Leach / Melicher

Entrepreneurial FINANCE

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CHAPTER 1

Introduction and Overview

FIRST THOUGHTS

Only those individuals with entrepreneurial experience can say, "Been there, done that!" With aspiring entrepreneurs in mind, we start at the beginning and consider how entrepreneurial finance relates to the other aspects and challenges of launching a new venture. Our goal is to equip you with the terms, tools, and techniques that can help turn a business idea into a successful venture.

LOOKING AHEAD

Chapter 2 focuses on the transformation of an idea into a business opportunity and the more formal representation of that opportunity as a business plan. Most successful ideas are grounded in sound business models. We present qualitative and quantitative screening exercises that can help determine an idea's commercial viability. We provide a brief discussion of a business plan's key elements.

CHAPTER LEARNING OBJECTIVES

This chapter presents an overview of entrepreneurial finance. We hope to convey the potential benefit of embracing standard entrepreneurial finance methods and techniques. We consider an entrepreneur's operating and financial decisions at each stage, as the venture progresses from idea to harvest. After completing this chapter, you will be able to:

1. Characterize the entrepreneurial process.
2. Describe entrepreneurship and some characteristics of entrepreneurs.
3. Indicate three megatrends providing waves of entrepreneurial opportunities.
4. List and describe the seven principles of entrepreneurial finance.
5. Discuss entrepreneurial finance and the role of the financial manager.
6. Describe the various stages of a successful venture's life cycle.
7. Identify, by life cycle stage, the relevant types of financing and investors.
8. Understand the life cycle approach used in this book.

From the Headlines

Small Wind Gets a Gust from CLEANtricity Power

According to a recent poll, 89% of U.S. voters, including 84% of Republicans, 88% of Independents, and 93% of Democrats, believe that increasing the amount of energy their nation gets from wind is a good idea.[1] While these voters and their parties find plenty of issues on which they vehemently disagree, there is little doubt that the United States and the world will continue to increase its efforts to harvest energy from the wind. In 2008, 42% of all new generating capacity in the United States came from wind, up from only 2% in 2004.[2]

Much of the public's attention has been focused on large-scale wind farming, complete with landscape photos of rows of towering wind turbines sporting massive propellers. Less in the limelight, but every bit as much in the game, are ventures targeting small-scale wind turbine electricity generation. Like their cousins in other renewable energy categories, including those working with micro biofuel and solar energy production, small-scale wind energy generation ventures are contributing to the debate on viable paths forward in the renewable energy markets.

CLEANtricity Power, located in Broomfield, Colorado, is one of the new players in the "small wind market." The American Wind Energy Association characterizes that market by the target customers and the rated capacity of the generating technology:

> *Small wind turbines are electric generators that utilize wind energy to produce clean, emissions-free power for individual homes, farms, and small businesses. With this simple and increasingly popular technology, individuals can generate their own power and cut their energy bills while helping to protect the environment. The United States leads the world in the production of small wind turbines, which are defined as having rated capacities of 100 kilowatts and less, and the market is expected to continue strong growth through the next decade.*[3]

CLEANtricity's intent is to manufacture small-scale wind turbines that "enable individuals, businesses, and communities to generate reliable, affordable clean energy where they use it." Their current product offering, known as the SHAPEshifter, is a vertical-axis self-adjusting wind turbine capable of electricity generation at lower wind speeds than the usual 30 miles per hour targeted by competing technology. It accomplishes this versatility by morphing into a more efficient shape depending on the speed of the wind. Co-founder and chief executive officer Daniel Sullivan summarizes this capability as "it's large in low winds and small in high winds…the blades move naturally to their optimum position."[4] Given that North American wind speeds at 60 feet above ground only average 7.3 miles per hour, SHAPEshifter's functionality at lower speeds and its ability to adapt to higher speeds offer a potentially important advantage in the small-scale wind generation market.

CLEANtricity is a self-funded 2009 startup and was one of twelve semifinalists at the 2009 Rocky Mountain Region Clean Tech Open. At the time we met with them with prototype, provisional patent, and field tests in hand, they were seeking $2 million in external financing.

1 American Wind Energy Association press release, April 22, 2010, citing poll conducted by Neil Newhouse of Public Opinion Strategies and Anna Bennett of Bennett, Petts & Normington; press release available at http://www.awea.org/newsroom/releases/04-22-10_Poll_Shows_Wind_Works_for_Americans.html visited on 4/25/2010.

2 American Wind Energy Association, "Wind, A Leading Source of New Electricity Generation," http://www.awea.org/pubs/documents/Outlook_2009.pdf., visited on 4/25/2010.

3 http://www.awea.org/smallwind/ visited on 4/25/2010.

4 *Coloradobiz*, December 2009, Tech Startup of the Month, pg. 58. This article is also available at http://www.cobizmag.com/articles/tech-startup1/.

Small Business Administration (SBA)

established by the federal government to provide financial assistance to small businesses

It is estimated that more than one million new businesses are started in the United States each year. The Office of Advocacy of the United States **Small Business Administration (SBA)** documents that "employer firm births" have exceeded 600,000 annually in recent years.[1] Reasonable estimates place non-employer (e.g., single person or small family) businesses started each year at a similar number. In addition to these formally organized startups, countless commercial ideas are entertained and abandoned without the benefit of a formal organization. The incredible magnitude of potential entrepreneurial opportunities is a clear reflection of the commercial energy fostered by a market economy. We believe that the time spent on this book's treatment of financial tools and techniques may be one of the more important investments you make.

1 The Office of Advocacy of the Small Business Administration (SBA) was created in 1976 by Congress to be an independent voice for small business within the federal government. Small business statistics are available at http://www.sba.gov/advo/research/dyn_b_d8906.pdf.

SECTION 1.1

THE ENTREPRENEURIAL PROCESS

entrepreneurial process

developing opportunities, gathering resources, and managing and building operations with the goal of creating value

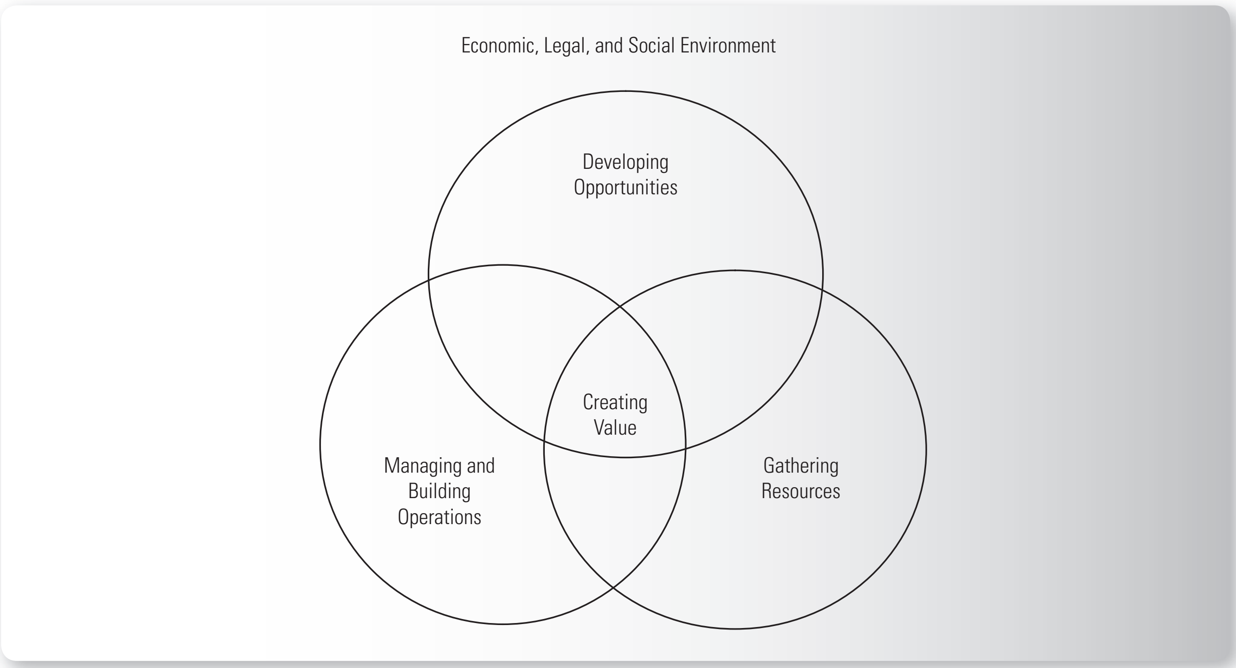
The **entrepreneurial process** comprises: developing opportunities, gathering resources, and managing and building operations, all with the goal of creating value. Figure 1.1 provides a graphical depiction of this process. Many entrepreneurship students have formulated ideas for possible new products and services. However, prior to committing significant time and resources to launching a new venture, it can really pay to take the time and effort to examine the feasibility of an idea, screen it as a possible venture opportunity, analyze the related competitive environment, develop a sound business model, and prepare a convincing business plan.

The second aspect of a successful entrepreneurial process involves gathering the physical assets, intellectual property, human resources, and financial capital necessary to move from opportunity to entrepreneurial venture. The venture should organize formally and legally, the process of which also provides an opportunity for founders to build consensus for the new venture's boundaries of authority and basic ethical framework. Every startup needs "seed" financing and must have a strategy for acquiring it.

The third piece of the entrepreneurial process is managing and building the venture's operations. An effective business model must generate revenues to cover operating costs in the foreseeable future. Eventually, a growing venture will also need to provide enough cash flow to cover planned expansion and reinvestment. Additional financing rounds, possibly including those available through public securities offerings, may be necessary for growth in later years.

Figure 1.1 depicts an intersection of all three components—creating value. Each of the components contributes to the overall value. As a reminder of the wider context, we place the components and their intersection in the context of the venture's economic, legal, and social environment.

FIGURE 1.1 THE ENTREPRENEURIAL PROCESS



CONCEPT CHECK * What are the components of the entrepreneurial process?

SECTION 1.2

ENTREPRENEURSHIP FUNDAMENTALS

Successful entrepreneurs recognize and develop viable business opportunities, have confidence in the market potential for their new products and services, and are committed to "running the race." They keep success in sight even when others may have difficulty focusing.

Who Is an Entrepreneur?

After working for a large corporation for nearly five years, you are considering launching a Web-based business. Product development and testing require financing that exceeds your limited personal resources. How much external financing do you need to make a credible attempt with the new venture? How much of the venture's ownership will you have to surrender to attract this initial financing?

A friend of yours, who graduated from college three years ago, started a new business on the conviction that pumpkin stencils and special carving knives could foster an unprecedented commercial exploration of the market for Halloween crafts. Her firm has experienced phenomenal growth and is seeking financing for this season's inventory stockpiling. Do her options differ from yours? Do the possible investors for your startup and her later-stage venture move in the same circles?

Your neighbor is the chief executive officer (CEO) of a large firm founded twenty years ago. He has accumulated enormous paper wealth and, before retirement, wishes to diversify his investments. How do your neighbor's investment goals and your financial needs relate to one another? Is your neighbor a reasonable prospect for startup funding, or is he more likely to spend the money he has allocated for earlier-stage investing on his own idea for a new product? Does he see himself as an entrepreneur or as one who wants to enable and profit from other entrepreneurs?

Who will succeed? Who will fail? Who is an entrepreneur? Your pumpkin-carving friend? Your CEO neighbor? You? All of you or none of you? We offer no infallible formula or process for entrepreneurial success. None exists. We cannot tell you if you should drop a Fortune 500 career track and take up drinking from the entrepreneurial fire hose. We have no blueprint for the ideal entrepreneur and no screening device to test for the entrepreneurial gene. Even if we had such a test, rest assured that for many who test positive, the news might not be welcome, particularly to friends and family. The ups and downs of the entrepreneurial lifestyle are difficult for those supporting the entrepreneur financially and emotionally. Nonetheless, we believe that the tools and techniques we introduce can help entrepreneurs and others anticipate venture challenges, navigate through shortfalls, and achieve important milestones. Fortunately for the entrepreneur, employees, backers, and their families, these tools and techniques can help smooth out an inevitably bumpy ride.

Basic Definitions

While the academic definition of "entrepreneurship" has evolved, it is useful to formalize our context for the term. Jeffry Timmons and Stephen Spinelli suggest that "entrepreneurship is a way of thinking, reasoning, and acting that is opportunity obsessed, holistic in approach, and leadership balanced for the purpose of value creation and

entrepreneurship
process of changing ideas into commercial opportunities and creating value

capture."[2] We adopt a somewhat shorter definition: **Entrepreneurship** is the process of changing ideas into commercial opportunities and creating value. An **entrepreneur** is an individual who thinks, reasons, and acts to convert ideas into commercial opportunities and to create value. Whether entrepreneurial efforts succeed or fail, an entrepreneur's mission is to find economic opportunities, convert them into valuable products and services, and have their worth recognized in the marketplace.

CONCEPT CHECK

* What is the meaning of entrepreneurship?
* Who is an entrepreneur?

entrepreneur
individual who thinks, reasons, and acts to convert ideas into commercial opportunities and to create value

Entrepreneurial Traits or Characteristics

While we want to avoid most generalizations about entrepreneurial traits or characteristics, there are three we consider important. First, successful entrepreneurs recognize and seize commercial opportunities, frequently before others even have an inkling of their potential. Mark Twain once said, "I was seldom able to see an opportunity, until it ceased to be one." Second, successful entrepreneurs tend to be doggedly optimistic. The glass is never "half empty" and usually not even "half full." It is "full," and they are ready to call for more glasses. Third, successful entrepreneurs are not consumed entirely with the present. Their optimism is conditional. They know that certain events need to take place for this optimism to be justified. They do not treat venture planning as the enemy. Seeing a (conditionally) bright future, successful entrepreneurs plan a way to get there and begin to construct paths to obtain the required physical, financial, and human resources.

While there are caricatures, there is no prototypical entrepreneur. Many authors have tried to identify specific characteristics of successful entrepreneurs, but accurate generalizations have eluded them. There are numerous myths about entrepreneurs.[3] One hears that "entrepreneurs are born, not made." Yet many successful entrepreneurs have been, or will be, failing entrepreneurs if observed at different times in their lives. While identifying the fear of failure as a personal motivation propelling them forward, successful entrepreneurs are not paralyzed by this fear. If you see venture bumps as opportunities rather than obstacles, perhaps the entrepreneurial lifestyle is right for you.

CONCEPT CHECK

* What are some general traits or characteristics of entrepreneurs?

Opportunities Exist But Not Without Risks

If you feel the entrepreneurship bug biting, you are not alone. Remember, the annual number of new U.S. business formations runs in the millions. Small and growing enterprises are critical to the U.S. economy; small firms provide 60 to 80 percent of net new jobs.[4]

Firms with fewer than 500 employees represent more than 99 percent of all employers and employ over half of the private workforce. They are responsible for about half of the private gross domestic product. During the past century, entrepreneurial firms' innovations

2 Jeffry A. Timmons and Stephen Spinelli, *New Venture Creation*, 8th ed. (New York: McGraw-Hill/Irwin, 2009), p. 101.

3 Timmons and Spinelli address seventeen myths and realities about entrepreneurs and summarize prior efforts to identify characteristics of successful entrepreneurs. Ibid., pp. 59–60.

4 *Small Business Economic Indicators* (Washington, DC: U.S. Small Business Administration, Office of Advocacy, 2004). An electronic version of the study including tables is available at http://sba.gov/advo/press/04-26.html.

included personal computers, heart pacemakers, optical scanners, soft contact lenses, and double-knit fabric. Entrepreneurial firms have long been major players in high-technology industries, where small businesses account for over one-fourth of all jobs and over one-half of U.S. innovations and new technologies. Small high-technology firms are responsible for twice as many product innovations per employee, and obtain more patents per sales dollar, than large high-technology firms. One government study suggests that some of the fastest growing opportunities for small businesses are in the restaurant industry, medical and dental laboratories, residential care industries (housing for the elderly, group homes, etc.), credit reporting, child daycare services, and equipment leasing.[5]

As much as we would like to encourage your entrepreneurial inclinations, it would be irresponsible for us to imply that starting and successfully operating a business is easy. As a basic financial principle, risk and return go together—the expectation of higher returns is accompanied by higher risks. According to the SBA's Office of Advocacy, for the years 2005 to 2007 employer firm births were estimated to be 659,093 per year. For the same period, employer firm terminations averaged 578,793 annually. In 2008, however, the estimated number of small business starts was below trend at 627,200, while the estimated number of closures was above trend at 595,600. Although bankruptcies averaged only 29,073 per year in 2005 to 2007, they rose to 43,456 in 2008.[6]

Phillips and Kirchhoff, using Dun & Bradstreet data, found that 76 percent of new firms were still in existence after two years of operation. Forty-seven percent of new firms survived four years, and 38 percent were still operating after six years.[7] In a more recent study of the U.S. Census Bureau's Business Information Tracking Series, Brian Headd found similar results. Sixty-six percent of new employers survived two years, 50 percent were still in existence after four years, and 40 percent survived at least six years. Headd also studied the U.S. Census Bureau's Characteristics of Business Owners database, which surveyed owners of closed firms on whether the owners felt their firms were successful or unsuccessful at the time of closure. The evidence suggests that about one-third of closed businesses were successful at closure. Thus, instead of closing due to bankruptcy, many owners may have exited their businesses by retiring or selling.[8]

Nearly half of business failures are due to economic factors such as inadequate sales, insufficient profits, or industry weakness. Of the remainder, almost 40 percent cite financial causes, such as excessive debt and insufficient financial capital. Other reasons include insufficient managerial experience, business conflicts, family problems, fraud, and disasters.[9]

Although the risks associated with starting a new entrepreneurial venture are large, there is always room for one more success. Successful entrepreneurs are able to anticipate and overcome the business risks that cause others to fail. While hard work and a little luck will help, an entrepreneur must be able to finance and manage the venture. Commercial vision, an unrelenting drive to succeed, the ability to build and engage a management team, a grasp of the risks involved, and a willingness to plan for the future are some of the ingredients for success.

5 "Small Business Answer Card" and "The Facts about Small Business" (Washington, DC: U.S. Small Business Administration, Office of Advocacy, 2000).

6 *The Small Business Economy*, http://www.sba.gov/advo/research/sb_econ2009.pdf.

7 B. Phillips and B.A. Kirchhoff, "Formation, Growth and Survival: Small Firm Dynamics in the U.S. Economy," *Small Business Economics* 1 (1989): pp. 65–74.

8 Brian Headd, "Redefining Business Success: Distinguishing Between Closure and Failure," *Small Business Economics* 21 (2003): pp. 51–61.

9 "Small Business Answer Card" and "The Facts About Small Business."

CONCEPT CHECK

* What percentage of new businesses survive four years of operation?
* What are some of the major reasons why small businesses fail?

SECTION 1.3

SOURCES OF ENTREPRENEURIAL OPPORTUNITIES

entrepreneurial opportunities
ideas with potential to create value through different or new, repackaged, or repositioned products, markets, processes, or services

Entrepreneurs are the primary engine of commercial change in the global economy. **Entrepreneurial opportunities** are ideas that have the potential to create value through new, repackaged, or repositioned products, markets, processes, or services. One study of *Inc*. magazine's 500 high-growth firms suggests that about 12 percent of founders feel their firms' successes are due to extraordinary ideas, whereas the remaining 88 percent feel their firms' successes are due to exceptional execution of ordinary ideas.[10] In a separate survey, Amar Bhide found that *Inc*. 500 founders often make use of existing ideas originating in their prior work experiences. Only 6 percent of his responding founders indicate that "no substitutes were available" for their products or services. In contrast, 58 percent say they succeeded even though competitors offer "identical or close substitutes."[11]

Megatrends are large societal, demographic, or technological trends or changes that are slow in forming but, once in place, continue for many years. In contrast, *fads* are not predictable, have short lives, and do not involve macro changes. Of course, there are many degrees between fads and megatrends that provide entrepreneurs with business opportunities. However, while entrepreneurial opportunities can come from an almost unlimited number of sources, we give special focus to the following three megatrend categories:

* Societal trends or changes
* Demographic trends or changes
* Technological trends or changes
* Crises and "bubbles"

Societal Changes

Many entrepreneurial endeavors are commercial reflections of broader societal changes. In 1982, John Naisbitt identified several major or megatrends shaping U.S. society and the world.[12] Naisbitt recognized that the U.S. economy, by the early 1980s, centered on the creation and distribution of information. He argued that successful new technologies would center on the human response to information. Many of the commercial opportunities in the past two decades have capitalized on information creation and organization and its central role in human decision support.

10 J. Case, "The Origins of Entrepreneurship," *Inc*., June 1989, p. 51.

11 Amar V. Bhide, *The Origin and Evolution of New Businesses* (New York: Oxford University Press, 2000).

12 John Naisbitt, *Megatrends* (New York: Warner Books, 1982). Although only two are presented here, Naisbitt identified six additional megatrends. For a follow-up look at the megatrends shaping our society, see John Naisbitt and Patricia Aburdene, *Megatrends 2000* (New York: Morrow, 1990). In a 2007 article in *Entrepreneur* magazine, five forces that shaped the face of entrepreneurship over the past three decades were identified as technology (the computer), the Internet (a network to link computers), globalization (everyone can sell worldwide), baby boomers (question-authority attitudes), and individualism (corporate restructurings forced individuals to look out for themselves). See Carol Tice, "Change Agents," *Entrepreneur* (May 2007), pp. 65–67.

Naisbitt also recognized that the United States was increasingly affected by a global economy and that Americans were rekindling the entrepreneurial spirit. It is now clear that almost all businesses face international competition and that the pace of entrepreneurial innovation is increasing throughout the world. To succeed in such an environment requires an understanding of current megatrends and the anticipation of new ones. While many possible trends are candidates for spawning entrepreneurial innovation, two that will undoubtedly influence future commercial opportunities are the demographic shifts associated with the baby boom generation and our increasingly information-oriented society.

Social, economic, and legal changes may occur within pervasive trends. Social changes are reflected in important changes in preferences about clothing styles, food (e.g., gluten-free diets), travel and leisure, housing, and so forth. An anticipation of social change is the genesis of many entrepreneurial opportunities as innovators position themselves to satisfy the demand for the related new products and services. Economic shifts—the rise of two-career families, higher disposable incomes, changing savings patterns—also suggest entrepreneurial opportunities. Changes in our legal environment can introduce important economic opportunities by eliminating existing barriers to entry. For example, deregulation in the banking, transportation, and telecommunications industries has allowed entrepreneurs to provide cost-efficient, demand-driven alternatives.

CONCEPT CHECK * What are megatrends, and how do they introduce new commercial opportunities?

Demographic Changes

One major demographic trend continuing to shape the U.S. economy is the aging of the so-called "baby boom generation." In 1993, Harry Dent documented major generation waves in the United States during the twentieth century.[13] By far, the most important generation wave is the baby boom. After World War II, from 1946 to 1964, an unprecedented number of babies, approximately 79 million, were born in the United States. As this generation has aged, it has repeatedly stressed the U.S. infrastructure. In the 1950s and 1960s, it overloaded public school systems from kindergarten through high school. By the 1970s and early 1980s, a period sometimes referred to as their innovation wave, boomers were heavily involved in developing, innovating, and adopting new technologies.

Dent estimates that the boomers' spending wave started in the early 1990s and peaked in the late 1990s and the first part of the twenty-first century. The tremendous expansion in the stock and bond markets during the 1980s and 1990s was, in part, due to the these anticipated innovation and spending waves. Dent projects that the organization, or power, wave, where boomers dominate top managerial positions and possess the accumulated wealth to influence corporate America, will peak sometime in the 2020s.

For the entrepreneurially inclined, the good news is that the boomers continue to spend at record levels; "consumer confidence" is a key ingredient to America's continued prosperity and expansion. Financing continues to be available for solid business opportunities. Venture investing, although initially reeling after the decline at the turn of this century and the subsequent recession, is recovering. The aging boomers, with their earning and consumption power, continue to provide enduring business opportunities. Many of the successful entrepreneurial ventures will provide goods and services tailored to this aging, and wealthy, generation. There will undoubtedly be other business opportunities

13 Harry S. Dent, Jr., *The Great Boom Ahead* (New York: Hyperion, 1993). Also see Harry S. Dent, Jr., *The Roaring 2000s* (New York: Simon & Schuster, 1998).

relating to as-yet unlabeled subsets of consumers. Entrepreneurs with the ability to understand demographic shifts, and see the resulting new business opportunities, will write their own success stories.

CONCEPT CHECK

* What is meant by the term "baby boom generation"?

Technological Changes

Technological change may be the most important source of entrepreneurial opportunities.[14] While the accurate dating of the arrival of major technological innovations is difficult, it is reasonable to say that the genesis of our information society was in the mid to late 1950s and early 1960s. Transatlantic cable telephone service began. The Soviet Union launched *Sputnik*, suggesting the possibility of global satellite communications. Transistors replaced vacuum tubes in computers. Compilers opened the door to higher-level programming languages, and the development of the computer "chip" was under way.

Perhaps the most important invention in shuttling us from an industrial society to an information society was the computer chip.[15] Such chips are the backbone of all modern computing and enable the telecommunications applications and information systems that have changed the way almost everyone lives. The worldwide distribution of computer chips (and the software systems running on them) has paved the way for what may be the most significant innovation in global commerce since the merchant ship: the Internet. The Internet is an incredibly diffuse collection of computers networked together. It is hard to think of anything else in history that parallels the level of international coordination (individuals and entities) that the Internet has almost painlessly achieved, and in a remarkably short time.[16] When the Internet's ability to provide nearly instant worldwide communication was combined with rapid transfer of graphic images, the Internet became the infrastructure for the "World Wide Web," a user-friendly and commercially attractive foundation for many new ways of doing business, including retail and wholesale operations through electronic commerce. In addition to the Web's commercial applications, the Internet has dramatically changed the way almost everyone goes about daily business. Internet functionality affects modern life in almost uncountable ways, including such common things as electronic mail (e-mail), remote access, large file transfer (including pictures, music, and videos), instant messaging, and, more recently, cell phone–Web cross-functionality.

14 For example, see Scott Shane, "Explaining Variation in Rates of Entrepreneurship in the United States: 1899–1988," *Journal of Management* 22 (1996): pp. 747–781; and Scott Shane, "Technology Opportunities and New Firm Creation," *Management Science* 47 (2001): pp. 205–220.

15 The U.S. Patent Office appears to recognize Jack Kilby and Robert Noyce as the computer chip's co-inventors. Kilby conducted research at Texas Instruments during the 1950s and filed for the first "computer chip" patent. Noyce filed after Kilby, but supposedly had a more useful design. Noyce later cofounded the Intel Corporation. See Lee Gomes, "Paternity Suits Some Better Than Others in the Invention Biz," *Wall Street Journal*, June 18, 1999, pp. A1, A10.

16 The Internet had its beginning in late 1969 when researchers at UCLA, including Professor Leonard Kleinrock and graduate students Stephen Crocker and Vinton Cerf, linked two computers for purposes of exchanging data. This initial network project, supported by the Department of the Defense (DOD), was given the name Arpanet for Advanced Research Projects Agency Network. Other milestones include the inventing of network e-mail in 1971 and the use of the "@" symbol in 1972. Cerf and Robert Kan invented the TCP protocol used in transporting data via the Internet in 1974. In 1982, the "Internet" was defined as a series of TCP/IP networks that were connected. In 1990, Tim Berners-Lee invented the World Wide Web, and Arpanet ceased to exist. The commercial explosion really began after the creation of modern server software, hypertext markup language (HTML), and browsers (such as Mosaic, Netscape, and Internet Explorer). See Anick Jesdanun, "Happy Birthday to the Internet," *Daily Camera*, August 30, 2004, pp. 1B, 5B. The appendix in this chapter provides further information on the Internet's structure and the various constituent industries that provide goods and services to support the Internet.

e-commerce
the use of electronic means to conduct business online

Electronic commerce, or **e-commerce**, involves the use of electronic means to conduct business online. Although many of the simple "dot.com" and "e-commerce" business models of the late 1990s did not work, the Internet economy and e-commerce are here to stay. Simply put, we will never do business the same way we did before the Internet. It has become too easy to compare various suppliers' prices or check on the latest offer from our competitors to return to conducting business in the "darkness" tolerated only a few years ago. A simple example is online package tracking. Now, instead of using the phone to say a package is "in the mail," the sender is expected to provide a tracking number to be used on the Web so that the sender and the receiver can ascertain the veracity of this claim *and* follow the package along its route.

Attention continues to shift from the age-old strategy of owning and controlling natural resources (tangibles), to a strategy of owning and controlling information (intangibles). Even Internet entrepreneurs who started their ventures intending to sell products and services have sometimes found themselves giving their products and services away in order to monitor their "users" and sell user demographic information. Information is central in the modern global economy.

While new technologies suggest business opportunities, profitable commercial application of the new technologies often occurs after trial and error. Many attempts to exploit the Internet commercially were proposed, tried, and funded. Eventually, there was a wave of potentially appealing applications—and the vision was contagious. We are still trying to determine the winners. That is, we know the Internet provides significant efficiency improvements for commercial interaction; we're just not sure whether the winners are buyers, sellers, or both. The Web lets suppliers compete for consumers' business, putting the consumer in an advantageous position. It is not clear whether this benefits suppliers in the long run.

It is fair to say that many e-commerce business plans were funded with the belief that part of the benefit could be captured by sellers; that is, producers and retailers. We now know that the Web so effectively facilitates price competition that it is hard for suppliers and retailers to protect margins. Much of the efficiency gains go to the buyers (in what economists call consumer surplus), making for a less-than-attractive seller business model. Although such a plan might have received funding a few years ago, building an e-commerce site to sell nondifferentiated goods at lower prices than are currently available is now a nonstarter. An important characteristic of the Internet is that physical barriers to entry are very low. That is, it is easy and relatively low cost to launch a competing Web e-commerce site. If your business model doesn't have a sustainable purchasing cost advantage, the Internet may help defeat your business model because it allows scores of other retailers to quickly monitor and replicate whatever you're doing and drive everyone toward aggressive price competition and diminishing margins.

E-commerce may not deliver the margins once conjectured, but the Internet is still one of the most radical innovations in our lifetime. Expect it to provide profitable new venture opportunities for many years to come—consumers are probably hooked forever.

CONCEPT CHECK

* What innovations drove our move from an industrial society to an information society? Why?
* Why is e-commerce here to stay?

Crises and "Bubbles"

The first decade of the twenty-first century was characterized by extreme economic swings accompanied by, among other things, the bursting of several asset and financial "bubbles," the 9/11 terrorist attack on the United States, and the 2007–2009 financial crisis. Cost-cutting coupled with economic growth during the 1990s led to the availability of excessive amounts of financial capital as the twentieth century came to an end. Venture investors were chasing poorer investment opportunities than those to which they had become accustomed. Stock prices of Internet or "tech" firms rose much faster than those firms' abilities to generate earnings and cash flows. As a result, the "dot.com" or Internet bubble burst in 2000.[17] Venture funding dried up to at a mere trickle relative to the amounts flowing during the dot.com era. Many entrepreneurs with good potential opportunities were unable to find funding.

When the dot.com economy was faltering, an economic recession that began in 2001 was exacerbated by the 9/11 terrorist attack. In response, the Federal Reserve moved quickly to increase liquidity and lower interest rates. Government spending was increased, and tax cuts were implemented in 2002. Government officials encouraged lenders to make mortgage loans to a wider range of potential home buyers, resulting in sub-prime mortgages being offered to borrowers who could not afford the loans. Economic expansion and rapidly rising home prices culminated in the bursting of the housing asset bubble in 2006. This was followed by a peak in stock prices in 2007 and an economic recession that began in mid-2008.

By the second half of 2008, a "perfect financial storm" had been created, and many worried about the possibility of financial collapse. Several major financial institutions were on the verge of failing. Some financial institutions were merged into, or acquired by, stronger institutions (e.g., Merrill Lynch was acquired by Bank of America), the Lehman Brothers investment bank was allowed to fail, while AIG (American International Group) was "bailed out" by the Federal Reserve and the U.S. government. Venture funding virtually dried up. Even entrepreneurs with good opportunities were stymied by a lack of venture capital. For the second time in the decade, the availability of venture funds collapsed.

The U.S. government in October, responded by passing the Economic Stabilization Act of 2008, which provided funds to the U.S. Treasury to purchase "troubled" financial assets held by institutions. The American Recovery and Reinvestment Act (ARRA) was passed in February 2009 and provided for tax incentives, appropriations, and increased government spending in an effort to stimulate economic expansion.

Importantly for aspiring entrepreneurs, these dark and cloudy times almost always come with a silver lining. For this most recent financial crisis, it appears that one nascent sector that benefitted dramatically during the time of crisis was alternative and renewable energy. Subsidies abounded with project credits, production and investment tax credits, and loan guarantees.

Additionally, even in the absence of crisis-related government favoritism for certain sectors, while many entrepreneurs suffer dearly as their ventures fail, others benefit from consolidation and the resulting lower level of competition due to the shakeout. Many aspiring entrepreneurs and investor connections are made during the fallout from major economic crises.

CONCEPT CHECK

* What asset and financial "bubbles" have occurred recently?
* What kinds of entrepreneurial opportunities have occurred as a result of government efforts to stimulate the economy after the 2007–2009 financial crisis?

17 For an example of the extreme developments see: "10 Big Dot.Com Flops," http://money.cnn.com/galleries/2010/technology/1003/gallery.dot_com_busts/index.html, accessed 3/14/2010.

SECTION 1.4

PRINCIPLES OF ENTREPRENEURIAL FINANCE

Entrepreneurial finance draws its basic principles from both entrepreneurship and finance. New ventures require financial capital to develop opportunities, start business ventures, and create value. It takes time to build value. Investors expect to be compensated for the use of their capital and for the risk that they might not get it back. Developing a successful entrepreneurial venture is best accomplished without the sacrifice of individual character and reputation. As the venture grows, conflicts can arise between owners and managers, and between owners and debtholders.

We emphasize seven principles of entrepreneurial finance:

1. Real, human, and financial capital must be rented from owners.
2. Risk and expected reward go hand in hand.
3. While accounting is the language of business, cash is the currency.
4. New venture financing involves search, negotiation, and privacy.
5. A venture's financial objective is to increase value.
6. It is dangerous to assume that people act against their own self-interests.
7. Venture character and reputation can be assets or liabilities.

Real, Human, and Financial Capital Must Be Rented from Owners (Principle #1)

While it is true that commercial innovation exists outside the capitalist market context pervading the global economy, we will confine our remarks to that market context. When you obtain permission to use someone's land and building (real capital), you have to compensate the owner for the loss of its use otherwise. If there are many suppliers of buildings and many possible tenants, competition among them facilitates the allocation of the building to a commercially worthy purpose. While this may be obvious regarding buildings, it is equally true for money (financial capital). The *time value of money* is an important component of the rent one pays for using someone else's financial capital. When you rent the money, it cannot be rented to others, and you must expect to compensate the money's owner for that loss.

Entrepreneurs usually understand that quitting their day jobs and starting new ventures entails the loss of regular paychecks. They will, in some fashion, expect the venture experiences to compensate them for this loss. We recommend that they each insert a line item for a fair wage for their services in their financial projections, although we realize that there are other non-pecuniary compensations at work. What may not be well understood is that a founder's own financial capital invested in the firm deserves a fair compensation. The seed money used to start the venture could have been put to use elsewhere to earn interest. The venture should expect to compensate *all* investors for using their financial capital. This is conceptually separate from any compensation for services rendered if the investors are also employees (human capital).

Risk and Expected Reward Go Hand in Hand (Principle #2)

The time value of money is not the only cost involved in renting someone's financial (or other) capital. The total cost is typically significantly higher due to the possibility that the venture won't be able to pay. The rent is risky. One way humans express their dislike of this risk is to expect more when the rent is riskier. If the U.S. government promises $0.05 for borrowing a dollar for a year, you can bet it will be virtually impossible to get someone to rent it to a risky new venture for that same $0.05 per year. The expected compensation for the risk involved in renting money to a new venture is the basis of the concept of the time value of money. For example, a new venture investor might expect to get $0.25 or even more per year for the use of her money at the same time the government is promising $0.05. While this expectation may annoy you, it is set by competitive markets, and you don't have a lot of room to argue—if you want the money to build your new venture.

While Accounting Is the Language of Business, Cash Is the Currency (Principle #3)

If you were going to be a missionary to a foreign country where a language other than English was the official language, you would probably take the time and effort to learn the language. Whether you like it or not—and many finance professors don't like it—accounting is the official language of business. It has a long and honorable history, and most of its practitioners believe in the basic principle that using accounting techniques, standards, and practices communicates a firm's financial position more accurately than if those customs were ignored. Accounting for entrepreneurial firms has two purposes. The first is the same as for any other business: to provide for checks, balances, integrity, and accountability in tracking a firm's conduct. We leave discussion of that aspect of entrepreneurial accounting to others. The second purpose, and our emphasis for the entrepreneurial finance context, is to quantify the future in a recognizable dialect of the official language. The reality is that entrepreneurs need to be able to quantify certain aspects of their venture's future and translate them into appropriate financial statements.

Although we recommend bending the knee to accounting when communicating a venture's vision to the financial community, we recognize that the day-to-day financial crises usually are about only one balance sheet account: cash.[18] For example, while the income statement may look great when we book an additional $50,000 sale, the real concern will be how much, if any, was paid in cash. To be more specific, if the sale was on account, it will help at some time in the future when collected, but it can't be used to make payroll tomorrow. Rather than as a criticism of accounting, however, we present this as a challenge to entrepreneurs: Get enough accounting to see through the accruals to the cash account. Accounting is not your enemy. It may take some investment for it to become your friend, but you may be surprised how attached you become.

Entrepreneurs often underestimate the amount of cash needed to get their ventures up and running. Consequently, we supplement traditional accounting measures—such as profit and return on investment—with measures that focus on what is happening to cash. *Cash burn* measures the gap between the cash being spent and that being collected from sales. It's typical for new ventures to experience a large cash burn, which is why they must seek additional investment from outsiders. Ultimately, to create value, a venture must produce more cash than it consumes. *Cash build* measures the excess of cash receipts over cash disbursements, including payments for additional investment.

New Venture Financing Involves Search, Negotiation, and Privacy (Principle #4)

public financial markets
where standardized contracts or securities are traded on organized securities exchanges

Much of corporate finance deals with the financial decisions of public companies raising money in **public financial markets** where a large number of investors and intermediaries compete. Corporate finance concentrates much of its attention on public financial markets where standardized contracts or securities are traded on organized securities exchanges. In such markets, publicly traded prices may be considered good indicators of true values; investors who disagree are free to buy and sell the securities to express their sentiments to the contrary. We say that these public markets exhibit efficiency (i.e., prices reflect

18 Cash here usually refers to bank balances and other highly liquid assets that can be quickly converted into cash.

information about the company or its industry) and liquidity (i.e., investors who disagree with prevailing prices can buy and sell the security to express their objection).

Corporate finance tends to downplay, or even ignore, significant frictions in the markets for new venture financial capital. New ventures seldom have standby financing waiting to fill any gaps. Most are actively engaged in searching for financing. When they do find potential investors, competition is weak and this leads to bargaining between the venture and its investors. Even after a deal is struck, the venture and its investors typically are locked into the funding arrangement, because the securities are privately placed (sold) and cannot easily be resold or repurchased to express satisfaction or discontent with the venture's progress. New ventures usually arrange financing in **private financial markets**. We often characterize such markets as relatively inefficient (prices may not reflect significant information known to the venture or its investors) and illiquid (investors who disagree cannot easily sell or buy to express discontent or approval). New venture financing tends to require serious research, intricate and invasive negotiation, and indefinitely long investing horizons for those buying the resulting privately held securities.

private financial markets

where customized contracts or securities are negotiated, created, and held with restrictions on how they can be transferred

A Venture's Financial Objective Is to Increase Value (Principle #5)

Entrepreneurs can start new ventures for a host of personal reasons. They may have economic or altruistic motives. Many serial entrepreneurs may see the challenge as the biggest reason to start their next venture. It is only realistic to acknowledge that there can be many nonfinancial objectives for a new venture. Nonetheless, whatever the myriad personal motivations for founders, investors, and employees, there is really only one overarching *financial* objective for the venture's owners: to increase value. While all the owners might not agree on social objectives (e.g., improving local employment or wages versus international outsourcing), environmental objectives (e.g., providing an alternative delivery system using only recyclables versus providing cheaper products), or other perfectly valid new venture considerations, if there were a way to increase the venture's value by $1 without interfering with these other nonfinancial objectives, all of the owners would want to take the $1.

There are other candidates for a venture's financial objective, including maximizing sales, profit, or return on investment. It is easy to understand why these measures don't quite summarize how venture owners feel about the venture's financial performance. Increasing sales seems to be good, but not at the cost of greatly diminished margins. Profit is a better candidate than sales, but it still doesn't provide an adequate summary. If a venture is profitable, but has to reinvest so much in assets that no return is available to pay the owners for the use of their money, profits don't thrill the owners as much as you might think. At some point, profit has to give rise to *free cash* to be returned to investors *in a timely manner*. Profits alone are not a good indicator of owner sentiment. The problem with having return on investment as the venture's financial objective is similar. When the profit is divided by the book value of equity, one finds the return on equity. If a venture started on a shoestring, currently has very little operating history, but has created incredibly valuable intellectual property, you would never want to use the venture's return on equity as a serious input in deciding how much to ask from an interested potential acquirer. Return on equity will be low because profits are nonexistent and there is some book value of equity. Return on equity, particularly in new ventures, can be a very poor proxy for what owners care about: value.[19]

19 Chapter 9 and Learning Supplement 9A provide a more rigorous exposition of how financial markets can resolve arguments between a venture's owners and create a consensus on how the venture should develop and invest. The interesting point in this resolution is that, in the presence of tradable financial assets, all of the firm's owners can agree on maximizing firm value as the venture's *financial* objective.

free cash

cash exceeding that which is needed to operate, pay creditors, and invest in assets

free cash flow

change in free cash over time

We said that profits must eventually turn into free cash in order to be available to provide a return to a venture's owners. More formally, **free cash** (or "surplus cash") is the cash exceeding that which is needed to operate, pay creditors, and invest in the assets. **Free cash flow** is the change in free cash over time.[20] We deal mostly with financial projections; accordingly, we will use *free cash flow* instead of the more accurate *projected free cash flow*. When we line up free cash flows and adjust them for risk and the time value of money, we get value—the best proxy for common owner sentiment regarding a venture's prospects.

CONCEPT CHECK

* What is meant by free cash and free cash flow?
* How does risk affect an entrepreneurial venture's value?

It Is Dangerous to Assume That People Act Against Their Own Self-Interests (Principle #6)

Economics is often regarded as a heartless discipline in which the view of human nature is that people are motivated primarily by greed and self-interest. We do not propose to debate such a claim here. However, having just said that increasing value is the owners' primary financial objective, perhaps we should explain what we see as self-interest's role in our principles of entrepreneurial finance. Rather than take a position on the ethical, religious, or philosophical underpinnings of the economic view of human behavior, we prefer to introduce the subject as a warning. When incentives are aligned, the presence of self-interest, even of moral or religious interest, is not at odds with economic incentives. When it's good for me to do a good job for you, we can debate the morality of my motives, but the likely result is that I will do a good job for you.

In contrast, when doing a good job for you involves wrecking my family, living in poverty, and seeking counseling, you should expect me to renegotiate, increase my risk taking, cut corners, and possibly even out-and-out default. We are neither condoning nor condemning such behavior; we are simply pointing out that incentives need to be aligned because ignoring self-interest is not a good idea. To put this in a financial context, there will be many times when financial and operational arrangements have to be renegotiated. This should be expected. It is unwise to assume that arrangements are durable in the new venture context. Owners will need to constantly monitor incentive alignments for everyone associated with the venture and be ready to renegotiate to improve failing alignments.

owner–manager (agency) conflicts

differences between manager's self-interest and that of the owners who hired him

Of particular concern is when the need for external capital dictates that the entrepreneur give up some control of the venture at an early stage. To keep incentives aligned, it is common to provide contingent increases in the entrepreneur's ownership (e.g., through options grants) to improve the tie between her self-interest and the majority owners' interests. Watching out for managers' and other employees' self-interest usually dictates providing them with contingent options grants as the venture reaches milestones. Venture teams typically sacrifice lifestyle and leisure during the early stages. It is wise to allow them to visualize a future reward for their sacrifices. These future rewards are almost uniformly structured to help solve **owner–manager (agency) conflicts** in the new venture context.

20 When we use the term "free cash flow" in this text, we are referring to free cash flow to the owners or equity investors in the venture, unless specified otherwise. We discuss in great detail the process of valuing a venture using free cash flow to equity investors in Chapter 9. An alternative definition of free cash flow focuses on free cash flow available to interest-bearing debth holders and equity investors. This approach values the entire venture or enterprise and is discussed in Chapter 13.

owner–debt holder conflict

divergence of the owners' and lenders' self-interests as the firm gets close to bankruptcy

Although not as common in the earliest-stage ventures, different types of investors can have dramatically different incentives depending on how their investments are structured. Perhaps the easiest way to see the potential for significant conflict and renegotiation is to consider a venture that has borrowed money to help fund itself (from friends, personal loans, or even credit cards). The **owner–debt holder conflict** is the divergence of the owners' self-interest from that of the lenders as the firm approaches bankruptcy. Although it's an extreme example, if the venture is indebted and doesn't have the cash to pay rent and payroll the following morning, it may be tempted to take whatever money it has and buy lottery tickets in the hopes of making rent and payroll. If the venture doesn't make rent and payroll, it will fold and the owners won't get anything. If they do nothing, they won't make payroll. If they take what little cash is left and buy lottery tickets, it costs them nothing and provides some chance that there will be value to their ownership tomorrow.

We are not advocating the purchase of lottery tickets; we're simply suggesting that it would be prudent to expect this type of behavior in certain circumstances. We chose the extreme example to make a point: Everyone should keep an eye on others' self-interests and, when feasible, take steps to align incentives. If incentives aren't aligned, it is unwise to assume that temptation to cater to self-interest will be overcome. It would be best to anticipate the incentive conflicts and renegotiate to minimize value-destroying behavior.

CONCEPT CHECK

* What is the owner–manager (agency) conflict?
* What is the owner–debt holder conflict?

Venture Character and Reputation Can Be Assets or Liabilities (Principle #7)

While it is customary to talk about individual character, we think it is useful to point out that most of us characterize businesses as well. These characterizations, and the reputation associated with those characterizations, can grow and evolve as others accumulate evidence on how the individuals and the entity behave. Simple things, such as honest voice mail, on-time delivery and payment, courteous internal and external discourse, and appropriate e-mail etiquette, can be the building blocks for favorable venture character and reputation.

Of course, we all know that character goes both ways. A venture's negative character will be difficult or impossible to hide; customers, employers, and others can be expected to engage in substantially different behavior when doing business (if at all) with ventures having weak or negative characters. One doesn't have to look further than eBay auctions to see that buyers and sellers will treat you differently if you haven't substantiated your character in prior commercial interactions or, worse yet, you have exhibited bad or negative character.

One survey of successful entrepreneurs indicated that a majority felt that having high ethical standards was the most important factor in the long-term success of their ventures.[21] Taking the time and money to invest in the venture's character will help ensure that it is an asset rather than a liability. Of course, it will be easier to build positive venture character if the founders possess that quality as individuals. In the earliest stages, the venture's character and the founders' character tend to coincide.

21 Jeffry A. Timmons and Howard H. Stevenson, "Entrepreneurship Education in the 1980s," *75th Anniversary Entrepreneurship Symposium Proceedings* (Boston: Harvard Business School, 1983), pp. 115–134. For further discussion, see Timmons and Spinelli, *New Venture Creation*, chap. 10.

Is the financial objective of increasing value necessarily inconsistent with developing positive character and reputation? Certainly not! The typical situation is quite the opposite. It will be very difficult to increase value—an amount reflecting *all* of the venture's future economic interactions—if a venture does not pay sufficient attention to issues of character. Following laws, regulations, and responsible marketing and selling practices builds confidence and support for the entrepreneur and the venture. Having a good reputation can eliminate much of the hedging and frictions that result when a venture has unproven or negative character.

On a related issue, increasing a venture's value need not conflict with the venture's ability to improve the society in which it operates. Entrepreneurial firms provide meaningful work and many of the new ideas, products, and services that improve our lives. Success in the marketplace not only provides prima facie evidence that someone (the customer) benefited from the venture's goods and services; it also creates wealth that can be used to continue the process or fund noncommercial endeavors. It is no secret that successful entrepreneurs are prime targets for charitable fundraising. Some firms, including Newman's Own and Pura Vida, were organized to sell goods and services in a competitive marketplace while designating charities as the recipients of the financial returns to ownership. Although the charities don't own the firms, they receive the financial benefit of ownership.[22] Increasing these ventures' values is the same as increasing the value of the stream of cash support promised to the charities. It need not be the case that ventures' financial objectives conflict with their nonfinancial objectives. Most ventures will not be organized with the explicit objective of benefiting charities. Nevertheless, new ventures can and do provide dramatic benefits to society, not just to their customers.

CONCEPT CHECK

* Why is venture character important?

SECTION 1.5

ROLE OF ENTREPRENEURIAL FINANCE

entrepreneurial finance
application and adaptation of financial tools and techniques to the planning, funding, operations, and valuation of an entrepreneurial venture

Entrepreneurial finance is the application and adaptation of financial tools, techniques, and principles to the planning, funding, operations, and valuation of an entrepreneurial venture. Entrepreneurial finance focuses on the financial management of a venture as it moves through the entrepreneurial process. Recall from Figure 1.1 that the successful entrepreneurial process involves developing opportunities, gathering the necessary assets, human capital, and financial resources, and managing and building operations with the ultimate goal of valuation creation. Operating costs and asset expenditures incurred at each stage in the entrepreneurial process must somehow be financed.

financial distress
when cash flow is insufficient to meet current debt obligations

Nearly every entrepreneurial firm will face major operating and financial problems during its early years, making entrepreneurial finance and the practice of sound financial management critical to the survival and success of the venture. Most entrepreneurial firms will need to regroup and restructure one or more times to succeed. **Financial distress** occurs when cash flow is insufficient to meet current liability obligations. Alleviating financial distress usually requires restructuring operations and assets or restructuring loan interest and scheduled principal payments. Anticipating and avoiding financial distress is one of the main reasons to study and apply entrepreneurial finance.

22 Variants of the venture philanthropy model also have been created. For example, Ben Cohen, a cofounder of Ben & Jerry's Ice Cream, formed an investment fund that would buy firms operating in low-income areas with the intent of raising wages and employee benefits. The intent was to use profits to buy and operate other firms in the same way. See Jim Hopkins, "Ben & Jerry's Co-Founder to Try Venture Philanthropy," *USA Today*, August 7, 2001, p. B1.

Generating cash flows is the responsibility of all areas of the venture—marketing, production/engineering, research and development, distribution, human resources, and finance/accounting. However, the entrepreneur and financial manager must help other members of the entrepreneurial team relate their actions to the growth of cash flow and value.[23] The financial manager is normally responsible for keeping the venture's financial records, preparing its financial statements, and planning its financial future.[24] Short-run planning typically involves projecting monthly financial statements forward for one to two years. The venture needs adequate cash to survive the short run. Financial plans indicate whether the venture is expecting a cash shortage. If so, the entrepreneur should seek additional financing to avert the shortage. Long-term financial planning typically involves projecting annual statements five years forward. While the reliability of longer-term projections may be lower, it is still important to anticipate large financial needs as soon as possible. Meeting those needs may dictate several rounds of financing in the first few years of operations.

The financial manager is responsible for monitoring the firm's operating efficiency and financial performance over time. Every successful venture must eventually produce operating profits and free cash flows. While it is common for a new venture to operate at a loss and deplete its cash reserves, it cannot continue indefinitely in that state. Venture investors, particularly in our post-dot.com age, expect ventures to have business models generating positive free cash flows in relatively short order. As the venture progresses through its early stages, it must control expenses and investments to the extent possible without undermining projected revenues.

In summary, financial management in an entrepreneurial venture involves record keeping, financial planning, monitoring the venture's use of assets, and arranging for any necessary financing. Of course, the bottom line of all these efforts is increasing the venture's value.

CONCEPT CHECK

* What is entrepreneurial finance?
* What are the financial management responsibilities of the financial manager?

SECTION 1.6

THE SUCCESSFUL VENTURE LIFE CYCLE

venture life cycle
stages of a successful venture's life from development through various stages of revenue growth

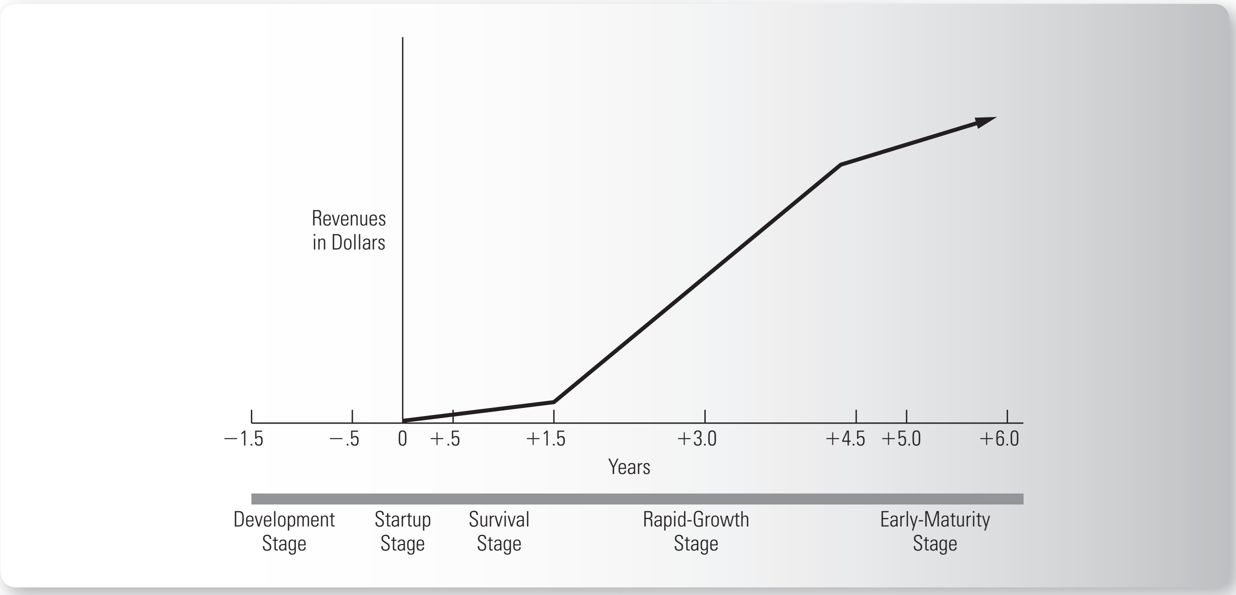
Successful ventures frequently follow a maturation process known as a life cycle. The **venture life cycle** begins in the development stage, has various growth stages, and "ends" in a maturity stage. The five life cycle stages are:

* Development stage
* Startup stage
* Survival stage
* Rapid-growth stage
* Early-maturity stage

23 Although the entrepreneur typically serves as the venture's "chief operating officer," the entrepreneur may also assume management responsibility over one of the functional areas, including serving as the venture's financial manager.

24 For ventures in the development or startup stage, one individual typically is responsible for both basic accounting and financial management functions. However, as ventures succeed and grow, the accounting and finance functions often are separated, in part because of the sheer amount of record keeping that is required, particularly if a venture becomes a public corporation.

FIGURE 1.2 LIFE CYCLE STAGES OF THE SUCCESSFUL VENTURE



early-stage ventures
new or very young firms with little operating history

seasoned firms
firms with successful operating histories and operating in their rapid-growth or maturity life cycle stages

Early-stage ventures are new or very young firms with limited operating histories. They are in their development, startup, or survival life cycle stages. **Seasoned firms** have produced successful operating histories and are in their rapid-growth or maturity life cycle stages.

A successful venture's life cycle often is expressed graphically in terms of the venture's revenues. Figure 1.2 depicts the five basic stages in a successful business venture's life cycle over an illustrated time period ranging from one and one-half years before startup up to about six years after startup. Some ideas may take less or more time to develop, and the various operating life cycle stages for a particular venture may be shorter or longer depending on the product or service being sold.

For the typical venture, operating losses usually occur during the startup and survival stages, with profits beginning and growing during the rapid-growth stage. Free cash flows generally lag operating profits because of the heavy investment in assets usually required during the first part of the rapid-growth stage. Most ventures burn more cash than they build during the early stages of their life cycles and don't start producing positive free cash flows until the latter part of their rapid-growth stages and during their maturity stages. Throughout this book, we address stage-specific aspects of a venture's organizational, operational, and financial needs from the viewpoint of entrepreneurial finance.

Development Stage

development stage
period involving the progression from an idea to a promising business opportunity

During the **development stage**, the venture progresses from an idea to a promising business opportunity. Most new ventures begin with an idea for a potential product, service, or process. The feasibility of an idea is first put on trial during the development stage. Comments and initial reactions from friends and family members (and entrepreneurship professors) form an initial test of whether the idea seems worth pursuing further. The reaction and interest level of trusted business professionals provides additional feedback. If early conversations evoke sufficient excitement (and, sometimes, even if they don't), the entrepreneur takes the next step: producing a prototype, delivering a trial service, or implementing a trial process.

In Figure 1.2, the development stage is depicted as occurring during the period of −1.5 to −0.5 years (or about one year at most, on average) prior to market entry. Of course, the time to market is often a critical factor in whether a new idea is converted to a successful opportunity. For example, a new electronic commerce idea might move from inception to startup in several weeks or months. For other business models, the venture may spend considerably more time in the development stage.

Startup Stage

startup stage
period when the venture is organized and developed and an initial revenue model is put in place

The second stage of a successful venture's life cycle is the **startup stage**, when the venture is organized, developed, and an initial revenue model is put in place. Figure 1.2 depicts the startup stage as typically occurring between years −0.5 and +0.5. In some instances, the process of acquiring necessary resources can take less than one year. For example, a business venture requiring little physical and intellectual capital and having simple production and delivery processes might progress from the initial idea to actual startup in one year or less. Revenue generation typically begins at what we have designated "time zero," when the venture begins operating and selling its first products and services.

Survival Stage

survival stage
period when revenues start to grow and help pay some, but typically not all, of the expenses

Figure 1.2 places the survival stage from about +0.5 to +1.5 years, although different ventures will experience different timing. During the **survival stage**, revenues start to grow and help pay some, but typically not all, of the expenses. The gap is covered by borrowing or by allowing others to own a part of the venture. However, lenders and investors will provide financing only if they expect the venture's cash flows from operations to be large enough to repay their investments and provide for additional returns. Consequently, ventures in the survival stage begin to have serious concerns about the financial impression they leave on outsiders. Formal financial statements and planning begin to have useful external purposes.

Rapid-Growth Stage

rapid-growth stage
period of very rapid revenue and cash flow

The fourth stage of a successful venture's life cycle is the **rapid-growth stage**, when revenues and cash inflows grow very rapidly. Cash flows from operations grow much more quickly than do cash outflows, resulting in a large appreciation in the venture's value. This rapid growth often coincides with years +1.5 through +4.5. Ventures that successfully pass through the survival stage are often the recipients of substantial gains in market share taken from less successful firms struggling in their own survival stage. Continued industry revenue growth and increased market share combine to propel the venture toward its lucrative financial future. During this period in a successful venture's life cycle, value increases rapidly as revenues rise more quickly than expenses. The successful venture reaps the benefits of economies of scale in production and distribution.

Early-Maturity Stage

early-maturity stage
period when the growth of revenue and cash flow continues but at a much slower rate than in the rapid-growth stage

The fifth stage in a successful venture's life cycle is the **early-maturity stage**, when the growth of revenue and cash flow continues, but at much slower rates than in the rapid-growth stage. Although value continues to increase modestly, most venture value has already been created and recognized during the rapid-growth stage. Figure 1.2 depicts the early-maturity stage as occurring around years +4 and +5. The early-maturity stage often coincides with decisions by the entrepreneur and other investors to exit the venture through a sale or merger.

We have truncated the venture at the end of six years in Figure 1.2 for illustrative purposes only. Our focus is the period from the successful venture's development stage

FIGURE 1.3 LIFE CYCLE ASPECTS OF THE ENTREPRENEURIAL PROCESS AND VALUE CREATION

LIFE CYCLE STAGE	LIFE CYCLE ENTREPRENEURIAL PROCESS ACTIVITIES
Development Stage	Developing opportunities
Startup Stage	Gathering resources
Survival Stage	Gathering resources, managing and building operations
Rapid-Growth Stage	Managing and building operations
Early-Maturity Stage	Managing and building operations

through its early-maturity stage, when the founders and venture investors decide whether to exit the venture or to remain at the helm. Of course, the successful venture may provide value to the entrepreneur, or to others if the entrepreneur has sold out, for many years in the future and thus have a long total maturity stage.

A caveat is in order. Figure 1.2 represents a hypothetical length of time it takes for successful ventures to progress through development into maturity. The rapid pace of technological change shortens the life span of most products. The development time from idea to viable business is often less than one year. For rapidly deployed ventures, the toughest part of the survival stage may be the first few months of operation. Within the first year, rapid growth may occur; mature-firm financing issues can arise before they would have traditionally been expected. Such rapid maturity, in addition to being a challenge in itself, represents a tremendous challenge for entrepreneurial team members. They must deploy a variety of financial skills within the first year.

Life Cycle Stages and the Entrepreneurial Process

Figure 1.3 displays connections between life cycle stages and the activities of the entrepreneurial process. The development stage in a venture's life cycle coincides with the developing opportunities component in the entrepreneurial process. The startup stage in the life cycle aligns with gathering resources in the entrepreneurial process. As successful ventures continue to operate through their life cycles, ventures often must safely negotiate a survival stage. This is a time of continued gathering of resources, as well as focused management and growth of the venture's operations. The rapid-growth and early-maturity stages of the successful venture are associated with the management and growth of operations component in the entrepreneurial process.

CONCEPT CHECK

* What are the five stages of a successful venture's life cycle?

SECTION 1.7

FINANCING THROUGH THE VENTURE LIFE CYCLE

Early-stage ventures often are undercapitalized from the beginning. This condition makes it essential that the entrepreneur understand, and attempt to tap, the various sources of financial capital as the venture progresses from development to startup and on through its survival stage. Once a venture is able to achieve a successful operating history, it becomes a seasoned firm; new sources (and larger amounts) of financial capital become attainable.

FIGURE 1.4 TYPES AND SOURCES OF FINANCING BY LIFE CYCLE STAGE

1. VENTURE FINANCING

LIFE CYCLE STAGE	TYPES OF FINANCING	MAJOR SOURCES/PLAYERS
Development stage	Seed financing	Entrepreneur's assets
		Family and friends
Startup stage	Startup financing	Entrepreneur's assets
		Family and friends
		Business angels
		Venture capitalists
Survival stage	First-round financing	Business operations
		Venture capitalists
		Suppliers and customers
		Government assistance programs
		Commercial banks
Rapid-growth stage	Second-round financing	Business operations
	Mezzanine financing	Suppliers and customers
	Liquidity-stage financing	Commercial banks
		Investment bankers

2. SEASONED FINANCING

LIFE CYCLE STAGE	TYPES OF FINANCING	MAJOR SOURCES/PLAYERS
Early-maturity stage	Obtaining bank loans	Business operations
	Issuing bonds	Commercial banks
	Issuing stock	Investment bankers

Figure 1.4 depicts the likely types of financing sources as well as the major players or providers of financial funds at each life cycle stage. Major types of financing include:

* Seed financing
* Startup financing
* First-round financing
* Second-round, mezzanine, and liquidity-stage financing
* Seasoned financing

Seed Financing

seed financing

funds needed to determine whether an idea can be converted into a viable business opportunity

During the development stage of a venture's life cycle, the primary source of funds is in the form of **seed financing** to determine whether the idea can be converted into a viable business opportunity. The primary source of funds at the development stage is the entrepreneur's own assets. As a supplement to this limited source, most new ventures will also resort to *financial bootstrapping*, that is, creative methods, including barter, to minimize the cash needed to fund the venture. Money from personal bank accounts and proceeds from selling other investments are likely sources of seed financing. It is quite common for founders to sell personal assets (e.g., an automobile or a home) or secure a loan by pledging these assets as collateral. The willingness to reduce one's standard of living by cutting expenditures helps alleviate the need for formal financing in the development-stage venture. Although it can be risky, entrepreneurs often use personal credit cards to help finance their businesses. Family members and friends also provide an important secondary source of seed financing; they may make loans to the entrepreneur or purchase an equity position in the business. (It is often said that family and friends invest in the entrepreneur rather than in a product or service.) Such financing is usually relatively inexpensive, at least compared with more formal venture investing. While there are a few professional and business angel investors (see below) that engage in seed-stage investing, they are not a typical source of financing at this stage.

Startup Financing

startup financing
funds needed to take a venture from having established a viable business opportunity to initial production and sales

venture capital
early-stage financial capital often involving substantial risk of total loss

business angels
wealthy individuals operating as informal or private investors who provide venture financing for small businesses

venture capitalists (VCs)
individuals who join in formal, organized firms to raise and distribute venture capital to new and fast-growing ventures

venture capital firms
firms formed to raise and distribute venture capital to new and fast-growing ventures

Startup financing coincides with the startup stage of the venture's life cycle; this is financing that takes the venture from a viable business opportunity to the point of initial production and sales. Startup financing is usually targeted at firms that have assembled a solid management team, developed a business model and plan, and are beginning to generate revenues. Depending on the demands placed on the entrepreneur's personal capital during the seed stage, the entrepreneur's remaining assets, if any, may serve as a source of startup financing. Family and friends may continue to provide financing during startup. However, the startup venture should begin to think about the advantages of approaching other, more formal, venture investors.

Although sales or revenues begin during the startup stage, the use of financial capital is generally much larger than the inflow of cash. Thus, most startup-stage ventures need external equity financing. This source of equity capital is referred to as **venture capital**, which is early-stage financial capital that often involves a substantial risk of total loss.[25] The flip side of this risk of total loss is the potential for extraordinarily high returns when an entrepreneurial venture is extremely successful. Venture capital investors will require the venture, if it has not yet done so, to organize formally to limit the risk assumed by venture investors to the amount invested.[26]

Two primary sources of formal external venture capital for startup-stage ventures, as indicated in Figure 1.4, are business angels and venture capitalists. **Business angels** are wealthy individuals, operating as informal or private investors, who provide venture financing for small businesses. They may invest individually or in joint efforts with others.[27] While business angels may be considered informal investors, they are not uninformed investors. Many business angels are self-made entrepreneur multimillionaires, generally well educated, who have substantial business and financial experience. Business angels typically invest in technologies, products, and services in which they have a personal interest and previous experience.

Venture capitalists (VCs) are individuals who join in formal, organized **venture capital firms** to raise and distribute capital to new and fast-growing ventures. Venture capital firms typically invest the capital they raise in several different ventures in an effort to reduce the risk of total loss of their invested capital.[28]

25 Venture capital sometimes has a debt component. That is, debt convertible into common stock, or straight debt accompanied by an equity kicker such as warrants, is sometimes purchased by venture investors. We will discuss hybrid financing instruments in Chapter 13.

26 The legal forms for organizing small businesses are discussed in Chapter 3.

27 For descriptive information on the angels market, see William Wetzel, "The Informal Venture Capital Markets: Aspects of Scale and Market Efficiency," *Journal of Business Venturing* 2 (Fall 1987): pp. 299–313. An interesting study of how earliest-stage technology ventures are financed is presented in William Wetzel and John Freear, "Who Bankrolls High-Tech Entrepreneurs?" *Journal of Business Venturing* 5 (March 1980): pp. 77–89.

28 It has become common practice to use the terms "venture capitalists" (or VCs) and "venture capital firms" interchangeably. Chapter 11 provides a detailed discussion of the characteristics, methods, and procedures involved in raising professional venture capital.

First-Round Financing

first-round financing

equity funds provided during the survival stage to cover the cash shortfall when expenses and investments exceed revenues

The survival stage of a venture's life cycle is critical to whether the venture will succeed and create value or be closed and liquidated. **First-round financing** is external equity financing, typically provided by venture investors during the venture's survival stage to cover the cash shortfalls when expenses and investments exceed revenues. While some revenues begin during the startup stage, the race for market share generally results in a cash deficit. Financing is needed to cover the marketing expenditures and organizational investments required to bring the firm to full operation in the venture's commercial market. Depending on the nature of the business, the need for first-round financing may actually occur near the end of the startup stage.

trade credit

financing provided by suppliers in the form of delayed payments due on purchases made by the venture

As Figure 1.4 suggests, survival-stage ventures seek financing from a variety of external sources. For example, both suppliers and customers become important potential sources of financing. Ventures usually find it advantageous, and possibly necessary, to ask their suppliers for **trade credit**, allowing the venture to pay for purchases on a delayed basis. Having more time to pay supplier bills reduces the need for other sources of financial capital. Upstream users of the firm's goods and services also may be willing to provide formal capital or advances against future revenues. Of course, delayed payments to creditors and accelerated receipts from customers, while good for current cash flow, do impose a need for more careful financial planning.

government assistance programs

financial support, such as low-interest-rate loans and tax incentives, provided by state and local governments to help small businesses

Federal and some state and local governments provide some financing to small ventures during their survival stages. For example, the SBA was established in 1953 by the federal government to provide financial assistance to small businesses. Many state and local governments have developed special **government assistance programs** designed to improve local economic conditions and to create jobs. These programs typically offer low-interest-rate loans and guarantee loans and may also involve tax incentives. Chapter 12 discusses such programs in greater detail.

commercial banks

financial intermediaries that take deposits and make business and personal loans

Commercial banks, usually just called banks, are financial intermediaries that take deposits and make business and personal loans. Because commercial bankers prefer lending to established firms with two years of financial statements, it can be difficult for survival-stage ventures to secure bank financing.[29] Thus, while we show commercial banks as a possible source of financing during the survival stage, successful ventures will typically find it much easier to obtain bank loans during their rapid-growth and maturity stages.

Second-Round Financing

second-round financing

financing for ventures in their rapid-growth stage to support investments in working capital

Figure 1.4 indicates that the major sources of financing during the rapid-growth stage come from business operations, suppliers and customers, commercial banks, and financing intermediated by investment bankers. Most ventures, upon reaching the rapid revenue growth stage, find that operating flows, while helpful, remain inadequate to finance the desired rate of growth. Rapid growth in revenues typically involves a prerequisite rapid growth in inventories and accounts receivable, which requires significant external funding. Because inventory expenses are usually paid prior to collecting on the sales related to those inventories, most firms commit sizable resources to investing in "working capital." With potentially large and fluctuating investments in receivables and inventories, it is more important than ever that the venture formally project its cash needs. **Second-round financing** typically takes the form of venture capital needed to back working capital expansion.[30]

29 Survival- and even startup-stage ventures that might not be able to obtain direct loans from banks often can get indirect loans in the form of cash advances on credit cards issued by banks.

30 Depending on the size of financial capital needs, ventures may go through several rounds of financing (e.g., first, second, third, fourth, etc.). Sometimes the various rounds of financing are referred to as "series," such as Series A, Series B, Series C, Series D, and so on.

Mezzanine Financing

mezzanine financing
funds for plant expansion, marketing expenditures, working capital, and product or service improvements

warrants
rights or options to purchase a venture's stock at a specific price within a specified time period

One study suggests that, on average, it takes two and one-half years to achieve operating breakeven (i.e., where revenues from operating the business become large enough to equal the operating costs), and a little more than six years to recover an initial equity investment.[31] Thus, the typical successful venture is usually well into its rapid-growth stage before it breaks even. As the venture continues to grow after breaking even, it may need another infusion of financial capital from venture investors. During a venture's rapid-growth stage, **mezzanine financing** provides funds for plant expansion, marketing expenditures, working capital, and product or service improvements. Mezzanine financing is usually obtained through debt that often includes an equity "kicker" or "sweetener" in the form of **warrants**—rights or options to purchase the venture's stock at a specific price within a set time period. At the end of the mezzanine stage, the successful firm will be close to leaving the traditional domain of venture investing and will be prepared to attract funding from the public and large private markets.

Liquidity-Stage Financing

bridge financing
temporary financing needed to keep the venture afloat until the next offering

initial public offering (IPO)
a corporation's first sale of common stock to the investing public

secondary stock offering
founder and venture investor shares sold to the public

investment banking firms
firms that advise and assist corporations regarding the type, timing, and costs of issuing new securities

investment banker
individual working for an investment banking firm who advises and assists corporations in their security financing decisions and regarding mergers and acquisitions

venture law firms
law firms specializing in providing legal services to young, fast-growing entrepreneurial firms

The rapid-growth stage of a successful venture's life cycle typically provides venture investors with an opportunity to cash in on the return associated with their risk; it also provides access to the public or private capital necessary to continue the firm's mission. A venture, if organized as a corporation, may desire to provide venture investor liquidity by establishing a public market for its equity. Temporary or **bridge financing** may be used to permit a restructuring of current ownership and to fill the gap leading to the firm's first public offer of its equity in its **initial public offering (IPO)**. Typically, part of the proceeds of the public offering will be used to repay the bridge loan needed to keep the venture afloat until the offering. After (and sometimes during) an IPO, firms may directly sell founder and venture investor shares to the public market in a **secondary stock offering** of previously owned shares.

Firms not seeking a public market for their equity may attempt to slow to a growth rate that can be supported by internal funding, bank debt, and private equity. For such firms, investor liquidity may be achieved by the repurchase of investor shares, the payment of large dividends, or the sale of the venture to an acquirer. Existing and potential investors usually have strong preferences regarding the planned liquidity event. An investor's perception of the firm's willingness to provide venture investor liquidity affects the terms and conditions in all venture-financing rounds.

Investment banking firms advise and assist corporations regarding the structure, timing, and costs of issuing new securities. **Investment banker** is a broad term usually referring to an individual who advises and assists corporations in their security financing decisions. Investment bankers are particularly adroit at helping the successful venture firm undertake an IPO. Although it is more common for a firm to have an IPO during a time of rapid and profitable growth, it has become increasingly acceptable for firms with access to new ideas or technologies to go public with little or no operating history and before profitability has been established. Investment bankers also facilitate the sale of firms through their mergers and acquisitions divisions.

Venture law firms specialize in providing legal services to young, fast-growing entrepreneurial firms. They can craft a firm's legal structure, its tax and licensing obligations, its intellectual property strategy, its employment agreements and incentive compensation, as well as the actual wording and structure of the securities it sells to others. An early and solid relationship with a law firm that specializes in the legal issues of new ventures can be a considerable asset as the firm grows and continues to seek financing.

31 Cited in Timmons and Spinelli, *New Venture Creation*, pp. 426–427.

Seasoned Financing

Seasoned financing takes place during the venture's maturity stage. As previously noted, venture investors typically complete their involvement with a successful venture before the venture's move into the maturity stage of its life cycle. Retained earnings from business operations are a major source of financing for the mature venture. If additional funds are needed, seasoned financing can be obtained in the form of loans from commercial banks or through new issues of bonds and stocks, usually with the aid of investment bankers. A mature firm with previously issued publicly traded securities can obtain debt and equity capital by selling additional securities through **seasoned securities offerings** to the public.

seasoned securities offering

the offering of securities by a firm that has previously offered the same or substantially similar securities

As a mature firm's growth rate declines to the growth rate for the whole economy, the firm's need for new external capital is not the matter of survival that it was in earlier stages. Mature firms frequently approach financing as a way to cut taxes, fine-tune investor returns, and provide capital for mergers, acquisitions, and extraordinary expansion. If they have created brand equity in their securities, they may choose to fund mergers and acquisitions by directly issuing securities to their targets. Mature private companies can sell seasoned versions of their securities directly to a restricted number and class of investors, but not to the general public. The time needed for an entrepreneurial firm to reach its maturity stage depends on its operating characteristics, the rate of technological change in the industry, and the drive, vision, talent, and depth of resources in its management team and venture investors.

CONCEPT CHECK

* What types of venture financing are typically available at each stage of a successful venture's life cycle?
* What is seasoned financing?

SECTION 1.8

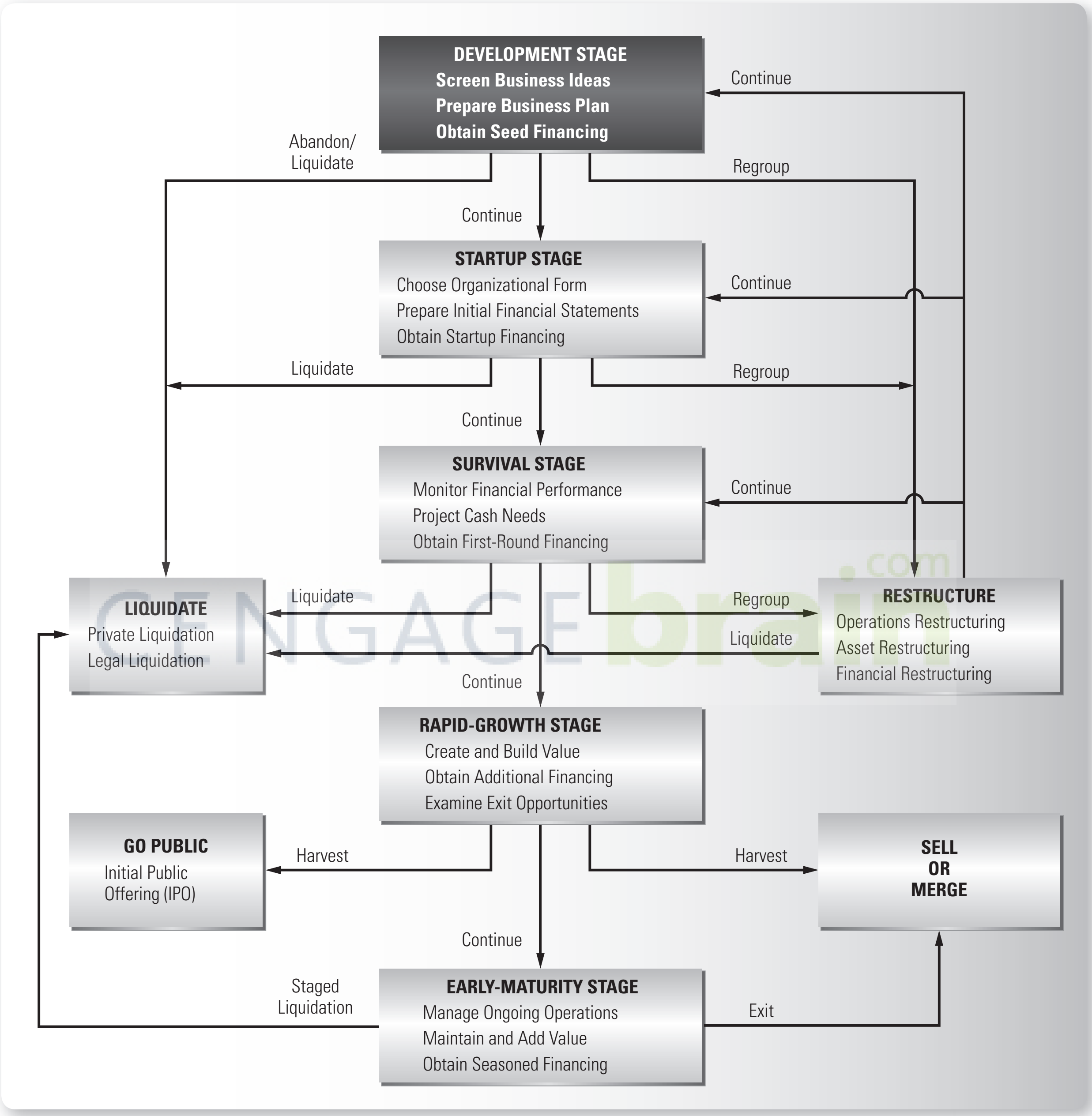
LIFE CYCLE APPROACH FOR TEACHING ENTREPRENEURIAL FINANCE

We use a life cycle approach throughout this text to teach entrepreneurial finance. Figure 1.5 provides an overview of major operating and financial decisions faced by entrepreneurs as they manage their ventures during the five life cycle stages. The fact that the entrepreneur is continually creating useful information about the venture's viability and opportunities means that this approach, and the diagram depicted in Figure 1.5, should be considered as dynamic and ongoing. At each stage, and sometimes more than once during a stage, the entrepreneur must make critical decisions about the future of the venture. Should we abandon the idea or liquidate the venture? Should we rethink the idea, redesign a product or service, change manufacturing, selling, or distributing practices, or restructure the venture? Ultimately, the question becomes "Should we continue?"[32]

This text is divided into six parts. Part 1, "Background and Environment," consists of the first two chapters and focuses primarily on development-stage financial considerations faced by entrepreneurs. During the development stage, the entrepreneur screens or examines an idea from the perspective of whether it is likely to become a viable

32 While the entrepreneur may have the most at stake when making these decisions, investors (i.e., friends, family, and/or venture investors) and other constituencies (creditors, the management team, and other employees, etc.) will be affected by what the entrepreneur decides. Thus, we choose to use "we" instead of "I" when formulating these questions.

FIGURE 1.5 LIFE CYCLE APPROACH: VENTURE OPERATING AND FINANCIAL DECISIONS



business opportunity, prepares a business plan for the idea that successfully passes the "opportunity screen," and obtains the seed financing necessary to carry out the venture's development stage. Earlier in this chapter, we provided a brief discussion of the sources of, and players involved in, seed financing. Sources of financing during the other life cycle stages also were presented. In Chapter 2, we introduce the ingredients of a sound business model that are necessary to convert an idea into a viable business opportunity. We also provide examples of qualitative and quantitative assessment exercises that can be used to help assess the viability of a business idea. The last part of the chapter discusses the key elements of a business plan.

Part 2, “Organizing and Operating the Venture,” consists of Chapters 3, 4, and 5 and focuses on entrepreneurial finance topics relating primarily to the startup and survival life cycle stages as depicted in Figure 1.5. The preparation of a business plan serves as the link between the development stage and the startup stage. To start operating the business, the entrepreneur must first decide on the organizational form for the business, prepare pro forma or projected financial statements for the first several years of operation, and identify the amount and timing of startup financing that will be needed. Many entrepreneurs find that it is relatively easy to start a new venture; the hard part is surviving the first year or two of operation. To progress successfully through the survival stage, the entrepreneur must closely monitor the venture’s financial performance, understand and project cash needs, and obtain first-round financing.

In Chapter 3, we discuss the various forms of business organizations available to the entrepreneur, provide a discussion of the importance of developing intellectual property and ways to protect intellectual property, and discuss sources of early-stage financing needed during the startup and survival stages. In Chapter 4, we review the financial statements used to measure a venture’s financial performance. Chapter 5 covers the evaluation of financial performance. It is worth noting that users of this text who have adequate finance/accounting backgrounds can bypass Chapters 4 and 5 without loss of continuity, as long as they have a fundamental understanding of cash flow concepts, including how ventures build and burn cash.

Part 3, “Planning for the Future,” consists of Chapters 6, 7, and 8; it provides a transition from a venture’s survival to its ability to experience rapid sales growth and the creation and growth of value. Again, we turn to the venture life cycle illustration in Figure 1.5. As a venture starts operating, both short-term and long-term plans must be prepared, monitored, and revised to adjust to actual performance and competitive pressures. Long-term financial planning requires the projection of annual financial statements covering the next few years, reflecting a venture’s survival stage as well as what is expected for the venture as it succeeds and begins to grow rapidly. Of course, only those ventures that are able to survive by regrouping and restructuring will succeed in reaching their rapid-growth stages. Survival depends on generating sufficient cash flow to meet obligations as they come due in the short run, which makes it necessary for the venture to prepare monthly financial projections for the next year. Chapter 6 covers short-term and long-term financial planning topics.

Being able to move successfully from survival to rapid growth usually requires finding ways to generate several types and rounds of financing. Chapter 7 discusses the types and costs of financial capital available to the entrepreneur. Because the cost of financial capital also can be viewed as the rate of return required on a specific risk class of investment, the materials in this chapter are important to understanding how ventures are valued. Chapter 8 provides an introduction to securities law basics. Before the entrepreneur starts raising financial capital, it is important that she understand which actions are legal and which actions are illegal. Ignorance of the law is not an acceptable defense when issuing or selling securities.

Part 4, “Creating and Recognizing Venture Value,” consists of Chapters 9 and 10. As previously noted, the financial goal of the entrepreneurial venture is to maximize the value of the venture to the owners. Most of a venture’s value is achieved in the form of free cash flows generated during the latter part of the venture’s rapid-growth stage and during the maturity stage (see Figure 1.5). To increase revenues rapidly, investments in inventories and fixed assets are necessary. Generally, these assets require additional financing. Once the assets are in place, however, the successful venture begins generating large and growing amounts of free cash flows. Chapter 9 discusses the fundamentals of financial valuation and covers the equity perspective of valuation. We present two methods for valuing a venture's equity: the maximum dividend method and the pseudo dividend method. Chapter 10 examines common venture investor shortcut methods for valuing the venture and relates them to the more detailed valuation methods introduced in Chapter 9.

Part 5, "Structuring Financing for the Growing Venture," consists of Chapters 11, 12, and 13. As entrepreneurial ventures move successfully through succeeding stages of their life cycles, financing sources often become more varied and, in some cases, more complex. Most entrepreneurial ventures will seek financial capital from venture investors during their progress from startup, through survival, and into the rapid-growth stage of their lifetime. Chapter 11 discusses the history of, and current practices used by, professional VCs. Other intermediated financing is the topic of Chapter 12. In Chapter 13, we discuss security design, including issuing various classes of stock, debt that is convertible into common stock, and warrants. We also illustrate how ventures are valued from an enterprise perspective, which is the value of the venture to both debt holders and equity investors.

Part 6, "Exit and Turnaround Strategies," consists of Chapters 14 and 15. As depicted in Figure 1.5, it is during a venture's rapid-growth stage that entrepreneurs and outside venture investors examine possible exit opportunities to "harvest" the value they built. Chapter 14 examines alternative exit opportunities that include going public through an IPO, selling the venture to management or outside investors, and merging the venture with another firm.

Chapter 15 recognizes that, at one or more times during a venture's life cycle, financial distress may develop whereby a venture is unable to meet its debt obligations when they are due. Such a situation creates a need to regroup, reorganize, and even restructure to move the venture forward toward success. Restructuring may take the form of operations restructuring, asset restructuring, and/or financial restructuring. Sometimes it is necessary to seek legal protection while financial restructuring takes place. At the extreme, unsuccessful restructuring efforts may result in liquidation.

Now that we have introduced you to the world of entrepreneurial finance, we hope you apply yourself to learn the concepts, theory, and practice of finance as they relate to the entrepreneur. We remind you that mastering the materials in this book, while satisfying in itself, is intended for the purpose of creating financial competence that increases the likelihood your entrepreneurial firm will survive, attract financial backing, and create value over time.

CONCEPT CHECK

* Why do many entrepreneurial ventures have to regroup and restructure?
* How can the entrepreneur exit or harvest the venture?

SUMMARY

This chapter provided an introduction to the world of entrepreneurial finance. We began by describing the entrepreneurial process. We also defined entrepreneurship and discussed the importance of small and growing ventures in the U.S. economy. We recognized that starting and successfully operating an entrepreneurial venture is not easy. At the same time, there is always room for one more successful entrepreneur.

We discussed the importance of understanding societal, demographic, and technological trends shaping our society and providing many lucrative entrepreneurial opportunities. Our attention then shifted to identifying and discussing the seven principles of entrepreneurial finance:

1. Real, human, and financial capital must be rented from owners.
2. Risk and expected reward go hand in hand.
3. While accounting is the language of business, cash is the currency.
4. New venture financing involves search, negotiation, and privacy.
5. A venture's financial objective is to increase value.
6. It is dangerous to assume that people act against their own self-interests.
7. Venture character and reputation can be assets or liabilities.

The financial objective is to increase the venture's value. Behaving fairly and honestly with the venture's constituencies builds confidence and support for the entrepreneur and the venture, which contributes to increasing the venture's value. Increasing value can be consistent with social responsibility, and many wealthy entrepreneurs have engaged in personal and venture philanthropy.

Conflicts may arise when incentives diverge as the new venture matures. While entrepreneurial ventures often can avoid or minimize the owner–manager agency problem, the owner–debt holder conflict will arise every time the venture faces financial distress. After discussing the principles of entrepreneurial finance, we turned our attention to defining entrepreneurial finance and described the responsibilities of a venture's financial manager.

We then identified and presented a five-stage life cycle that successful ventures typically endure. These stages are the development stage, the startup stage, the survival stage, the rapid-growth stage, and the early-maturity stage. Next, we discussed types of financing and the sources and players involved at the various life cycle stages. Types of venture financing include seed financing, startup financing, first-round financing, second-round financing, and mezzanine financing. Liquidity-stage financing is important in allowing venture investors to achieve a tangible return through the sale of the venture or its securities. For ventures achieving their maturity stages, seasoned financing in the form of bank loans, bonds, and stocks is available to meet possible external financing needs.

We concluded the chapter with the presentation of our life cycle approach. We connected each chapter to the life cycle stages and topics they address, from initial idea screening in Chapter 2 through the execution of exit strategies in Chapter 14. Chapter 15 provides guidance to the many entrepreneurial ventures that will suffer some form of financial distress. If these ventures are to survive and build value, they will need to successfully regroup, reorganize, and restructure.

KEY TERMS

bridge financing
business angels
commercial banks
development stage
e-commerce
early-maturity stage
early-stage ventures
entrepreneur
entrepreneurial finance
entrepreneurial opportunities
entrepreneurial process
entrepreneurship
financial distress
first-round financing
free cash
free cash flow
government assistance programs
initial public offering (IPO)
investment banker
investment banking firms
mezzanine financing
owner–debt holder conflict
owner–manager (agency) conflicts
private financial markets
public financial markets
rapid-growth stage
seasoned firms
seasoned securities offerings
second-round financing
secondary stock offering
seed financing
Small Business Administration (SBA)
startup financing
startup stage
survival stage
trade credit
venture capital
venture capital firms
venture capitalists (VCs)
venture law firms
venture life cycle
warrants

DISCUSSION QUESTIONS

1. What is the entrepreneurial process?
2. What is entrepreneurship? What are some basic characteristics of entrepreneurs?
3. Why do businesses close or cease operating? What are the primary reasons why businesses fail?

4. What are three megatrend sources or categories for finding entrepreneurial opportunities?
5. What asset and financial bubbles have occurred recently? How can bubbles and financial crises lead to entrepreneurial opportunities?
6. What is e-commerce? Why are the Internet economy and e-commerce here to stay?
7. Identify the seven principles of entrepreneurial finance.
8. Explain the statement: "The time value of money is not the only cost involved in renting someone's financial capital."
9. How do public and private financial markets differ?
10. What is the financial goal of the entrepreneurial venture? What are the major components for estimating value?
11. From an agency relationship standpoint, describe the possible types of problems or conflicts of interest that could inhibit maximizing a venture's value.
12. Briefly discuss the likely importance of an entrepreneur's character and reputation in the success of a venture. What role does social responsibility play in the operation of an entrepreneurial venture?
13. What is entrepreneurial finance? What are the responsibilities of the financial manager of an entrepreneurial venture?
14. What are the five stages in the life cycle of a successful venture?
15. New ventures are subject to periodic introspection as to whether they should continue or liquidate. Explain the types of information you would expect to gather and how they would be used in each stage to aid an entrepreneur's approach to the venture's future.
16. Identify the types of financing that typically coincide with each stage of a successful venture's life cycle.
17. Identify the major sources, as well as the players, associated with each type of financing for each life cycle stage.
18. Describe the life cycle approach for teaching entrepreneurial finance.
19. From the Headlines—CLEANtricity: Briefly describe the small wind turbine market and how CLEANtricity's SHAPEshifter addresses that market. Give some examples of how CLEANtricity might approach raising the $2 million in capital that it seeks.

INTERNET ACTIVITIES

1. Web-surfing exercise: Develop your own list of the five most important societal or economic trends currently shaping our society and providing major business opportunities. Use the Web to generate potential venture ideas related to the trends and to gather commentary and statistics on them.
2. Determine several "resources" available from the Small Business Administration (SBA) for entrepreneurs that might be useful in starting, financing, and managing an entrepreneurial venture. The SBA Web site is http://www.sba.gov. Also, search the SBA's Office of Advocacy Web site (http://www.sba.gov/advo/) for information relating to recent annual numbers of employer firm births and the importance of small businesses to the U.S. economy.
3. Following are some pairs of famous entrepreneurs. Using the Web if needed, associate the entrepreneurs with the companies they founded:

1. Steve Jobs and Steven Wozniak	A. Google
2. Bill Gates and Paul Allen	B. Ben & Jerry's
3. Larry Page and Sergey Brin	C. Microsoft
4. Ben Cohen and Jerry Greenfield	D. Apple, Inc.

EXERCISES/PROBLEMS

1. [*Financing Concepts*] The following ventures are at different stages in their life cycles. Identify the likely stage for each venture and **describe the type** of financing each venture is likely to be seeking and identify potential sources for that financing.
   A. Phil Young, founder of Pedal Pushers, has an idea for a pedal replacement for children's bicycles. The Pedal Pusher will replace existing bicycle pedals with an easy-release stirrup to help smaller children hold their feet on the pedals. The Pedal Pusher will also glow in the dark and will provide a musical sound as the bicycle is pedaled. Phil is seeking some financial help in developing working prototypes.

B. Petal Providers is a firm that is trying to model the U.S. floral industry after its European counterparts. European flower markets tend to have larger selections at lower prices. Revenues started at $1 million last year when the first "mega" Petal Providers floral outlet was opened. Revenues are expected to be $3 million this year and $15 million next year after two additional stores are opened.

2. [*Life Cycle Financing*] The following ventures have supplied information on how they are being financed. Link the type and sources of financing to where each venture is likely to be in its life cycle.
   A. Voice River provides media-on-demand services via the Internet. Voice River raised $500,000 of founder's capital in April 2008 and "seed" financing of $1 million in September 2008 from the Sentinak Fund. The firm is currently seeking $6 million for a growth round of financing.
   B. Electronic Publishing raised $200,000 from three private investors and another $200,000 from SOFTLEND Holdings. The financial capital is to be used to complete software development of e-mail delivery and subscription management services.
3. [*Venture Financing*] Identify a successful entrepreneurial venture that has been in business at least three years.
   A. Use historical revenue information to examine how this particular venture moved through its life cycle stages. Determine the length of the development stage, the startup stage, and so forth.
   B. Determine the financing sources used during the various stages of the venture's life cycle.
   C. Identify the venture's equity owners and how shares have been distributed among the owners. What portion of ownership has been allocated to management team members? What, if any, agency conflicts can you identify?
4. [*Financial Risk and Return Considerations*] Explain how you would choose between the following situations. Develop your answers from the perspective of the principles of entrepreneurial finance presented earlier in the chapter. You may arrive at your answers with or without making actual calculations.
   A. You have $1,000 to invest for one year. (this would be a luxury for most entrepreneurs). You can set a 4 percent interest rate for one year at the Third First Bank or a 5 percent interest rate at the First Fourth Bank. Which savings account investment would you choose and why?
   B. A "friend" of yours will lend you $10,000 for one year if you agree to repay him $1,000 interest plus returning the $10,000 investment. A second "friend" has only $5,000 to lend to you but wants total funds of $5,400 in repayment at the end of one year. Which loan would you choose, and why?
   C. You have the opportunity to invest $3,000 in one of two investments. The first investment would pay you either $2,700 or $3,300 at the end of one year, depending on the success of the venture. The second investment would pay you either $2,000 or $4,000 at the end of one year, depending on the success of the venture. Which investment would you choose and why? Would your answer change if your investment were only $1?
   D. An outside venture investor is considering investing $100,000 in either your new venture or another venture, or investing $50,000 in each venture. At the end of one year, the value of your venture might be either $0 or $1 million. The other venture is expected to be worth either $50,000 or $500,000 at the end of one year. Which investment choice (yours, the other venture, or half-and-half) do you think the venture investor would choose? Why?

5. [*Ethical Issues*] Assume that you have been working on a first-generation “prototype” for a new product. An angel investor is “waiting in the wings,” wanting to invest in a second-generation model or prototype. Unfortunately, you have run out of money and aren’t able to finish the initial prototype. The business angel has previously said that she would “walk” if you cannot produce a working first-generation prototype.
   A. What would you attempt to do to save your entrepreneurial venture?
   B. Now let’s assume that the angel investor will advance you the financing needed for the second-generation prototype based on your “word” that the first-generation prototype has been completed and is working? What would you do?

SUPPLEMENTAL EXERCISES/PROBLEMS

[Note: These activities are for readers who have an understanding of financial statements. Accountants record the flow of revenues and expenses over a time period such as a year in the income statement. Accountants also record the amount in asset accounts at the end of each accounting period in the balance sheet. For readers who need to review basic financial statements, the following problems can be completed after the materials in Chapter 4 have been covered.]

6. [*Costs or Expenses*] Phil Young, founder of Pedal Pushers, expects to spend the next six months developing and testing prototypes for a pedal replacement for children’s bicycles. (See Part A of Problem 2 for a description of the proposed product.) Phil anticipates paying monthly rent of $700 for space in a local warehouse where the Pedal Pusher product will be designed, developed, and tested. Utility expenses for electricity and heat are estimated at $150 per month. Phil plans to pay himself a salary of $1,000 per month. Materials needed to build and test an initial prototype product are expected to cost $9,500. Each redesign and new prototype will require an additional $4,500 investment. Phil anticipates that, before the final Pedal Pusher is ready for market at the end of six months, three prototypes will have been built and tested. Costs associated with test marketing the Pedal Pusher are estimated at $7,000.
   A. Determine the amount of financial capital that Phil Young will need during the six months it will take to develop and test-market the Pedal Pusher.
   B. What type of financial capital is needed? What are the likely sources of that capital for Phil Young?
   C. What would be your estimate of the amount of financial capital needed if the product development period lasted nine months?
   D. What compensation arrangements would you recommend as he hires additional members of the management team?
7. [*Expenses and Revenues*] Let’s assume that Phil Young does develop and successfully market the Pedal Pusher product discussed in Problems 1 and 7. Phil’s venture will purchase materials for making the product from others, assemble the products at the Pedal Pusher venture’s facilities, and hire product sales representatives to sell the Pedal Pusher through local retail and discount stores that sell children’s bicycles. The costs of plastic pedals and extensions; bolts, washers, and nuts; reflective material; and a microchip to provide the music when the bicycle is pedaled are expected to be $2.33 per pair of Pedal Pushers. Assembly costs are projected at $1.50 per pair. Shipping and delivery costs are estimated at $0.20 per pair, and Phil Young will have to pay commissions of $0.30 per pair of pedals sold by the sales representatives.
   A. What will it cost to produce and sell a pair of Pedal Pushers?

B. What price will Phil Young have to charge for a pair of Pedal Pushers if he wants a "markup" of 50 percent on each sale? At what price would retailers have to sell a pair of Pedal Pushers if they, in turn, desired a "markup" before their expenses of 40 percent?
C. Now that Pedal Pushers is up and operating, Phil Young feels he should be paid a salary of $5,000 per month. Other administrative expenses will be $2,500 per month. How many units (pairs) of Pedal Pushers will the venture have to sell to cover all operating and administrative costs during the first year of operation?

MINI CASE

Interact Systems, Inc.

Interact Systems, Inc., has developed software tools that help hotel chains solve application integration problems. Interact's application integration server (AIS) provides a two-way interface between central reservations systems (CRS) and property management systems (PMS). At least two important trends in the hotel industry are relevant. First, hotels are shifting from manual to electronic booking of room reservations; electronic bookings will continue to increase as more reservations are made over the Internet. Second, competitive pressures are forcing hotels to implement yield management programs and to increase customer service. By integrating the CRS and PMS through Interact's AIS, inventories can be better managed, yields improved, and customer service enhanced.

All reservation traffic is routed from the CRS to individual hotel properties. This allows Interact Systems to create a database that can be used to track customers and to facilitate marketing programs, such as frequent-stay or VIP programs, as a way of increasing customer satisfaction. Interact forecasts application integration expenditures in the hospitality industry exceeding $1 billion by 2013.

Greg Thomas founded Interact Systems in 2007 and developed the firm's middleware software and hospitality applications. He has twelve years of systems applications experience and currently is Interact's chief technology officer. Eric Westskow joined Interact in early 2010 as president and CEO. He had worked in sales and marketing in the software industry for more than twenty years.

Interact Systems' AIS software development, which began in 2007, went through several design changes in 2008. The first product was sold and installed in 2009. Sales were only $500,000 in 2010. However, now that the firm has dependable market-tested AIS products ready to be shipped, revenues are expected to reach $20.8 million in 2013.

Greg Thomas founded Interact Systems with $50,000 of his own savings plus $50,000 from friends. Two private investors provided an additional $200,000 in 2008. In addition, $1 million was obtained from a venture capital firm, Katile Capital Partners, in early 2010 in exchange for an equity position in Interact. The firm currently is seeking an additional $5 million to finance sales growth.

A. Verify the two important trends that are developing in the hotel industry.
B. Describe how Interact Systems' AIS software products will benefit the hotel industry from a profitability standpoint.
C. Describe how Interact Systems' AIS software will help hotels improve customer satisfaction.
D. Describe the life cycle stages that Interact Systems has progressed through to date.
E. What types of venture financing have been obtained, or are being sought, by Interact?
F. Relate major sources or players with the venture financing described in Part E.
G. What types of agency problems or conflicts should the founding entrepreneur have anticipated?
H. What, if anything, should the founding entrepreneur have done in anticipation of agency conflicts?
I. Assuming the venture succeeds, what are the potential advantages to other stakeholders (customers, employees, and society more broadly)?
J. If internal sales growth projections are revised downward after the current financing round, what, if any, disclosure to stakeholders (investors, employees, customers, etc.) should occur? Why?