingredients for its fitness drinks and the labor needed to make them, has been 55, 49, and 46 percent of sales for 2012, 2013, and 2014, respectively. This is a healthy trend. It shows that the company is steadily decreasing its material and labor costs per dollar of sales. This is the type of trend that can be noticed fairly easily by looking at a firm's multiyear income statements.

Profit margin is a ratio that is of particular importance when evaluating a firm's income statements. A firm's **profit margin**, or return on sales, is computed by dividing net income by net sales. For the years 2012, 2013, and 2014, the profit margin for New Venture Fitness Drinks has been 13.6, 17.9, and 22.3 percent, respectively. This is also a healthy trend. A firm's profit margin tells it what percentage of every dollar in sales contributes to the bottom line. An increasing profit margin means that a firm is either boosting its sales without increasing its expenses or that it is doing a better job of controlling its costs. In contrast, a declining profit margin means that a firm is losing control of its costs or that it is slashing prices to maintain or increase sales.

One ratio that will not be computed for New Venture Fitness Drinks is **price-to-earnings ratio, or P/E ratio**. New Venture Fitness Drinks is incorporated, so it has stock, but its stock is not traded on a public exchange such as the NASDAQ or the New York Stock Exchange. P/E is a simple ratio that measures the price of a company's stock against its earnings.[12] Generally, the higher a company's price-to-earnings ratio goes, the greater the market thinks it will grow. In 2014, New Venture Fitness Drinks earned $1.31 per share. If it was listed on the NASDAQ and its stock was trading at $20 per share, its P/E would be 15.3. This is what is meant when you hear that a company is selling for "15 times earnings."

The importance of looking at several years of income statements rather than just one is illustrated in this chapter's "Savvy Entrepreneurial Firm" feature.

Balance Sheet Unlike the income statement, which covers a specified *period* of time, a **balance sheet** is a snapshot of a company's assets, liabilities, and owners' equity at a specific *point* in time.[13] The left-hand side of a balance sheet (or the top, depending on how it is displayed) shows a firm's assets, while the right-hand side (or bottom) shows its liabilities and owners' equity. The assets are listed in order of their "liquidity," or the length of time it takes to convert them to cash. The liabilities are listed in the order in which they must be paid. A balance sheet must always "balance," meaning that a firm's assets must always equal its liabilities plus owners' equity.[14]

The major categories of assets listed on a balance sheet are the following:

- **Current assets: Current assets** include cash plus items that are readily convertible to cash, such as accounts receivable, marketable securities, and inventories.
- **Fixed assets: Fixed assets** are assets used over a longer time frame, such as real estate, buildings, equipment, and furniture.
- **Other assets: Other assets** are miscellaneous assets, including accumulated goodwill.

SAVVY ENTREPRENEURIAL FIRM

Know the Facts Behind the Numbers

Let's say that New Venture Fitness Drinks was interested in hiring a new chief executive officer (CEO) and was interviewing the CEOs of three small restaurant chains. To get a sense of how savvy each candidate was at managing a firm's finances, the board of directors of New Venture Fitness Drinks asked each person to submit the 2014 income statement for his or her current firm. An analysis of an abbreviated version of each firm's income statement is shown here.

	Candidate 1: CEO of New Venture Soup and Salad	Candidate 2: CEO of New Venture Beef	Candidate 3: CEO of New Venture Sea Food
Net sales	$326,400	$281,200	$486,700
Cost of sales	150,500	143,900	174,700
Gross profit	175,900	137,300	312,000
All expenses, including taxes and depreciation	114,200	112,400	150,000
Net income	61,700	24,900	162,000

By glancing at these statements, it would appear that the shrewdest financial manager of the three is the CEO of New Venture Sea Food. The company's net income is more than double that of the other two firms. In addition, New Venture Sea Food's cost of sales was 35.9 percent of net sales in 2014, compared to 46.1 percent for New Venture Soup and Salad and 51 percent for New Venture Beef. Similarly, New Venture Sea Food's expenses were 30.9 percent of sales, compared to 35.0 percent for New Venture Soup and Salad and 40 percent for New Venture Beef.

Fortunately, one of the board members of New Venture Fitness Drinks asked a series of questions during the personal interviews of the candidates and uncovered some revealing information. As it turns out, New Venture Sea Food was in the hottest segment of the restaurant industry in 2014. Seafood restaurants of comparable size produced about 1.5 times as much net income as New Venture Sea Food did. So if candidate 3 had done his job properly, his company's net income should have been in the neighborhood of $240,000 instead of $162,000. New Venture Soup and Salad was in a slow-growth area and at midyear feared that it might not meet its financial targets. So the CEO pulled several of his best people off projects and reassigned them to marketing to develop new menu items. In other words, the company borrowed from its future to make its numbers work today.

As for New Venture Beef, the CEO found herself in a market that was losing appeal. Several reports that gained national publicity were published early in the year warning consumers of the risks of eating red meat. To compensate, the CEO quickly implemented a productivity improvement program and partnered with a local beef promotion board to counter the bad press with more objective research results about beef's nutritional value. The company also participated in several volunteer efforts in its local community to raise the visibility of its restaurants in a positive manner. If the CEO of New Venture Beef hadn't moved quickly to take these actions, its 2014 performance would have been much worse.

Ultimately, New Venture Fitness Drinks decided that candidate 2, the CEO of New Venture Beef, was the best candidate for its job. This example illustrates the need to look at multiple years of an income statement rather than a single year to fairly assess how well a firm is performing financially. It also illustrates the need to look beyond the numbers and understand the circumstances that surround a firm's financial results.

Questions for Critical Thinking

1. Show the income statements for the three candidates to two or three friends who are majoring in business. Ask them to select the best CEO from among these three people on the basis of these income statements. In addition, ask your friends to explain their choices to you. Did your friends choose the same candidate? If not, what do you think caused the differences in their choices?
2. Based on material presented in this chapter, earlier chapters in this book, and your general business knowledge, where would you go to find information about the growth of the different segments of the restaurant industry? Where would you go to find information about the profitability of the restaurant industry in general?
3. What would have been the appropriate financial information to request from the three candidates for the job?
4. What are the three most important insights you gained from studying this feature? Which of these insights surprised you, and why?

The major categories of liabilities listed on a balance sheet are the following:

- **Current liabilities: Current liabilities** include obligations that are payable within a year, including accounts payable, accrued expenses, and the current portion of long-term debt.
- **Long-term liabilities: Long-term liabilities** include notes or loans that are repayable beyond one year, including liabilities associated with purchasing real estate, buildings, and equipment.
- **Owners' equity: Owners' equity** is the equity invested in the business by its owners plus the accumulated earnings retained by the business after paying dividends.

Balance sheets are somewhat deceiving. First, a company's assets are recorded at cost rather than fair market value. A firm may have invested \$500,000 in real estate several years ago that is worth \$1 million today, but the value that is reflected on the firm's current balance sheet is the \$500,000 purchase price rather than the \$1 million fair market value. Second, intellectual property, such as patents, trademarks, and copyrights, receive value on the balance sheet in some cases and in some cases they don't, depending on the circumstances involved. In many cases, a firm's intellectual property will receive no value on its balance sheet even though it may be very valuable from a practical standpoint.[15] Third, intangible assets, such as the amount of training a firm has provided to its employees and the value of its brand, are not recognized on its balance sheet. Finally, the goodwill that a firm has accumulated is not reported on its balance sheet, although this may be the firm's single most valuable asset.

The consolidated balance sheet for New Venture Fitness Drinks is shown in Table 8.2. Again, multiple years are shown so that trends can be easily spotted. When evaluating a balance sheet, the two primary questions are whether a firm has sufficient short-term assets to cover its short-term debts and whether it is financially sound overall. There are two calculations that provide the answer to the first question. In 2014, the **working capital** of New Venture Fitness Drinks, defined as its current assets minus its current liabilities, was \$82,500. This number represents the amount of liquid assets the firm has available. Its **current ratio**, which equals the firm's current assets divided by its current liabilities, provides another picture of the relationship between its current assets and current liabilities and can tell us more about the firm's ability to pay its short-term debts.

New Venture Fitness Drinks's current ratio is 3.06, meaning that it has \$3.06 in current assets for every \$1.00 in current liabilities. This is a healthy number and provides confidence that the company will be able to meet its current liabilities. The company's trend in this area is also positive. For the years 2012, 2013, and 2014, its current ratio has been 2.35, 2.26, and 3.06, respectively.

Computing a company's overall debt ratio will give us the answer to the second question, as it is a means of assessing a firm's overall financial soundness. A company's debt ratio is computed by dividing its total debt by its total assets. The present debt ratio for New Venture Fitness Drinks is 39.7 percent, meaning that 39.7 percent of its total assets are financed by debt and the remaining 60.3 percent by owners' equity. This is a healthy number for a young firm. The trend for New Venture Fitness Drinks in this area is also encouraging. For the years 2012, 2013, and 2014, its debt ratio has been 42.3, 37.4, and 39.7 percent, respectively. These figures indicate that over time, the company is relying less on debt to finance its operations. In general, less debt creates more freedom for the entrepreneurial firm in terms of taking different actions.

TABLE 8.2 Consolidated Balance Sheets for New Venture Fitness Drinks, Inc.

Assets	December 31, 2014	December 31, 2013	December 31, 2012
Current assets			
Cash and cash equivalents	$63,800	$54,600	$56,500
Accounts receivable, less allowance for doubtful accounts	39,600	48,900	50,200
Inventories	19,200	20,400	21,400
Total current assets	122,600	123,900	128,100
Property, plant, and equipment			
Land	260,000	160,000	160,000
Buildings and equipment	412,000	261,500	149,000
Total property, plant, and equipment	672,000	421,500	309,000
Less: accumulated depreciation	65,000	51,500	45,600
Net property, plant, and equipment	607,000	370,000	263,400
Total assets	729,600	493,900	391,500
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable	30,200	46,900	50,400
Accrued expenses	9,900	8,000	4,100
Total current liabilities	40,100	54,900	54,500
Long-term liabilities			
Long-term debt	249,500	130,000	111,000
Long-term liabilities	249,500	130,000	111,000
Total liabilities	289,600	184,900	165,500
Shareholders' equity			
Common stock (100,000 shares)	10,000	10,000	10,000
Retained earnings	430,000	299,000	216,000
Total shareholders' equity	440,000	309,000	226,000
Total liabilities and shareholders' equity	729,600	493,900	391,500

The numbers across all the firm's financial statements are consistent with one another. Note that the $131,000 net income reported by New Venture Fitness Drinks on its 2014 income statement shows up as the difference between its 2014 and 2013 retained earnings on its 2014 balance sheet. This number would have been different if New Venture Fitness Drinks had paid dividends to its stockholders, but it paid no dividends in 2014. The company retained all of its $131,000 in earnings.

Statement of Cash Flows The **statement of cash flows** summarizes the changes in a firm's cash position for a specified period of time and details why the change occurred. The statement of cash flows is similar to a month-end bank statement. It reveals how much cash is on hand at the end of the month as well as how the cash was acquired and spent during the month.

The statement of cash flows is divided into three separate activities: operating activities, investing activities, and financing activities. These activities, which are explained in the following list, are the activities from which a firm obtains and uses cash:

- **Operating activities: Operating activities** include net income (or loss), depreciation, and changes in current assets and current liabilities other than cash and short-term debt. A firm's net income, taken from its income statement, is the first line on the corresponding period's cash flow statement.
- **Investing activities: Investing activities** include the purchase, sale, or investment in fixed assets, such as real estate, equipment, and buildings.
- **Financing activities: Financing activities** include cash raised during the period by borrowing money or selling stock and/or cash used during the period by paying dividends, buying back outstanding stock, or buying back outstanding bonds.

Interpreting and analyzing cash flow statements takes practice. On the statement, the *uses* of cash are recorded as negative figures (which are shown by placing them in parentheses) and the *sources* of cash are recorded as positive figures. An item such as depreciation is shown as a positive figure on the statement of cash flows because it was deducted from net income on the income statement but was not a cash expenditure. Similarly, a decrease in accounts payable shows up as a negative figure on the cash flow statement because the firm used part of its cash to reduce its accounts payable balance from one period to the next.

The statement of cash flows for New Venture Fitness Drinks is shown in Table 8.3. As a management tool, it is intended to provide perspective on the following questions: Is the firm generating excess cash that could be used to pay down debt or returned to stockholders in the form of dividends? Is the firm generating enough cash to fund its investment activities from earnings, or is it relying on lenders or investors? Is the firm generating sufficient cash to pay down its short-term liabilities, or are its short-term liabilities increasing as the result of an insufficient amount of cash?

Again, a multi period statement is created so that trends can easily be spotted. A large increase in a firm's cash balance is not necessarily a good sign. It could mean that the firm is borrowing heavily, is not paying down its short-term liabilities, or is accumulating cash that could be put to work for a more productive purpose. On the other hand, it is almost always prudent for a young firm to have a healthy cash balance.

Table 8.3 shows the consolidated statement of cash flows for New Venture Fitness Drinks for two years instead of three because it takes three years of balance sheets to produce two years of cash flow statements. The statements show that New Venture Fitness Drinks is funding its investment activities from a combination of debt and earnings while at the same time it is slowly decreasing its accounts receivable and inventory levels (which is good—these items are major drains on a company's cash flow). It is also steadily increasing its cash on hand. These are encouraging signs for a new venture.

Ratio Analysis The most practical way to interpret or make sense of a firm's historical financial statements is through ratio analysis. Table 8.4 is a summary of the ratios used to evaluate New Venture Fitness Drinks during the time period covered by the previously provided financial statements.

TABLE 8.3 Consolidated Statement of Cash Flows for New Venture Fitness Drinks, Inc.

	December 31, 2014	December 31, 2013
Cash flows from operating activities		
Net income	$131,000	$83,000
Additions (sources of cash)		
Depreciation	13,500	5,900
Decreases in accounts receivable	9,300	1,300
Increase in accrued expenses	1,900	3,900
Decrease in inventory	1,200	1,000
Subtractions (uses of cash)		
Decrease in accounts payable	(16,700)	(3,500)
Total adjustments	9,200	8,600
Net cash provided by operating activities	140,200	91,600
Cash flows from investing activities		
Purchase of building and equipment	(250,500)	(112,500)
Net cash flows provided by investing activities	(250,500)	(112,500)
Cash flows from financing activities		
Proceeds from increase in long-term debt	119,500	19,000
Net cash flows provided by financing activities		19,000
Increase in cash	9,200	(1,900)
Cash and cash equivalents at the beginning of each year	54,600	56,500
Cash and cash equivalents at the end of each year	63,800	54,600

The ratios are divided into profitability ratios, liquidity ratios, and overall financial stability ratios. These ratios provide a means of interpreting the historical financial statements for New Venture Fitness Drinks and provide a starting point for forecasting the firm's financial performance and capabilities for the future.

Comparing a Firm's Financial Results to Industry Norms Comparing its financial results to industry norms helps a firm determine how it stacks up against its competitors and if there are any financial "red flags" requiring attention. This type of comparison works best for firms that are of similar size, so the results should be interpreted with caution by new firms. Many sources provide industry-related information. For example, both Hoover's premium service and BizMiner provide industry norms to which a new firm can compare itself and are typically free of charge if accessed via a university library. BizMiner (www.bizminer.com) is particularly good for providing comparison data for private firms. Several suggestions for obtaining comparison data for private firms are provided in Chapter 3.

TABLE 8.4 Ratio Analysis for New Venture Fitness Drinks, Inc.

Ratio	Formula	2014	2013	2012
Profitability ratios: associate the amount of income earned with the resources used to generate it				
Return on assets	ROA = net income/average total assets[a]	21.4%	18.7%	14.7%
Return on equity	ROE = net income/average shareholders' equity[b]	35.0%	31.0%	24.9%
Profit margin	Profit margin = net income/net sales	22.3%	17.9%	13.6%
Liquidity ratios: measure the extent to which a company can quickly liquidate assets to cover short-term liabilities				
Current	Current assets/current liabilities	3.06	2.26	2.35
Quick	Quick assets/current liabilities	2.58	1.89	1.96
Overall financial stability ratio: measures the overall financial stability of a firm				
Debt	Total debt/total assets	39.7%	37.4%	42.3%
Debt to equity	Total liabilities/owners' equity	65.8%	59.8%	73.2%

[a] Average total assets = beginning total assets + ending total assets ÷ 2.
[b] Average shareholders' equity = beginning shareholders' equity + ending shareholders' equity ÷ 2.

Forecasts

LEARNING OBJECTIVE

6. Discuss the role of forecasts in projecting a firm's future income and expenses.

As depicted in Figure 8.2, the analysis of a firm's historical financial statement is followed by the preparation of forecasts. **Forecasts** are predictions of a firm's future sales, expenses, income, and capital expenditures. A firm's forecasts provide the basis for its pro forma financial statements. A well-developed set of pro forma financial statements helps a firm create accurate budgets, build financial plans, and manage its finances in a proactive rather than a reactive manner.

As mentioned earlier, completely new firms typically base their forecasts on a good-faith estimate of sales and on industry averages (based on a percentage of sales) or the experiences of similar start-ups for cost of goods sold and other expenses. As a result, a completely new firm's forecast should be preceded in its business plan by an explanation of the sources of the numbers for the forecast and the assumptions used to generate them. This explanation is called an **assumptions sheet**, as mentioned in Chapter 6. Investors typically study assumptions sheets like hawks to make sure the numbers contained in the forecasts and the resulting financial projections are realistic. For example, the assumptions sheet for a new venture may say that its forecasts are based on selling 500 units of its new product the first year, 1,000 units the second year, and 1,500 units the third year, and that its cost of goods sold will remain stable (meaning that it will stay fixed at a certain percentage of net sales) over the three-year period. It's up to the reader of the plan to determine if these numbers are realistic.[16] If the reader feels they are not, then the credibility of the entire plan is called into question.

Sales Forecast

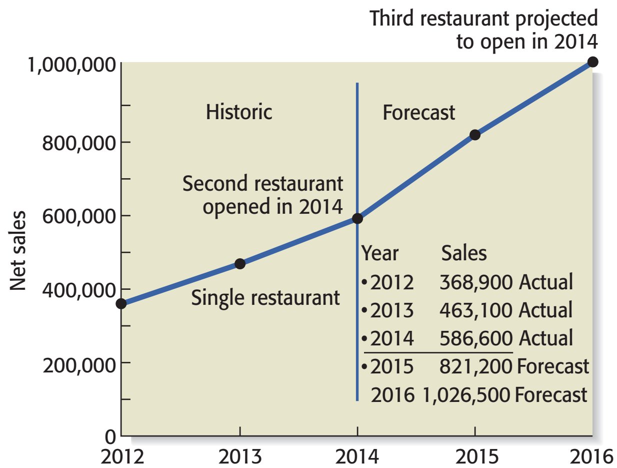
A **sales forecast** is a projection of a firm's sales for a specified period (such as a year), though most firms forecast their sales for two to five years into the future.[17] It is the first forecast developed and is the basis for most of the other forecasts.[18] A sales forecast for an existing firm is based on (1) its record of past sales, (2) its current production capacity and product demand, and (3) any factor or factors that will affect its future production capacity and product demand. To demonstrate how a sales forecast works, Figure 8.3 is a graph of the past sales and the forecasted future sales for New Venture Fitness Drinks. The company's sales increased at a rate of about 26 percent per year from 2012 to 2014 as the company became established and more people became aware of its brand. In forecasting its sales for 2015 and 2016, the company took into consideration the following factors:

- The fitness craze in America continues to gain momentum and should continue to attract new people to try its fitness drinks.
- The interest in intramural sports, especially soccer, baseball, and softball, should continue to provide a high level of traffic for its restaurants, which are located near large intramural sports complexes.
- The company expanded from a single location in 2011 to two locations in 2014 (the second restaurant was added in November 2014), and this should increase its capacity to serve fitness drinks by approximately 50 percent. The second restaurant is smaller than the first and is located in an area where the company is not as well known. The company will be actively promoting the new restaurant but knows it will take time to win market share.
- The general economy in the city where the company is located is flat—it is neither growing nor shrinking. However, layoffs are rumored for a larger employer near the location of the new restaurant.

The combination of these factors results in a forecast of a 40 percent increase in sales from 2014 to 2015 and a 25 percent increase in sales from 2015 to 2016. It is extremely important for a company such as New Venture Drinks to forecast future sales as accurately as possible. If it overestimates the demand for its products, it might get stuck with excess inventory and spend too much on overhead. If it underestimates the demand for its product, it might have to turn away business, and some of its potential customers might get into the habit of buying other firms' fitness drinks.

Note that sophisticated tools are available to help firms project their future sales. One approach is to use **regression analysis**, which is a statistical technique used to find relationships between variables for the purpose of predicting future values.[19] For example, if New Venture Fitness Drinks felt that its future sales were a function of its advertising expenditures, the number of

FIGURE 8.3
Historical and Forecasted Annual Sales for New Venture Fitness Drinks



people who participate in intramural sports at the sports complexes near its restaurants, and the price of its drinks, it could predict future sales using regression analysis as long as it had historical data for each of these variables. If the company used simpler logic and felt that its future sales would increase a certain percentage over its current sales, regression analysis could be used to generate a more precise estimate of future sales than was predicted from the information contained in Figure 8.3. For a new firm that has limited years of "annual data," monthly data could be used to project sales.

Forecast of Costs of Sales and Other Items

After completing its sales forecast, a firm must forecast its cost of sales (or cost of goods sold) and the other items on its income statement. The most common way to do this is to use the **percent-of-sales method**, which is a method for expressing each expense item as a percentage of sales.[20] For example, in the case of New Venture Fitness Drinks, its cost of sales has averaged 47.5 percent over the past two years. In 2014, its sales were $586,600 and its cost of sales was $268,900. The company's sales are forecast to be $821,200 in 2015. Therefore, based on the percent-of-sales method, its cost of sales in 2015 will be $390,000, or 47.5 percent of projected sales. The same procedure could be used to forecast the cost of each expense item on the company's income statement.

Once a firm completes its forecast using the percent-of-sales method, it usually goes through its income statement on an item-by-item basis to see if there are opportunities to make more precise forecasts. For example, a firm can closely estimate its depreciation expenses, so it wouldn't be appropriate to use the percent-of-sales method to make a forecast for this item. In addition, some expense items are not tied to sales. For those items, the firm makes reasonable estimates.

Obviously, a firm must apply common sense in using the percent-of-sales method. If a company is implementing cost-cutting measures, for example, it might be able to justify projecting a smaller percentage increase in expenses as opposed to sales. Similarly, if a firm hires an upper-level manager, such as a chief financial officer, toward the end of the year and plans to pay the person $100,000 the next year, that $100,000 may not have an immediate impact on sales. In this case, the firm's forecast for administrative expenses may have to be adjusted upward beyond what the percent-of-sales method would suggest.

If a firm determines that it can use the percent-of-sales method and it follows the procedure described previously, then the net result is that each expense item on its income statement (with the exception of those items that may be individually forecast, such as depreciation) will grow at the same rate as sales. This approach is called the **constant ratio method of forecasting**. This approach will be used in preparing the pro forma financial statements for New Venture Fitness Drinks in the next section.

A summary of the forecasts used to prepare the pro forma financial statements for New Venture Fitness Drinks is provided in Table 8.5.

In addition to computing sales forecasts, when a company like New Venture Fitness Drinks considers opening a new restaurant or producing a new product, it often calculates a break-even analysis to determine if the proposed initiative is feasible. The **break-even point** for a new restaurant or product is the point where total revenue received equals total costs associated with the output of the restaurant or the sale of the product.[21] In the case of opening a new restaurant, New Venture Fitness Drinks could use break-even analysis as one way of determining whether the proposed initiative is feasible. The formula for break-even analysis is as follows: Total fixed costs/(price – average variable costs). In most instances, average variable cost is the same number as average cost of goods sold. As a result, if the total fixed cost associated with opening

TABLE 8.5 Forecasts Used to Prepare Pro Forma Financial Statements for New Venture Fitness Drinks, Inc.

Pro Forma Income Statements	
Net sales	
Historic	Average sales increase of 25% per year
2015	Increase to 40% as the result of increased brand awareness and the opening of a second service location
2016	Increase to 25% as the result of increased brand awareness (a third service location will be opened late in the year)
Cost of goods sold (COGS)	
Historic	Average of 47.5% of sales the past two years
2015	47.5% of sales
2016	47.5% of sales
Selling, general, and administrative expenses	
Historic	Average 22% of sales the past two years
2015	Increase to 25% of sales as the result of the opening of a second service location (the increase will not be any larger as the result of increased operating efficiencies)
2016	25% of sales
Interest expense	
Historic	6% to 7% of long-term debt
2015	7% of long-term debt
2016	7% of long-term debt
Other income	
Historic	Licensing income of $10,900 per year
2015	Licensing income will increase to $20,000 as the result of the renegotiation of the licensing contract
2016	Licensing income will be $20,000
Pro Forma Balance Sheets	
Accounts receivable	
Historic	Accounts receivable have trended down to 6.8% of sales in 2014 from 13.6% of sales in 2013
2015	7% of sales
2016	7% of sales
Inventories	
Historic	Inventories have trended down to 3.3% of sales in 2014 from 4.4% of sales in 2013
2015	4% of sales (reflecting slight increase over 2014 as the result of the opening of a second service location)
2016	4% of sales

(*continued*)

TABLE 8.5 Continued

Land, buildings, and equipment	
2015	$100,000 in equipment purchases and capital improvements made to existing buildings
2016	$275,000 in capital improvements, including a $100,000 real estate purchase and $175,000 in buildings and equipment
Accounts payable	
Historic	Accounts payable have trended down to 5.1% of sales in 2014 from 13.6% of sales in 2013 because of the implementation of more effective collection methods (a slightly higher level of accounts payable will be projected for the future)
2015	7% of sales
2016	7% of sales
Long-term debt	
2015	$75,000 reduction in long-term debt from earnings
2016	$150,000 will be borrowed to finance $275,000 to acquire land, equipment, and buildings (the balance of the acquisition costs will be funded from earnings)

a new restaurant is $101,000 per year, the average price for a fitness drink is $2.75, and the variable cost (or cost of goods sold) for each drink is $1.10, then the break-even point for the new restaurant is as follows:

$$\$101{,}000 \text{ (total fixed costs)}/(\$2.75 - \$1.10) \text{ or } \$1.65 = 61{,}212 \text{ units}$$

This number means that the new restaurant will have to sell 61,212 "units," or fitness drinks, per year to "break even" at the current price of the drinks. That number breaks down to the sale of 170 fitness drinks per day, on average, based on a 360-day year. To determine whether opening the new restaurant is feasible, the managers of New Venture Fitness Drinks would compare this number against the historic sales figures for their other restaurants, making adjustments as appropriate (e.g., the new restaurant may have a better or worse location than the existing restaurants). If selling 170 fitness drinks per day seems unrealistic, then the managers of New Fitness Drinks might opt to not open the new restaurant, or find ways to lower fixed or variable costs or increase revenues. An obvious way to increase revenues is to raise the price of the fitness drinks, if that option is realistic given the competitive nature of the marketplace.

Pro Forma Financial Statements

LEARNING OBJECTIVE

7. Explain the purpose of pro forma financial statements.

A firm's pro forma financial statements are similar to its historical financial statements except that they look forward rather than track the past. New ventures typically offer pro forma statements, but well-managed established firms also maintain these statements as part of their routine financial planning process and to help prepare budgets. The preparation of pro forma statements also helps firms rethink their strategies and make adjustments if necessary. For example, if the pro forma statements predict a downturn in profitability, a firm can make operational changes, such as increasing prices or decreasing expenses, to help prevent the decrease in profitability from actually happening.[22]

Pro forma financial statements look forward rather than backwards. They help entrepreneurs establish budgets and plan for the future.

2/John Lamb/Ocean/Corbis

A firm's pro forma financial statements should not be prepared in isolation. Instead, they should be created in conjunction with the firm's overall planning activities. For example, it's often critical to have a good sense of how quickly a firm can raise money. Sometimes a firm has a good product or service, good demand, and knows how much capital it needs to maintain a sufficient cash flow, but it can't raise the money in time. This is what happened to Wise Acre Frozen Treats, as illustrated in this chapter's "What Went Wrong?" feature. The Wide Acre Frozen Treats case is a good example of how one aspect of financial management (i.e., raising money) can have a dramatic impact on another aspect of financial management (i.e., maintaining a sufficient cash flow).

The following sections explain the development of pro forma financial statements for New Venture Fitness Drinks.

Pro Forma Income Statement

Once a firm forecasts its future income and expenses, the creation of the **pro forma income statement** is merely a matter of plugging in the numbers. Table 8.6 shows the pro forma income statement for New Venture Fitness Drinks. Recall that net sales for New Venture Fitness Drinks are forecast to increase by 40 percent from 2014 to 2015 and by 25 percent from 2015 to 2016, and that its cost of sales has averaged 47.5 percent of net sales. In the pro forma income statement, the constant ratio method of forecasting is used to forecast the cost of sales and general and administrative expenses, meaning that these items are projected to remain at the same percentage of sales in the future as they were in the past (which is the mathematical equivalent of saying that they will increase at the same rate of sales). Depreciation, other income, and several other items that are not directly tied to sales are figured separately—using reasonable estimates. The most dramatic change is "other income," which jumps significantly from 2014 to 2015. New Venture Fitness Drinks anticipates a significant increase in this category as the result of the renegotiation of a licensing agreement for one of its fitness drinks that is sold by another company.

WHAT WENT WRONG?

Be Careful What You Wish For: How Growing Too Quickly Overwhelmed One Company's Cash Flow

When Jim Picariello started Wise Acre Frozen Treats, no other company was making organic popsicles from unrefined sweeteners. Working out of a makeshift kitchen in 2006, Picariello developed his recipes using maple syrup and honey. He worked alone for a year and a half before hiring his first employee. About that time, his frozen popsicles really took off; by 2008, Wise Acre Frozen Treats had 15 employees, a 3,000-square-foot manufacturing facility, and was distributing its product to natural food stores and supermarkets across the East Coast. The company was awarded a contract to distribute to the West Coast. Then, abruptly, Wise Acre Frozen Treats failed. What went wrong?

Here's what happened. In its first year, Wise Acre Frozen Treats grew at a measured pace. It was filling orders for eight stores for a few hundred dollars each, nothing Picariello couldn't handle. Early in its second year, it won the "Most Innovative Product" award out of more than 2,000 products at a large food show called Expo East. That award increased Wise Acre Frozen Treats's profile, and it landed a contract with United National Foods, a huge national distributor, for freezer space in premier stores like Whole Foods and Wegmans. At that time, it seemed that things couldn't have worked out better.

Picariello knew he'd need to raise capital to cover the increased pace of activity. Operating expenses including labor, equipment, ingredients, packaging material, insurance, and design and marketing would all increase. Picariello obtained $300,000 from a local bank and $200,000 from an investment firm. But because Wise Acre Frozen Treats had so many orders to fill, it needed about $1 million to make things work. Picariello approached a local high-net-worth individual who agreed to invest $1 million, and who assured Picariello that he could put together the money quickly. Based on that promise, Picariello placed orders for the additional material and equipment Wise Acre Frozen Treats needed.

The timing of the investor's promise couldn't have been worse. In short order, the economy tanked and the investor reneged on his promise. At that point, Picariello characterized his life as a mad dash between running the company and meeting with potential investors. In regard to potential investors, Wise Acre Frozen Treats found itself in somewhat of a no-man's-land. Although its future was bright, the entrepreneurial venture wasn't big enough yet for investors to take notice. As time went on, serious cash flow difficulties kicked in. According to a blog post that Picariello wrote about Wise Acre Frozen Treats's failure, the company was burning through about $30,000 a month at its peak but didn't have the capital to back it up.

In retrospect, many things lined up well for Wise Acre Frozen Treats. It had a product that sold well, it had national distribution, and it had a business plan that indicated that it would take about two years for the company to break even. Its fatal flaw was that it didn't raise the money it needed before it hit major milestones, like getting the big orders. It literally went from eight stores to dozens to hundreds in a matter of months. From a cash standpoint, the firm lacked what it needed to keep up with its growth.

Questions for Critical Thinking

1. What lessons can be learned from Jim Picariello's agreement with the high-net-worth individual, who agreed to invest $1 million in Wise Acre Frozen Treats and then reneged on the agreement when the economy turned sour?
2. Why is it that a company can grow too fast? If Wise Acre Frozen Treats significantly increased its sales, why wouldn't its increased income provide more than enough cash to even out its cash flow?
3. Besides cash flow difficulties, what other problems can a firm experience by growing too quickly?
4. If Jim Picariello starts another company, make a list of the things you think he'll do differently as a result of his Wise Acre Frozen Treats experience.

Sources: J. Picariello, "My Company Grew Too Fast—and Went Out of Business," CBS Moneywatch, available at http://www.cbsnews.com/news/my-company-grew-too-fast-and-went-out-of-business/, posted on August 12, 2010, accessed on August 28, 2014; L. Petrecca, "Fast Growth Isn't Always Good: A Big Influx of Orders Can Be Overwhelming," *USA Today*, September 13, 2010, 1B.

Pro Forma Balance Sheet

The **pro forma balance sheet** provides a firm a sense of how its activities will affect its ability to meet its short-term liabilities and how its finances will evolve over time. It can also quickly show how much of a firm's money will be tied up in accounts receivable, inventory, and equipment. The pro forma balance sheet is also used to project the overall financial soundness of a company. For example, a firm may have a very aggressive set of pro forma income

TABLE 8.6 Pro Forma Income Statement for New Venture Fitness Drinks, Inc.

	2014 Actual	2015 Projected	2016 Projected
Net sales	$586,600	$821,200	$1,026,500
Cost of sales	268,900	390,000	487,600
Gross profit	317,700	431,200	538,900
Operating expenses			
Selling, general, and administrative expenses	117,800	205,300	256,600
Depreciation	13,500	18,500	22,500
Operating income	186,400	207,400	259,800
Other income			
Interest income	1,900	2,000	2,000
Interest expense	(15,000)	(17,500)	(17,000)
Other income (expense), net	10,900	20,000	20,000
Income before income taxes	184,200	211,900	264,800
Income tax expense	53,200	63,600	79,400
Net income	131,000	148,300	185,400
Earnings per share	1.31	1.48	1.85

statements that project rapidly increasing growth and profitability. However, if this rapid growth and profitability push the firm's debt ratio to 75 percent (which is extremely high), investors may conclude that there is too much risk involved for the firm to be an attractive investment.

The pro forma balance sheet for New Venture Fitness Drinks is shown in Table 8.7. Note that the company's projected change in retained earnings each year is consistent with its projected net income for the same period on its pro forma income statements. The same approach was used to construct the pro forma balance sheets as the pro forma income statements. For each item listed under current assets and current liabilities, the item's historical percentage of sales was used to project its future percentage of sales. Several of the numbers were adjusted slightly upward, such as inventory levels and accounts payable, to reflect the potential impact of the opening of the second restaurant.

In regard to property, plant, and equipment, New Venture Fitness Drinks plans to invest $100,000 in 2015 and $275,000 in 2016. The pro forma balance sheet shows a corresponding increase in valuation in this category for 2015 and 2016, respectively. The company's projected long-term debt for 2015 and 2016 reflects changes resulting from principal reductions from cash flow and increased borrowing to fund the property, plant, and equipment purchases just mentioned. These transactions are reflected in the pro forma statement of cash flows for New Venture Fitness Drinks.

Pro Forma Statement of Cash Flows

The **pro forma statement of cash flows** shows the projected flow of cash into and out of the company during a specified period. The most important function of the pro forma statement of cash flows is to project whether the firm will

TABLE 8.7 Pro Forma Balance Sheets for New Venture Fitness Drinks, Inc.

Assets	December 31, 2014	Projected 2015	Projected 2016
Current assets			
Cash and cash equivalents	$63,800	$53,400	$80,200
Accounts receivable, less allowance for doubtful accounts	39,600	57,500	71,900
Inventories	19,200	32,900	41,000
Total current assets	122,600	143,800	193,100
Property, plant, and equipment			
Land	260,000	260,000	360,000
Buildings and equipment	412,000	512,000	687,000
Total property, plant, and equipment	672,000	772,000	1,047,000
Less: accumulated depreciation	65,000	83,500	106,000
Net property, plant, and equipment	607,000	688,500	941,000
Total assets	729,600	832,300	1,134,100
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable	30,200	57,500	71,900
Accrued expenses	9,900	12,000	14,000
Total current liabilities	40,100	69,500	85,900
Long-term liabilities			
Long-term debt	249,500	174,500	274,500
Total long-term liabilities	249,500	174,500	274,500
Total liabilities	289,600	244,000	360,400
Shareholders' equity			
Common stock (100,000 shares)	10,000	10,000	10,000
Retained earnings	430,000	578,300	763,700
Total shareholders' equity	440,000	588,300	773,700
Total liabilities and shareholders' equity	729,600	832,300	1,134,100

have sufficient cash to meet its needs. As with the historical statement of cash flows, the pro forma statement of cash flows is broken into three activities: operating activities, investing activities, and financing activities. Close attention is typically paid to the section on operating activities because it shows how changes in the company's accounts receivable, accounts payable, and inventory levels affect the cash that it has available for investing and finance activities. If any of these items increases at a rate that is faster than the company's annual increase in sales, it typically raises a red flag. For example, an increase in accounts receivable, which is money that is owed to a company by its customers, decreases the amount of cash that it has available for investment or finance activities. If accounts receivable gets out of hand, it may jeopardize a company's ability to fund its growth or service its debt.

The pro forma consolidated statement of cash flows for New Venture Fitness Drinks is shown in Table 8.8. The figures appearing on the statement come directly, or are calculated directly, from the pro forma income statement and the pro forma balance sheet. The one exception is that the last line of each statement of cash flows, which reflects the company's cash balance at the end of the period, becomes the first line of the company's balance sheet for the next period. The pro forma statement of cash flows for New Venture Fitness Drinks shows healthy cash balances at the end of each projected period and shows that investment activities are being funded more by earnings than by debt. This scenario reflects a company that is generating sufficient cash flow to fund the majority of its growth without overly relying on debt or investment capital.

In regard to dividends, the pro forma statement of cash flows shows that New Venture Fitness Drinks is not planning to pay a dividend to its stockholders in 2015 and 2016. Recall that New Venture Fitness Drinks is incorporated and has stockholders even though it is not traded on an organized exchange. If New Venture Fitness Drinks were planning to pay a dividend, the projected dividend payments would show up under financing activities and would

TABLE 8.8 Pro Forma Statement of Cash Flows for New Venture Fitness Drinks, Inc.

	December 31, 2014	Projected 2015	Projected 2016
Cash flows from operating activities			
Net income	$131,000	$148,300	$185,400
Changes in working capital			
Depreciation	13,500	18,500	22,500
Increase (decrease) in accounts receivable	9,300	(17,900)	(14,400)
Increase (decrease) in accrued expenses	1,900	2,100	2,000
Increase (decrease) in inventory	1,200	(13,700)	(8,100)
Increase (decrease) in accounts payable	(16,700)	27,300	14,400
Total adjustments	9,200	16,300	16,400
Net cash provided by operating activities	140,200	164,600	201,800
Cash flows from investing activities			
Purchase of building and equipment	(250,500)	(100,000)	(275,000)
Net cash flows provided by investing activities	(250,500)	(100,000)	(275,000)
Cash flows from financing activities			
Proceeds from increase in long-term debt	119,500	—	100,000
Principle reduction in long-term debt		(75,000)	
Net cash flows provided by financing activities			
Increase in cash	9,200	(10,400)	26,800
Cash and cash equivalents at the beginning of the year	54,600	63,800	53,400
Cash and cash equivalents at the end of the year	63,800	53,400	80,200

reduce the amount of cash available for investing and financing activities. It is common for a new firm to invest the majority of its cash in activities that fund its growth, such as property, plant, and equipment purchases, rather than pay dividends.

Ratio Analysis

The same financial ratios used to evaluate a firm's historical financial statements should be used to evaluate the pro forma financial statements. This work is completed so the firm can get a sense of how its projected financial performance compares to its past performance and how its projected activities will affect its cash position and its overall financial soundness.

The historical financial ratios and projected ratios for New Venture Fitness Drinks are shown in Table 8.9. The profitability ratios show a slight decline from the historical period to the projected. This indicates that the projected increase in assets and corresponding sales will not produce income quite as efficiently as has been the case historically. Still, the numbers are strong, and no dramatic changes are projected.

The liquidity ratios show a consistently healthy ratio of current assets to current liabilities, suggesting that the firm should be able to cover its short-term liabilities without difficulty. The overall financial stability ratios indicate promising trends. The debt ratio drops from an actual of 39.7 percent in 2014 to a projected 31.8 percent in 2016. The debt-to-equity ratio shows an even more dramatic drop, indicating that an increasing portion of the firm's assets is being funded by equity rather than debt.

In summary, it is extremely important for a firm to understand its financial position at all times and for new ventures to base their financial projections on solid numbers. As mentioned earlier, regardless of how successful a firm is in other areas, it must succeed financially to remain strong and viable.

TABLE 8.9 Ratio Analysis of Historical and Pro Forma Financial Statements for New Venture Fitness Drinks, Inc.

	Historical			*Projected*	
Ratio	**2012**	**2013**	**2014**	**2015**	**2016**
Profitability ratios					
Return on assets	14.7%	18.7%	21.4%	19.0%	18.9%
Return on equity	24.9%	31.0%	35.0%	28.9%	27.2%
Profit margin	13.6%	17.9%	22.3%	18.1%	18.1%
Liquidity ratios					
Current	2.35	2.26	3.05	2.07	2.24
Quick	1.96	1.89	2.58	1.60	1.78
Overall financial stability ratios					
Debt	42.3%	37.4%	39.7%	29.3%	31.8%
Debt to equity	73.2%	59.8%	65.8%	41.5%	46.6%

Chapter Summary

LO1. To pursue an opportunity and to turn that pursuit into a viable venture, entrepreneurs require financial capital. Financial management deals with this reality. More specifically, financial management is concerned with two activities: raising money and managing a company's finances in a way that achieves the highest rate of return.

LO2. Profitability, liquidity, efficiency, and stability are the four main financial objectives of entrepreneurial firms. Profitability is the ability of a firm to earn a profit, liquidity is the ability of a company to meet or satisfy its short-term obligations, efficiency deals with how productively a firm uses its assets relative to its revenue and profits, and stability is the strength and vigor of the firm's overall financial standing.

LO3. The process of financial management includes the activities a firm takes to determine if its financial objectives are being met. Several documents are foundational to an entrepreneur's efforts to assess the degree to which a firm's financial objectives are being satisfied. These documents, as follows, are prepared regularly: (1) financial statements (a written report that describes a firm's health from a quantitative perspective), (2) forecasts (which are estimates of a firm's future income and expenses, based on its past performance, current situation, and its future plans), and (3) budgets (which are itemized forecasts of a firm's income, expenses, and capital requirements).

LO4. Historical financial statements reflect past performance. Typically, these documents are prepared on a quarterly and annual basis. The Securities and Exchange Commission (SEC) requires that publicly traded firms prepare and submit these documents. Pro forma financial statements are projections for expected performance in future periods. These projections are based on forecasts and are usually completed for two or three years into the future. Unlike historical financial statements, firms are not required to make their pro forma statements publicly available.

LO5. Historical financial statements include an income statement, a balance sheet, and a statement of cash flow. An income statement reflects the results of a firm's operations over a specified period of time. It records all the revenues and expenses for the given period and shows whether the firm is making a profit or is experiencing a loss. A balance sheet is a snapshot of a company's assets, its liabilities, and owners' equity. While income statements cover a specified period of time, a balance sheet is a snapshot of the firm at a specific point in time. A statement of cash flows summarizes the changes in a firm's cash position for a specified period of time and details why the changes occurred. This statement allows a firm to understand how much cash it has on hand and how its cash was used over a period of time.

LO6. Forecasts are predictions of a firm's future sales, expenses, income, and capital expenditures. A firm's forecasts provide the basis for its pro forma financial statements. When developed effectively, forecasts provide the foundation for a firm to prepare its future-oriented pro forma financial statements. Completely new firms typically base their forecasts on a good-faith estimate of sales and on industry averages (based on a percentage of sales) or the experiences of similar start-ups for cost of goods sold and other expenses. Once a firm has completed its sales forecast, it must forecast its costs of sales as well as the other items on its income statement. The most common way to do this is to use the percent-of-sales method, which is a method for expressing each expense item as a percentage of sales.

LO7. Pro forma financial statements are similar to historical financial statements except that they look forward rather than backward. Preparing pro forma statements helps entrepreneurs think about the quality of the strategies being implemented by their firm and to make adjustments to those strategies if necessary. Considered to be part of a firm's planning efforts, firms prepare a pro forma income statement, a pro forma balance sheet, and a pro forma statement of cash flows to help them anticipate and prepare for future activities and their anticipated outcomes.

Key Terms

10-K, **265**
accounts receivable, **262**
assumptions sheet, **273**
balance sheet, **267**
break-even point, **275**
budgets, **263**
constant ratio method of forecasting, **275**
cost of sales, **266**
current assets, **267**
current liabilities, **269**
current ratio, **269**
debt-to-equity ratio, **262**
efficiency, **262**
financial management, **261**
financial ratios, **264**
financial statement, **262**
financing activities, **271**
fixed assets, **267**
forecasts, **273**
historical financial statements, **265**
income statement, **266**
inventory, **262**
investing activities, **271**
liquidity, **262**
long-term liabilities, **269**
net sales, **266**
operating activities, **271**
operating expenses, **267**
other assets, **267**
owners' equity, **269**
percent-of-sales method, **275**
price-to-earnings (P/E) ratio, **267**
pro forma balance sheet, **279**
pro forma financial statements, **265**
pro forma income statement, **278**
pro forma statement of cash flows, **280**
profit margin, **267**
profitability, **262**
regression analysis, **274**
sales forecast, **273**
stability, **262**
statement of cash flows, **270**
working capital, **269**

Review Questions

8-1. What are the two primary functions of the financial management of a firm?
8-2. What are the four main financial objectives of a firm?
8-3. Why is it important for a company to focus on its liquidity? What special challenges do entrepreneurial firms have in regard to remaining liquid?
8-4. What is meant by the term *efficiency* as it relates to the financial management of a firm?
8-5. What is meant by the term *stability* as it relates to the financial management of a firm?
8-6. What is the purpose of a forecast? What factors does a firm use to create its forecasts of future income and expenses?
8-7. On what factors or conditions do completely new firms base their forecasts?
8-8. What is the purpose of an income statement? What are the three numbers that receive the most attention when evaluating an income statement? Why are these numbers important?
8-9. How does a firm compute its profit margin? What is the significance of this ratio?
8-10. How does a firm compute its price-to-earnings ratio? Why does a high price-to-earnings ratio indicate that the stock market thinks the firm will grow?
8-11. What is the purpose of a balance sheet?
8-12. What are the major categories of assets and liabilities on a balance sheet? Briefly explain each category.
8-13. What is meant by the term *working capital*? Why is working capital an important consideration for entrepreneurial firms?
8-14. How does a firm compute its current ratio? Is this a relatively important or unimportant financial ratio? Explain your answer.
8-15. What is the purpose of a statement of cash flows?
8-16. What are the three separate categories of activities that are reflected on a firm's statement of cash flows? Briefly explain the importance of each activity.
8-17. What is the purpose of financial ratios? Why are financial ratios particularly useful in helping a firm interpret its financial statements?
8-18. What is the purpose of an assumptions sheet?
8-19. Why is a firm's sales forecast the basis for most of its other forecasts?
8-20. What is meant by the percent-of-sales method as it relates to forecasts?

Application Questions

8-21. Kirsten, a friend of yours, plans to open a fashion boutique that will sell women's clothing and accessories. She told you that she leafed through several books on how to prepare forecasts and pro forma financial statements but that the books were geared toward existing firms that have several years of historical financial statements on which to base their projections. If Kirsten asked for your advice about how to prepare forecasts for a completely new women's fashion boutique, what would you tell her?

8-22. Suppose a friend of yours showed you the pro forma income statements for his start-up and exclaimed excitedly that during the first three years of operations his firm will make a net income of $150,000 per year, which is just the amount of money ($450,000) the firm will need to pay off a three-year loan. Given your study of this chapter, why is it that your friend may not actually have $450,000 in cash, even though his pro forma income statements say that he will earn that amount of money?

8-23. Kate Snow just retired from a career with Walmart, cashing out a sizable retirement fund at the time of doing so. To start a second career, she is looking at the possibility of buying three different businesses. She has three years' historical financial statements for each business and has been pouring over the numbers. She was puzzled when she read the following statement in a book about small business financial management, "Be careful when looking at balance sheets to fully understand what you're looking at. In some respects balance sheets are very revealing, and in other respects they can be very deceiving." What do you think the author of the book meant by that statement?

8-24. Chipotle Mexican Grill is a publicly traded company. Calculate the firm's price-to-earnings ratio (P/E). What does Chipotle's P/E ratio tell you about investors' expectations regarding the company's growth? How do Chipotle's financial ratios compare to restaurant industry norms at the time of your analysis?

8-25. Jarrett Baker is the founder of an enterprise software company located in Chevy Chase, Maryland. By looking at the income statements for Jarrett's business over the past three years, you see that its working capital has declined from $42,400 in 2012 to $17,900 in 2013 to $3,100 in 2014. If this trend continues, in what ways could it jeopardize the future of Jarrett's business?

8-26. Jorge Martinez is thinking about buying an existing printing business and has been carefully studying the records of the business to get a good handle on its historical financial performance. Jorge heard that you are taking a class in entrepreneurship and asks you, "What suggestions do you have for me to make the best use of this financial information (i.e., three years of audited income statements, balance sheets, and statements of cash flow)?" What suggestions would you give Jorge for making the maximum use of the financial statements?

8-27. Casey Cordell is the owner of a digital photography service in Madison, Wisconsin. The company has been profitable every year of its existence. Its debt ratio is currently 68 percent, its current ratio is 1.1, and its debt-to-equity ratio is 72.2 percent. Do these financial numbers cause any reason to be concerned? Why or why not?

8-28. What items on the left side (or top) and what items on the right side (or bottom) of a firm's balance sheet should receive the greatest scrutiny? In regard to each of these items, what are the most important factors that a new venture should focus on to maintain its overall financial health?

8-29. Suppose a colleague of yours is gearing up to write a business plan for a business she intends to start. She told you she plans to prepare the financial statements first to get that job out of the way before she tackles the rest of the plan. What is the flaw in your colleague's logic as described to you?

YOU BE THE VC 8.1 COMPANY: Spindrift Soda

• Web: www.spindriftfresh.com • Facebook: Spindriftfresh • Twitter: @Spindriftfresh

Business Idea: Make a specialty soda that is made entirely from just fresh-squeezed fruit juice, cane sugar, and carbonated water rather than sweetened syrup, juice concentrates, and preservatives.

Pitch: The knocks leveled against traditional sodas, like Coke and Pepsi, have created a market for small, specialty sodas such as Jones's and Boylan's. Still, most specialty sodas are made from sweetened syrups, and in many ways they are not that dissimilar from the major brands. Spindrift Soda provides a healthy and refreshing alternative. It is a carbonated beverage that is made from triple-purified sparkling water, fresh-squeezed fruit or berry puree (pulp and all), and cane sugar. Unlike almost every other soda on the market, it contains no syrups, no juice concentrates, no additives, and no preservatives. It's also light, bright, and tastes great.

Spindrift Soda is made every four to six weeks in small batches, and is shipped cold. It took nearly a year for Spindrift's founder, Bill Creelman, to figure out how to make it. Lots of people make fresh-squeezed juices on a small scale, and serve them to their families or sell them at a farmer's market. The challenge was to incorporate fresh-squeezed juices into a carbonated beverage at scale. Temperature-sensitive juices can't sit in vats the way syrups can. They have to be delivered in small jugs, stored properly, and then opened at the last minute and mixed in by hand. They're also hard to distribute to stores. Most sodas ship warm, like in the Coke or Pepsi trucks you see on the road. Spindrift Soda ships cold, which preserves its freshness. Creelman found distributors of fish, produce, and cheese willing to carry his product on their trucks. An added benefit of using fresh distributors is that they deliver daily, which allows them to quickly replenish Spindrift Soda inventories in stores when the stores are running low.

Spindrift's mission is to change how America experiences soda. Spindrift sodas come in six flavors including Blackberry, Sparking Orange Mango, Sparkling Lemonade, Sparkling Grapefruit, Cranberry Raspberry, and Half and Half. Spindrift also makes three flavors of bottled water including Tangerine, Lemon, and Raspberry Lime. Its beverages are truly fresh. For example, Spindrift Sparkling Grapefruit contains the following ingredients: triple-filtered sparkling water, fresh-squeezed juices (fresh pink grapefruit juice, fresh lemon juice), cane sugar, natural flavor, fruit, and vegetable juice for color. Now that's a list of ingredients that anyone can feel good about serving their family.

8-30. Based on the material covered in this chapter, what questions would you ask the firm's founders before making your funding decision? What answers would satisfy you?

8-31. If you had to make your decision on just the information provided in the pitch and on the company's website, would you fund this company? Why or why not?

YOU BE THE VC 8.2 COMPANY: How Do You Roll?

• Web: www.howdoyouroll.com • Facebook: HDYRsushi • Twitter: @How_Do_You_Roll

Business Idea: Create a sushi restaurant that allows customers to "build their own sushi" by allowing them to select their own kind of wrap, rice, veggies, proteins, and toppings.

Pitch: People who like sushi have two choices. They can go to a fancy sushi restaurant and pay a fancy bill. Or they can go to a grocery store and buy sushi that is supposedly made daily. Now there is a third option. How Do You Roll? is a fast-casual sushi restaurant that combines the quality of a high-end restaurant with the convenience of a grocery store.

How Do You Roll? is the brainchild of two brothers, Yuen Yung and Peter Yung. Both grew up in the restaurant industry. Their parents had several Chinese restaurants, and at the tender age of eight or nine they both started working in their parents' restaurants. How Do You Roll? launched with a single store in Austin, Texas. It lets the customer be the chef by allowing customers to pick their own ingredients. The customer approaches a counter and is led through four steps:

Step 1 Choose Your Wrap: Traditional (seaweed) or modern (soy)

Step 2 Eat Your Veggies: Choose up to three healthy vegetables

Step 3 Stuff Your Roll: Choose one or more of our fresh meats

Step 4 Top It Off: Indulge in one or more of our specialty toppings or sides

Through this process customers personalize their sushi rolls. The meal, which consists of a six-piece sushi roll and a fountain drink, costs an average of $8 to $11. How Do You Roll's business model is also designed to make sushi accessible to people who won't touch raw ingredients or even fish. There is cooked chicken and beef available as substitutes. Along with sushi, each restaurant also sells miso soup, seaweed salad, and green tea ice cream. It is an experience that is totally unique in the sushi industry. It also provides fast-casual food patrons an alternative to the standard fare of burgers and chicken sandwiches.

How Do You Roll? is growing via franchising. It currently has eight franchise units and two company-owned stores. It has penned several development agreements, which may add up to 70 additional franchise units over the next 10 years. According to the company, it costs between $304,295 and $508,780 to open a How Do You Roll? restaurant. The initial franchise fee is $30,000, and the ongoing royalty is 7 percent of gross sales.

In spring 2013, Yuen Yung and Peter Yung pitched the business on the popular ABC show *Shark Tank.* Along with a $1 million investment from shark Kevin O'Leary, Yung said restaurant sales jumped 30 percent. In addition, he and his brother received more than 600 inquiries from potential franchisees interested in opening How Do You Roll? restaurants.

8-32. Based on the material covered in this chapter, what questions would you ask the firm's founders before making your funding decision? What answers would satisfy you?

8-33. If you had to make your decision on just the information provided in the pitch and on the company's website, would you fund this firm? Why or why not?

CASE 8.1

Fundbox: Designed to Help Small Businesses Minimize Cash Flow Shortfalls

• *Web: www.fundbox.com* • *Facebook: Fundbox* • *Twitter: @fundbox*

Introduction

Fundbox is an entrepreneurial start-up that offers 12-week loans to small businesses. The loans are tied to specific invoices that the businesses have outstanding. Payment for the loans (including principle, interest, and fees) is deducted from a company's bank account in 12 equal amounts on a weekly basis. Once the money for the invoice comes in, the loan can be paid in full. There is no penalty for early payment.

Fundbox was launched in 2012 by Yuval Ariav, Eyal Shinar, and Tomer Michael, who are technological innovators and financial professionals. The firm's mission is to offer small businesses a common-sense approach to cash-flow management.

The Problem

Almost all small businesses experience cash flow shortfalls. Think of how business works. Businesses often win a contract, purchase the materials and supplies that are needed to produce the firm's product or service, pay employees, and then have to wait 30 to 60 days to receive payment from the customer. This scenario causes even healthy businesses to be short on cash at times. There are two traditional solutions to the problem. The first is to maintain a line of credit at a bank. A line of credit allows a business to borrow up to a certain amount of money and pay it down when money comes in. The problem with this solution is that banks are increasingly reluctant to establish lines of credit for small businesses. Banks also don't like to make short-term loans for specific amounts. The second solution is invoice factoring. With invoice factoring, a company sells its invoices to a factoring company in exchange for a lump sum of money (say $4,500 for a $5,000 invoice). The factoring company then proceeds to collect the money from the company's customer. Many businesses don't like this alternative because it involves a third party having a direct relationship with their customer. If the factoring company becomes aggressive in trying to collect the invoice, it could affect the business's relationship with its customer.

To further complicate things, Days Sales Outstanding (DSO), or the time between when a business issues an invoice and the payment is received, has been increasing across the board in recent years.

Fundbox

Fundbox offers a novel solution to the problem. When an invoice comes in, it will issue a 12-week loan for the amount of the invoice. Because the loan is matched with a specific receivable, it prevents the repayment of the loan from creating a new cash flow problem for the business. The interest rate on the loan is tied to both the creditworthiness of the borrower and the company that owes the amount on the invoice. This practice encourages borrowers to borrow money on invoices that they are confident will be paid. For example, say a business does $10,000 of work for Home Depot. It knows Home Depot will pay the invoice, but Home Depot may operate on a net 30 or net 60 day payment schedule (meaning that it has 30 days or 60 days to make the payment). If the business has an account with Fundbox, it could get the $10,000 right away, minus Fundbox's fee. Weekly payments would start immediately. When Home Depot paid the invoice, the loan to Fundbox would be paid in full. This scenario allows a business to get its money sooner rather than later and avoid short-term gaps in its cash flow. The interest rate for Fundbox's service varies. According to a review published by the FitSmall Business blog, rates range from 0.7 percent to 3 percent per month, with the typical borrower at about 2 percent per month. About 40 percent of businesses that apply are accepted by Fundbox.

Fundbox uses sophisticated data analytics to build a picture of a potential borrower's overall financial health and likelihood of repayment. Fundbox doesn't talk much about how this actually works. It is a core feature of their business and considered to be a trade secret.

Partnerships with Bookkeeping Companies

To make it easy for clients, Fundbox has established partnerships with many of the top online bookkeeping programs, including Quickbooks, Freshbooks, Xero, and Harvest. For Freshbooks, for example, once a business-person creates a Fundbox account (sign-up is free), it can easily be tied to the business's Freshbooks account. When an invoice is entered into Freshbooks, Fundbox will analyze all pertinent data to see if a 12-week loan to cover the amount of the invoice can be made. The business will receive an e-mail message indicating whether a loan can be made. The business can then evaluate the terms of the loan and either accept or pass on the offer. If the offer is accepted, the funds will be deposited in the business's bank account, usually within a day. Fundbox only works with the borrower. In the Home Depot example provided above, if the borrower defaulted on Fundbox's loan, Fundbox would not try to collect the loan amount from Home Depot. Each borrower is given a maximum line of credit from Fundbox, so offers will not be made on all invoices.

B2B Players

Fundbox's loans are most suitable for business to business (B2B) companies. These are businesses that do work for other businesses and issue invoices for the work they do. Most business to consumer companies (B2C) are paid at the point of sale. For example, when you eat at a restaurant or buy a book from Amazon.com, you pay for it right away. The B2B category includes freelancers who do work for businesses. These are individuals who may benefit especially from Fundbox's service. For example, an independent software developer may spend 100 hours developing a mobile app for a small business and invoice the business $15,000. If the payment terms are net 60, the business will have 60 days to pay the bill. Via Fundbox, the independent software developer could get his money right away. For a freelancer, getting money sooner rather than later may make the difference in making rent or paying a mortgage on time.

Fundbox's Future

According to TechCrunch, Fundbox launched in stealth mode, presumably to test its service and work the bugs out. Since it has gone live, it has signed up thousands of active users (mostly small businesses) and clears tens of thousands of invoices daily in 42 states.

Fundbox is among a growing number of "alternative lenders" that small businesses are relying on, largely because banks have pulled back from small business lending. Firms offering services that are similar to those provided by Fundbox include Kabbage, OnDeck, and Lending Club. What is unique about Fundbox is that it connects loans to specific invoices, which helps small businesses minimize cash flow challenges.

Creativa Images/Shutterstock

Fundbox has partnerships with many of the top online bookkeeping programs. If a business has a Freshbooks account, for example, it can easily be tied to the business's Fundbox's account.

(*continued*)

The downside to using Fundbox as a fix for cash flow gaps is the costs involved. While the loans are short-term, an interest rate of between 0.7 percent and 3 percent per month, as reported above, results in a high annual APR. The best thing for any small business to do is to check with an accountant regarding the wisdom of using Fundbox or a similar product to minimize cash flow shortfalls.

Fundbox has raised $17.5 million from a collection of venture capitalists to fund and grow its operations.

Discussion Questions

8-34. Toward the beginning of this case, the following statement appears: "Almost all small businesses experience cash flow shortfalls." What is cash flow? Why is cash flow so critical to an entrepreneurial firm's success? Why do almost all small businesses experience cash flow shortfalls?

8-35. As explained in this chapter, a firm's statement of cash flows is divided into three separate activities. Which of the activities from the statement of cash flows would be affected by a firm's decision to use Fundbox's service? What are some of the potential effects of a small entrepreneurial firm's decision to use Fundbox on the components of that firm's statement of cash flows?

8-36. If Fundbox's co-founders (Yuval Ariav, Eyal Shinar, and Tomer Michael) were to ask your advice about the importance of pro forma statements to their firm's continuing success, what would you say to them? What pro forma statements would you recommend the co-founders develop and why?

8-37. As a young entrepreneur, what lessons about the financial management of a firm can you learn from the actions taken by the three cofounders of Fundbox?

Sources: L. Rao, "Lending Startup Fundbox Raises $17.5 from Khosla to Help SMBs Improve Cash Flow," TechCrunch, available at http://techcrunch.com/2014/04/10/lending-startup-fundbox-raises-17-5m-from-khosla-to-help-smbs-improve-cash-flow/, posted on April 10, 2014, accessed on August 29, 2014; M. Prosser, "Fundbox: An Alternative to Invoice Factoring or Discounting," FitSmallBusiness, available at http://fitsmallbusiness.com/fundbox/, posted on August 6, 2014, accessed on August 29, 2014; R. Shafaghi, "Meet: Fundbox—Turn Unpaid Invoices into Cash," available at http://www.freshbooks.com/blog/2014/05/28/meet-fundbox-turn-unpaid-invoices-into-cash/, posted on May 28, 2014, accessed on August 29, 2014.

CASE 8.2

Dell Inc.: How Its Business Model Sweetens Its Financial Statements

• Web: www.dell.com • Facebook: Dell • Twitter: @Dell

Bruce R. Barringer, *Oklahoma State University*
R. Duane Ireland, *Texas A&M University*

Introduction

There are many reasons that Dell Inc. has, for the most part, been successful over the years. Two of the most compelling reasons are its direct sales model and its ultra-efficient global supply chain. While a start-up can't quickly emulate what Dell has done, there are lessons to be learned from Dell's experiences that any start-up can benefit from. Historically at least, Dell's approach to business made it the preferred computer brand for many businesses and consumers. Additionally, the business approach has sweetened Dell's financial statements and its ability to make money.

Dell's Hybrid Sales Approach (Combining Direct Sales and Retail Sales)

Dell was founded in 1988 touting a direct sales model. Rather than selling through stores like Sears and Best Buy, Dell sold direct, first over the phone and then via the Internet. Its business model not only allowed businesses and consumers to "customize" their computers, but also had profound positive effects on Dell's supply chain and financial activities. For a period of time after Dell launched its business model, other PC manufacturers, like Hewlett-Packard, had to forecast demand, build computers, ship them to retailers, hope they'd sell, and then wait 30 days or more for payment. Dell sidestepped all of this via its direct sales model. It received orders, built computers, and then shipped them to the buyers via UPS or FedEx. There was no "forecasting" of demand because demand was determined in real time, and Dell never got stuck with outdated computers because it maintained no inventory. Its customers also essentially financed its operations by paying in advance.

Dell maintained this business model from 1988 until 2007, when it shifted its sales strategy. Rather than selling exclusively directly, it decided to transition to a hybrid model, where it would continue to emphasize direct sales, but also sell a portion of its product line through retailers such as Best Buy, Staples, and Walmart. The main reason for the change was that Dell was shifting its emphasis from targeting businesses to targeting businesses, consumers, and international markets. The thinking was that it needed to have its computers side-by-side with its competitors in consumer channels if it hoped to become the preferred computer vendor for consumers along with businesses. It was also problematic to sell exclusively directly in some international markets.

Dell doesn't disclose the percentage of its sales that originate through its website or over the phone (its original direct-sales model) versus the percentage of its sales that come through retail outlets. It's clear, though, that a significant portion of its sales now occur online and over the phone and an increasing percentage of its sales are generated through retail outlets.

Dell's Supply Chain and Manufacturing Strategy

Dell's hybrid sales model has a significant impact on its supply chain and manufacturing strategy. It can produce computers in a highly efficient manner, because it does not have to forecast demand and keep excess inventory on hand for a large percentage of its sales. In fact, when Dell receives an order, via the Internet or on the phone, its suppliers are alerted in real time and, periodically throughout the day, deliver parts to Dell's assembly facilities where the computers are assembled, configured, and shipped. It also searches on a worldwide basis to find the best combinations of quality and cost for parts, which results in a complex yet highly efficient supply chain. In fact, in his 2005 book *The World Is Flat,* Thomas Friedman asked Dell to retrace the supply chain for his laptop computer, to determine where it was made, how many suppliers were involved, and how it reached his front door. The total supply chain for Friedman's Dell Inspiron 600m notebook computer, including suppliers of suppliers, involved about 400 companies in North America, Europe, and primarily Asia. The computer was codesigned in Austin, Texas, in Taiwan by a team of Dell engineers, and by a team of Taiwanese notebook designers (a globally distributed team can work 24 hours a day). Its final assembly was in a Dell factory in Penang, Malaysia. It was flown from Penang, Malaysia, to Nashville, Tennessee, on a China Airlines 747, the only 747 that lands in Nashville, other than when Air Force One is in town. It was delivered to Friedman's home via UPS.

To further increase efficiencies and reduce the amount of capital it must maintain, Dell is currently transitioning from this model and is relying increasingly on contract manufacturers.

Financial Advantages of Dell's Hybrid Sales Approach and Its Supply Chain and Manufacturing Strategy

There are direct financial benefits to Dell's hybrid sales approach and its approach to supply chain management and manufacturing. One of the biggest advantages is its inventory turnover. Dell turns its inventory over 31.4 times a year, compared to 13.9 times a year for Hewlett-Packard and 14.6 times a year for the S&P 500 average. Inventory turnover is determined by the following formula (the higher the number the better):

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventories}}$$

A high inventory turnover means that a company is converting its inventory into cash quickly. Turning its inventory over quickly allows Dell to generate cash that's used to fund its growth, and to not get caught with out-of-date inventory. An often-told joke in the PC industry is that unsold inventory is like unsold vegetables—it spoils quickly. So maintaining a favorable inventory turnover ratio is critical.

Another ratio that's important is the asset turnover ratio. Asset turnover reflects the amount of sales generated for every dollar's worth of assets. It's calculated using the following formula (the higher the number the better):

$$\text{Asset Turnover} = \frac{\text{Sales}}{\text{Assets}}$$

Dell's asset turnover ratio is 1.26, compared to 1.06 for Hewlett-Packard and 0.34 for the S&P 500 average. Asset turnover denotes the amount of sales generated for every dollar's worth of assets. It's a measure of efficiency in regard to a firm's ability to use its assets to generate sales.

Along with crunching numbers, savvy managers assess the impact of their financial strategies on their overall goals and levels of customer satisfaction. Ultimately, it doesn't matter that a company has attractive-looking financial statements if its customers are starting to go elsewhere. Dell's hybrid sales approach and its supply chain and manufacturing strategy shine in this area too. Because it turns its inventory over quickly, it offers its customers the latest technologies rather than saddling them with products that likely will soon be outdated. It can also pass along the advantages of falling component costs quicker than its competitors can.

The Downside of Pushing Cost Savings Too Far

Although the majority of the decisions that Dell has made have both sweetened its financial statements and pleased its customers, Dell is learning the hard way that cost savings can be pushed too far. In the early 1990s, partly in response to the challenges imposed by its rapid growth, Dell started outsourcing the majority of its call center activities to low-wage countries in Asia and Central America. This strategy led to a chorus of growing complaints about long wait times for customer service calls and poor post-sales support. In response, Dell has spent over $100 million to revive its customer service, including an effort to increase the percentage of full-time Dell employees who staff customer service support lines and reduce its use of part-time and

(*continued*)

contract workers. The jury is still out on whether Dell has done enough to stem the tide of customer dissatisfaction. Another downside is that Dell pushes its suppliers hard. While most suppliers respond positively, it's hard to gauge the long-term impact in supplier relations by Dell's appearing to assume the role of "taskmaster" in its relationships with its suppliers.

It's also unclear how long Dell's hybrid sales approach will maintain an advantage. Although its inventory turnover number is still strong, it's not as outstanding as it was when Dell sold primarily online and over the phone. In 2004, Dell's inventory turnover was 107.1, but it is 31.4 today. Dell also has a formable competitor in Apple. Apple's inventory turnover is 63.0. It may be unfair to compare Dell directly to Apple, given that Apple is a more diversified company, but the comparison highlights the fact that Dell is no longer a trendsetter in inventory management efficiency. Another challenge that all computer manufacturers face is a global decline in personal computer sales. In slightly different words, global declines in computer sales is the reality of the day, even for premier firms like Dell, Hewlett-Packard, and Apple.

Discussion Questions

8-38. Investigate the financial ratio of inventory turnover. Find current information about Dell (www.hoovers.com is a good starting place) and report whether its inventory turnover is still as impressive as the number mentioned in the case. How does Dell's current inventory turnover ratio compare to that of some of its competitors such as Apple and Hewlett-Packard? Do the same for Dell's asset turnover ratio.

8-39. Locate Dell's most recent 10-K report and either locate or compute what you believe are the three most important financial ratios for Dell. Are the ratios impressive or do they provide you reason for concern?

8-40. If you were the CEO of Dell Inc., what expectations would you reflect when preparing a pro forma income statement for your company?

8-41. What lessons can a young entrepreneurial firm learn from Dell's experiences?

Sources: Dell 10-K report, available at www.sec.gov, for the fiscal year ending February 1, 2013; Financial data, including Inventory Turnover and Asset Turnover ratios, available at www.csimarket.com B. Breen, "Living in Dell Time," *Fast Company*, December 19, 2007.

Endnotes

1. R. C. Moyer, J. R. McGuigan, and R. P. Rao, *Contemporary Financial Management*, 13th ed. (Cincinnati, OH: SouthWestern Cengage Learning, 2015).
2. W. Drover, M. S. Wood, and G. T. Payne, "The Effects of Perceived Control on Venture Capitalist Investment Decisions: A Configurational Perspective," *Entrepreneurship Theory and Practice* 38, no. 4 (2014): 833–861; J. Brinckmann, S. Salomo, and H. G. Gemuenden, "Financial Management Competence of Founding Teams and Growth of New Technology-Based Firms," *Entrepreneurship Theory and Practice* 35, no. 2 (2011): 217–243.
3. W. R. Kerr, J. Lerner, and A. Schoar, "The Consequences of Entrepreneurial Finance: Evidence from Angel Financings," *Review of Financial Studies* 27, no. 1 (2014): 20–55; C. Koropp, D. Grichnik, and F. Kellermanns, "Financial Attitudes in Family Firms: The Moderating Role of Family Commitment," *Journal of Small Business Management* 51, no. 1 (2013): 114–137.
4. G. Michalski, *Value-Based Working Capital Management: Determining Liquid Asset Levels in Entrepreneurial Environments* (New York, NY: Palgrave Macmillan, 2014).
5. J. C. Leach and R. W. Melicher, *Entrepreneurial Finance*, 5th ed. (Cincinnati, OH: SouthWestern Cengage Learning, 2015).
6. J. H. Gittell, *The Southwest Airlines Way* (New York, NY: McGraw-Hill, 2003), 7.
7. G. Cassar, "Industry and Startup Experience on Entrepreneur Forecast Performance in New Firms," *Journal of Business Venturing* 29, no. 1 (2014): 137–151.
8. E. F. Brigham and J. F. Houston, *Fundamentals of Financial Management*, 14th ed. (Cincinnati, OH: SouthWestern Cengage Learning, 2016).
9. B. Gates, *Business @ the Speed of Thought* (New York, NY: Time Warner, 1999), 214.
10. SEC home page, www.sec.gov (accessed August 23, 2014).
11. P. J. Adelman and A. M. Marks, *Entrepreneurial Finance*, 6th ed. (Upper Saddle River, NJ: Prentice Hall, 2014).
12. A. M. Ormiston and L. M. Fraser, *Understanding Financial Statements*, 10th ed. (Upper Saddle River, NJ: Prentice Hall, 2013).
13. L. J. Gitman and C. J. Zutter, *Principles of Managerial Finance*, 7th ed. (Upper Saddle River, NJ: Prentice Hall, 2014); H. Van Auken and S. M. Carraher, "How Do Small Firms Use Financial Statements?" *Academy of Accounting and Financial Studies Proceedings* 16, no. 1 (2011): 35–42.
14. K. P. Schoenebeck and M. P. Holtzman, *Interpreting and Analyzing Financial Statements*, 6th ed. (Upper Saddle River, NJ: Prentice Hall, 2013).
15. S. Anokhin and J. Wincent, "Technological Arbitrage Opportunities and Interindustry Differences in Entry Rates," *Journal of Business Venturing* 29, no. 3 (2014): 437–452; J. H. Block, G. De Vries, J. H. Schumann, and P. Sander, "Trademarks and Venture Capital Evaluation,"

Journal of Business Venturing 29, no. 4 (2014): 525–542.
16. D. M. Cain, D. A. Moore, and U. Haran, "Making Sense of Overconfidence in Market Entry," *Strategic Management Journal*, 2014, in press; T. C. Flatten, A. Engelen, T. Moller, and M. Brettel, "How Entrepreneurial Firms Profit from Pricing Capabilities: An Examination of Technology-Based Ventures," *Entrepreneurship Theory and Practice*, 2014, in press.
17. S. Carraher and H. Van Auken, "The Use of Financial Statements for Decision Making by Small Firms," *Journal of Small Business & Entrepreneurship* 26, no. 3 (2013): 323–336.
18. J. C. Dencker and M. Gruber, "The Effects of Opportunities and Founder Experience on New Firm Performance," *Strategic Management Journal*, 2014, in press.
19. N. D. Sharpe, R. D. De Veaux, and P. Velleman, *Business Statistics*, 3rd ed. (Upper Saddle River, NJ: Prentice Hall, 2014).
20. J. Berk, P. DeMarzo, and J. Harford, *Fundamentals of Corporate Finance*, 3rd ed. (Upper Saddle River, NJ: Prentice Hall, 2014).
21. C. M. Rambo, "Time Required to Break-Even for Small and Medium Enterprises: Evidence from Kenya," *International Journal of Management and Marketing Research* 6, no. 1 (2013): 81–94.
22. R. N. Lussier, J. Corman, and D. C. Kimball, *Entrepreneurial New Venture Skills*, 3rd ed. (New York, NY: Routledge, 2015).