1 Entrepreneur's Primer

***Entrepreneurship** is the recognition and pursuit of opportunity without regard to the resources you currently control, with confidence that you can succeed, with the flexibility to change course as necessary, and the will to rebound from setbacks.*

Bob Reiss[1]

1.0 Entrepreneur's Diary

I remain grateful for some good early advice. I had several inventions that had been taken to financial success by others. The benefactors sometimes said thank you. This made me all the more eager to take one of my own ideas to the real world. I had convinced myself that financial success and glory eagerly awaited me.

About fifteen years ago, I launched my first major entrepreneurial effort that revolved around proprietary technology used to produce seafood indoors in an environmentally responsible manner at a competitive price. The market for such a technology had to be huge I kept reminding myself, because seafood was (and still is) a significant contributor to the U.S. trade deficit.

Fortunately for me, before I committed my home equity into this venture, I got some good early advice from Walter Haeussler, president of the Cornell Research Foundation. He told me that before I started my fish company, I needed to convince at least one other person to invest in the opportunity. Walter assured me that I made a very persuasive case and that he was so convinced by the oral presentation of my start-up business "idea" – that he was almost ready to be an investor himself! But almost does not provide any start-up capital!

So, I took Walter's advice and convinced one other person (actually two): my two brothers. A loving brother will tell you *no* if you do not have a viable business opportunity. This forced me to develop a solid business plan, to analyze the market, and to develop a cash flow statement, and so on – before investing our precious cash.

But before you run out and try to start a business, try assessing your personal suitability for entrepreneurship as you read this chapter. What does it take? What

[1] Bob Reiss, *Low Risk High Reward* (New York: The Free Press, 2000), p. 6.

common personal characteristics do many successful entrepreneurs share? This chapter is designed to help you answer some of these relevant questions before you take the plunge into entrepreneurship by asking the right questions and letting you reflect on your answers. We'll also present some of the fundamental rules for starting a successful venture and some other early advice for you if you are just starting out in one of these adventures, and will provide some background on raising capital, your need to stay focused, and some discussion on when you might quit your "day job."

1.1 So You Want to Be an Entrepreneur?

Some people seem to be made for entrepreneurial adventures whereas others prefer the security of a paycheck from somebody else. One thing is certain: if it weren't for entrepreneurs, then most of us would still be working on a farm without the many simple things that enhance our quality of life, such as light bulbs, flush toilets, cell phones, personal computers, and a host of other products demonstrating technological advancement.

Small businesses of fewer than twenty people account for 90% of all businesses operating in the United States. Small businesses employing fewer than 500 employees accounted for 50% of all wage workers and 45% of the payroll of all businesses.[2] We rely on entrepreneurs to start new businesses and create jobs and thereby keep our economy moving. On the down side, only about 50% of these new businesses are still open after four years.[3]

Why would anyone become an entrepreneur when failure seems so common? Ask yourself, "What's the difference between me and Bill Gates or Michael Dell (besides several billion dollars of personal wealth)?" For many people, their fear of failure or the consequences of failure is the biggest thing holding them back. For some, it is simply the economic risk of failure; for others, it may go beyond the money to include the loss of status. These reasonable concerns are why most people are unsuited to the entrepreneurial role. Recall the words from the definition of entrepreneurship at the beginning of the chapter: *the recognition and pursuit of opportunity without regard to* … If you really can do these things, you might be the next great entrepreneur.

Most people will never know, nor will they care about your failures, only your successes. Failure can be the best way to learn, provided you don't repeat your mistakes. Ask yourself, "Who learns more, the person in a successful venture or a failed one?" Both learn but history is full of examples of entrepreneurs who

[2] The gross national product (GNP) in 2012 was $15.7 trillion; the 2005 GNP was approximately $11 trillion; and the 2002 was $10.5 trillion. Other portions of the GNP are composed of government spending, investments, trade deficits, and so on. U.S. Department of Commerce: Bureau of Economic Analysis, http://research.stlouisfed.org/fred2/data/GNPCA.txt.

[3] Brian Headd, "Redefining Business Success: Distinguishing between Closure and Failure," *Small Business Economics* 21 (2003): 51–61.

have failed at several attempts, only to later succeed. They were persistent but flexible in that they changed their approach or business focus in response to the lessons learned.

In some cases, it isn't so much the "fear of failure" holding us back as it is the "cost of trying" in time and dollars that prevents us from the pursuit of our entrepreneurial dream. As we move forward in our careers, we accumulate increasing numbers of commitments (family and community) and so have less and less time available to pursue alternative endeavors. So, don't hesitate, begin now! Your best time to launch your entrepreneurial adventure might be as you leave college or right now, before the trappings of life limit your flexibility.

Core Values of an Entrepreneur

Clearly, not everyone is suited to being an entrepreneur, just as not everyone is suited to being a professional athlete. Someone without a certain set of personality characteristics is not destined to become an entrepreneur. This section is designed to give you a brief glimpse at those distinguishing characteristics associated with becoming a successful entrepreneur

RISK TAKER

Most successful entrepreneurs are willing to take risks despite the chance of failure. As a result, the entrepreneur will do their best to ensure against failures and to consider and take steps to minimize the impacts of identified threats. The entrepreneur is self-confident, but not so confident that they assume that their talents will carry them to business success without a good product and planning. Risk taking is often necessary as the entrepreneur will never have all the capital necessary to minimize all threats or to capitalize on all opportunities. There will be times when a lack of capital will require a decision on which of many critical needs receives the necessary resources and which do not. So as an entrepreneur, you will need to be able and willing to make these hard decisions. Some people can't do this and are frozen by various aspects of the process, for example, need more data, what-ifs, and so on.

PERSISTENT WITH FLEXIBILITY

It is a truism that there is nothing more important for achieving success than persistence. The successful entrepreneur doesn't give up. The successful entrepreneur believes that his or her venture can succeed and has the will to face and overcome those inevitable bad days and temporary setbacks. Persistence is not, however, blind. The pursuit of a doomed strategy, without flexibility, is a recipe for disaster. For example, when your product or pitch is better suited to a different market, make the adjustment! U.S. car manufacturers continued for decades to ignore U.S. demand for highly efficient automobiles and continued to give up market share to the Japanese and other Asian car manufacturers. It took the gas price rising above $4 per gallon before the recognition took hold. So, be not only persistent but also flexible "enough" to recognize when a change of strategy is needed.

CREATIVE

Successful entrepreneurs are able to recognize an opportunity and then creatively transform this recognition into a business venture. You will constantly be faced with problems during the process of starting a new business. You won't find the answer in a textbook, so being able to creatively solve these challenges yourself (or team) is essential. Being "smart" also helps, but smart and creative are not synonyms. Employing smart people is a good idea, because they are adroit at helping to implement the good ideas that you develop to address your problems. Walt Disney was a creative genius, but his brother Roy was the implementer of many of Walt's ideas, and the Walt Disney Company was the result.

ENERGETIC

Starting a business requires enormous amounts of time over a sustained period. The successful entrepreneur is a high-energy person with a strong work ethic. Fourteen hour days, six days a week are common. But, if you love what you are doing, the days will go by faster than you can imagine. In fact, you will have to be careful to provide balance in your life as the new start-up venture can become all-consuming. You can't work seven days a week for any length of time and simultaneously maintain your health and/or a family life. Be sure to save some time for some balance in your life. If your start-up results in financial success, but you end up with having no one to share this with, how happy will you be? People rarely go to their grave wishing they had spent more time at the office and less time with their families.

COMMUNICATOR AND LEADER

Creating a successful company requires the efforts and contributions of others, as well as your own. You need to develop and inspire your team by communicating your vision to them. In the beginning of your start-up, investors must see your passion and your will to succeed. If you cannot inspire a potential investor with your vision, the result is predictable, they will not invest. Investors avoid what they perceive to be a boring opportunity, even if the financial returns look large and probable. After obtaining start-up funds and launching your company, you must be able to constantly update your vision of success to your employees so that they embrace the company's mission with as much passion as you do. Without dedicated passionate employees, you will not be successful. One of our greatest political leaders of the twentieth century was President Ronald Reagan, who was also known as the great communicator. These attributes go together, leading and communicating.

INTEGRITY (HONESTY)

A business must be based upon integrity. Your company must be one that others trust. You must be a person of your word. You must lead your company by your own personal example of how you conduct business both inside and outside the company. Everything will not go smoothly, but being truthful and honest in your dealings with your employees and your clients/customers will go a long way toward finding a solution to problems in times of stress.

NOT ON THE LIST (GREED)

Some books on entrepreneurship include "greed" on the preceding list, because greed is sometimes aligned with market domination. I do not agree with this assessment. Greed in my definition is obtaining profits without regard to the needs of your own employees. Market dominance is a business strategy whereas greed is associated with one's moral compass. Although I believe that no level of greed is appropriate, I also believe that being success driven is a good thing. Our tenet is that an entrepreneur should strive for the natural returns that accrue to the founders of a carefully considered, well managed, and successful enterprise. The successful entrepreneur must go after the identified market with an attitude that you want your company to become the dominant player and capture all of this potential market. This is an infrequent result, but it does happen. Microsoft is a good example of a single company dominating a market segment. Is Bill Gates's wealth a result of his greed or his successful business strategy or his driven nature? Did you know that Bill Gates for many years has been the first- or second-largest donor to charities in the world?

1.2 Fundamental Rules for Success

For your business to become successful, you must recognize and follow a few fundamental rules. Your company's ability to sustain growth and profitability will depend on them. Study these rules carefully, and consider why they are essential. Do this before you begin your quest as a checklist to measure your idea and plans before you start, and again, after you have started, as an assessment of where your business is actually positioned. If you do not generate sufficient sales and profits, you will not be in business very long. Therefore, reflect on these rules before you take that entrepreneurial risk of spending your own and other people's money. Then, once you've started, if the situation does not develop as you had expected, what do you do? Do you pursue the original business strategy to the bitter end, or do you adapt?

SOLVE A PROBLEM

The number one rule is that your product should solve a customer's problem. If you make life better by solving some specific problem, customers will buy your product if it is priced right. This premise should be the foundation of your company. You will need to market your product, and the simplest definition of marketing is "solving customers' problems profitably." If you can solve a problem for someone, you have a good chance of business success, particularly if there are several people with the same problem.

> The simplest definition of marketing is "solving customer's problems profitably."

PROVIDE CONVENIENCE

Closely related to solving a customer's problem is making life in some way more comfortable or convenient. Customers have a long history of paying price premiums for convenience. Consider bottled water. If fifteen years ago, you had told someone that you were going to start a company that sold bottled water at prices similar to carbonated bottled drinks, their reaction would most likely have been "I can get a drink of water for free. Why would I pay for it?" Well, they were clearly shortsighted and did not see the entrepreneurial opportunity. What about packaged salad mixes that cost four or five times the cost of the individual components? These products were nonexistent a few years ago, and now they occupy significant shelf space in grocery stores. Or, backing up the clock some more, an automatic transmission versus a standard shift (with clutch) provides convenience. Today, a standard shift transmission is a special order vehicle!

DIFFERENTIATE

Once you have something that you think solves a customer's problem or makes someone's life more convenient, you are home free, right? Wrong. You would be startled by the number of similar products already in the market place or the number of start-ups that are somewhere in the development process working on a similar product to your own. Simply put, you are either trying to fill a need that the general population does not know they have (market not developed yet), or you will be trying to take customers away from a current direction of behavior or buying patterns. Why, then, should they choose your solution over an alternative? ***Differentiation*** is the buzz word here, and it is an extremely important concept to grasp. How is your product different? You must be able to articulate this difference to potential investors to the point that they can see the same vision that you see, and then you must be able to deliver this differentiated product to the market once your company has launched.

There is a common trap here, however, particularly for engineers who continue to provide differentiation beyond what the customer understands, needs, or wants. Differentiation loses its value and meaning when the features and functionality of your product exceed the customer's practical demands. Offering the customers more than they ever need in a product is a fatal error; for example, take an automobile that is $5,000 more expensive than a competing model because it has several "built-ins" that not everyone would want (hence the concept of base price plus optional add-ons). Eli Lilly in partnership with Genentech produced a 100% pure insulin using recombinant DNA technology. This was a magnificent feat of pharmacological engineering, and Eli Lilly was proud to offer this as the branded product Humulin™. They priced their new product at a 25% premium over existing generic animal-based insulin, which routinely contained 10 ppm impurities.

However, because the vast majority of insulin users could tolerate these impurities, there was no compelling reason for them to switch to the admittedly more pure but also 25% more costly Humulin™. Eli Lilly's original marketing effort failed, even though it had clearly differentiated its new product from the current competition. The "cost-benefit" comparison did not work in their favor. Increased cost for no benefit is not a winning approach. Then, Eli Lilly repositioned its Humulin™ product by marketing it to the fraction of insulin users that *do* have resistance to the generic products, and it is still on the market today (but not at 25% price premiums; see www.humulin.com).

TARGET NEW MARKETS

Existing large markets are dominated by *Fortune* 500 companies. These companies have lots of capital that they can use to squash any new start-up that appears to be threatening their current hold on their market. Recognizing this reality, your product and company success will be much easier to achieve if you have a product that will benefit an identified a market segment that is currently being ignored either because it is too small for the large companies or the large companies have not yet discovered it (and most likely they will not). This identification of unserved market is sometimes called "greenfield" competition or markets.

Small markets do not satisfy the growth needs of large companies. Don't be so proud of your technological breakthrough product that you believe that you can compete in a mature, well-established market. This would make you a competitor of the large companies from the very start, and they will smother you if you start to show signs of breathing success. Ideally, the major players in the existing market place will ignore you and the market you are addressing.

Your technology might fall into a category that is complementary to an existing technology, which works pretty well sometimes, particularly if the large company decides to buy your start-up. Generally, however, it is better for the start-up to stay in the greenfield category or to develop strategies to avoid head-to-head competition with the established providers.

If you still think your product can compete in the established big market, for your product, you should have a cost of production approximately ten times lower in comparison to the competing product to have a realistic chance of success. The big competitor will do all it can to take your customers by lowering its margin (temporarily), producing a bottom end low cost product (similar in cost to your product), and offering other sales incentives that you cannot match.

However, success sometimes happens for the little guy. Case example: Kionix (Ithaca, NY) produced a new technology Micro Electro-Mechanical Systems (MEMS) based accelerometer (the triggering device) for auto air bags that sold for $2.50/unit versus the $25/unit that the market dominant company (75% saturation) Breed Inc. received for their old technology (mechanical) airbag accelerometers. In fact, Breed was first offered the MEMS accelerometer technology in 1998 by Greg Galvin (CEO of Kionix), but it turned down the offer. Kionix decided to attack the market by itself with their ten times lower production cost advantage. To cap the story, Breed Inc. filed for Chapter 11 bankruptcy protection in 2000, which was only four years after Galvin had offered it the MEMS air-bag-trigger device. Greg Galvin will tell you that his company's initial market focus was not on accelerometers for the automotive market and that he really wanted to subcontract the device to Breed Inc., but he demonstrated the attribute on our list of required characteristics for entrepreneurs – persistence with flexibility. (This example also provides a peek at a topic we address later: disruptive technology.)

AVOID THE 1% MARKET SHARE TRAP

A final caution on this attribute of targeting new markets, don't fall into the trap of seeking 1% of a large market with the logic that the market is so large, you certainly can capture a few million dollars of it. It won't happen, and no angel/venture capitalist (VC) investor will ever accept this flawed argument. Start-ups need to think about capturing 30% to 50% (or more) of a new market and about being the dominant player.

In general, customers are reluctant to do business with small-new companies trying to compete in large markets served by large, established companies because of their fear that the small company will disappear (and this fear is well justified in most cases), leaving them with none of the product that they need, and consequently in a weak bargaining position relative to the dominant supplier. Conversely, if you are the only company selling some new technology that makes a customer's life easier, that is more convenient, or that solves a problem for them, they will buy your product and tolerate these other issues.

DON'T RUN OUT OF MONEY

It is a very unusual start-up that "gets it right" the first time out with its product. Even though you spent three years refining your product and doing market surveys, don't be surprised when a few months after formal product launch, your sales are not nearly reaching their projected levels and feedback is coming in that the product is not meeting the customers' needs. What now? Quit? First, this situation is almost to be expected. What customers say they want and what they tell you they will pay while you are doing your initial market research are often far removed from actual practice. Your sales, marketing, or product form will go through some iterative process of trial, learning, adjusting, and trial again.

> Number one rule in a start-up: Don't run out of money!!

Guessing the right strategy at the outset isn't nearly as important to your ultimate success as conserving enough cash so that you get a second or third attempt at iterating to a successful strategy and/or product. This means that you need to raise sufficient capital before you launch your business. But what is sufficient? ***Be prepared to fail early and inexpensively*** in the first stages of your company so that you have the resources to make the necessary corrections and survive to success. That's the definition of enough start-up capital.

LUCK

Yes, I almost forgot, it really helps if you have some good old-fashioned luck along the way. Although good luck might best defined as opportunity meeting preparation, sometimes it is just being in the right place at the right time. You will be hard-pressed to find an entrepreneur whose business successes and the path toward these successes got there without any luck at all, and most successful entrepreneurs will readily admit to this. That luck can take many forms: from having just the right members on your board of directors, which resulted in your next round of funding; from landing a major "breakthrough" deal instead of losing it either to the competition or to the prospect's choosing to do nothing; or from simply being in the right place at the right time instead of totally misreading the market's interest in the venture's offerings. Let's just say entrepreneurship is not easy, and hard work alone will rarely be the only necessary ingredient to ensure success.

> Good Luck:
> When opportunity meets preparation.

1.3 Rules to Raise Capital

As one progresses along the entrepreneurial path of fund raising, the odds continue to mount against you as you try to secure the needed capital, and thus, your need for persistence. So, what is a reasonable approximation of your odds of obtaining the needed funding? Most VCs will tell you that they receive in excess of 5,000 business plans each year and that they funded only two or three of the projects. Angel investors don't get this many, but some still evaluate 100 or more potential opportunities each year.

Think about this. If the odds are this bad, there really is no statistical correlation between submissions and funded proposals. In practical fact, you will be frustrated and sadly disappointed if you expect to obtain financing from either of these potential sources based on simply submitting a well-written proposal for review.

To get a fair evaluation of your proposal, and thus a reasonable chance of securing funding, you must establish some personal connection to the potential investor. At each level of success, your most likely connection to the next level of investment funding is from one of your current investors who knows someone at the next level of funding, for example, a family member who knows an angel investor, and then an angel investor who knows a VC.

Investors are experts at what they do, which is investing. They are not experts in every technology that they try to evaluate. They know you are putting the best "spin" possible in your presentation, and they know that they do not know all of the soft spots. Investors generally apply the following principles in looking for investment opportunities:

- new activity in proven areas of rapid expansion (you will recall the "dot-com" explosion in the late 1990s; this investment approach is called the herd mentality of the VC),
- a proven track record of the entrepreneur and other principals in the proposed venture, and
- compliance with whatever other guidelines they personally may have adopted to help them contend with the load of proposals on their desk.

You will improve your odds of success by approaching investors with realistic expectations on what levels of funding they would typically make. Understand the differences between family and friends, angel investors, and VC types of investors. In this book, as opposed to most entrepreneurship books that focus on VCs as target investors, we focus mostly on the family/friends and angel-investor stages and provide more details about how to go about this in later chapters.

An Often-Missed Point

A point generally missed by most new entrepreneurs is that the same steps and processes are necessary to raise capital from any type of investor. For example, raising money generally starts from family and friends (or yourself) and requires a well-written and well-researched business plan, for example, identification of markets, a marketing strategy, cost analysis, and so on. Then, raising capital at the next level, typically angel investors, means you need the same preparation as before, but now you should have a real prototype and probably some customer feedback and a more refined marketing plan. And for the highest and last level of fund-raising from VCs, they will have expectations of you having demonstrated some initial market success.

Some start-up businesses may never need venture capital or capital beyond friends and family. My point here is that the same principles for raising capital apply whether your targeted investor is a VC, an angel investor, a rich uncle, or a local bank. Each deserves your best effort.

1.4 Keeping Your Focus

Lest you become distracted as you proceed, stick to the original plan (sometimes called a business plan, hence you need a plan if you are going to stick to it and we'll help you to write one in Chapter 8). You probably entered into your current entrepreneurial activity because you and your partner(s) understand it better than any other activity at this point because that has been your focus. That focus and the considerable investment that you have made in time and energy and money