
1 THE ENTREPRENEURIAL PROCESS

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This is the entrepreneurial age. It is estimated that as many as 460 million persons worldwide were either actively involved in trying to start a new venture or were owner-managers of a new business in 2002.¹ More than a thousand new businesses are born every hour of every working day in the United States. Entrepreneurs are driving a revolution that is transforming and renewing economies worldwide. Entrepreneurship is the essence of free enterprise because the birth of new businesses gives a market economy its vitality. New and emerging businesses create a very large proportion of innovative products and services that transform the way we work and live, such as personal computers, software, the Internet, biotechnology drugs, and overnight package deliveries. They generate most of the new jobs. For example, from 1990 to 1994, small, growing firms with 100 or fewer workers generated 7 to 8 million new jobs in the U.S. economy, whereas firms with more than 100 workers destroyed 3.6 million jobs. In 1998 to 1999, the last period for which data are available, small business accounted for two-thirds of the 2.6 million net new jobs.

There has never been a better time to practice the art and science of entrepreneurship. But what is entrepreneurship? Early this century, Joseph Schumpeter, the Moravian-born economist writing in Vienna, gave us the modern definition of an entrepreneur as the person who destroys the existing economic order by introducing new products and services, by creating new forms of organization, or by exploiting new raw materials. According to Schumpeter,

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that person is most likely to accomplish this destruction by founding a new business but may also do it within an existing one.

Very few new businesses have the potential to initiate a Schumpeterian “gale” of creation-destruction as Apple computer did in the computer industry. The vast majority of new businesses enter existing markets. In *The Portable MBA in Entrepreneurship*, we take a broader definition of entrepreneurship than Schumpeter’s. Our definition encompasses everyone who starts a new business. Our entrepreneur is the person who perceives an opportunity and creates an organization to pursue it. And the entrepreneurial process involves all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them. Our entrepreneur’s new business may, in a few rare instances, be the revolutionary sort that rearranges the global economic order as Wal-Mart, FedEx, and Microsoft have done, and Amazon.com, eBay, and Expedia.com are now doing. But it is much more likely to be of the incremental kind that enters an existing market.

- An *entrepreneur* is someone who perceives an opportunity and creates an organization to pursue it.
- The *entrepreneurial process* involves all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them.

Is the birth of a new enterprise just happenstance and its subsequent success or demise a haphazard process? Or can the art and science of entrepreneurship be taught? Clearly, professors and their students believe that it can be taught and learned because entrepreneurship is the fastest growing new field of study in American higher education. A study by the Kauffman Foundation in 2002 found that 61% of U.S. colleges and universities have at least one course in entrepreneurship. It is possible to study entrepreneurship in certificate, associates, bachelors, masters, and PhD programs.

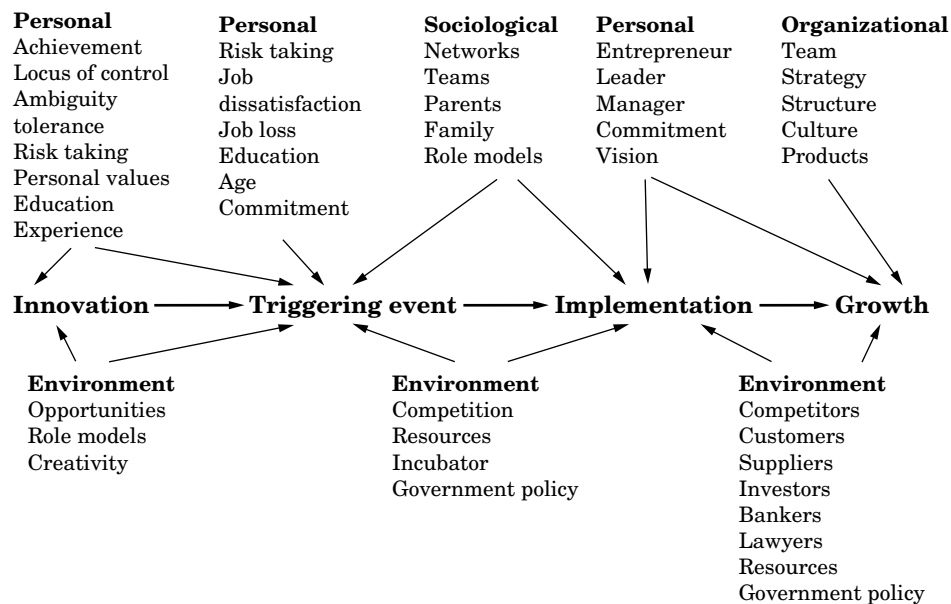
That transformation in higher education—itsself a wonderful example of entrepreneurial change—has come about because a whole body of knowledge about entrepreneurship has developed during the past two decades or so. The process of creating a new business is well understood. Yes, entrepreneurship can be taught. However, we cannot guarantee to produce a Bill Gates or a Donna Karan, any more than a physics professor can guarantee to produce an Albert Einstein or a tennis coach a Serena Williams. But give us students with the aptitude to start a business, and we will make them better entrepreneurs.

CRITICAL FACTORS FOR STARTING A NEW ENTERPRISE

We begin by examining the entrepreneurial process—the personal, sociological, and environmental factors that give birth to a new enterprise (Exhibit 1.1). A person gets an idea for a new business either through a deliberate search or a chance encounter. Whether or not he decides to pursue that idea depends on factors such as his alternative career prospects, family, friends, role models, the state of the economy, and the availability of resources.

There is almost always a *triggering event* that gives birth to a new organization. Perhaps the entrepreneur has no better career prospects. For example, Melanie Stevens was a high school dropout who, after a number of minor jobs, had run out of career options. She decided that making canvas bags in her own tiny business was better than earning low wages working for someone else. Within a few years, she had built a chain of retail stores throughout Canada. Sometimes the person has been passed over for a promotion, or even laid off or fired. Howard Rose had been laid off four times as a result of mergers and

EXHIBIT 1.1 A model of the entrepreneurial process.



Source: Based on Carol Moore's model, presented in "Understanding Entrepreneurial Behavior," in J. A. Pearce II and R. B. Robinson, Jr., eds., *Academy of Management Best Papers Proceedings*, Forty-sixth Annual Meeting of the Academy of Management, Chicago, 1986.

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consolidations in the pharmaceutical industry, and he had had enough of big business. So he started his own drug packaging business, Waverly Pharmaceutical. Tim Waterstone founded Waterstone's bookstores after he was fired by W. H. Smith. Ann Gloag quit her nursing job and used her bus driver father's \$40,000 severance pay to set up a bus company, Stagecoach, with her brother. They exploited legislation deregulating the U.K. bus industry.

For other people, entrepreneurship is a deliberate career choice. Sandra Kurtzig was a software engineer with General Electric who wanted to start a family and work at home. She started ASK Computer Systems Inc., which became a \$400 million-a-year business.

Where do would-be entrepreneurs get their ideas? More often than not it is through their present line of employment or experience. A 2002 study of the *Inc. 500*—comprising America's [500] fastest growing companies—found that 57% of the founders got the idea for their new venture in the industry they worked in and a further 23% in an industry related to the one in which they were employed. Hence, 80% of all new high-potential businesses are founded in industries that are the same as, or closely related to, the one in which the entrepreneur has previous experience. That is not surprising because it is in their present employment that they get most of their viable business ideas. Some habitual entrepreneurs do it over and over again in the same industry. Joey Crugnale, himself an *Inc. 500* Hall of Famer and an *Inc. 500* Entrepreneur of the Year, became a partner in Steve's Ice Cream when he was in his early twenties. He eventually took over Steve's Ice Cream, and created both a national franchise of some 26 units and a new food niche, gourmet ice creams. In 1982, Crugnale started Bertucci's where gourmet pizza was cooked in wood-fired brick oven and built it into a nationwide chain of 90 restaurants. Then he founded Naked Restaurants as an incubator to launch his innovative dining concepts. The first one, the Naked Fish, opened in 1999 and brought his wood-fired grill approach to a new niche: fresh fish and meats with a touch of Cubanismo. The second restaurant, Red Sauce, opened in 2002, serves moderately priced authentic Italian food somewhat along the lines of Bertucci's.

Others do it over and over again in related industries. In 1981, James Clark, then a Stanford University computer science professor, founded Silicon Graphics, a computer manufacturer with 1996 sales of \$3 billion. In April 1994, he teamed up with Marc Andreessen to found Netscape Communications. Within 12 months, its browser software, Navigator, dominated the Internet's World Wide Web. When Netscape went public in August 1995, Clark became the first Internet billionaire. Then in June 1996, Clark launched another company, Healthscape, to enable doctors, insurers, and patients to exchange data and do business over the Internet with software incorporating Netscape's Navigator.

Much rarer is the serial entrepreneur such as Wayne Huizenga, who ventures into unrelated industries: first in garbage disposal with Waste Management, next in entertainment with Blockbuster video, then in automobile sales with AutoNation. Along the way he was the original owner of the Florida Marlins baseball team, which won the World Series in 1997.

What are the factors that influence someone to embark on an entrepreneurial career? As with most human behavior, entrepreneurial traits are shaped by *personal attributes* and *environment*.

Personal Attributes

Two decades ago, at the start of the entrepreneurial 1980s, there was a spate of magazine and newspaper articles that were titled “Do you have the right stuff to be an entrepreneur?” or words to that effect. The articles described the most important characteristics of entrepreneurs and, more often than not, included a self-evaluation exercise to enable readers to determine if they had the right stuff. Those articles were based on flimsy behavioral research into the differences between entrepreneurs and nonentrepreneurs. The basis for those exercises was the belief, first developed by David McClelland in his book *The Achieving Society*, that entrepreneurs had a *higher need for achievement* than nonentrepreneurs, and that they were moderate risk takers. One engineer almost abandoned his entrepreneurial ambitions after completing one of those exercises. He asked his professor at the start of an MBA entrepreneurship course if he should take the class because he had scored very low on an entrepreneurship test in a magazine. He took the course, however, and wrote an award-winning plan for a business that was a success from the very beginning.

Today, after more research, we know that there is no neat set of behavioral attributes that allow us to separate entrepreneurs from nonentrepreneurs. It turns out that a person who rises to the top of any occupation, whether it be an entrepreneur or an administrator, is an achiever. Granted, any would-be entrepreneur must have a need to achieve, but so must anyone else with ambitions to be successful.

It does appear that entrepreneurs have a *higher locus of control* than nonentrepreneurs, which means that they have a higher desire to be in control of their own fate. This has been confirmed by many surveys which have found that entrepreneurs say that independence is their main reason for starting their businesses.

By and large, we no longer use psychological terms when talking about entrepreneurs. Instead we use everyday words to describe the characteristics found in most entrepreneurs (see Exhibit 1.2).

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EXHIBIT 1.2 The 10 Ds.

Dream	Entrepreneurs have a vision of what the future could be like for them and their businesses. And, more important, they have the ability to implement their dreams.
Decisiveness	They don't procrastinate. They make decisions swiftly. Their swiftness is a key factor in their success.
Doers	Once they decide on a course of action, they implement it as quickly as possible.
Determination	They implement their ventures with total commitment. They seldom give up, even when confronted by obstacles that seem insurmountable.
Dedication	They are totally dedicated to their business, sometimes at considerable cost to their relationships with their friends and families. They work tirelessly. Twelve-hour days, and seven-day work weeks are not uncommon when an entrepreneur is striving to get a business off the ground.
Devotion	Entrepreneurs love what they do. It is that love that sustains them when the going gets tough. And it is love of their product or service that makes them so effective at selling it.
Details	It is said that the devil resides in the details. That is never more true than in starting and growing a business. The entrepreneur must be on top of the critical details.
Destiny	They want to be in charge of their own destiny rather than dependent on an employer.
Dollars	Getting rich is not the prime motivator of entrepreneurs. Money is more a measure of their success. They assume that if they are successful they will be rewarded.
Distribute	Entrepreneurs distribute the ownership of their businesses with key employees who are critical to the success of the business.

Environmental Factors

Perhaps as important as personal attributes are the external influences on a would-be entrepreneur. It's no accident that some parts of the world are more entrepreneurial than others. The most famous region of high-tech entrepreneurship is Silicon Valley. Because everyone in Silicon Valley knows someone who has made it big as an entrepreneur, role models abound. This situation produces what Stanford University sociologist Everett Rogers called "Silicon Valley fever." It seems as if everyone in the valley catches that bug sooner or later and wants to start a business. To facilitate the process, there are venture capitalists who understand how to select and nurture high-tech entrepreneurs, bankers who specialize in lending to them, lawyers who understand the importance of intellectual property and how to protect it, landlords who are experienced in renting real estate to fledgling companies, suppliers who are willing to

sell goods on credit to companies with no credit history, and even politicians who are supportive.

Role models are very important because knowing successful entrepreneurs makes the act of becoming one yourself seem much more credible.

Would-be entrepreneurs come into contact with role models primarily in the home and at work. If you have a close relative who is an entrepreneur, it is more likely that you will have a desire to become an entrepreneur yourself, especially if that relative is your mother or father. At Babson College, more than half of the undergraduates studying entrepreneurship come from families that own businesses. But you don't have to be from a business-owning family to become an entrepreneur. Bill Gates, for example, was following the family tradition of becoming a lawyer when he dropped out of Harvard and founded Microsoft. He was in the fledgling microcomputer industry, which was being built by entrepreneurs, so he had plenty of role models among his friends and acquaintances. The United States has an abundance of high-tech entrepreneurs who are household names. One of them, Ross Perot, was so well known that he became the presidential candidate preferred by one in five American voters in 1992.

Some universities are hotbeds of entrepreneurship. For example, Massachusetts Institute of Technology has produced numerous entrepreneurs among its faculty and alums. Companies with an MIT connection transformed the Massachusetts economy from one based on decaying shoe and textile industries into one based on high technology. According to a 1997 study by the Bank of Boston, 125,000 jobs in Massachusetts were MIT-related.² Nationwide in 1996, 733,000 people working in more than 8,500 plants and offices held jobs that originated with companies founded by MIT graduates. The 4,000 or so firms that MIT graduates founded accounted for at least 1.1 million jobs worldwide and generated \$232 billion in revenues. If MIT-related companies were a nation, it would be the 24th largest economy in the world. The neighborhood of East Cambridge adjacent to MIT has been called "The Most Entrepreneurial Place on Earth" by *Inc.* magazine. According to *Inc.*, roughly 10% of Massachusetts software companies and approximately 20% of the state's 280 biotechnology companies are headquartered in that square mile.

It is not only in high-tech that we see role models. Consider these examples:

- It has been estimated that half of all the convenience stores in New York city are owned by Koreans.
- It was the visibility of successful role models that spread catfish farming in the Mississippi delta as a more profitable alternative to cotton.
- The Pacific Northwest has more microbreweries than any other region of the United States.

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- In the vicinity of the town of Wells, Maine, there are half-a-dozen secondhand bookstores.

African Americans make up 12% of the U.S. population, but owned only 4% of the nation's businesses in 1997.³ One of the major reasons for a relative lack of entrepreneurship among African Americans is the scarcity of African-American entrepreneurs, especially store owners, to provide role models. A similar problem exists among Native Americans. Lack of credible role models is also one of the big challenges in the formerly communist European nations as they strive to become entrepreneurial.

Other Sociological Factors

Besides role models, entrepreneurs are influenced by other sociological factors. *Family responsibilities* play an important role in the decision whether to start a company. It is, relatively speaking, an easy career decision to start a business when a person is 25 years old, single, and without many personal assets and dependents. It is a much harder decision when a person is 45 and married, has teenage children preparing to go to college, a hefty mortgage, car payments, and a secure, well-paying job. A 1992 survey of European high-potential entrepreneurs, for instance, found that on average they had 50% of their net worth tied up in their businesses. And at 45 plus, if you fail as an entrepreneur, it is not easy to rebuild a career working for another company. But despite the risks, plenty of 45-year-olds are taking the plunge; in fact, the median age of the CEOs of the 500 fastest growing small companies, according to *Inc. 500* in 2000, was 40.⁴

Another factor that determines the age at which entrepreneurs start businesses is the trade-off between the *experience* that comes with age and the *optimism* and *energy* of youth. As you grow older, you gain experience, but sometimes when you have been in an industry a long time, you know so many pitfalls that you are pessimistic about the chance of succeeding if you decide to go out on your own. Someone who has just enough experience to feel confident as a manager is more likely to feel optimistic about an entrepreneurial career. Perhaps the ideal combination is a beginner's mind with the experience of an industry veteran. A beginner's mind looks at situations from a new perspective, with a can-do spirit.

Robert Swanson was 27 years old when he hit upon the idea that a company could be formed to capitalize on biotechnology. At that time, he knew almost nothing about the field. By reading the scientific literature, Swanson identified the leading biotechnology scientists and contacted them. "Everybody said I was too early—it would take 10 years to turn out the first microorganism from a

human hormone or maybe 20 years to have a commercial product—everybody except Herb Boyer.” Swanson was referring to Professor Herbert Boyer at the University of California at San Francisco, coinventor of the patents that, according to some observers, form the basis of the biotechnology industry. When Swanson and Boyer met in early 1976, they almost immediately agreed to become partners in an endeavor to explore the commercial possibilities of recombinant DNA. Boyer named their venture Genentech, an acronym for genetic engineering technology. Just seven months later, Genentech announced its first success, a genetically engineered human brain hormone, somatostatin. According to Swanson, they accomplished 10 years of development in seven months.

Marc Andreessen had a beginner’s mind that produced a vision for the Internet that until then had eluded many computer industry veterans, including Bill Gates. When Andreessen’s youthful creativity was joined with James Clark’s entrepreneurial wisdom, earned from a dozen or so years as founder and chairman of Silicon Graphics, it turned out to be an awesome combination. Their company, Netscape, distributed 38 million copies of Navigator in just two years, making it the most successful new software introduction ever.

Before leaving secure, well-paying, satisfying jobs, would-be entrepreneurs should make a careful estimate of how much *sales revenue* their new businesses must generate before they will be able to match the income that they presently earn. It usually comes as quite a shock when they realize that if they are opening a retail establishment, they will need annual sales revenue of at least \$600,000 to pay themselves a salary of \$70,000 plus fringe benefits such as health care coverage, retirement pension benefits, long-term disability insurance, vacation pay, sick leave, and perhaps subsidized meals, day-care, and education benefits. Six hundred thousand dollars a year is about \$12,000 per week, or about \$2,000 per day, or about \$200 per hour, or \$3 per minute if they are open 6 days a week, 10 hours a day. Also they will be working much longer hours and bearing much more responsibility if they become self-employed. A sure way to test the strength of a marriage is to start a company that is the sole means of support for your family. For example, 22.5% of the CEOs of the *Inc. 500* got divorced while growing their businesses. On a brighter note, 59.2% got married and 18.3% of divorced CEOs remarried.⁵

When they actually start a business, entrepreneurs need a host of *contacts*, including customers, suppliers, investors, bankers, accountants, and lawyers. So it is important to understand where to find help before embarking on a new venture. A network of friends and business associates can be of immeasurable help in building the contacts an entrepreneur will need. They can also provide human contact because opening a business can be a lonely experience for anyone who has worked in an organization with many fellow employees.

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Fortunately, today there are more organizations than ever before to help fledgling entrepreneurs. Often that help is free or costs very little. The Small Business Administration (SBA) has Small Business Development Centers in every state; it funds Small Business Institutes; and its Service Core of Retired Executives provides free assistance to entrepreneurs. Many colleges and universities also provide help. Some are particularly good at writing business plans, usually at no charge to the entrepreneur. There are hundreds of incubators in the United States where fledgling businesses can rent space, usually at a very reasonable price, and spread some of their overhead by sharing facilities such as copying and FAX machines, secretarial help, answering services, and so on. Incubators are often associated with universities, which provide free or inexpensive counseling. There are numerous associations where entrepreneurs can meet and exchange ideas. In the Boston area, for example, the 128 VC Group provides a place where entrepreneurs, financiers, accountants, lawyers, and other professionals meet each month for a two-hour breakfast.

EVALUATING OPPORTUNITIES FOR NEW BUSINESSES

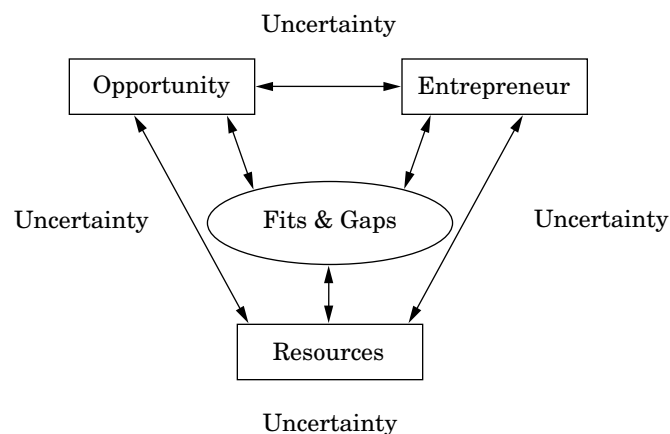
Let's assume you believe you have found a great opportunity for starting a new business. How should you evaluate its prospects? Or, perhaps more importantly, how will an independent person such as a potential investor or a banker rate your chances of success? The odds of succeeding appear to be stacked against you because, according to small business folklore, only 1 business in 10 will ever reach its tenth birthday. This doesn't mean that 9 out of 10 of the estimated two million businesses that are started every year go bankrupt. We know that even in a severe recession, the number of businesses filing for bankruptcy in the United States has never surpassed 100,000 in any year. In an average year, the number is about 50,000. In 2001, for instance, there were slightly fewer than 40,000. So what happens to the vast majority of the ones that do not survive 10 years? Most just fade away: They are started as part-time pursuits and are never intended to become full-time businesses. Some are sold. Others are liquidated. Only 700,000 of the two million are legally registered as corporations or partnerships, which is a sure sign that many of the remaining 1.3 million never intended to grow. Hence, the odds that your new business will survive may not be as long as they first appear to be. If you intend to start a full-time, incorporated business, the odds that the business will survive at least eight years with you as the owner are better than one in four; and the odds of its surviving at least eight years with a new owner are another one in four. So the eight-year survival rate for incorporated startups is about 50%.

But survival may not spell success. Too many entrepreneurs find that they can neither earn a satisfactory living in their businesses nor get out of them easily because they have too much of their personal assets tied up in them. The happiest day in an entrepreneur's life is the day doors are opened for business. For unsuccessful entrepreneurs, an even happier day may be the day the business is sold—especially if most personal assets remain intact. What George Bernard Shaw said about a love affair is also apt for a business: Any fool can start one, it takes a genius to end one successfully.

How can you stack the odds in your favor, so that your new business is successful? Professional investors, such as venture capitalists, have a talent for picking winners. True, they also pick losers, but a startup company funded by venture capital has, on average, a four in five chance of surviving five years—better odds than for the population of startup companies as a whole. By using the criteria that professional investors use, entrepreneurs can increase their odds of success. Very few startup businesses—perhaps no more than one in a thousand—will ever be suitable candidates for investments from professional venture capitalists. But would-be entrepreneurs can learn much by following the evaluation process used by professional investors.

There are three crucial components for a successful new business: the opportunity, the entrepreneur (and the management team, if it's a high-potential venture), and the resources needed to start the company and make it grow. These components are shown schematically in Exhibit 1.3 in the

EXHIBIT 1.3 Three driving forces.



Source: Based on Jeffrey Timmons' framework, as presented in Jeffrey A. Timmons, *New Venture Creation* (Homewood, IL: Richard D. Irwin, 1990).

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basic Timmons framework. At the center of the framework is a business plan, in which the three basic components are integrated into a complete strategic plan for the new business. The parts must fit together well. There is no point in having a first-rate idea for a new business if you have a second-rate management team. Nor are ideas and management any good without the appropriate resources.

The crucial driving force of any new venture is the lead entrepreneur and the funding management team. Georges Doriot, the founder of modern venture capital, used to say something like this: “Always consider investing in a grade A man with a grade B idea. Never invest in a grade B man with a grade A idea.” He knew what he was talking about. Over the years, he invested in about 150 companies, including Digital Equipment Corporation (DEC), and watched over them as they struggled to grow. But Doriot made this statement about business in the 1950s and 1960s. During that period, there were far fewer startups each year; U.S. firms dominated the marketplace; markets were growing quickly; there was almost no competition from overseas; and most entrepreneurs were male. Today, in the global marketplace with ever-shortening product life cycles and low growth or even no growth for some of the world’s leading industrial nations, the crucial ingredients for entrepreneurial success are a superb entrepreneur with a first-rate management team and an excellent market opportunity.

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Frequently, I hear the comment that success in entrepreneurship is largely a matter of luck. That’s not so. We do not say that becoming a great quarterback, or a great scientist, or a great musician is a matter of luck. There is no more luck in becoming successful at entrepreneurship than in becoming successful at anything else. In entrepreneurship, it is a question of recognizing a good opportunity when you see one and having the skills to convert that opportunity into a thriving business. To do that, you must be prepared. So in entrepreneurship, just like any other profession, *luck is where preparation and opportunity meet.*

In 1982, when Rod Canion proposed to start Compaq to make personal computers, there were already formidable established competitors, including IBM and Apple. By then literally hundreds of companies were considering entering the market or had already done so. For instance, in the same week of May 1982 that DEC announced its ill-fated personal computer, four other companies introduced PCs. Despite the competition, Ben Rosen of the venture

capital firm Sevin Rosen Management Company, invested in Compaq. Started initially to make transportable PCs, it quickly added a complete range of high-performance PCs and grew so fast that it soon broke Apple's record for the fastest time from founding to listing on the *Fortune* 500.

What did Ben Rosen see in the Compaq proposal that made it stand out from all the other personal computer startups? The difference was Rod Canion and his team. Rod Canion had earned a reputation as an excellent manager at Texas Instruments. Furthermore, the market for personal computers topped \$5 billion and was growing at a torrid pace. So Rosen found a superb team with a product targeted at an undeveloped niche, transportable PCs, in a large market that was growing explosively. By 1994, Compaq was the leading PC manufacturer with 13% of the market.

In entrepreneurship, as in any other profession, luck is where preparation and opportunity meet.

The Opportunity

Perhaps the biggest misconception about an idea for a new business is that it must be unique. Too many would-be entrepreneurs are obsessed with finding a unique idea. Then, when they believe they have it, they are haunted by the thought that someone is just waiting to steal it from them. As a result, they become super secretive. They are reluctant to discuss it with anyone unless that person signs a nondisclosure agreement. That in itself makes it almost impossible to evaluate the idea. For example, many counselors who provide free advice to entrepreneurs refuse to sign nondisclosure agreements. Generally speaking, these super-secret, unique ideas are big letdowns when the entrepreneur reveals them to you. Among the notable ones I have encountered were "drive-through pizza by the slice," "a combination toothbrush and toothpaste gadget," and "a Mexican restaurant in Boston." One computer programmer telephoned me and said that he had a fantastic new piece of software. Eventually, after I assured him that I was not going to steal his idea, he told me his software was for managing hairdressing salons. He was completely floored when I told him that less than a month previously another entrepreneur had visited my office and demonstrated a software package for exactly the same purpose. Another entrepreneur had an idea for fluoride-impregnated dental floss. Not three months later, on a visit to England, I found the identical product in Boots—Britain's largest chain of drugstores and a major pharmaceutical manufacturer.

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I tell would-be entrepreneurs that almost any idea they have will also have occurred to others. For good measure, I point out that some of the most revolutionary thoughts in the history of mankind occurred to more than one person almost simultaneously. For instance, Darwin was almost preempted by Wallace in publishing his theory of evolution; Poincaré formulated a valid theory of relativity about the same time Einstein did; and the integrated circuit was invented in 1959 first by Jack Kilby at Texas Instruments, and then independently by Robert Noyce at Fairchild a few months later. The idea per se is not what is important. Ideas are a dime a dozen. Developing the idea, implementing it, and building a successful business are the important aspects of entrepreneurship. Alexander Fleming discovered penicillin by chance but never developed it as a useful drug. About 10 years later, Ernst Chain and Howard Florey unearthed Fleming's mold. They immediately saw its potential. Working in England under wartime conditions, they soon were treating patients. Before the end of World War II, penicillin was saving countless lives. It was a dramatic pharmaceutical advance that heralded a revolution in that industry.

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Customer Need

Many would-be entrepreneurs call me telling me that they have an idea for a new business and that they want to come to see me. Unfortunately, it is impossible to see all of them, so I have developed a few questions that allow me to judge how far along they are “with their idea.” The most telling question is, “Can you give me the names of prospective customers?” Their answer must be very specific. If they have a consumer product—let's say it's a new shampoo—I expect them to be able to name buyers at different chains of drugstores in their area. If they are unable to name several customers immediately, they simply have an idea, not a market. There is no market unless customers have a real need for the product—a proven need rather than a hypothetical need in the mind of a would-be entrepreneur. In a few rare cases, it may be a revolutionary new product, but it is much more likely to be an existing product with improved performance, price, distribution, quality, or service. Simply put, customers must perceive that the new business or

product will be giving them better value for their money than existing businesses or products.

Would-be entrepreneurs who are unable to name customers are not ready to start a business. They have only found an idea and have not yet identified the market.

Timing

Time plays a crucial role in many potential opportunities. In some emerging industries, there is a window of opportunity that opens only once. For instance, about 25 years ago, when VCRs were first coming into household use in the United States, there was a need for video stores in convenient locations where viewers could pick up movies on the way home from work. Many video retail stores opened up in main streets and shopping centers. They were usually run by independent store owners. Then the distribution of videos changed. National chains of video stores emerged. Supermarket and drugstore chains entered the market. Today, the window of opportunity for starting an independent video store is closed. There are simply too many big competitors in convenient locations.

In other markets, high-quality restaurants for example, there is a steady demand that, on average, does not change much from year to year, therefore, the window of opportunity is always open. Nevertheless, timing can be important, because when the economy turns down, those kinds of restaurants are usually hit harder than lower quality ones, so the time to open one is during a recovering or booming economy.

If the window of opportunity appears to be very brief, it may be that the idea is a consumer fad that will quickly pass. It takes a very skilled entrepreneur to make money out of a fad. When Lucy's Have a Heart Canvas of Faneuil Hall Market in Boston introduced shoelaces with hearts on them, they flew off the shelves. Children and teenagers could not get enough of them for their sneakers. The store ordered more and more of them. Then demand suddenly dropped precipitously. The store and the manufacturer were left holding huge inventories that could not be sold. As a result, the store almost went out of business.

Most entrepreneurs should avoid fads or any window of opportunity that they believe will be open only for a very brief time, because it inevitably means that they will rush to open their business, sometimes before they have time to

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gather the resources they will need. Rushing to open a business without adequate planning can lead to costly mistakes.

The Entrepreneur and the Management Team

Regardless of how right the opportunity may seem to be, it will not make a successful business unless it is developed by a person with strong entrepreneurial and management skills. What are the important skills?

First and foremost, entrepreneurs should have experience in the same industry or a similar one. Starting a business is a very demanding undertaking indeed. It is no time for on-the-job training. If would-be entrepreneurs do not have the right experience, they should either go out and get it before starting their new venture or find partners who have it.

Some investors say that the ideal entrepreneur is one who has a track record of being successful previously as an entrepreneur in the same industry and who can attract a seasoned team. Half of the CEOs of the *Inc. 500* high-growth small companies had started at least one other business before they founded their present firms. When Joey Crugnale acquired his first ice cream shop in 1977, he already had almost 10 years in the food service industry. By 1991, when Bertucci's brick oven pizzeria went public, he and his management team had a total of more than 100 years experience in the food industry. They had built Bertucci's into a rapidly growing chain with sales of \$30 million and net income of \$2 million.

Without relevant experience, the odds are stacked against the neophyte in any industry. An electronics engineer told me that he had a great idea for a chain of fast-food stores. When asked if he had ever worked in a fast-food restaurant, he replied, "Work in one? I wouldn't even eat in one. I can't stand fast food!" Clearly, he would have been as miscast as a fast-food entrepreneur as Crugnale would have been as an electronics engineer.

True, there are entrepreneurs who have succeeded spectacularly with no prior industry experience. Anita Roddick of The Body Shop and Ely Callaway of Callaway Golf are two notable examples. But they are the exceptions that definitely do not prove the rule.

Second to industry know-how is *management experience*, preferably with responsibility for budgets, or better yet, accountability for profit and loss. It is even better if a would-be entrepreneur has a record of increasing sales and profits. Here, we are talking about the *ideal* entrepreneur. Very few people measure up to the ideal. That does not mean they should not start a new venture. But it does mean they should be realistic about the size of business they should start. Fifteen years ago, two 19-year-old students wanted to start a

travel agency business in Boston. When asked what they knew about the industry, one replied, “I live in California. I love to travel.” The other was silent. Neither of them had worked in the travel industry, nor had anyone in either of their families. They were advised to get experience. One joined a training program for airline ticket agents; the other took a course for travel agents. They became friends with the owner of a local Uniglobe travel agency who helped them with advice. Six months after they first had the idea, they opened a part-time campus travel agency. In the first six months, they had about \$100,000 of revenue and made \$6,000 of profit but were unable to pay themselves any salary. They acquired experience at no expense and at low risk. Upon graduation, one of them, Mario Ricciardelli, made it his full-time job and continued building the business and gaining experience at the same time. In 2001, after many bumps in the road, the business had sales revenue of \$22.1 million and was one of the largest student travel businesses in the world.

Resources

It’s hard to believe that Olsen and Anderson started DEC with only \$70,000 of startup capital and built a company that at its peak ranked in the top 25 of the *Fortune* 500 companies. “The nice thing about 70,000 dollars is that there are so few of them, you can watch every one,” Olsen said. And watch them he did. Olsen and Anderson moved into a 100-year-old building that had been a nineteenth-century woollen mill. They furnished it with second-hand furniture, purchased tools from the Sears catalog, and built much of their own equipment as cheaply as possible. They sold \$94,000 worth of equipment in their first year and made a profit at the same time—a very rare feat for a high-tech startup.

Successful entrepreneurs are frugal with their scarce resources. They keep overheads low, productivity high, and ownership of capital assets to a minimum. By so doing, they minimize the amount of capital they need to start their business and make it grow.

Entrepreneurial frugality includes:

- Low overhead
- High productivity
- Minimal ownership of capital assets

DETERMINING RESOURCE NEEDS AND ACQUIRING RESOURCES

To determine the amount of capital that a company needs to get started, an entrepreneur must determine the minimum set of essential resources. Some resources are more critical than others. The first thing an entrepreneur should do is assess what resources are crucial for the company's success in the marketplace. What does the company expect to do better than any of its competitors? That is where it should put a disproportionate share of its very scarce resources. If the company is making a new high-tech product, technological know-how will be vital. Its most important resource will be engineers and the designs they produce. Therefore, the company must concentrate on recruiting and keeping excellent engineers, and safeguarding the intellectual property that they produce, such as engineering designs and patents. If the company is doing retail selling, the critical factor is most likely to be location. It makes no sense to choose a site in a poor location just because the rent is cheap. Choosing the wrong initial location for a retail store can be a fatal mistake, because it's unlikely that there will be enough resources to relocate.

When Southwest Airlines started up 32 years ago, its strategy was to provide frequent, on-time service at a competitive price between Dallas, Houston, Austin, and San Antonio. To meet its objectives, Southwest needed planes that it could operate reliably at low cost. It was able to purchase four brand-new Boeing 737s—very efficient planes for shorter routes—for only \$4 million each because the recession had hit the airlines particularly hard and Boeing had an inventory of unsold 737s. From the outset, Southwest provided good, reliable service and had one of the lowest costs per mile in the industry. Today, Southwest is the most successful domestic airline, while two of its biggest competitors when it started out, Braniff International and Texas International, have gone bankrupt.

Items that are not critical should be obtained as thriftily as possible. The founder of Burlington Coat, Monroe Milstein, likes to tell the story of how he obtained estimates for gutting the building he had just leased for his second store. His lowest bid was several thousand dollars. One day he was at the building when a sudden thunderstorm sent a crew of laborers working at a nearby site to his building for shelter from the rain. Milstein asked the crew's foreman what they would charge for knocking down the internal structures that needed to be removed. The foreman said, "Five." Milstein asked, "Five what?" The foreman replied, "Cases of beer."

A complete set of resources includes everything that the business will need. A key point to remember when deciding to acquire those resources is that a business does not have to do all its work in-house with its own employees. It is often more effective to subcontract the work. That way it need not own or lease

its own manufacturing plant and equipment. Nor does it have to worry about recruiting and training production workers. Often, it can keep overhead lower by using outside firms to do work such as payroll, accounting, advertising, mailing promotions, janitorial services, and so on.

Even startup companies can get amazingly good terms from outside suppliers. An entrepreneur should try to understand the potential suppliers' marginal costs. Marginal cost is the cost of producing one extra unit beyond what is presently produced. The marginal cost of the laborers who gutted Milstein's building while sheltering from the rain was virtually zero. They were being paid by another firm, and they didn't have to buy materials or tools.

A small electronics company was acquired by a much larger competitor. The large company took over the manufacturing of the small company's products. Production costs shot up. An analysis revealed that much of the increase was due to a rise in the cost of purchased components. In one instance, the large company was paying 50% more than the small company had been paying for the same item. It turned out that the supplier had priced the item for the small company on the basis of marginal costs and for the large company on the basis of total costs.

Smart entrepreneurs find ways of controlling critical resources without owning them. A startup business never has enough money. It should not buy what it can lease. It must be resourceful. Except when the economy is red hot, there is almost always an excess of capacity of office and industrial space. Sometimes a landlord will be willing to offer a special deal to attract even a small startup company into a building. Such deals may include reduced rent, deferral of rent payments for a period of time, and building improvements at low cost or even no cost. In some high-tech regions, there are landlords who will exchange rent for equity in a high-potential startup.

When equipment is in excess supply, it can be leased on very favorable terms. A young database company was negotiating a lease with IBM for a new minicomputer when its chief engineer discovered that a leasing company had identical secondhand units standing idle in its warehouse. It was able to lease one of the idle units for one-third of IBM's price. About 18 months later, the database company ran out of cash. Nevertheless, it was able to persuade the leasing company to defer payments, because by then there were even more minicomputers standing idle in the warehouse, and it made little economic sense to repossess one and add it to the idle stock.

Startup Capital

You have reached the point where you have developed your idea; you have carefully assessed what resources you will need to open your business and

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make it grow; you have pulled all your strategies together into a business plan; and now you know how much startup capital you will need to get you to the point where your business will generate a positive cash flow. How are you going to raise that startup capital?

There are two types of startup capital: debt and equity. With debt you don't have to give up any ownership of the business, but you have to pay current interest and eventually repay the principal; with equity you have to give up some of the ownership to get it, but you may never have to repay it or even pay a dividend. So you must choose between paying interest and giving up some of the ownership.

What usually happens, in practice, depends on how much of each type of capital you can raise. Most startup entrepreneurs do not have much flexibility in their choice of financing. If it is a very risky business without any assets, it will be impossible to get any bank debt without putting up some collateral other than the business's assets—most likely that collateral will be personal assets. Even if entrepreneurs are willing to guarantee the whole loan with their personal assets, the bank will expect them to put some equity into the business, probably equal to 25% of the amount of the loan.

The vast majority of entrepreneurs start their businesses by leveraging their own savings and labor. Consider how Apple, one of the most spectacular startups of all time, was funded. Steven Jobs and Stephan Wozniak had been friends since their school days in Silicon Valley. Wozniak was an authentic computer nerd. He had tinkered with computers from childhood, and he built a computer that won first prize in a science fair. His SAT math score was a perfect 800, but after stints at the University of Colorado, De Anza College, and Berkeley, he dropped out of school and went to work for Hewlett-Packard. His partner, Jobs, had an even briefer encounter with higher education: After one semester at Reed College, he left to look for a swami in India. When he and Wozniak began working on their microcomputer, Jobs was working at Atari, the leading video game company.

Apple soon outgrew its manufacturing facility in the garage of Jobs' parents' house. Their company, financed initially with \$1,300 raised by selling Jobs' Volkswagen and Wozniak's calculator, needed capital for expansion. They looked to their employers for help. Wozniak proposed to his supervisor that Hewlett-Packard should produce what later became the Apple II. Perhaps not surprisingly, he was rejected. After all, he had no formal qualification in computer design; indeed, he did not even have a college degree. At Atari, Jobs tried to convince founder Nolan Bushnell to manufacture Apples. He too was rejected.

However, on the suggestion of Bushnell and Regis McKenna, a Silicon Valley marketing ace, they contacted Don Valentine, a venture capitalist in the fall of 1976. In those days, Jobs' appearance was a hangover from his swami

days. It definitely did not project the image of Doriot's grade A man, even by Silicon Valley's casual standards. Valentine did not invest. But he did put them in touch with Armas Markkula Jr., who had recently retired from Intel a wealthy man. Markkula saw the potential in Apple, and he knew how to raise money. He personally invested \$91,000, secured a line of credit from Bank of America, put together a business plan, and raised \$600,000 of venture capital.

The Apple II was formally introduced in April 1977. Sales took off almost at once. Apple's sales grew rapidly to \$2.5 million in 1977 and \$15 million in 1978. In 1978, Dan Bricklin, a Harvard business student and former programmer at DEC, introduced the first electronic spreadsheet, VisiCalc, designed for the Apple II. In minutes it could do tasks that had previously taken days. The microcomputer now had the power to liberate managers from the data guardians in the computer departments. According to one source, "Armed with VisiCalc, the Apple II's sales took off, and the personal computer industry was created." Apple's sales jumped to \$70 million in 1979 and \$117 million in 1980.

In 1980, Apple sold some of its stock to the public with an initial public offering (IPO) and raised more than \$80 million. The paper value of their Apple stock made instant millionaires out of Jobs (\$165 million), Markkula (\$154 million), Wozniak (\$88 million), and Mike Scott (\$62 million), who together owned 40% of Apple. Arthur Rock's venture capital investment of \$57,000 in 1978 was suddenly worth \$14 million, an astronomical compound return of more than 500% per year, or 17% per month.

By 1982, Apple IIs were selling at the rate of more than 33,000 units a month. With 1982 sales of \$583 million, Apple hit the *Fortune* 500 list. It was a record. At five years of age, it was at that time the youngest company ever to join that exclusive list.

Success as spectacular as Apple's has seldom been equaled. Nonetheless, its financing is a typical example of how successful high-tech companies are funded. First, the entrepreneurs develop a prototype with sweat equity and personal savings. Sweat equity is ownership earned in lieu of wages. Then a wealthy investor—sometimes called an informal investor or business angel who knows something about the entrepreneurs, or the industry, or both, invests some personal money in return for equity. When the company is selling product, it may be able to get a bank line of credit secured by its inventory and accounts receivable. If the company is growing quickly in a large market, it may be able to raise capital from a formal venture capital firm in return for equity. Further expansion capital may come from venture capital firms or from a public stock offering.

Would-be entrepreneurs sometimes tell me that they did not start their ventures because they could not raise sufficient money to get started. More often than not, they were unrealistic about the amount of money that they could

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reasonably have expected to raise for their startup businesses. I tell them that many of the best companies started with very little capital. For example, 42% of the *Inc. 500* companies had initial capital of less than \$10,000, 58% less than \$20,000, and 68% less than \$50,000. Only 21% started with more than \$100,000.⁶ Only a few percent of this cream of the crop of entrepreneurs started their companies with venture capital, which is by far the rarest source of seed investment. It is estimated that at most only 1 in 10,000 of all new ventures in the United States have venture capital in hand at the outset.

The vast majority of new firms will never be candidates for formal venture capital or a public stock offering. Nevertheless, they will have to find some equity capital. In most cases, after they have exhausted their personal savings, entrepreneurs will turn to family, friends, and acquaintances (see Exhibit 1.4). It can be a scary business. Entrepreneurs often find themselves with all their personal net worth tied up in the same business that provides all their income. That is double jeopardy, because if their businesses fail, they lose both their savings and their means of support. Risk of that sort can be justified only if the profit potential is high enough to yield a commensurate rate of return.

Profit Potential

The level of profit that is reasonable depends on the type of business. On average, U.S. companies make about 5% net income. Hence, on one dollar of revenue, the average company makes five cents profit after paying all expenses and taxes. A company that consistently makes 10% is doing very well, and one that makes 15% is truly exceptional. Approximately 50% of the *Inc. 500* companies make 5% or less; 13% of them make 16% or more. Profit margins in a wide variety of industries for companies both large and small are published by

EXHIBIT 1.4 Relationship of investor to entrepreneur.

	All Nations (%)	USA (%)
Close family member	40	44
Other relative	11	6
Work colleague	10	9
Friend/neighbor	28	28
Stranger	9	7
Other	2	6
	<u>100</u>	<u>100</u>

Data Source: Global Entrepreneurship Monitor 2002, www.gemsonsortium.org.

Robert Morris Associates. Hence it is possible for entrepreneurs to compare their forecasts with the actual performance of similar-sized companies in the same industry.

Any business must make enough profit to recompense its investors (in most cases that is the entrepreneur) for their investment. It must be profit after all normal business expenses have been accounted for, including a fair salary for the entrepreneur and any family members who are working in the business. A common error in assessing the profitability of a new venture is to ignore the owner's salary. Suppose someone leaves a secure job paying \$50,000 per year plus fringe benefits and invests \$100,000 of personal savings to start a new venture. That person should expect to take a \$50,000 salary plus fringe benefits out of the new business. Perhaps in the first year or two, when the business is being built, it may not be possible to pay \$50,000 in actual cash; in that case, the pay that is not actually received should be treated as deferred compensation to be paid in the future. In addition to an adequate salary, the entrepreneur must also earn a reasonable return on the \$100,000 investment. A professional investor putting money into a new, risky business would expect to earn an annual rate of return of at least 40%, which would be \$40,000 annually on a \$100,000 investment. That return may come as a capital gain when the business is sold, or as a dividend, or a combination of the two. But remember that \$100,000 compounding annually at 40% grows to almost \$2.9 million in 10 years. When such large capital gains are needed to produce acceptable returns, big capital investments held for a long time do not make any sense unless very substantial value can be created, as occasionally happens in the case of high-flying companies, especially high-tech ones. In most cases, instead of a capital gain, the investor's return will be a dividend, which must be paid out of the cash flow from the business.

The cash flow that a business generates is not to be confused with profit. It is possible, indeed very likely, that a rapidly growing business will have a negative cash flow from operations in its early years even though it may be profitable. That may happen because the business may not be able to generate enough cash flow internally to sustain its ever-growing needs for working capital and the purchase of long-term assets such as plant and equipment. Hence, it will have to borrow or raise new equity capital. It is very important that a high-potential business intending to grow rapidly make careful cash-flow projections so as to predict its needs for future outside investments. Future equity investments will dilute the percentage ownership of the founders, and if the dilution becomes excessive, there may be little reward remaining for the entrepreneurs.

Biotechnology companies are examples of this; they have a seemingly insatiable need for cash infusions to sustain their R&D costs in their early years. Their negative cash flow, or *burn rate*, sometimes runs as high as \$1 million per

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month. A biotechnology company can easily burn up \$50 million before it generates a meaningful profit, let alone a positive cash flow. The expected future capital gain from a public stock offering or sale to a large pharmaceutical company has to run into hundreds of millions of dollars, maybe into the billion-dollar range, for investors to realize an annual return of 50% or higher, which is what they expect to earn on money invested in a seed-stage biotechnology company. Not surprisingly, to finance their ventures, biotechnology entrepreneurs as a group have to give up most of the ownership. A study of venture-capital-backed biotechnology companies found that after they had gone public, the entrepreneurs and management were left with less than 18% of the equity, compared with 32% for a comparable group of computer software companies.

As has already been mentioned, the vast majority of businesses will never have the potential to go public. Nor will the owners ever intend to sell their businesses and thereby realize a capital gain. In that case, how can those owners get a satisfactory return on the money they have invested in their businesses? The two ingredients that determine return on investment are (1) amount invested, and (2) annual amount earned on that investment. Hence, entrepreneurs should invest as little as possible to start their businesses and make sure that their firms will be able to pay them a “dividend” big enough to yield an appropriate annual rate of return. For income tax purposes, that dividend may be in the form of a salary bonus or fringe benefits rather than an actual dividend paid out of retained earnings. Of course, the company must be generating cash from its own operations before that dividend can be paid. For entrepreneurs, happiness is a positive cash flow. The day a company begins to generate cash is a very happy day in the life of a successful entrepreneur.

For entrepreneurs, happiness is a positive cash flow.

INGREDIENTS FOR A SUCCESSFUL NEW BUSINESS

The great day has arrived. You found an idea, wrote a business plan, and gathered your resources. Now you are opening the doors of your new business for the first time, and the really hard work is about to begin. What are the factors that distinguish winning entrepreneurial businesses from the also-rans? Rosabeth Kanter prescribed four Fs for a successful business, a list that has been expanded into the nine Fs for entrepreneurial success (see Exhibit 1.5).

First and foremost, the founding entrepreneur is the most important factor. Next comes the market. This is the “era of the other,” in which, as Regis

EXHIBIT 1.5 The nine Fs.

Founders	Every startup company must have a first-class entrepreneur.
Focused	Entrepreneurial companies focus on niche markets. They specialize.
Fast	They make decisions quickly and implement them swiftly.
Flexible	They keep an open mind. They respond to change.
Forever-innovating	They are tireless innovators.
Flat	Entrepreneurial organizations have as few layers of management as possible.
Frugal	By keeping overhead low and productivity high, entrepreneurial organizations keep costs down.
Friendly	Entrepreneurial companies are friendly to their customers, suppliers, and workers.
Fun	It's fun to be associated with an entrepreneurial company.

McKenna observed, the fastest growing companies in an industry will be in a segment labeled “others” in a market share pie-chart. By and large, they will be newer entrepreneurial firms rather than large firms with household names; hence specialization is the key. A successful business should focus on niche markets.

The rate of change in business gets ever faster. The advanced industrial economies are knowledge based. Product life cycles are getting shorter. Technological innovation progresses at a relentless pace. Government rules and regulations keep changing. Communications and travel around the globe keep getting easier and cheaper. And consumers are better informed about their choices. To survive, let alone succeed, in business, a company has to be quick and nimble. It must be fast and flexible. It cannot allow inertia to build up. Look at retailing: The historical giants such as Kmart are on the ropes, while nimble competitors dance around them. Four of the biggest retailing successes are Les Wexner's The Limited, the late Sam Walton's Wal-Mart, Bernie Marcus and Arthur Blank's Home Depot, and Anita Roddick's The Body Shop. These entrepreneurs know that they can keep inertia low by keeping the layers of management as few as possible. Tom Peters, an authority on business strategy, liked to point out that Wal-Mart had three layers of management, whereas Sears had 10 a few years back when Wal-Mart displaced Sears as the nation's top chain of department stores. “A company with three layers of management can't lose against a company with 10. You could try, but you couldn't do it!” says Peters. So keep your organization flat. It will facilitate quick decisions and flexibility, and keep overhead low.

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Small entrepreneurial firms are great innovators. Big firms are relying increasingly on strategic partnerships with entrepreneurial firms in order to get access to desirable R&D. It is a trend that is well under way. Hoffmann-La Roche, hurting for new blockbuster prescription drugs, purchased a majority interest in Genentech and bought the highly regarded biotechnology called PCR (polymerase chain reaction) from Cetus for \$300 million. Eli Lilly purchased Hybritech. In the 1980s, IBM spent \$9 billion a year on research and development, but even that astronomical amount of money could not sustain Big Blue's commercial leadership. As its market share was remorselessly eaten away by thousands of upstarts, IBM entered into strategic agreements with Apple, Borland, Go, Lotus, Intel, Metaphor, Microsoft, Novell, Stratus, Thinking Machines, and other entrepreneurial firms for the purpose of gaining computer technologies.

When it introduced the first personal computer in 1981, IBM stood astride the computer industry like a big blue giant. Two suppliers of its personal computer division were Intel and Microsoft. Compared with IBM, Intel was small and Microsoft was a midget. By 2002, Intel's revenue was \$26.8 billion and Microsoft's was \$28.4 billion. Between 1998 and 2002, Microsoft's revenue increased 86% while IBM's stood still. In 2002, IBM—the company that invented the PC—had only 6% of the worldwide market for PCs. Today, it is Microsoft's Windows operating system and Intel's microprocessors—the so-called WINTEL—that are shaping the future of information technology.

When it comes to productivity, the best entrepreneurial companies leave the giant corporations behind in the dust. According to 2002 computer industry statistics, Microsoft's revenue per employee was \$1,001,000, Dell's was \$901,000, while Hewlett-Packard's was \$401,333, and IBM's was \$253,700.

No wonder Carly Fiorina of Hewlett-Packard and Samuel Palmisano of IBM and have been busily downsizing their companies. Dell subcontracts more of its manufacturing, but this does not explain the difference. Whether you hope to build a big company or a small one, the message is the same: Strive tirelessly to keep productivity high.

But no matter what you do, you probably won't be able to attain much success unless you have happy customers, happy workers, and happy suppliers. That means you must have a friendly company. It means that everyone must be friendly, especially anyone who deals with customers.

"The most fun six-month period I've had since the start of Microsoft," is how Bill Gates described his astonishing accomplishment in re-inventing his

20-year-old company to meet the threat posed by Internet upstarts in the mid-1990s. In not much more than six months of Herculean effort, Microsoft has developed an impressive array of new products to match those of Netscape. Having fun is one of the keys to keeping a company entrepreneurial. If Microsoft's product developers were not having fun, they would not have put in 12-hour days and sometimes overnights to catch up with the Netscape.

Most new companies have the nine Fs at the outset. Those that become successful and grow pay attention to keeping them and nurturing them. The key to sustaining success is to remain an entrepreneurial gazelle and never turn into a lumbering elephant and finally a dinosaur, doomed to extinction.

