2 Entrepreneurship

This section of this book primarily deals with what sets apart the problems and behaviors of an entrepreneur who wants to start a new business from someone who works for a large company.

Duncan Miller, cofounder of Heatspring Learning, a geothermal heating and air conditioning consulting firm was asked: “even though you’ve had an extremely difficult and disappointing year, now that you have experienced being an entrepreneur and run your own business, do you believe that you could take a job with a large company some day?” His response was an unequivocal: “no!” My own experience and my observations of other entrepreneurs are identical. Duncan also commented as to “how hard running a small business is in comparison to his expectations.”

Being entrepreneurial in a large company is quite different from starting your own business. It appears that most, if not all, of the case studies and theories are based upon larger companies and there isn’t much help for those who simply want to get started, often from scratch.

The intent of this portion of this book is to provide some fundamental understanding of why it is so different and so difficult in comparison to other business ventures. The goal is to provide a framework of understanding that can lead to decision making that will extend the survival and therefore the likelihood of finding success (however success is defined).

2.1 Introduction to Entrepreneurship

In the 1940s, many movies had similar plots: An orphanage desperately needs money or it will be forced to close. The lead character and friends ponder how to save the orphanage and then someone shouts the line: “I’ve got an idea, let’s put on a show.” The rest of the movie is the pure enjoyment of watching them rebuild the theater, build the sets, rehearse the lines, and prepare for the “big night.”

Building a company is exactly the same thing. The process of creating a company from nothing is where the fun is and the entrepreneur’s job is to shout the line, recruit the cast and crew and lead the production effort. The marketing plan for a company is the plot line for the movie. It’s got to hang together in order for it to work out. But don’t forget: the fun is in the making, not in the counting of the money.

Most entrepreneurs have had successes and failures and would not trade a moment of the experience for anything.

There is a fundamental misconception shared by many about small company planning. Startups are generally resource constrained, where the available resources include capital, experience, available labor, customer relationships, reputation, etc. Their destiny is dictated to a great extent by serendipitous or calamitous external forces. Successful strategies must be centered upon creating and using methods for survival and identifying and seizing opportunities that are discovered as opposed to growth.

2.1.1 Are You Building a Company or a Product?

The first edition of this book (in 2006) included the following paragraphs on getting started:

One of the first questions to ask yourself is whether you intend to build a product or a company. There is a difference although you can start building a company by building a single product. Your choice of financing alternatives, the types of people that you might recruit and the compensation packages offered to them would all be quite different depending upon whether your goal was the development of a company or single product.

For example, if you are trying to exploit a product idea quickly, then the use of consultants and subcontractors exclusively can give you rapid access to a large pool of talent and capabilities. However, you will not necessarily be building either an infrastructure or an intellectual property base in marketing, manufacturing, etc. that could be used for later products. Since most venture capital firms tend to invest in a combination of product, market and team, the lack of a team may limit your availability to capital.

As well, when attempting to raise funds, the potential investor is interested in how you intend to grow beyond a single product and secure a position in a market that is made safer by having multiple revenue streams and products. The investor is also interested in finding liquidity for their investment through the sale of their equity either to public investors or an acquiring company.

Now that I have shared my prior position, let me share my more current thinking:

The concept of a virtual company is moving not just to reality but to dominance. There is an emerging collection of independent specialists who, connected through the Internet and cell phones, can perform each of the independent functions of a company (e.g. prototype development, supply chain management, packaging, etc.), often better than the employees that a firm could hire (i.e. Mechanical Turk[4]). Over the next few years, we will see even greater sophistication in how one ties together independent entities to more efficiently and quickly build to success. In some ways this is a true democratization of business.

One implication of this is that royalty or equity deals may become common in these virtual structures so that members of the community share upside potential. Imagine paying for online services with cash, royalties or stock.

More entrepreneurs have found that the biggest gap in their understanding of how to start a company relates to the creation of a coherent marketing and sales plan. This is followed by a generally limited view of financing alternatives which is limited to raising venture capital.

This raises questions about the role of venture financing since no team would be built in the conventional sense. It is possible that the venture industry, which itself is not very old and dates back to the early 1980s, will phase out as these new virtual business models become more common.

2.1.2 Figuring out what business to start

Many students want to start a business but cannot figure out what business to start. They can be pictured as sitting around the kitchen table debating different product ideas in the hope of finding one that would work. Most often these business ideas tend to revolve around the Internet. They typically sound like "a website that will help a consumer do something." Most often, they are based somewhat on their own "self reference criteria[5]."

This process frequently fails because the only people around the table are typically the two or so entrepreneurs who are trying to create the business.

[4] Amazon Mechanical Turk is a web business that allows an employer with a repetitive task requirement to hire on a "per item" basis from a pool of over one million workers who are connected over the Internet and who can use the Internet and in some cases the telephone (or Skype) to perform the task. For example, a task might be: "find me the name, address and telephone number for every plumber in the zip code of 01770" and the fee might typically be only a few cents. A large pool of tasks is then posted on Mechanical Turk (with, in this case different zip codes) and a mailing list is built at a cost which is a fraction of the cost of buying an identical list.

[5] Self Reference Criterion is the natural tendency to judge situations, beliefs and actions in different cultures according to one own cultural norms (http://www.freebase.com/view/en/self_reference_criterion)

A more effective strategy starts with the understanding that, generally, that building B2 B businesses is easier than B2C. This is principally because the value proposition(s) and decision processes are based more on logic and real financial returns than consumer preference, which can change easily. This is covered in more detail in the Value Proposition section (3.2).

Instead of sitting around that kitchen table, select a specific problem within a business. This requires engaging actual business participants who are willing to share where their frustrations and problems lie in actual conversations. Often, their unfamiliarity with current technology or their need to remain focused upon their own day to day operations prevents them from actively seeking these solutions that represent new business opportunities.

Thus, the first actionable step for finding a problem to solve is to ask all of the people closest to you, (relatives, friends, neighbors, etc.) to allow you to come in to their business and interview them in order to better understand their business model. During the interview process use the Search Selling method which keenly listens for potential opportunities by listening for pain points in their business model. This is covered in more detail in the Selling section (3.8).

Learn their business model by investigating all aspects of their business that they are willing to share. Tour their facility, ask how they acquire customers, how they build their product or deliver their service, etc. Typical problems lie in the areas of:

- Customer acquisition
- Customer service
- Efficiency of operations
  - Waste
  - Efficient use of the facility and capital
- Growth
- Cost of goods sold
- Employee recruitment or retention

This raises the general question of whether the student needs to have specific talents in an area that can lead to a solution of a problem. The answer is, unfortunately, yes and no.

Students today have far more familiarity and skill with technology than people from prior generations and are probably running the companies that you will be examining. As such, it is likely that the student will be able to envision solutions that are based upon your familiarity with technological tools observed or used for other purposes.

Alternatively, it may be necessary for the student to take observed problems to others perceived as "skilled in the art" in a field that the student suspects can help. For example, if a particular product is too expensive as it is currently being manufactured, producing it overseas might help. If the student is unfamiliar with the process of overseas manufacturing then finding an expert could find a solution to the problem.

The entrepreneur's role is to do just that: bridge together a solution and problem. The more entrepreneurs do this process, the better they become at it. Entrepreneurs tend to gather an understanding of many different business models and will often find an idea used at one which can be beneficial to another. Invention can be defined as taking a well understood concept from one field to another where it had not yet been applied. Therefore, do not limit the examination of a business because of insecurity in understanding the inner workings of that business.

The next critical step is to propose solutions in the form of a transaction to this new, potential customer. Use the "trial close" technique to determine what the true value is of your solution. This is covered in more detail in the Selling section (3.8).

The student must then confirm that other companies in the same category as the studied business have a similar pain and desire to engage in the same transaction.

As number of businesses studied increases, the likelihood that a real problem with enough pain to represent a real business opportunity will be identified also increases. The key is to understand that business opportunities start with customers who have problems and the money to pay for a solution.

The student must also determine what actual manufacturing or service costs are needed to provide the solution so that pricing can be rational with respect to the value offered. If the price of the solution is based upon an unrealistic understanding of the real cost, the value might be strong but unachievable. If the price is too high, fewer companies will become customers. If the price is too low, money is 'left on the table'. Neither of these circumstances is favorable.

Note carefully that the process did not begin by designing a website or building a prototype. Start with the selling process in order to understand the real value to the customer and whether it is rational to continue investing time and resources in the business idea.

It’s quite likely to find a number of unrelated transaction “offers” to work on simultaneously. The decision on which one to focus should be based upon the relative strength of the value proposition as defined by the customer.

Keep in mind that the primary goal for businesses is simply survival. Most businesses that fail do so in the first two to five years. In the beginning, it’s not a question of whether the business can grow to billions of dollars of revenue, but simply whether the business can pay its bills. Thus, the selection of industry and business is partially based upon these criteria. At any particular time, some business segments are growing, some are stable, and some are shrinking, often because of trends that are outside of their control. Actively growing markets are appealing but a new business will also actively attract competitors and often survival is made easier by remaining “under the radar” of competition, especially when large competitors can sustain loses when entering a market.

One must therefore consider, not just whether the market is growing, but also whether your initial entry will be undisturbed by competition. Starting a business in a static or shrinking market where the new business remained alone frequently has a better survival rate than starting a business in a growing market that was getting crowded. This choice requires the understanding that the business would need to segue out of this market by Year 3 after achieving cash-flow-positive results and building some mass with the organization.

For example, Leaf Systems, designed and built a portable film scanner and transmitter used by photojournalists. A vice president at Sony said that they wouldn’t consider entering this market because it was too small and transient. As a result, Leaf Systems had the market to themselves and eventually grew to afford to design and build digital cameras that competed directly with Sony’s.

This further demonstrates why long range business planning may be irrelevant for small startups. The key to building a new business is simply the process of starting and being in a business which will attract new opportunities over time. Getting to cash-flow-positive is the first and foremost goal.

When it is appropriate to make a “demo” of the proposed product? The key to understanding the answer is to determine what the customer believes. For example, if one can simply paint a verbal picture of the proposed solution and the customer can envision it adequately, then there is no need for a prototype when beginning the sales process. It is only when the customer cannot either understand or believe the proposal that some effort might be required to move the transaction process forward.

For example, let's assume that a company wants to make an iPhone application that was similar to an application already available on a different platform (like a PC). In this case, the customer can readily understand the product and a demo is not likely needed to determine the relative desire for the product. (This is separate from demonstrating to the customer that you are capable of building the product, which is a matter of risk and not internalization of the value system and can be dealt with in other ways.)

Alternatively, when Leaf Systems was going to introduce the world's first professional digital camera, the customer was unclear about what and how this product would work in comparison to film photography. Iit was necessary to demonstrate its operation in order for the customer to internalize the value proposition.

Strong value propositions allow entrepreneurs the opportunity to obtain the financing needed to complete the transaction more easily and at lower cost. In an ideal case, the customer is so strongly driven to the offering that they will offer financing, sometimes in the form of a deposit, in order to help you achieve the solution. Strong value propositions are the key to launching a successful business.

A strong value proposition is one where the value to the customer is found by them to be very compelling and drives them to eagerly engage in a transaction. By comparison, a weak value proposition may still be perceived by the customer as positive, but the customer is not driven immediately to action. The key to evaluating the strength of the value proposition is to measure the **customer's** reaction. Customers who are reacting to a strong value proposition will look for ways to "get the deal done" as opposed to "reasons to spend more time evaluating it."

2.1.3 Exercise – Find an Opportunity

We all have many relatives and friends that are currently working in companies with which we have no personal experience. Assemble a list of five such companies in five different businesses. When making your selection of companies to visit use the following criteria:

- Exclude companies where you have worked at any length. It is critical that you enter the interview without any preconceived notions about where there is pain and what innovations might be useful.

- Select companies that have existed for ten or more years and are currently profitable and self sustaining. Don't limit your search to large companies. Consider small professional or retail firms as well. For example, a dentist, restaurant, garage or flower shop would all be reasonable choices.
- Select a company where the management is older than fifty and is therefore less likely to be as familiar with current technology as you.
- Select a company that has a business model that is common and thus if you can find a pain point, it will be likely that there are other companies that are experiencing an identical pain.

Visit the companies using your personal relationship to get you access to the CEO or the highest level manager that you can.

Perform an in depth interview of approximately one hour each that attempts to learn their business model. It is critical that you do more listening than talking. You must not lead the conversation to a specific idea that you have, but rather you must allow the interviewee to describe their business model fully. Among others, ask each of the following questions:

- What do you sell?
- To whom?
- How do you find customers?
- How do you deliver your product/service?
- How do you build your product?
- What do you buy from other companies?
- How do you perform customer service?
- What is your most profitable product/service?
- What is your least profitable product/service?
- How do you find employees?
- Why do you lose employees?

In each case, listen carefully for "pain points." Try to identify a problem that you can potentially solve.

Observe what is referred to as the "80/20 rule." For example:

- 80% of the revenue comes from 20% of the customers. Focusing on those 20% may reveal the company's customer retention strengths.
- Often 80% of the cost of a manufactured product will be incurred by 20% of the purchased components. Focusing on the component costs of the 20% can have more rapid return.

You may observe the 80/20 rule for many aspects of a business and it will help you to simplify your model of their business and thus acquire a more rapid understanding of what is important.

Video record the interview so that you can go back later and review the search for opportunities.

Create a proposed transaction that will eliminate the pain in exchange for payment and offer this transaction to the potential customer. Record the response and attempt to modify the offer if the answer is 'no' and develop a strategy to change it to 'yes'.

For example, the garage that I use to repair my car sends me a postcard reminder when it's time to get my state required annual safety inspection. When I last was there, I asked them why they send out these cards. They replied that it was because they had only one garage bay that could be used for inspections and typically all of their customers would procrastinate and wait until the end of the month to call. The result was that their bay sat idle for most of the month and when the flood would occur at the end of the month, they would be unable to handle all of their customers and would lose business and good will. The intent of the cards (which are successful) was to get higher utilization out of the bay and increase revenue.

As a note, you will observe that I'm suggesting that you start with the development of a B2B business opportunity. In the chapter on B2B and B2C you will understand that B2B businesses are much easier to start for a variety of reasons.

2.2 The Drunkard's Walk of Entrepreneurship

The Drunkard's Walk by Leonard Mlodinow describes, in an entertaining fashion, the history of probability and statistics as a branch of mathematics that was often created by gamblers and miscreants. He also demonstrates how poor we all are at understanding and internalizing probability functions.

There are two ways in which random events influence small businesses that are critical to understand in order to find success in a small company. The first, deals with macro influences on a company's direction and the second deals with probability functions and how they apply to the marketing challenge that is unique to a small company.

At most business schools, professors teach that process is critical. The Business Plan has become the cornerstone of entrepreneurial growth. One needs to perfect an idea, perfect the plan, and go out and do it. Small business entrepreneurship is just the opposite. In the attempt to balance action and planning, current business schools teach far too much planning and far too little action. (Note that for **small companies**, the concepts of "strategic planning," "business planning," and "product planning" are all rolled into a single process aimed at making money in the short term.)

Large businesses like General Electric have hundreds of thousands of employees and millions of customers. Every day, their destiny is mostly shaped by the shear momentum of the organization. A major economic shift can influence them, but, for the most part the winds that blow have little overall influence on their day to day success.

Small companies are quite the opposite. Their comparative inertia and momentum are infinitely small. The random events that occur each day cause wild fluctuations in their performance[6]. For example, the CEO meets a business opportunity by sitting in a fortuitous seat on an airplane or a snow storm causes the entire engineering staff of one to miss the deadline for a customer or a critical trade show.

Serendipity and calamity can both have dramatically larger impact on a small company than a large company.

Small companies must approach business more like a chess player who approaches a game in progress. The player has certain skills that include how to move the pieces legally and strategic goals that might involve certain pieces or certain areas of the board as being more valuable. The player approaches strategy with a parallel set of

[6] It is interesting to note that macro events, like the 2009 recession might, have no effect or even a positive on a small company because they are so "under the radar."

alternative moves and a presumption in each case of how the opposition might respond and so on. Once a move is taken and the opposition has responded, the process needs to be reset and begun again. **Thus, the investment in planning is seen as short lived and must remain flexible.**

This is especially true in a small business where the labor and talent of the founders may be one of the only assets of the company and cannot be squandered on generating plans that are never used.

The balance between planning and action is tilted much more heavily towards action when the company starts and slowly shifts to planning as momentum increases. A small company's plan might be only as complicated as what can be described on a single sheet of paper on its first day.

A serendipitous discovery of an attractive business opportunity with an existing customer can cause a company to rapidly discard its current business model in favor of a completely new one.

The following analogy illustrates the point:

If you were dropped somewhere in the middle of the Atlantic ocean it would be pointless if you spent time trying to decide whether it is a better strategy to swim towards the US or England. You need to focus on survival and simply swim. Likewise, if a piece of flotsam was near, you wouldn't think "hmm.. that's not a very big piece of flotsam, maybe I should wait for another." You would swim to it and hold on for dear life.

Alternatively, if you were dropped at the helm of the Queen Mary in the same predicament, then thinking about how much fuel you have and which shore you can reach does make a lot of sense.

Small companies must focus on survival strategies that offer them the time to find real opportunities (pieces of flotsam that float by) and dodge crises (a shark). As they gain momentum and strength, they can cast their gaze further towards the horizon and plan with more serious intent.

2.2.1 Life, Entropy and Evolution

Angels and Demons, Good and Evil, Yin and Yang, Light and Dark, Life and Death are the contrasts that help us to understand and define the universe.

In 1863 the German physicist Rudolf Clausius, the father of modern thermodynamics, published the second law of thermodynamics and established the concept of entropy. In the second law he stated that the entropy, or the disorder, of a system will tend to increase over time. We can observe, for example, that the surface of the planet Mars has been devolving to dust over millions of years of gradual disintegration.

Just four years earlier than Clausius, Charles Darwin, the noted botanist, in his book *On the Origin of Species* described his theory of evolution. Here on earth, where life abounds, we can observe the evolution of higher and higher forms of life that increase in complexity and create order and form in their presence.

One can think of evolution as the creation of order (or structure, or information) and entropy as the destruction of order, or as opposing forces.. In his 1944 book *What is Life?* noted physicist Erwin Schrödinger (you may have heard of his cat[7]), who worked in the field of quantum mechanics, observes this relationship between life (which he refers to as "negentropy") and entropy (see figure 1):

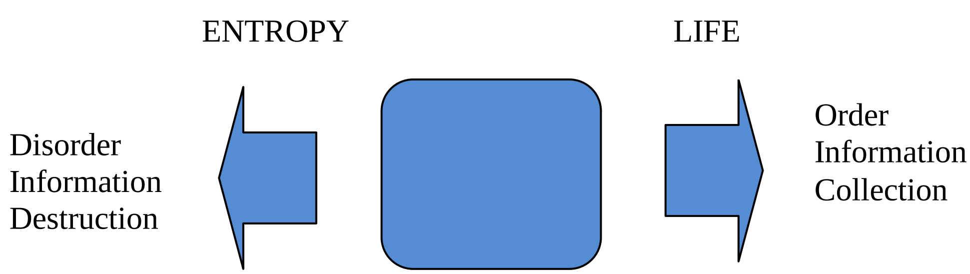

Figure 1 - Entropy versus Life

The fundamental process of life, evolution, is based upon adaptation to patterns and the creation and storage of data that embodies that adaptation. For example, plants that "learn" to turn to the sun get more energy and prosper and survive than those that do not.

These data are stored in Deoxyribonucleic acid (DNA), found in the nucleus of cells. Evolution is the process of encoding into a life form's DNA a survival strategy that is a response to a pattern of environmental risks or opportunities. It is only the repetitive nature of the pattern and billions of individual experiments that enable this type of adaptation to work. For millions of years, the only way that life

[7] Schrödinger proposed a "thought experiment" which tested certain theories of Einstein and others in the field of quantum physics. In his experiment a cat is in a box and its life is controlled by a quantum event.

could encode these patterned responses was in the genetic codes passed to offspring.

The key is that this process, evolution, is a storage of a pattern or data that is in response to an observed pattern. (Note that the term "observed" is used in a broader sense than simply as seeing.) If the sun did not rise and set in the same way, then plants would be unable to adapt to the pattern of its "anticipated" position.

Higher forms of life adapt to patterns quicker through the process of thought. The brain allows a more rapid identification of patterns and the creation of responses. Pavlovian responses[8] are examples of adaptations to patterned input.

For humans, the patterns that are observed can be recorded and passed in the form of folklore or writing so that offspring and other humans can share the adaptations. For example, hunters and gatherers observed the changing seasons and the grazing patterns of prey and increased their likelihood for survival through the process of adapting to those patterns by planting in the spring or following herd migrations.

In his famous lecture on "Life in the Universe" Stephen Hawking, a more contemporary physicist, observed that: "human evolution modifies our DNA at a rate of about one bit per year, yet by contrast there are about 50,000 new books published in the English language each year, containing on the order of a hundred billion bits of information." He observed that this "external" form of DNA and evolution is adding adaptation "millions if not billions of times" faster than the accumulation of knowledge in our molecular DNA.

2.2.2 Patterns

It's all about patterns. Patterns need to be observed (and potentially understood) in order to define behavior. People feel better when they believe that they understand the world around them and can create a plan to deal with it. People feel safer if they believe that taking their shoes off before they board an airplane will prevent the next terrorist attack because one case was observed where it might have helped. Many avid gamblers know that the house always eventually wins also believe that a certain pattern of how to pull the lever on the slot

[8] Ivan Pavlov in the 1890s observed that dogs would salivate before the introduction of food, in response to a bell. He called this "psychic secretion" later to be called "conditional reflexes."

machine will increase the likelihood of winning. They believe that they have found a pattern[9].

People don't do well with internalizing probability functions. People know that flipping a coin over a long period of time will likely result in a near equal number of heads and tails and that the next flip is independent of the prior flips and has an equal probability of being heads or tails. Yet, if a person who had just flipped ten heads in a row was asked what the next flip would produce, the tendency is to suggest that "it's time for a tail."

It is interesting to note that by law corporations are considered to be equivalent in many ways to the individual in rights and liabilities (with the exception that corporations cannot vote). Companies evolve and use the observation of patterns to establish rules of behavior that are supposed to increase their likelihood for success and survival. Business plans are essentially built upon a presumption about patterns of response to patterns of action.

Successful marketing is based upon the recognition of patterns. If, for example, women between the ages of fifteen and twenty five are more likely to buy a company's product, then more profit can be made by directing advertising to that segment and not wasting media dollars directed to segments that are less likely to buy.

But, what happens if there is no underlying mechanism that defines a pattern that can be used to guide behavior? How do humans tend to respond?

The tendency is to attempt to identify patterns even when the data are so sparse that they cannot be used to successfully predict the future. Keep in mind that the process of evolution performs billions of experiments in order to modify behavior in response to patterned input. In many cases, the observation of business success is based upon the belief that a pattern has been identified but in fact, too little experimental data have been developed to form a definitive position.

The medical industry is coming to terms with the observation that many of the predicted behaviors that were thought to "protect us" from cancer (i.e. eating well, losing weight, taking supplements) have, when statistically tested on large populations in controlled studies, shown no beneficial effect and in some cases the potential for harm[10].

[9] Some might suggest that the definition of a religion and superstition is a behavior pattern and belief pattern that is not based upon statistically significant observations. Therefore, some might consider it a good example therefore of our need to create patterns where none might actually exist.
[10] *New York Times November 13, 2009 Gina Kolata* "Drugs to Deter Some Cancers are Not Taken"

In the study of business, observations tend to be based on very small sample groups and tend to not study business failures in a way that lends credibility to developed theories. These methods would be equivalent to assembling a room full of lottery winners and then carefully interviewing each one asking how they came up with their winning numbers. The first might offer that she used the birthdates of her children, the second, used the ages of her siblings. A pattern starts to emerge; it's related to one's relatives! Had we assembled all of those who bought tickets, both winners and losers we would probably find that there was no observable pattern and the winner had been randomly selected.

Several books have been written about the tendency to see patterns where none exist. In his 2008 book, *Outliers*, Malcolm Gladwell points out how the likelihood of being a successful Canadian hockey player is influenced by one's birth month though a series of connections that are completely rational but difficult to have foreseen[11]. Improper credit is frequently given to individual with an accomplishment that was driven by external forces. Many students suggest the use of "mouth to mouth" or viral marketing as their preferred choice and show examples of successful use in the past, but importantly, can't demonstrate the critical differences between those that succeeded and those that failed.

2.2.3 Gaussian Distributions

Gambling casinos understand that normal or Gaussian distribution (see figure 2.) and probability works. They can make money, over the long term, essentially without worrying about the short term aberrations that will occur by trusting in the probabilities that they understand about the games that they offer. They also understand that they need a deep enough resource of funds to sustain the occasional good luck of a customer, but that over the long term they will win.

[11] Gladwell observes, in "Outliers" that one's month of birth (in Canada) when combined with the cutoff date for entering grade school implied that those born just after the cutoff date will be as much as one year older than those in the same grade who were born just before the cutoff date. In sports like hockey the advantage of one year of maturity at an early age is enough to result in selection and then additional investment through advanced training that tends to build a substantially higher likelihood for success.

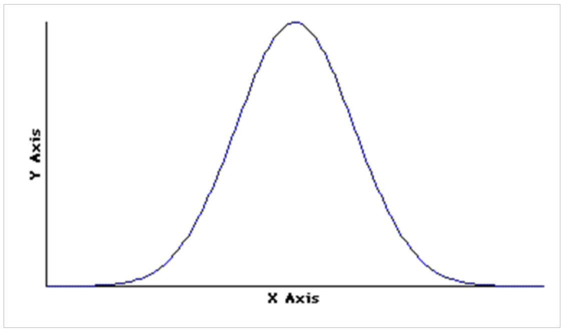

Figure 2 - Gaussian distribution

In the same way, card counters can modify the odds in their favor but they too need a deep enough pocket to be able to sustain short term losses that are part of the reality of probability driven systems.

In his 2007 book, *The Black Swan*, Nassim Nicholas Taleb casts the Gaussian curve as the villain. His theory is that it is overused and misunderstood. Taleb suggests the there are some types of events which are similar to gambling only because people "bet money" on the outcomes but which differ in an important way. They are not constrained by normal distributions and instead have "Black Swan Events[12]" that will occur for which the payoff (or risk) is incorrectly valued. He suggests that the financial industry has misunderstood and misrepresented the real risks of outlying events to customers. The latest financial collapse tends to support his theories and made his book a bestseller.

But, contrary to Taleb, one must look further into processes that are consistent with Gaussian distribution of outcomes and relate those to business and more specifically to marketing.

As stated before, humans are driven to identify patterns (even where none exist) in order to plan strategies. Most students, when defining a marketing strategy, attempt to construct a logical connection of rational thoughts that will lead a customer to accepting the transaction offered by their company. A customer's response to a marketing program will not be a linear connection of dots to an anticipated

[12] Black Swan Events' are…"First, it is an outlier, as it lies outside the realm of regular expectations, because nothing in the past can convincingly point to its possibility. Second, it carries an extreme impact. Third, in spite of its outlier status, human nature makes us concoct explanations for its occurrence after the fact, making it explainable and predictable." http://www.nytimes.com/2007/04/22/books/chapters/0422-1st-tale.html

response. Rather, customers will respond within a distribution of responses that are probabilistic and center on some average.

For large companies, this does not represent a significant problem since the market tests are big enough to adequately measure the average response. But, for small companies, where resources are limited (similar to an undercapitalized gambling casino), the response to any campaign may be so meager so as to not provide an adequate understanding of the real performance of the campaign. As well, the creation of a successful campaign depends upon constantly tuning the offer, call to action and description of the value so as to improve its performance. Each modification requires more testing.

(This is another reason why an exceptionally strong value proposition is often needed by a small company because it will narrow the width of the bell curve and reduce the number of tests necessary to get an adequate measure of the effectiveness of the campaign.)

Direct marketing on television exposes the very nature of probability functions in marketing. For example, a company might purchase a half hour slot of television on some weekday evening on some specific channel to run one of their infomercials. (This would typically be done in concert with many other slots at the same time.) Each slot would have its own telephone number and could be measured independently. The advertisement would be connected to millions of televisions but only a small number would be turned on, an even smaller number would be tuned to the proper channel, a smaller number still would be awake or paying attention, and so on.

Yet, after each run on the same channel, on the same day of the week at the same time, of the potential 33 million viewers, some random selection of ten customers would likely place a purchase order. Each and every week, ten or eleven or nine would call. Trying to postulate the process by which someone would watch the ad and call is pointless. It is more appropriate to learn to observe and trust the metrics. (My use of an average of 10 is only as an example, and the actual average would tend to vary depending upon the effectiveness of the specific campaign that is being run.)

When executing a marketing campaign, the distribution that one is interested in understanding is the acquisition cost per customer. For example, in the television direct marketing campaign discussed, the cost of customer acquisition for a single airing is the total cost of the television ad (or equivalently, the media cost) plus the cost of the telemarketing that was required to field the calls that are generated by the ad then divided by the number of closed sales achieved for that airing. Alternatively, if one was running a campaign on ad-words, the acquisition cost for a sale would be the total cost of all of the clicks paid for up to and including the one that ended in a sale. A more detailed discussion of how to calculate campaign profitability, and the cost of customer acquisition is presented in section 3.18.

The rule of thumb in television infomercial advertising is that it takes roughly 250 insertions, or around $50,000 in media cost to develop reliable statistics that will adequately test a single campaign. Most often, the results of a single $50,000 test leads to a desire to tune the campaign and run additional tests.

This can lead to a better understanding of the difference between a Gaussian distribution of results and a Black Swan Event as described by Taleb. Assume, for example, that a company has a television marketing program where they run $1,000,000 of media per year and have an average customer acquisition cost of $1, thus (omitting for now the cost of the telemarketing) the ads running over a complete year yield 1,000,000 customers. Assume that on average, each insertion costs $100 and yields 100 customers.

A bright young marketing executive suggests that it would be better if the company took the entire budget of $1,000,000 and instead bought a single Super Bowl advertisement since he has calculated that it would get reach more customers than the individual ads.

Unfortunately, a major, unanticipated news event occurs on the day of the Super Bowl and the viewing audience shrinks dramatically (the Black Swan event) and the customer acquisition cost rises to a point where the campaign is unprofitable.

2.2.4 Quantum Mechanics and Marketing

So far, the discussion of business has included genetics, DNA, and Gaussian distributions. Let's go all the way and relate small business to the field of Quantum Mechanics since several noted physicists including Schrödinger and Hawking have already been quoted. Enigmas in quantum physics can serve as good examples for how marketing must be approached.

The quintessential contradiction described by quantum theory that every physics student knows is best presented in the famous double-slit (or Young's) experiment[13]. The original experiment was based

[13] There is an abundance of information online relating to Young's 1803 experiment which has been repeated and expanded upon countless numbers of times. The fundamental contradiction that it confounds physicists serves as a good example of the difference between observing the results of a system from understanding how it works on the inside. The reader can find more information about this wonderful enigma. One particularly interesting version of this experiment can be observed at http://www.hitachi.com/rd/research/em/doubleslit.html

upon observing the behavior of light, or photons.

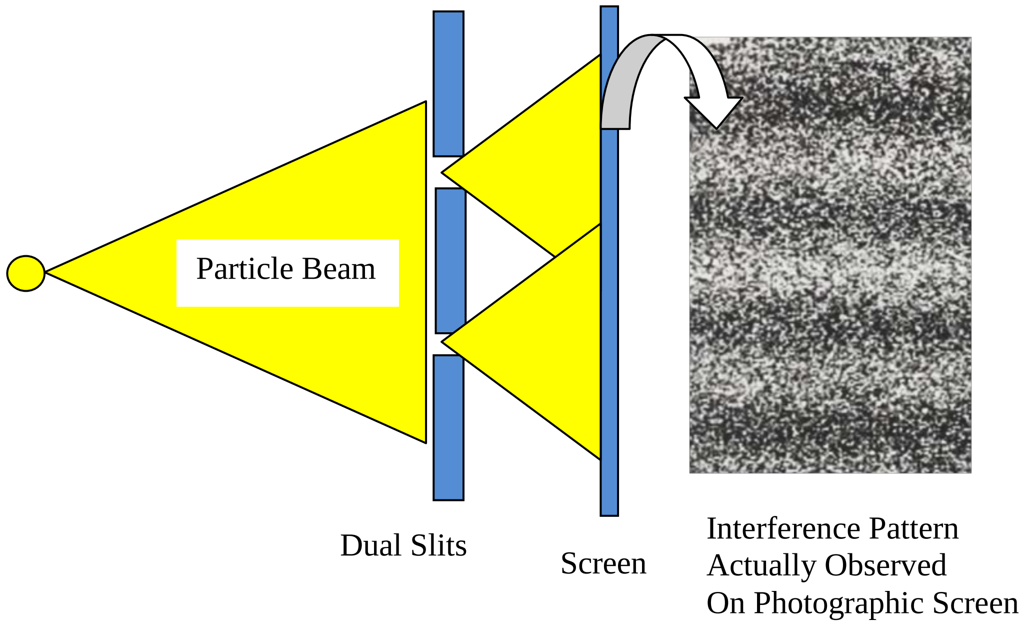

Figure 3 - Dual Slit Experiment

Basically when particles, like electrons or photons are pointed at a plate with two slits (see figure 3.) and their distribution is observed on a screen beyond the slits, one sees what is called an interference pattern, or a distribution that implies some interaction between particles that are traveling between the different slits (more landing in specific places and fewer landing in others yielding bright and dark bands).

What makes this unusual is that this interference pattern occurs even if the particles are shot one by one, slowly over time, clearly demonstrating that one particle cannot possibly be interacting with others. Physicists have for the most part, been unable to describe the mechanism by which this occurs.

Note that describing the probability function for where the electron is likely to land does not require having an understanding of the mechanism for the deflection of the electron.

Marketers are faced with the same dilemma. Often, one cannot understand the mechanism for how or why something sells, but rather one observes the metrics of a campaign and accepts them for their reality. The difficulty for a small company is to create enough data to adequately serve as a reliable predictor of the future of a campaign. Often the attempt to rationalize the behavior of the customer is pointless and is equivalent to trying to figure out why the double slit experiment works the way it does.

This becomes especially important when competing in a pre-existing category as described in the section on Categories (3.1). In these cases, one's objective is to cause a share-shift or a movement of some portion of the customers to one's product from a competitor's product.

For example, if you introduced a new razor blade with six blades, some customers will prefer to stick with their prior brand or product preference, while some will be convinced by your new innovative value to shift over to your product.

The key to understanding whether a marketing campaign is successful and yields profitable sales is to understand the probability of any single customer changing their preference. Clearly this is not literally the description of a single customer but rather a statement of the probability of customers changing, and thus, a forecast of sales given a specific population of customers.

Attempting to obtain this probability function is more practical from the collection of empirical data than through a process of analysis of human behavior. Again, the difficulty for a small company is that testing, or the accumulation of data, is an expensive process.

2.2.5 Survival

Most successful entrepreneurs (at least those with some modesty) are able to retell the apparently random sequence of events that conspired together to cause their success or those equally random events that caused their demise. They also all shared many important skills that also contributed to their success, but without exception, each also could credit "the Gods" for happenstances that were critical.

The key question is: if random occurrences have a significant influence on the likelihood to succeed in small business, is there anything that can be done about it other than to simply hope and wait for good luck?

The key answer is yes. Note the following statistical truth: If you want to live to ninety years of age, there's one thing that you can do that, from an actuarial perspective will vastly increase the odds of living that long. Live to eighty nine! Look at the actuarial tables on line. As we age, our life expectancy extends.

Thus, the critical ingredient to increasing the likelihood of finding success in small business is primarily the act of survival. If one cannot determine with any accuracy when the magic moment will occur or which events will conspire to bring success, then the only thing that one can be sure of is that if going out business before it occurs equals death.

Survival isn't simply waking up in the morning with the determination to not die. It requires a strategy that maximizes the likelihood of not being killed. In small business, survival is equivalent to having a break-even or positive cash flow which is contingent upon creating transactions that have value and closing deals with customers that yield profit.

How can one create a strategy that is based upon survival? Matthias Wagner, founder of RedShift and former CEO, is a successful entrepreneur of two former ventures. Currently, he is starting his third business. This time it is in "software as a service" and involves a software product that runs on a cell phone and PC (or MAC) and is aimed at business customers.

Wagner has studied various transaction models and decided that the best would be a fee that is based upon usage. His decision comes from a belief that his company will make more money in the long term because customers will become dependent upon his software and use it more than they might initially expect and because the selling costs will be lower if he does not require an upfront payment.

Unfortunately, his business has no capital. This type of transaction implies that he is funding the initial marketing startup costs on his own without help from his customers.

He must consider two additional factors. First, there is no reason to believe that the model used for the first transaction or first thousand transactions has any relationship to transaction models later on. He can choose to change his business model at any time in ways that suits his current needs and assets.

Second, an upfront payment of any size, from a cash flow perspective is highly attractive even if "it's a bargain" from the customer's viewpoint because Wagner's highest priority, at this point, is survival.

So Wagner is free to choose a strategy that will enhance his likelihood for survival over the short term.

Yet, even survival is not entirely enough. One must have two additional strategies: increasing perfusion and increasing credibility in order to amplify the likelihood of achieving success.

Increasing perfusion means that one is actively and constantly increasing their network of potential customers. Later on in the chapter on Selling (3.8) is a discussion of how "Search Selling" is used to uncover new opportunities.

Increasing credibility means that as one survives one must establish a reputation that attracts ever increasing deal sizes which fuel growth and stability.

For example, in a product business, one can increase perfusion and credibility by successfully engaging with a European distributor for a product that one's company currently sells only in the US. The additional business relationship with the new distributor will potentially provide additional stability, and feedback that can help modify the product and provide additional growth.

Note that it is not the demonstration of a specific minimum rate of growth year over year. Any real entrepreneur will tell you that it is a combination of the thousands of meetings with customers, vendors, peers, employees and the like that eventually leads to the eureka moments that seed business ideas with the critical sparks that lead to eventual success.

Do current methods for funding small companies lead to a higher or lower likelihood of success? In many cases venture or angel investors press a company to show year over year growth with the goal of increasing the stock price for future investors. The pressure to grow often forces the company to spend beyond its earnings and decreases its likelihood for survival.

Venture investing spurted into existence in the early 1980s. It's quite possible that their methods and concepts are not optimized for success and it is time to consider changing them. The skill and resources that investors bring to small companies is invaluable. But, as board members and advisors, the investors might be better served by changing their focus once the investment is made to achieving cash flow neutrality as quickly as possible and then to survive and evaluate new opportunities as they become apparent to the fledgling company.

Other financing options are discussed in the Financing Your Business section (2.4).

2.2.6 Lifestyle Businesses

Lifestyle businesses are often referred to in a pejorative sense, as if they are not ambitious enough. This isn't helped by our tendency to have a bit of revisionist history writing that forgets the time spent running small businesses while seeking out opportunity.

Recently a Babson student and I were discussing entrepreneurship and he remarked that "it's as if all of the success stories out of Babson are Hail Mary's." He was buying into our tendency to revise our own histories. The very concept of a Hail Mary in football is a touchdown pass that is thrown in the last minute of the game and wins through some sort of miraculous intervention (from Mary) or a turn of luck. The winning team gets 7 points in the last seconds and wins the otherwise tied game 44 to 37. But what about the other 37 points that they had earned in four tough hours of play? What about the injuries that were sustained, the effort, skill and heroism that was displayed? Had none of it happened, the score might have been 37 to 7 where the only seven points scored were from the Hail Mary! We tend not to remember the humdrum part of the game.

If you go to Wal-Mart's website and read their history it states that it all started in 1962 when "Wal-Mart begins" while in actuality, Wal-Mart can trace its roots to the 1940s when Sam Walton began his career in retailing. In 1944 for $80,000 he acquired a franchise Ben Franklin store in Newport Arkansas with sales that grew from $80,000 to $225,000 by 1948. Then in 1950, effectively unable to renegotiate his lease, he purchased a store in Bentonville (the current location of the world headquarters) and opened "Walton's 5 & 10."

I can recall many years ago that Wal-Mart's focus was on "buy America" and it only wanted to stock goods that were manufactured here in the good ol' USA. Today, Wal-Mart is the largest importer of Chinese manufactured goods in the US and can be blamed in part for driving Rubbermaid a good ol' American brand out of business[14]. Today you would probably be hard set to find an American made product in a Wal-Mart store.

The lesson is that one really doesn't know when they have started a world class company. Sam was simply trying to do business, succeed and grow. He was a creative, hard working businessman who tended to modify his business model and adapt to his customer's preferences.

The odd thing about many "lifestyle businesses," is that they actually require more initial seed capital than other business ideas. Back in 1944 eighty thousand was no small piece of change. Starting a small restaurant might require hundreds of thousands of dollars in order to pay for the initial construction costs, equipment, inventory and fund the cash flow for the first several months while waiting for your business to build to cash flow break even.

A small restaurant is unlikely to have other businesses that would be willing to "help out" by, for example, providing a large line of credit or an OEM customer. (Although it isn't a bad idea to start a restaurant by having your first customer as a corporation that lets you take over their cafeteria in an OEM deal.)

[14] Frontline Report – "Is Wal-Mart good for America"

For other types of businesses, where, for example, you invent a new product, it's more likely that you can find other OEM partners, channel partners, or vendors who will assist you by providing early funding support.

As another good example, Starbucks, with over 16,000 retail locations today, was started in 1971 by three partners, an English teacher Jerry Baldwin, a history teacher Zev Siegel and a writer Gordon Bowker who operated their first (and only) store from 1971 to 1976. That's five years running a business that sold only coffee beans and equipment until they started to figure it out and eventually, with the help from Howard Schultz who joined in 1982, after a trip to Italy where he observed the popularity of espresso bars started to modify the business model to become a coffee and espresso bar.

Today students believe that it's all about figuring out the end of the story first. They are talking about setting up their franchise before they have sold their first product.

In some cases, extraordinary amounts of capital are required as in the case of FEDEX (formerly Federal Express, formerly FDX) and it's interesting to note that they started by purchasing Caliber System Inc. in 1998. Caliber subsidiaries included RPS, a small package ground service and other similar shipping businesses that could probably be traced back to "lifestyle businesses."

There is a small piece of folklore concerning the founding of FEDEX that suggested that the initial business plan earned a failing grade (or "C") that isn't quite true. While the original innovation of hub and spoke package transportation can be traced back to a college term paper written by the founder, Fredrick Smith, while at Yale, and while, for some time he supported that "revisionist" history, in fact, he now says that he cannot recall the grade that he got and the professor is no longer with us[15].

So, in summary, there's no need to apologize for your first venture being small and there's nothing wrong with wanting a good lifestyle. Your drunkard's walk will lead you wherever it leads you.

2.2.7 The Parental Voice

In his 2008 book *Predictably Irrational*, Dan Ariely, a professor at MIT's Sloan School, describes an experiment he performed. He gave three classes three different choices regarding their required assignments for class. Each class was given three written assignments that needed to be submitted over the course of the semester.

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[15] Snopes.com

The first class was given until the last day of the semester to submit all three, with the warning that leaving them all until the last minute was unwise.

The second class was given a structured schedule with a penalty of a 1% deduction for each day late. The schedule required submission of each assignment on the end of first, second and third month of the semester, respectively.

The students in the third class were given the choice of setting their own individual schedule, any three dates that they liked, so long as all there were before the end of the semester. As with the second group, late papers were penalized 1% per day. Once the dates were selected, they could not be altered. Obviously, a student could voluntarily select the last day of the semester for all three, but if a student felt that they tended to procrastinate, then they could arrange for their own deadlines and provide their own targets for performance.

Ariely found that the first class did the worst, the second the best, and the third somewhere between. His conclusion is that many of us perform better when there is structure imposed from above, which he called the “Parental Voice.”

While Dan and I both teach marketing in a business school, we differ on the lesson learned from his experiment. My students are all self selected for being entrepreneurs. They all would like to start and manage their own businesses. My experience is that part of entrepreneurship is to learn to operate and find success in an unstructured environment. There is no “Parental Voice” when you’re running your own business.

Each semester, my students are asked to grade me as their instructor and often I receive the negative feedback that they wish that I would provide more structure for them (i.e. regular assignments with clearly stated due dates).

I was just about to relent and modify my course so that much like Ariely’s, it would have three papers, with three due dates. However, with the help and guidance of some of my friends who are not teachers, but do run their own businesses, I’ve decided to “stay the course.”

Real life in the real world of entrepreneurship requires that one finds their own voice of guidance. It’s not about me playing the role of parent for my students.

The most troubling aspect of this “parental voice” is that it attempts to define the concept of success for us. We know that companies go through periods of success and periods of failure. Even the largest companies, like General Motors, have been humbled. Is it simply the amount of money that one makes that defines their value to society or their level of success?

For my class, the objective thinking that leads a student to abandon a poor business idea regardless of how much time they have put into it thus far is highly valued. A perfectly acceptable outcome at the end of a semester is to have properly discarded several bad ideas that were pursued. Alternatively, I do tell my students that "to get an automatic "A" just bring to me a purchase order (and not from a friend or relative)." Thus, while I do participate in Babson's grading process, I do leave it to my students to find their own motivation and evaluate their own sense of accomplishment and worth.

It is up to each of us to define what it is we want to achieve in life and to define therefore our own set of measurements. It's more about the trip than the destination.

Many of the professors who I work with have debated with me where business education fits on a continuum between vocational education and academic education. If, for example, one were teaching air conditioner repair, it would be relatively simple to test a student at the end of a course, present a broken air conditioner and step out of the room.

Alternatively, if one was teaching anthropology, what (or who) does one bring into the room for a test? A family from a far off land?

We all believe that there are both nuts and bolts practical skills that need to be acquired for business success and a methodology that can be used regardless of the nature of the business problem that is being confronted.

There can be some debate on each of these fronts. Regarding purely vocational skills, there is a case that can be made that none of it matters, since one can simply find someone to do it if you one doesn't understand how. The Internet and social networking are making this more readily achievable every day.

For analytic skills, the debate may center on the relevance of the particular case studies that are used. For example, starting a business in Brazil is quite different than the US because of differences in customs, regulations, and customer demographics. Studying the cases of relatively large companies does not necessarily prepare a student for the first year of an entrepreneurial venture that has no funding other than the free time of the student. The combination of the statistical bias error of only studying successes and the tendency of successful business people to recall their own history with some revisionist tendencies may contribute to lowering the value of the case studies that are currently used.

For this reason I have decided to create a new set of case studies that are based upon smaller business, cover them in real time as they are experiencing success or failure, and are selected without regard to their current level of success.

One such study is the case of Brian Hayden and Duncan Miller who started Heatspring Energy, later to be known as Heatspring Learning. In their first interview, after two and one half years of operation, we had an enlightening discussion relating to the question of "measuring success."

Both Brian and Duncan saw success initially in the form of ever increasing revenue and employee count. Unfortunately for them, their second full year of operation was influenced beyond their control by the economic. It was difficult both of them to deal with the hard realities of cutting expenses, laying off employees, and worst of all, seemingly falling back from the success that they had already obtained.

While revenues have remained flat for two years, in anticipation of growth they doubled their employee count and expense level only to find that the anticipated continued growth of revenue did not materialize.

At the time of the first interview, they shrunk the company back to its original size, two founders, and were continuing to sell courses and were, making more money personally than they had made for the past two years. It turned out that they didn't really need all of those expenses or people.

The challenge for them now was to figure out whether this "is enough" for now? Had they failed or just been affected by influences out of their control? Should they take it personally?

2.2.8 My Own Drunkard's Walk

I thought that it would be helpful if I could illustrate the random walk of a small business through my recollections of how I found financial success in my second business. These are my "raw" recollections and I am intentionally not researching the facts in order to make the story more perfect.

In this story, a colonoscopy, courage, hard work, fear, and ignorance all conspire together to lead to my company's success.

In 1987 Mario Vázquez Raña, a wealthy businessman from Mexico, who made billions in the furniture business, decided for reasons that were probably based in ego and insecurity that he would buy UPI, United Press International (UPI), the second largest wire service in the US. Wire services provide news pictures and stories to newspapers, radio, and television news programs. They offer some efficiency in that a single reporter's work can feed thousands of publications.

The 1980s were the boom times for the newspaper industry. Profits were exceptionally strong and the eventual impact of the Internet was not yet anticipated.

While having a colonoscopy at a US hospital (a preventative medical examination where a doctor inspects the inside of one's colon) Mr. Raña, who was awake for the exam, observed his colon on the video display of a computer sitting by his bed and exclaimed: "that's just what we need in the newspaper industry!" He noted the manufacturer's name and after discharge contacted the small company located in Knoxville Tennessee that made this digital imaging system for rectal examination.

With Mr. Raña's money and power and with a technical idea for digitizing images and storing them on a PC provided by the Tennessee company, the two parties approached Sony and asked them to build the third missing piece, a camera that could record images digitally, so that newspapers could give up using film.

Unfortunately, neither Mr. Raña, any of the employees of the Tennessee company, nor any of the Sony employees involved in this deal bothered to ask a newspaper what they might think.

While this was going on, my two partners and I were busy in Massachusetts making a few inconsequential products used for imaging, but not in the newspaper industry.

A friend of mine, Vladimir Nuta, who like me had experience in the medical imaging market, flew through our office one day to say hello, drink some coffee, and chat. He said, with a thick Polish accent: "Bob, I just came back from a trade show in the newspaper industry and if you could build a portable film scanner into a suitcase and scan and send pictures back to the home office, you'd have a terrific product for the newspaper and wire service industry. I've got to run. See'ya."

Well, we didn't really spend a lot of time analyzing the market. In fact we spent none. But it did seem like a fun project so we found a fourth engineer who had better optical skills than any of us, and we hired him for no salary; just a piece of the revenue if this new product was someday successful.

We all worked hard. There were long days and nights and we aimed to introduce the product at the largest trade show in the newspaper industry. Unfortunately we couldn't afford a booth. We needed to pull an all nighter' to get the unit working adequately to show it off. I left the office at six in the morning on the first day of the show, showered, met one of my partners at the airport who delivered to me the only (almost) working unit, and I was off to Chicago.

At the trade show, I read the badges of people on the floor while I carried my suitcase transmitter and if their badge implied that they were involved with photos, I asked them: "if I had a photo scanner and transmitter inside this suitcase, would you be interested in seeing it?" If the response was yes, I would actually impose myself into some other company's booth, make some room on a table, borrow some free electricity, and run a quick demo before getting asked to leave.

One such attendee was Hal Buell, the director of photos for the Associated Press (AP). Hal and I have since become good friends and his support over the years has been an important factor in my company's success. Hal loved the demo and invited me to come down to the AP corporate offices in Rockefeller Plaza, New York City to show my demo to others.

Being a native of New York, I knew that the gods were watching over me when I found an empty parking space right in front of 50 Rock. (NBC and the AP shared a building back then.)

What I discovered during that trip was that the AP had been desperately frightened by UPI's announcement of their "new digital photography system." The AP felt that it needed something "big" and "technical" of their own to announce… And, there I was, standing at the doorway with my suitcase.

Please allow me to digress for a moment. At the same time, a relatively large and well known company in the photo business, Hasselblad, had also designed a photo scanner and transmitter in a suitcase. In fact, if you placed the two products next to one another they were almost identical. Hasselblad had designed their version well before ours and had already in fact sold 40 systems to Agence France-Presse (AFP), the French wire service company that was similar in nature to the AP here in the US. Hasselblad had set the selling price at $40,000 each and had delivered 10 of the 40 and would deliver the balance in several months.

Both systems were probably within a few hundred dollars of each other in manufacturing cost which was around $2,500.

When the AP asked me what our price would be (remember that I'm ignorant of the Hasselblad product) I replied that the suggested list should be around $19,500 and that we would be willing to sell to the AP for $9,500 if they would commit to 1000 units per year and we would offer them exclusive distribution rights (an OEM deal.)

The AP had already approached Hasselblad (they did not share our ignorance) and asked them to make their best offer. The CEO of Hasselblad didn't want to lose the profit that he anticipated making from AFP on the 30 unshipped units and stuck to his price of $40,000.

Fortunately, for us and for the AP, Mr. Raña's Sony camera was just too low in resolution and quality to be acceptable to the news industry. It would take another five years for digital cameras to come far enough to be useful for newspapers.

So, we struck the deal with the AP and the $9,500,000 of revenue per year (at a remarkable profit) which helped to launch us to become even more successful.

What do you think? Was it planned?

2.2.9 Exercise – Defining and Finding Success

How do you define "being a successful Entrepreneur?" Explore not only your own feelings but how others will measure your success and how you will value that feedback in your own self evaluation. Learn about the random walk that other businesses have taken.

- How do you define success? What is it that you are looking for? What will happen to you if you achieve it?
- How will your definition of success affect how you will make decisions in your company?
- How do you define failure? What will happen to you if you fail? Can you tolerate that outcome?
- Select a successful large company and research its real beginnings. Identify whether there was an extended period of hard work and little or no growth that marked their start.
- Attempt to find the random events that drove the eventual business strategy that led to success. These may be lucky breaks or external trends that were outside the control of the company.
- Find and interview an entrepreneur and ask specifically about those odd pieces of luck that either particularly helped or hurt their company. Video record the interview.

2.3 Innovation and Technology

I am at heart, a techie, and as such I enjoy technology and science. It is as a technologist that I have come to study and understand business. Technological advancements have three ways that they impact my job:

- Many entrepreneurial opportunities come about because of technological improvements that offer differentiation in an established market.
- Technology is changing the way that new companies can be assembled and methods that they can use to reach customers.
- Technology is changing the methods that are used by teachers to reach students and convey information.

In his recent book, "The Singularity," Ray Kurzweil, a well recognized entrepreneur and futurist, observes that the rate of technological advancements has been accelerating because technology feeds upon itself. Computers are used to design the next generation of computers and so on.

There are several issues that this raises. First, culturally we have less and less time to adapt our cultural and societal norms to changes imposed upon us by technology. After the invention of the telephone in 1876 by Bell, our grandparents had 24 years before the introduction by Marconi of the concept of wireless transmission.

Cultural concepts are often reflected in language. If my grandparents said that they just talked to someone, they would imply that they were likely to have been within a few feet of that person. For my parents, with the telephone, it might imply that they were anywhere on the planet but none-the-less heard their voice. Today, with my kids it might imply only a short text message on a cell phone.

Just a few short years ago it was considered a bit odd if you met your mate online, while today computer dating has become common. Consistent with this shortening of cultural differences, I have noticed that there is a technological gap between my undergraduate and graduate students who may only be a few years apart in age. The undergraduates are tweeting while the graduates (and the faculty) are unclear on exactly what tweeting is all about.

Generational differences that separated parents from children may soon separate siblings.

The implications are enormous as we attempt to understand the impact of technology on business. Time scales of change are shortening from years to months and soon to weeks.

I should mention that Kurzweil's concept of "the singularity" is referring to his belief that humans and machines will merge within the century thus allowing humans to achieve immortality by effectively "downloading" their software (their thoughts, personality, soul…) into a machine.

2.3.1 Technology is changing the way Business Works

I think of business as being comprised of two essential behaviors: organization and communication. Technology is radically modifying our understanding and methodology of each.

Today, for example, virtual companies are commonplace where individuals from around the world work together for brief periods of time on product or company development. For example, rentacoder.com lets a company recruit programmers from a vast international pool for a single job. Or, a logo design can shopped out to a graphic artist through 99designs.com where artists bid on design projects posted around the world.

Just as we see telecommuters who can work from their home potentially redefining the workplace, we may see the demise of the latest retail trend, the superstore, as exemplified by Wal-Mart being replaced by online distribution. As well, marketing and selling are functionally dependent upon media choices that are rooted in technological advancements.

For example, the growth of direct marketing is a direct outcome of the advancements in cable television and the Internet in providing greater selectivity in segmentation and therefore more efficient and cost effective media use. A relatively recent innovation in direct marketing can be found at spotrunner.com where they offer high quality television advertisements to small businesses that can pay a single fee of only $399 for an ad (on an non-exclusive basis) that will run in a local market. A local cable provider, that serves a small town, can sell 30 second or minute slots for as little a few dollars per insertion since the viewer population is small.

The net result is that television advertising has become available to smaller businesses. In 1995 my company spent over a half million dollars on the production of a half hour infomercial, today with technological advances, one could make the same infomercial using a desktop PC or MAC and a contemporary digital video camera at a fraction of that cost.

2.3.2 Technology is changing the Teaching Process

In my meetings with other professors, a common topic of conversation is how technology has changed the classroom. Many professors lament about the distracting nature of cell phones and laptops and wonder if we're doing our students a favor by allowing them to have access to these tools in the classroom.

Others suggest that these tools represent the reality of the current business environment and it's up to the professors to change, that we need to develop more compelling and/or interactive methods that demand more from the students in our class.

I honestly believe that I have it worse than most. For me it's not just the problem of classroom distraction but more importantly that marketing methods, the subject that I am supposed to teach, are also radically changing as a function of technology.

At this moment, for example, I and my students both wonder if and how to most effectively use social networking websites to deliver their messages in a cost effective manner. Every week I seem to learn about a new tool, the last was Amazon Mechanical Turk that was brought into my class by my students and can radically change one's approach to many aspects of business.

Much of the change that I see is what I call "the democratization of knowledge." With an iPhone in my pocket, there's very little reason for me to guess the answer to a "fact based" question. I was most recently reminded of this when my oldest daughter challenged my ignorance on the subject of "how old trees are?" (I never thought that they were as old as they are, literally thousands of years in some cases.) It's not my ignorance that is so surprising, but rather the ease with which she could find the right answer online.

Michael Mozill, one of my fellow teachers here at Babson, instructed his undergraduate students to read a particular case study. After the reading, he asked "how many knew what ebidta was?" None raised their hands. He then told them that they had fifteen seconds to figure it out. The iPhones, laptops, blackberries all clicked and before the deadline all had the Wiki definition. Michael's point was that there is "no longer any reason to attempt to understand a case study while not knowing a critical fact." He went on.."that when I was a kid your age, getting a definition meant: putting on your coat, walking to the library, looking it up…" You get the point.

This raises two interesting questions:

1. If information is free and available to everyone, then what will the next most important attributes to achieve success in our

society? Fact collection might simply not matter. Are we teaching that "next essential skill?" I suspect not. I believe that it will center on creativity and non-compliance.

2. Can we encourage the growth of entrepreneurial behavior at the bottom of the economic ladder by providing access to knowledge to people that are not yet on the Internet? For example, can the distribution of fundamental information about incorporating, sourcing materials, selling, farming, cooking, etc. to the poorest in our society empower them to find inclusion in our system? I suspect that we can, and that a combination of the following would contribute to building entrepreneurship at the lowest levels of society:
    a. The ubiquitous nature of the cell phone – currently there are over three billion cell phones used throughout the world, expected to grow to five billion by 2015.
    b. Inexpensive call centers – that receive questions from local entrepreneurs in local languages.
    c. Knowledge based database systems located at the call centers so that questions, once answered, need not be researched again.
    d. Involvement of local students who can research the answers to business and technical questions that are raised and enter those answers into the call center database systems.

I have, however, a more troubling question concerning business education. In my second business, I hired a vice president of manufacturing who was a few years older than me. When we sold our business he was able to retire and he felt like writing a book in order to share what he believed he had learned about finding success in large companies.

When I read his book it was apparent to me that many of his concepts were rooted in corporate structures that had become obsolete.

If technological changes are changing business models, then how relevant are the business models that we teach which are based upon case studies written years ago? How relevant are many of the business practices and methods?

On one level we believe as educators that we are teaching methods of rationality and analysis that can serve in any business model, but as well, business education is also in part vocational in that it teaches basic tools and methods that we believe simply work. These are the most likely to become obsolete.

This does imply that the greatest value that we can offer is to provide students with a rational framework from which new entrepreneurs can adapt to new business models as they develop. But, I observe that students want just the opposite. They want to hear simple formulae and directions for starting their business. And, while teachers like myself for whom understanding of business is rooted in experience as opposed to academic study can offer such "tips and techniques" it is also true that in a dynamically changing environment it is we who will become obsolete more quickly because the business models that we understand will disappear even more quickly than before.

2.3.3 Technology Offers New Business Opportunities

As well, many, if not most, business opportunities are driven by advancements in technology. In Robin Waterfield's book "Why Socrates Died" he builds a wonderfully interesting view of life in Athens in the period of Socrates' life around 420BC. It was interesting to note that most Athenian citizens didn't really need to work since their basic needs were met by the spoils of wars and conquests of others.

(It's also interesting to note that the adults of the time considered their children's hair to be too long and their music to be too provocative. We haven't really come that far in the last 2500 years.)

In the USA we really don't have a very different life from that of the Athenians (at least while they were still winning the Peloponnesian Wars). In fact, seventy percent of our GDP, is based upon personal consumption[16]. Food, housing and apparel accounting for almost 50 percent with apparel growing the fastest (11%) between 2003 and 2004. It is remarkable to understand that our contemporary western societies are so productive that they can put so much effort and resources into the creation of comfort and entertainment as opposed to survival. In the US less than 1 percent of the population is engaged in farming[17]. Humans are unique (to a great extent) in our ability to have created so much leisure time. If you observe most animals they expend every waking hour busy with the task of mating, eating (or finding food) or raising offspring. Human language and thought has allowed us to create tools and methods that afford us enormous productivity in comparison to our survival needs.

[16] Hoover Institution Stanford University
[17] USDA 2008 farm census

Innovation and technology is responsible for much of that. We no longer need to live on the spoils stolen from others, as the Athenians did, but have innovated our own society into the ability, for example to feed ourselves with only a small percentage of us working on growing food.

And yet, technology continues to drive us to raise productivity levels and improve the quality of entertainment and comfort that is available.

In many cases, technology digs us into a hole and then builds us a ladder to get out. Today some of the problems that plague us, pollution, global warming (if you agree that it is manmade) and untenable inequalities in wealth will most likely be addressed by the introduction of new technological solutions. For example, it was recently stated by Esko Aho, former Prime Minister of Finland and currently Executive Vice president at Nokia, at the 2009 MIT Legatum forum: “the ubiquitous nature of cell phones (over 3 billion currently in use, estimated to grow to 5 billion by 2015) has stimulated more economic development than all of the charitable giving thus far.” (Maybe he’s a bit biased?)

The conclusion is simply that one must embrace and study changes in technology in order to easily identify emerging business opportunities and that the faster technology changes, the more opportunities arise.

2.3.4 Innovation

I have a friend, Dr. Jay Stein, one of the founders of Hologic and a physicist by training, who said: “the first day of a product’s conception is its best and it’s downhill from there.” He correctly recognized that the technical difficulties of implementation, the real limitations in achieved performance, the distribution challenges and the support issues would all come to light later, but now, on its first day, this newborn was beautiful.

I tend to think of conceived innovations as being of one of three types: Product Centric, Customer Centric or Distribution Centric.

One often hears about a “product looking for a problem.” All too frequently I have witnessed the invention of new products where the prototype already existed but the need was not first established and the inventors then went about trying to identify a customer with money who might want to buy the product. I frankly see only one problem with this approach. Frequently, the inventor falls so deeply in love with the invention that he is unwilling to face the reality when there is not a compelling value proposition or a customer base large enough to make it a worthwhile enterprise. And, their love and devotion keep them attached too long to a bad idea.

One of the most dramatic examples of this that I came across as part of my consulting business was "the pizza man." Puzant Khatchadourian is a charming Armenian New Yorker who is a marvelous mechanical engineer and inventor. He had made a fair amount of money in the jewelry business by building machines that could create intricate jewelry items that would otherwise have been virtually impossible to manufacture. Back in 1992 he had an idea that the world needed a "totally robotic pizza vending machine." His concept was that he could build a vending machine that could prepare and cook a delicious fresh pizza in just a few minutes from raw materials stored refrigerated within the machine.

When I first visited Puzant in 2009 in his New York office and manufacturing space I saw four such vending machines lined up against the wall ranging from serial number one to four, demonstrating the evolution of the idea over seventeen years of development!

Puzant had been working on his invention for that long. He had evolved his machine through several radical variations and spent over seven million dollars in doing so. He had burned through not only his own life savings but millions from friends and family investors who love him, his enthusiasm, commitment, talent and I should add, heritage. His investment community was comprised mostly other Armenians who wanted to both make some money and support a fellow Armenian.

I watched with complete fascination as the current version prepared a perfectly round pizza from a cartridge of dough, added cheese and sauce, sliced and added some pepperoni and then baked it to perfection.

As if that was not enough, the machine then folded a box and spun a custom designed and tooled pizza slicer (with a compartment for hot pepper flakes) into a napkin along with a fork and dispensed the boxed pizza and the cutlery to my fingertips.

Lest I forget, Puzant had also placed a large screen HD color TV into the front of the vending machine so that he could sell advertising videos as part of his plan.

As we spent a bit more time understanding his business strategy, I learned that he also wanted to sell the preformed dough; pre packaged sauce and cheese, and establish a set of trucks that would distribute the "razor blades" and manage the network of vending machines.

The only problem was that he was out of money. His current burn rate was around $150,000 per month and he had less than one month's cash left in his bank account.

As I interviewed Puzant, the most remarkable part of his story was the number of times that he was approached by large companies that were interested in doing business with him. Each prospective customer had their own vision of how to use his technology. Some were only interested in the core of the machine that made pizza and saw it more as a piece of kitchen automation equipment. But, Puzant was stubborn about his vision and was unwilling to be dissuaded from his mission to launch a fully self contained vending machine along with an entire empire behind it.

Finding the balance between focus, determination, and opportunism is a difficult challenge for every entrepreneur.

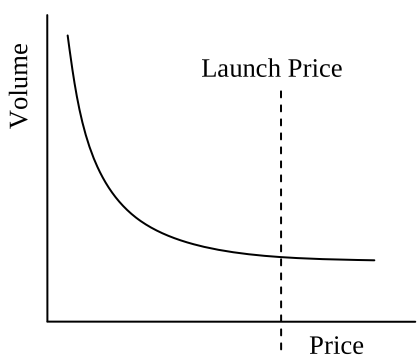


Figure 4 - example of simple inverse relationship between price and volume and selection of a higher price as a starting point for small company

There is a simple test that I have often applied to new product ideas to help gain an understanding of their true commercial value. The test rests upon two general principles. First, for most markets, volume will vary with respect convenience and inversely with respect to price. What is important to notice about this inverse relationship is that even cumbersome and expensive solutions will find some customers in real markets. Then, as the solution gets better, and cheaper, the market broadens. One must be especially critical when defining the "better" nature of the solution. For example, the early Apple Newton (Apple's first PDA) was somewhat cumbersome and expensive but still validated the PDA market through limited sales to early adopters. Thus, one should be able to test the validity of a market even with a product that is not perfect and is too expensive to achieve maximum return. If a few customers can be satisfied with an imperfect product then as the product matures and the price comes down, greater economic success can be realized. Just think about Windows 3.1. I prefer not.

Second, it is helpful to separate out different aspects of the innovation and test them independently with other pre-existing products or customer assumptions. Let me give two examples.

I was approached by the developer of a new electronic pen device which would digitize handwriting input. This particular innovation was both a new method of accomplishing this feat along with being small in size and thus having more portability in comparison to pre-existing methods, i.e. a digitizing pen as opposed to a data tablet. The inventor told me that he had been approached by an Asian employee of Intel who told him that this would revolutionize computer usage in Asia since keyboards were not a good fit for entering the pictograms usually used in Asian languages. My client felt that he stood to make millions.

I suggested that he approach the question in the following manner: Was it true today that data tablets had replaced keyboards for data entry in Asia? Would the specific difference between your innovation and pre-existing data tablets cause explosive growth in the market? The answer to both questions was essentially "no."

As a second example, I am currently helping a company that has built a non-invasive medical system for fat reduction in the legs and thighs of the customer. The machine must be bought and used by a technician in an environment similar to a spa or cosmetic surgery office. The board of directors was wondering if the market potential extended to hair and nail salons. I suggested that as a solution we consider that there were similar types of systems today for the reduction of cellulite at similar price points and while these systems were successfully found at the offices of plastic surgeons, cosmetic surgeons, spas, etc. they had not found their way in to hair and nail businesses yet. Thus, the barriers to entry to nail and hair salons was needed to be understood and possibly this innovation was not the difference that was required to overcome that barrier. Note as well, that even the largest and most successful hair and nail businesses had not broadened their businesses to include cellulite reduction through the purchase of these machines thus implying that it might not simply be a matter of financial strength.

I should also note that sometimes things appear to not be true simply because they have not been tried yet. While these thought experiments (known as Gedanken Experiments) are useful in creating a strategy, sometimes it is worthwhile to simply go out and try something in order to clearly understand why it hasn't yet worked. You may discover it's as simple as that it has never been tried before.

2.3.4.1 Product Centric

Most innovations by entrepreneurs that I meet are of the prototypical form where an inventor creates a product (or product concept) born out of his/her own observed set of needs combined with a spark of creativity. Many refer to this somewhat cynically as meeting only a "self reference criteria." While it's comforting to know at least one person would buy this product, you, often the real problem with this approach is that it can lead to products for which there are only limited market needs or weak value propositions, or worse, the requirement for extraordinarily expensive distribution strategies.

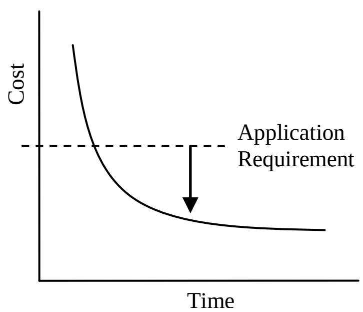


Figure 5 - Moore's Law - 2X every 18 Months

In high tech, my own field, innovation is most often the modification of cost-performance which allows new market usage and growth for a previously established idea, albeit at a lower cost. For example, digital cameras were used back in the 1970s for astronomy, in the 1980s for machine inspection systems and eventually found their way to cell phone cameras and pocket digital cameras which today sell for less than tens of dollars.

Sometimes, the relentless reduction in the cost of high technology solutions that results from Moore's law[18] silently passes by the threshold for use by a particular application. In cases like this, pressure can build for the adoption of the technology in the new application until it is finally discovered. For example, in my second company, Leaf Systems, we introduced a product that modernized the transmission of newspaper images from a field photographer to the home office. This application had not seen a technological improvement since the 1940s. As such, when our product, the Leafax-35, was introduced, there was rapid adoption by the industry.

Later on I will describe the important distinction between innovation within an established category versus innovation that develops a new category. Most innovation in products is of the former form and is

[18] **Moore's law** is about the empirical observation, that at our rate of technological development, the complexity of an integrated circuit, with respect to minimum component cost, will double in about 18 months. (source – Wikipedia)

simply pushing an established category slightly forward with a marginally new improvement, building upon prior innovations.

2.3.4.2 Product Development

I have frequently witnessed the tendency of developers to never be quite done with a product. There is always an improvement that can be made. It is the responsibility of the CEO and/or marketing group to know when it is time to give birth. **That time can be recognized as when the value proposition for the current feature set is adequate to close sales as proven by empirical data.** Additional innovation and enhancement is better left for a future version and the opportunity to either sell an upgrade, obsolete your own product, or respond to competitive reactions to your launch.

Every time you make, even what might seem to be the most insignificant change, to a product, you reintroduce the need to do what is called regression testing – or retesting all of the functionality even if it has been tested before. The more complicated a product is, the more likely that any change will have unintended consequences. Testing is time consuming and expensive.

Therefore, every time you change a product, if you do not test adequately, you will introduce the risk that the product will fail in the field and you will need to either take it back, repair it or again modify it, none being a very attractive alternative. It is essential that someone other than the developer apply pressure on the organization to stop the development process for a deliverable version of the product and launch the product while continuing development for future versions.

I cannot emphasize strongly enough the value of testing your product before you begin to build any large number. The cost of dealing with a problem in the field is significantly larger than dealing with the same problem before launch. Once you have tested, you must restrain yourself from making changes or "improvements" unless you are willing to retest before launch.

Often, entrepreneurs are reluctant to lose market opportunity and therefore tend to skimp on testing and rush products and manufacturing into a market prematurely. In general, I have not found this to be a good idea. Patience is a virtue in product development.

2.3.4.3 Customer Centric

Alternatively, one can begin with a customer that has both a problem that you can solve and the money to pay you for the solution. In reality, this is only different from the Product Centric approach in that you have doubled the number of people involved, namely: you and your customer and thereby have reduced the chance that you are deluding yourself. Obviously, the success of the innovation still rests on being able to find similar customers out there. *Of course, there's an exception to every rule and one big solution sold for a lot of money to one big customer is probably just as good as finding multiple customers; the best example being the US Government*.

An important difference with the Customer Centric approach to product development is that you can intentionally bias your search for an innovative solution towards customers that have the attribute of being in large and growing industries, thereby increasing the likelihood that you are able to create a rational marketing strategy later on. For example, in my second company, Leaf Systems, we aimed at the newspaper industry during the 1980s when they were making lots of profit and there was lots of competition between alternative wire services and newspaper chains. Our innovation gave an edge to one wire service, the Associated Press, and therefore the value to our customer was amplified by the impact that it had on their overall business. I discuss this example later on in the OEM section.

In many cases, innovation is born through bringing new people with skills in new disciplines into an old industry. For example, a computer whiz kid, the son or daughter of the owner of a business might create an innovative solution for their parent's business. The better you understand the real workflow in the industry that you're trying to help, the easier and better your efforts will be to provide an innovative and financially viable solution.

As suggested elsewhere in this book, business opportunities can be discovered through the investigation of existing businesses, the identification of problems and the use of technology to offer innovative solutions. At times, it is consistent with this concept to consider a career move where you identify older industries with lots of money, and growth, and take a job with the intent of learning the industry, and then applying your skills and understanding of technology or marketing to those older companies. Liberty medical (Polymedica) is an interesting case in point and is covered below.

2.3.4.4 Distribution Centric

Some new endeavors have no real product innovation but instead are creative methods for distribution and marketing.

Innovation in the delivery method for an established product can also offer tremendous opportunity. For example, Polymedica under the

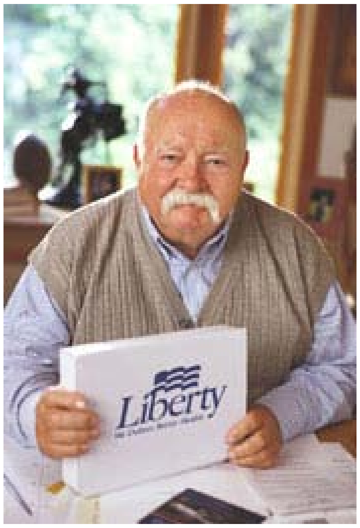


Figure 6 - Wilfred Brimley selling Liberty Medical Products on TV

brand Liberty Medical Supply, created the concept that relied upon an understanding that older Americans on Medicaid often had diabetes and required insulin and testing kits. As well, this population was not particularly well equipped to deal with the healthcare industry, and finally, almost by coincidence, they were, as a group, more than likely to be watching a new and innovative form of marketing, television infomercial advertising. Putting all of this together, Polymedica created an infomercial campaign with the actor Wilfred Brimley (shown in the photo), which proposed "taking the hard work out of getting your diabetes supplies if you were on Medicaid. Simply call us, we'll do the rest and you will get your supplies through the mail." A $450M business was built virtually overnight. More detail about Liberty Medical Supply is available in an Attachment.

2.3.4.5 What they all have in Common

In each of these three cases, they all share important attributes: The customer was experiencing pain, the customer had money and the vendor eliminated the pain and took some of the money in return.

It is also interesting to note how many businesses are built on the simple value of increasing "convenience." This tends to increase productivity and leisure time, thus increasing the demand for more toys.

2.3.4.6 Market Research

Many students use surveys to obtain customer preferences, however, survey data can easily lead you in wrong direction if you are not careful. Two common problems that I have observed are caused by using averages incorrectly and by biased testing.

For example, imagine a survey whose purpose is to help design a rake. Half of the respondents ask for a one-foot, short handled, rake ideal for cleaning around flowers while the other half asks for a three-foot, long handled, rake, for cleaning the lawn. One can take the survey data to imply that one should build an average two-foot rake, which unfortunately nobody wants.

When competing in a category, the goal is to share shift some customers away from other products by meeting their needs and offering one (or more) additional values that entice them away from the competition. Therefore, for the above example, it's essential that you first decide whether you want to compete in the short or long handled rake sub-category, and then add your differentiating value to that.

Biased survey results can occur from either sampling a pool of potential customers that are not representative of your real market, or by asking questions in such a way that it leads to an answer that may not really represent the customer's actual desires.

Students often survey other students because they are easy to reach. But often, those students do not represent the demographic that they are seeking.

Focus group testing can also be distorted by the bias of the moderator or by group interactions that are based upon the personality of one or several group members.

Focus group studies can be purchased from marketing firms that have experience in performing the process. But unfortunately, I have seen focus group analysis fail more frequently than it succeed and I suspect that much like survey data it is was the bias of the moderator, the phrasing of the questions and the subsequent interpretation that led to the failure.

For example, I watched a focus group that was run by Polaroid when they were investigating the digital camera and digital printing space. The moderator asked the question: "what makes a good photo?" expecting a conversation about color quality or resolution and the members of the group answered: "you know… like when the eyes are open."

To me, a more valid method of research, and the one that I suggest students use, involves the "trial close" where you actually try to sell the product, even if it doesn't yet exist. This is especially useful in business to business opportunities. Achieving a real sale where the customer has reached the point of financial commitment is far more informative than an opinion. When performing a trial close, you are proposing to a potential customer that you are willing to make certain modifications, or to complete the proposed product, but only conditional upon their willingness to issue a purchase order which is itself, conditional upon your successful implementation of the modifications or completion. For example: "So, Mr. Smith, you're telling me that if I could make my widget half the size that you would buy it. Would you be willing to give me a conditional purchase order for 10,000 units with no obligation to you if I fail to get the size down to your requirements?"

Some companies will run limited advertising for products that do not yet exist to simply see what the level of interest might be and at what price level. In most cases, the development of real marketing data before product development is started can save the company time and money. In the direct marketing field this is referred to as a "dry run."

I don't believe that it is ever too early to talk to real potential customers and to attempt to extract real commitments to buy based upon your meeting a set of mutually agreed to objectives. As I described earlier, building a new company is like putting on a show and I have found that most people want to participate in the process, even your potential customers. Engaging them with your enthusiasm and spirit of determination can result in convincing even a large company to take a risk on a new endeavor for the benefit of the innovation that you are offering.

If I return to my garage example, let us assume that you interviewed a garage owner and discovered a problem that their state inspection bay was only being used at the end of the month. The owner saw it as a wasted asset and wanted a solution. You could approach a trial sale with a statement like: "I believe that I can fill your inspection bay much more efficiently by using a direct email marketing plan that reminds the customers to inspect their vehicles earlier in the month along with a web based schedule tool that lets them make their own appointments instantly, online. I can provide this service to you at a cost of $500 per month and I believe that it will increase the utilization of your inspection bay by a factor of two for the first two weeks of the month. Are you willing to give me a purchase order for the first month and see how it works out?"

At this point, the garage owner is forced to consider whether this problem is really that important to him and whether $500 is worth the solution. Obviously, there's an opportunity to both negotiate the value and develop real evidence of the financial value to the customer in real revenue terms. As a side comment, it's often more important to close the first deal than to get the price right. The first customer can help you to establish what the real value is after installation (and hopefully success) and that data can help you to rationally price the product for future customers. It's much more important to simply get going than to get a few more dollars for the first engagement.

2.3.4.7 Is Innovation Required?

Innovation is not required to start a successful business. Most businesses that surround us are not particularly innovative. Most offer goods or services that are pretty much equivalent to those offered by their competition. Most, therefore, engage in the attempt to share-shift between their business and others within their category without much careful analysis or action.

For most businesses, advertising is limited to the Yellow Pages, the sign on the store and possibly a few inserts in town mailings. As well, share-shifting is, for the most part, modulated by price shifts, and most of those are motivated either by seasonal events or inventory problems.

Ask yourself why you choose to eat at a particular restaurant, or use a particular gas station, or shop at a particular grocery store. Often, the differentiator is simply the location of the business and the convenience to the shopper at some moment in time.

It is possible for you, as a student of business, to simply open or buy a conventional business and then attempt to apply the skills that you learned here to successfully shift customers to your business and away from others. One would think that you should have an unfair advantage. Let me know how it works out.

It is also true that the advent of the Internet, EBay, digital cameras and sophisticated publishing tools have enabled small businesses as never before to create and execute marketing programs. My favorite example is the wife of a friend of mine, Susan Wrisley. She's an artist who makes craft items that are fairly inexpensive.

Susan exclusively sells her creations through EBay [artsandcats]. Fortunately for her, she is a cat lover and all of her creations are cat oriented. The interesting observation on EBay is how many cat related items are sold each day. I had a friend, Mike Cronin, the former VP of Marketing for "Computer Vision" during their growth years who advised me: "If you want to catch a lot of fish make sure that you're fishing in a stream with a lot of fish." There is an enormous population of cat lovers and collectors and many of them buy their "stuff" on EBay. As such, Susan has an enormously profitable business. She's quit her day job in high tech and now focuses on making cat stuff.

EBay offers you an interesting peek into consumer activity and preferences. By typing in a word, or category, it's possible to see numerically, the offering activity within that category. For example, today there are more dog lovers (94,791) than cat lovers (71,640). You can use this information to help you pick a category for a conventional business. For example, if you were to open an art pottery business, it's more likely that cat and dog items would sell than, for example frog items (only 15,750 today.)

In my own career, two of my three companies were started as consulting entities that subsequently discovered product opportunities through the customer interactions established through the consulting business.

So, in summary, the best advice is simply "just do it." Starting is key.

2.3.5 Learning to Start Small

Often, I find that students are paralyzed when attempting to start their business. This often occurs as a result of a process by which they begin analyzing their opportunity and with each successive round of analysis they uncover additional considerations and the barrier to starting appears grows even taller. In the industry it's referred to as: "Analysis Paralysis."

Generally, most students start with a fairly simple concept, but then they are encouraged to think about how big these businesses can grow and in the process they lose sight of the simple beginnings of the idea. Let us consider, for example approaching the music business with the following idea. I'd like to create a website that serves as a marketplace for musicians and music lovers. The musicians upload their music, the music lovers, or customers, listen and pay. It's a fairly simple idea and can be pictured as follows:

Figure 7 - Web example of market segmentation

Likewise, we can consider the music industry to consist of many dimensions from which we can approach it. These dimensions might be, for example, the geographic region like "New York," or the genre like "Country Western." Often the number of dimensions that describe our market can be many more than two. Identifying these dimensions is what offers us the belief that the market potential is vast and therefore the business opportunity is worthwhile.

When attempting to start, our greatest problem is likely to be creating a transaction with a qualified customer. In our example, that might mean finding a Listener and Musician who were successfully connected on our website. Unfortunately, if we dilute our marketing investment when attracting musicians and listeners (customers) we reduce the likelihood that a particular listener will find something that they like. For example, we find a listener who is looking for “Country Western” but the first 100 Musicians that we successfully attracted only included 3 Country Western artists, and none appealed to our customer.

Thus, the key to starting this business is to “start small.” Namely, in this case to select a single dimension or set of dimensions that increase the likelihood that our limited investment in finding musicians and listeners creates matches. In more specific terms, narrowing our media campaigns to collect “Country Western Musicians in Dallas” and “Country Western Enthusiast Listeners in Dallas” might yield more efficient use of our marketing dollars and a shorter path to cash flow positive.

Eventually, if our initial campaign is successful, then we can add a second dimension, for example, a second genre or a second city, slowly expanding our business.

2.3.6 Web Businesses

I have observed a number of student teams which are attempting to start web based businesses. For the sake of analysis, allow me to break them down into the following classifications:

- Service business that facilitates transactions between individuals with a fee based upon the successful transaction
- Web publisher with a revenue stream based upon a combination of subscription fees and/or advertising
- Web expansions to a current business model

For expansion of one’s current business onto the web, the infrastructure of your current business including inventory, purchasing, shipping, receiving, billing, etc. are all typically in place and the web offers an additional use for this pre-existing infrastructure. As well, there are methods, like Google ad-words that can be easily used to bring new potential customers to your new website. Therefore, this type of web model is relatively simple to get started. The principal problem may be an inability to get it to grow beyond a limited value.

Alternatively, for both the service business and the editorial web publisher there is a substantial problem relating to the difficulty or expense of getting some initial momentum adequate to create revenue. For example, without the subscribers, advertisers see no value in advertising on your website. Similarly, for service websites, buyers are interested only if there are active seller markets (and vice versa).

For these two web business types, there are three different ways that one can potentially start their businesses.

First, these websites can use a massive advertising campaign that covers both conventional media as well as the web with the goal of bringing users (readers) to the site. Two such examples are Vehix.com and Monstor.com who run active television ad campaigns for this purpose. Unfortunately, this requires a substantial amount of seed capital.

Second, and less expensively, it may be possible to select a narrow vertical market where it is possible to broadcast the advertising message with significantly higher media efficiency and therefore less cost. The vertical niche could be based upon geography or any other classification. For example, if one had a web business with national potential, one could still choose to start by targeting only residents of Wellesley. For this first campaign there would be a corresponding limitation of selling to advertisers who are interested in reaching only Wellesley residents. As such, both the advertising cost per lead as well as the cost of the total campaign necessary to reach all of the residents of Wellesley and all of the potential advertisers interested in Wellesley would be quite limited and within the reach of a startup. As revenues build, new geographies are added.

A third alternative is based upon the OEM business model. It may be possible to identify current websites who serve the user base that you are targeting and you may be able to offer them the ability to use your IP as part of their website to increase their revenue and functionality. In some cases, the further they are from your business, the likelier that your IP will remain protected. Of course, the principal advantage to this approach is that you get to leverage your OEM's pre-existing customer base, advertising structure and infrastructure. The disadvantage is that if your IP is not strong, then you run the risk that your OEM partner will seek to simply "do it themselves" without your help.

I am a strong advocate for using the OEM model whenever possible as a way for small startups to grow without the need to bring in equity capital along with the partners that invest it. There are several reasons for my bias. First, it allows the startup to use all of its profits for the improvement of its IP and thus the continuation of the likelihood that their business will survive. This level of focus on a single problem is essential for small businesses.

Second, it minimizes the time necessary to launch the business and since all inventions get old quickly it therefore maximizes the likelihood for your being able to build your business in a competitive environment.

This semester we have several web based business ideas. In each case, I tend to find a combination of an IP position that seems viable with the difficulty and improbability of being able to overcome the startup problems associated with building the initial inertia necessary to succeed. Not long ago, it might have been possible to raise capital for this purpose, however, this has become, of late more difficult. As well, I need not remind you that the dot-com bust was possibly due to there being too much capital available too easily to these types of companies.

I urge each of the web based business teams to take some time to consider the potential of an OEM strategy, even if it leads eventually to a resulting business that intends to break ties with the OEM partner and go it alone after achieving some revenue.

2.4 Financing Your Business

When financing your business, there are two essential questions: first, how much will you need and second, where will you get it. There are many sources of capital, some of which are listed below in the order of preference from my perspective.

Source	Issue
Customers	Your customer has a vested interest in your success and the success of your product. This leverage helps get attractive terms, in some cases as good as a simple deposit on an order that can be used to finance the development.
Channel Partners	Like customers, your channel partners have motives related to the success of your product that can make the terms of obtaining cash more attractive to you.
Vendors	Your vendors may be looking to expand their reach or volume and may see your innovation as one that can help them. Thus, their interest in the success of your product can make them more flexible on payment terms.
Employees	Sometimes giving stock to your employees in lieu of salary (or part of salary) can create further motivation along while continuing to keep the control of the company in the employee's hands.
Angels	Individual angel investors who are from your industry may be more interested in assisting a new entrepreneur and as such may be more generous with negotiated terms.
Friends & Family	While it isn't fun to be harassed by your uncle to see how his investment is going, and you also risk the potential of damaging family relationships, the terms of a loan or investment can be more attractive to the entrepreneur.
Venture or Angel Groups	These groups offer lots of cash, but have rigid terms and conditions that force the success of your company to be high if you are going to share financially in that success.
Mortgaging your own assets	This is the avenue of last resort and puts you and your family potentially at risk. I therefore strongly recommend against it.

Regardless of how you choose to raise needed capital, the key to your success is to get to a positive cash flow as quickly as possible. Only then, are you truly running a business and not a charity. At that point, you will have the necessary leverage to raise additional capital only when the terms are acceptable to you.

I am constantly amazed at how easy it is to spend other people's money. The closest thing that I can find to it is drug addiction. And, I am formerly an addict (addicted to spending venture funds).

As a result, like most reformed addicts, I cannot stand the concept of borrowing money or selling stock to investors as a way to grow a small company.

I am constantly reminded how easy it is to become addicted.

One of the small companies that I help was founded by a college dropout, Eric Andersen. The company is called MySeniorCenter.com. Recently, Eric came to me with a desire to borrow $75,000 so that he could meet cash flow obligations through the end of the year, about three months away, when he expected his market to turn around.

As in the case of Heatspring which I discussed earlier, Eric was attempting to rationalize why his business had become difficult during the worst economic downturn since the great depression. He felt that somehow, the optimism of his customers who hoped for better funding "next year" and who really wanted to buy his product would reflect in an uptick of sales for him. He took personally the current dilemma that he found himself in, namely being out of cash and unable to afford the expenses that he had taken on.

Together, in October, we went over his cash flow projections and his balance sheet. I was troubled to find that he had bank debt in excess of $225,000 that had accumulated over the course of the last year of operation. His assets and remaining liabilities implied that he had enough cash for one or two months of operations without any new business. And, while is sales group was still optimistic, they did feel that most new orders were going to be pushed forward into next year.

To be fair, $175,000 was a buyout of a former partner that was financed by the bank and was paid back at a rate of around $12,000 per month; not terribly more than his former partner's salary. But, $50,000 was represented by a revolving line that had been completely exhausted.

Eric had difficulty understanding that technically, his company was insolvent. It had no value. He took this statement personally, not objectively. I told Eric, that I would gladly give him $75,000 for 51% of his company and I would gladly keep him on as CEO but he would be directed to cut expenses and fire everyone needed so that his current cash flow was positive and he could begin the process of paying down all of the debt including the former partner payout so that he could return from the land of being a charity to that of being an operating company.

He replied that if he were willing to do that, then he wouldn't need the $75,000. Duh! And there's the rub. Is he willing to accept the real nature of his business and live within his real means? Even if it means that he will shrink from his former size, and need to begin the process of rebuilding when and only when the economy allows him to do so.

I have been on the other side of this advice. It was offered by venture capitalists who had invested in my company. The downturn was similar and the reality was the same. I deeply understand the pain of laying off employees and retreating from a perceived victory. And, I also understand how much easier it is to accept the reality when you are not the CEO. In summary, don't try to time comebacks, try to respond to them.

2.4.1 Determining how much you need

But let's quell the rabid former addict's voice for a moment and look a bit more pragmatically at the process of raising funds (God forbid!)

Determining how much you need to raise now is a product of both your pro-forma projections and the anticipated leverage that you will have when future financing becomes necessary.

For example, one school of thought, when raising capital, is to make sure that in the first financing round you raise enough money to get you to cash-flow-positive, thus providing you with leverage when needing to raise additional capital by eliminating the time pressure financial entities often use when negotiating follow-on investments. Once you are cash-flow-positive, you can choose to wait and not take a follow-on investment until the terms are acceptable to you.

Generating a pro-forma P&L and a derived cash-flow projection can shed light on your initial capital needs. It is advisable to make these estimates with highly conservative assumptions about the rate at which revenue will build. In addition, your financial projections can serve as a baseline for measurement of your performance in various areas of running your business and allow you to create corrective actions early. If you choose to raise funds from professional investors, they will require seeing your financial projections which they will use in order understand both whether you are raising the proper amount and what the potential valuation should be.

Alternatively, there are good examples of cases where it might be desirable to choose an alternative plan of raising only enough capital to get you to an important milestone which occurs before achieving a positive cash-flow. For example a smaller first round might be advisable if you are still in the research phase of your business plan and the development of a working prototype or first installation will significantly affect the eagerness with which investors will show interest in your business. The key is the level of leverage that you will have. You will be balancing the advantage of competing investors who want to close quickly versus disadvantage of their natural desire to slow the process down allowing you to run out of cash and become more desperate for funds.

2.4.2 Building Your Pro-forma financials

Your pro-forma financials should consist of three basic sections, a P&L, Balance Sheet and Cash flow. As well, you will want to build a Capitalization table that shows the ownership positions of investors. In my experience of evaluating small and even large companies, I have often relied more on the balance sheet especially when viewed differentially over a period of time. Public market investors are learning the hard way that it has become too simple to cook the P&L in ways that make the performance of the company seem healthy when in fact it is not. Alternatively, if you observe an unusual growth in inventory, or receivables or disproportionate sizes of those for the industry that you are in, then these are sure fire indications of brewing trouble. You should manage your business by managing your balance sheet and internalizing its changes over time.

The key to the design of the P&L is that it is supposed to be a clear and accurate indication of whether the business is making or losing money on a moment by moment basis. As such, start up costs like the build-out of the real estate and capital equipment are amortized and depreciated over their useful life and impact each month evenly as opposed to being taken all when spent. I recommend building your financials from the ground up rather than starting with a template in that it instills a better understanding of the specific nature of your unique business with its relevant assumptions. I would suggest not using plugged in values that are represented as a percentage of revenue in that they are typically misleading for small companies but rather that you build numbers from more actual expected values.

For a startup, the balance sheet yields less important information and the P&L and Cash Flow are more critical. For a startup I would suggest focusing on the short term and building a set of monthly projections for the first year and then annual for years 2 and 3. There are many forms that are typically used for the P&L and the following is one example:

+ Gross Revenue

- Cost of Goods Sold

= Gross Profit

- Marketing and Sales Expenses
- Research & Development Expenses
- General Operating Expenses
- Depreciation Expense

= Net Operating Profit

- Interest and Taxes

= Net Profit

Include both the cost of salaries and benefits and if possible apportioned facilities expenses in each of the departments to which they are assigned. Don't forget that vacation time for your employees may require the hiring of temporary help for part of the year.

Your balance sheet construction typically lists assets and liabilities as shown, with the difference between these representing the stockholders equity (either positive or negative). Changes in the balance sheet over time are the best indicator of a company's relative health.

Assets

+ Cash
+ Inventory
+ Capital Equipment less depreciation
+ Deposits
+ Accounts Receivable

Liabilities

- Loans
- Accounts Payable

= Net Shareholder Equity

The cash flow is a bit more complicated to build because it depends upon when actual cash events occur. For example, if your vendors expect to be paid in 30 days, then the cash impact would be 30 days from the purchase which itself could be 60 days before the goods are sold because of delivery or manufacturing delays. It is best to build the cash flow from the P&L with equations that incorporate the delays expected between payables and their component parts and receivables actual collections. As well, don't forget to include the cash outlays associated with capital expenses and deposits as well as the cash inflows which result from loan advances or the sale of stock. A typical cash flow would appear as follows;

+ Beginning Cash

+ Cash in for loans or sale of stock
+ Cash in for Collections
- Cash out for payables
- Cash out for fixed expenses
- Cash out for capital improvements

= Ending Cash

2.4.3 Determining where to get it

There are many places that one can get money to be used to grow a business. Most entrepreneurs have a natural tendency to try to sell as little stock as possible while raising the needed capital. However, I can tell you from my own experiences, the best of all worlds is to sell no stock at all and find alternative forms of financing. To do this, you've got to start by understanding the food-chain for your product and the value proposition to the food-chain.

As well, there are many instruments that can be used to raise money. The selection of the proper instrument relies upon considerations of ownership, control, incentive, risk and most importantly, the tax implications.

Most often, small companies are started with an initial investment from the entrepreneur or their family. In most cases, this should be placed into the company primarily as a loan. The reason is that when the company generates its first profits, instead of distributing those profits to the owners as either bonus, or worse, dividends, the distributions are simply the repayment of the principal debt which is not taxable to the owner.

Alternatively, if the profits are distributed as a bonus, then the owner will pay income tax on the amount, or if the profit is distributed as a dividend, then both the company and the owner will each independently pay tax on the amount. If there are several contributors, and the initial goal is to in-fact, distribute stock ownership into their hands, then either of two methods can still be used in place of taking the initial capital as the purchase of stock. The first alternative would be to take a small token portion of the initial investment (a few dollars) for the purchase of stock while the majority of the balance is handled as a loan. The initial value of the stock can be set to have nil value by the board. Alternatively, you can issue stock options in place of selling shares. The advantage of the options to the seller is that it does not carry the legal requirements for meetings, voting or the distribution of information that is carried along with stock ownership.

The only rationalization for making the initial investment a capital investment is the issue that a potential lender, like a bank, would prefer to see the capital as backing to their investment. However, the simplest way to accomplish this is to subordinate the investor loans to the bank loans thus providing them with the same level of comfort.

2.4.4 Equity Instruments

If you are determined to sell stock, then there are a number of different instruments that are typically used. These include: common stock, preferred stock and convertible debt.

2.4.4.1 Common Stock

Common stock is what is typically owned by the founders. It is simplest, when selling stock to new investors to sell them an equivalent class of stock, i.e. common, giving them the same proportional voting rights as the founder. In the event of a liquidation or sale of the company, the assets or received value is split among the owners pro-rata to their percentage ownership of the common stock.

Giving common stock to new employees can have adverse tax consequences for the employee. The cash value of the stock would be calculated by the IRS and the income to the employee is taxable. Thus, companies typically use stock options as a method to distribute ownership to employees without adverse tax consequences.

2.4.4.2 Preferred Stock

Often, professional investors are unwilling to make risky investments without some quid-pro-quo of preference for that risk. Typically, this is handled by selling them Preferred shares, a new class of stock. In most cases, the terms are such that in the event that the company achieves a public listing of their stock, then the preferred shares are converted to common shares on a one-for-one basis. It is the “other special preferences” that are often seen as odious to the founder. These typically include: liquidation preference, board representation and piggy back rights. Keep in mind that all terms are negotiable and your leverage in great part depends upon how compelling your business opportunity is. For the most part, for conventional professional venture investment firms, they are less likely to bend significantly and would rather pass on a deal. It is also true that firms from different parts of the country are more or less rigid in their dealings with west coast firms currently being a bit less rigid.

When you create a second class of stock, you must keep in mind that certain events, like liquidation require agreement independently by a majority of the shares of each class. Thus, you may still hold a majority of the total shares, but not really control certain aspects of the company.

Most typically, venture investors will require that they hold one or more board positions, but more importantly, that they control certain board committees such as the compensation committee which will determine the compensation plans for management including salary, bonus and stock options.

Over the years, liquidation preference has become more and more odious to the founder. Typically, liquidation preference implies that in the event of liquidation, the first use of received funds is to pay back the invested value of the preferred stock. Then, once paid, the remaining funds are split pro-rata to the percentage ownership as if the preferred were converted to common shares on a one-for-one basis. Recently, investors have been asking for a multiple applied to the preference. For example, with a 2 X multiple, the first use of received funds would be to pay twice the initial investment back to the preferred owner prior to a pro-rata distribution.

Piggy back rights provide the existing owners with the right to maintain their percentage ownership by participating in new financing rounds at the then-current terms.

2.4.4.3 Convertible Debt

Convertible instruments typically start out as a loan and then convert to some number of pre-negotiated shares usually based upon the unilateral decision of the investor.

It is, of course, possible to create any deal that one can imagine with convoluted conversion formulae which are based upon performance.

2.4.4.4 Stock Options

Stock options are contracts that promise the exchange of stock (usually common) for cash at some future date under the unilateral election by the buyer if they have met the terms of the contract. Typically, the contract requires employment and the terms are to vest a percentage of the ability to purchase over some employment period. The cost of the stock (per share) is stated in the agreement and is typically set by the board to the current value which is nil in the case of most start-ups. From a tax perspective, there is no tax impact of receiving the option (if it is qualified) at the time of the contract. After the option is exercised and stock is purchased, and sold, then, and only then, is a taxable event. Holders of options have no stock privileges such as voting rights or the right to receive corporate financial results or attend stockholders meetings. Thus, stock options can serve as an incentive to employees or other interested parties without negative tax consequences.

Intelligent investors should not be interested in the actual dollar value of a share of stock without simultaneously understanding what percentage of the company it represents since it is simple for the company to change the share value by splitting or merging shares at will. However, reality is that most amateur investors seem unable to comprehend the concept of market cap and percentage ownership and are only impressed with the number of shares and share price. As such, although it is a cynical statement, it is advisable when dealing with employees to adequately split your shares so that it appears that each employee is getting a “large” number of shares without regard to the percentage that it represents. I have always found it bizarre that in general lay-investors who invest in the stock market tend to make this same error in understanding the underlying value of corporate stock.

2.4.4.5 Alternative sources of cash

Some small companies start with an influx of cash from government grants or loans used to stimulate small business or particular fields of research. Typical amounts for initial grants can be as much as $50,000. Unfortunately, the process can be tedious and slow but it can come with very few strings if you can wait for it.

2.4.4.6 The Food-chain

Understanding the food-chain means understanding the flow of product and money that all relies upon your product. For example your: vendors, landlord, distributors, employees and your customers are all part of this network. Each of these parties has a vested interest in the success of your venture. Thus, each can be leveraged into making contributions of time, money or materials in order to benefit their own self interests in the long run. Their individual ability to contribute to your venture is to some extent a function of their ability to afford that contribution as well as their interpretation of the potential value of your success to them.

Keep in mind that if you raise money though the sale of stock, often, that money is used to pay employees or vendors. It might make more sense to consider giving the stock to the vendors or employees in lieu of payment. Then, their continued support and good will is based upon several factors including the desire to make the stock valuable.

One primary goal of financing should be to obtain your financing from parties that have a vested interest in the success of your product and your business in terms that are broader than simply a return on investment from the purchase of stock.

2.4.4.7 Channel Partners

All too often, small companies get wrapped up with other small companies who are willing to listen and spend time with each other. This is generally a real bad idea. If you have a good idea represented by an innovative product and you don't have any money, the last things you need are friends who also don't have any money. It's important that you focus on picking partners both at the level of vendors as well as customers or distributors for whom their financial resources are limitless in comparison to your own. It's kind of like: "I'll bring the product, you bring the money."

2.4.4.8 Customer Financing

The best source of financing is usually the customer that you will sell your product directly to, whether that is the end customer or a reseller. Creative terms for the sale can often provide you with the necessary cash to procure parts, pay employees and build the product that you are trying to deliver.

When selling new innovative products to large companies, especially public ones it's important to understand how they work so that you know what you can ask for. Most large companies are protective of their P&L. As such, they are wary of new expenses for development that would fall under their R&D budget since these subtract directly from profitability. So, asking a large company for funds to finish your development is an idea that most of the time won't fly. In fact, small entrepreneurial companies that are not part of a large company's P&L are a wonderful way for large companies to get R&D done without the impact on their profits. It's a match made in heaven.

Alternatively, selling stock to a large company requires the endorsement of departments that may reach up to the board of directors and clearly reach outside of the sales and/or marketing groups that have expressed interest in your product.

However, there is a solution. While most large companies are protective of their P&L, most have balance sheets with plenty of cash and a total lack of concern about where balance sheet items fall. So, for example, if you ask for a Purchase Order, even for a new, as of yet undeveloped product, along with a deposit, then, the effect on the buying company is of no concern. They simply shift some cash to you and move it from one balance sheet entry: cash, to another: vendor deposits. As well, most department managers have some discretion with respect to signing purchase orders without the need to get ratification up the organization.

The key to being able to obtain financing from your customers in the form of a deposit is to have a value proposition that is strong enough to force them to act. In many cases, this turns out to be some sort of exclusivity either for a territory or a time period that allows your customer to enjoy greater value from your invention.

I've seen many entrepreneurs who are afraid to give up exclusivity. My angle has always been to have it be earned by your customer so that they can actually expand their rights by providing you greater revenue. For example, I might offer exclusivity that increases in scope so long as my customer provided me with the revenues that I felt were appropriate for the value of my invention. Everybody wins.

2.4.4.9 Venture Capital

One of my most famous quotes is that "venture capital is the financing alternative for products with weak value propositions." After all, if there is a strong value proposition, you should be able to get your customer or food-chain partner to finance it with some quid pro quo like exclusivity for some period of time, territory or vertical market usage.

For some types of businesses, however, the only path to success is through obtaining initial capital funding. For example, medical device companies are more likely to need large amounts of capital in order to sustain operations while developing customized manufacturing facilities and while waiting for testing and approval cycles to complete. In the past, software companies would need large amounts of capital as well, in the range of $10M to $15M to sustain long development cycles. However, today, with off-shore software development at markedly lower costs and with more sophisticated tools and distribution channels, software companies can more often bootstrap with less capital, typically in the range of $2M to $3M.

Sometimes, a need to penetrate a market quickly can also drive the need for a large amount of initial capital.

It's important to keep in mind that venture capitalists are assisting your business only to make money. They don't really care about any of the other constituencies that are part of the entrepreneur's life: your customers, your employees, your community, your landlord and your spouse. Their goal is to see a 5X return in 7 to 10 years.

The concept of venture capital requires that venture firms spread their bets over many companies, in fact, too many companies for them to be involved in detail in every investment. Thus, they survive by trading deals and participating in the deals managed more closely by other firms. The net result of this is that *loyalty to other VC firms* is tantamount to their survival and you will always be second fiddle.

A typical venture fund might have $500M in capital and 10 partners. Therefore, each partner is responsible for placing $50M in investments. As a result, venture funds today are not interested in tiny deals of a few hundred thousand dollars and tend instead to focus on deals of several million dollars minimum.

There's nothing wrong with using venture funding so long as you understand the rules of engagement.

2.4.4.10 Types of Venture Firms

There are several different types of venture firms and the models are constantly changing.

Angel investors are usually individuals with private wealth who enjoy the opportunity to either support new entrepreneurs or want to take a personal involvement in their success. Some, therefore, are quite active as investors and want to help, while others simply hand over the money. Individual angel investors frequently require the least objectionable terms of engagement. Typical investments may range from $20,000 to as much as $500,000.

Recently, many angels have grouped together to form angel funds which start to become indistinguishable from smaller Venture funds. Their engagement contracts often are quite similar to venture agreements. Angel funds can typically do larger initial investments which are more similar in size to Early Stage venture funds.

Early Stage Venture funds typically focus on being the first round of investment for young startups. They are often most interested in either a proven team or a strong intellectual property position. Typical investments range from $200,000 to $500,000. The first venture round of financing is often referred to as the "A" round.

Venture firms that focus on "Growth Capital" typically invest several million dollars and do so after the initial product development has been completed and market development phases are entered. These are typically referred to as "B" and "C" rounds.

Once companies move to profitability, they are ready for either "Late Stage" or "Mezzanine" financing in anticipation of a public offering or acquisition in concert with an investment banker. The terms of these investments are typically more attractive to the startup than prior rounds in that risk has been reduced through the demonstration of earnings. The mezzanine funds typically have strong relationships with investment banking firms and can assist with introductions.

Finally, one must also consider that there may be venture arms of corporations (corporate venture) who are participants in your industry. These companies are often motivated to make investments by the potential of gathering market intelligence, getting exposure to key technology or lining up a future acquisition. However, keep in mind that corporate investment from a participant of your industry may exclude the possibility of your being able to do business with companies that are competitors of your investor. In addition, if you choose to accept capital investment from a customer, you will be required to share your company's confidential financial information with your customer, thus giving them an unfair advantage when negotiating pricing. The positive aspect of accepting corporate venture funding is that it is often less sensitive to valuation and offers credibility and potential access to customers or technologies. It is hard to mix both conventional venture funds with corporate investment.

When selecting the venture route, your goal is to build an ever expanding syndicate of stockholders at ever increasing valuations. This is referred to as having "up rounds" where each of your current venture investors participates in future rounds along with new investors at higher valuations, thus endorsing their belief in the new price. Clearly, the ability to increase the valuation relies upon your ability to demonstrate the achievement of key milestones and reducing the risk of the enterprise. The typical milestones include:

- Technical validation of the product concept,
- Customer validation of the salability of the product,
- Business model validation that demonstrates that you can make money selling the product and then finally,
- Achieving cash-flow-positive and thus give yourself the leverage of being able to sustain operations without additional capital unless it is on terms that are acceptable to the current stockholders.

Good venture funds can bring not only capital but financial experience, contacts for sales and hiring and operational experience to the management of a new company. Alternatively, a bad venture investor can bring along with the capital, the disruption of never-ending advice from someone who might be disdainful of management and may have never actually served in an operational role himself. Keep in mind that the "replacement of the CEO" is often seen as the first cure to many growth problems. Thus, carefully selecting your investors is critical to your own success. It's not just the color of their money but you must be wary of the fact that you are bringing on partners and potentially, your new boss when you accept their money.

Refer to the section on "Equity Instruments" to understand some of the typical terms used when selling stock to venture investors. Choosing the venture route will most likely lead to a capital structure where the CEO is left with 6% or less of the company when a liquidity event (a public offering or sale of the company) finally occurs. As well, it is often the case that because of preferred stock liquidation preferences that liquidity events at values less than $100M will not offer any real returns to the founders or management.

2.4.4.11 The Venture Presentation

When making a venture presentation, you must remember that the value proposition is for the stock that you are selling and not for your product. The venture capitalist or any investor, for that matter, is really only interested in how and when they will make money.

This, for example, relates to one of the very first decisions that you made, whether you are building a product or a company. A venture investor is interested in the total market opportunity and how you plan to make your company a major player in a growing market. Alternatively, VCs often may be invest in small/non-existent markets that may either have the potential to grow or may be a stepping stone to larger segments.

An initial venture capital presentation should be no longer than 10 to 12 minutes. In that small amount of time you need to "set the hook" as in fishing by creating a compelling story for which the detail and substantiation can be supplied later. The VC is looking for:

- A large market opportunity,
- A compelling value proposition,
- A competent team and
- Intellectual property that can somehow be protected to prevent competitive threats.

These components are keys to your presentation. The relative importance of the "team" versus the "product" will vary depending upon the specific venture fund.

If I were to use an analogy that your business is a movie and your business plan is the script then your venture presentation is the coming attraction – or theatrical trailer. Most students try to pack too much into their first presentation and try too hard to defend statements that would be taken for granted until proper due diligence is embarked upon.

It is not only the content of your slides that must be concise, but more importantly, the commentary that is presented by you must carry only essential information. For example the statement “my friend is a lawyer and is helping me for free with filing a provisional patent…” should be simply: “our filing of a provisional patent is in process.”

A PowerPoint presentation to a potential investor group should be no more than 15 slides and should cover each of the following points:

- Who am I – A brief introduction to you, your associates at the meeting and your company
- The Problem being solved – There is a problem out there and this is what it is
- The Product – Here’s our product and our Intellectual Property Protection
- The Value Proposition – Why this product is compelling, possibly with a brief competitive matrix
- The Market – its size and geography shows the size of the opportunity
- The Proposed Distribution Strategy – Through what channels and how
- The Team – Who is currently involved, both employees, investors, subcontractors, and why they would likely succeed – for example, prior success and experience
- The Current Status and Short Term Goals
- Pro-forma financials – One page (keep it simple) for 5 years
- Current balance sheet – How much cash and debt do you currently have
- The investment – What they should invest and what you will do with the money
- Conclusion – and how everybody finds liquidity

More detail about any one slide should be available if the investor decides to proceed with due diligence – the investigation of your company and the validation of premises stated in your presentation. Ideally, have hyperlinks that allow you to easily click on a slide to go to substantiation material quickly. The best outcome for you is to complete your presentation and to have them want more information. Then, the next best outcome is to prove that you have done a thorough job of understanding the detailed issues embodied in your business plan.

When you start to schedule venture presentations, start slowly with one or two less likely firms (maybe not focused upon your industry) and use those as an opportunity to tune your presentation based upon the questions and comments received. Be sensitive to the likelihood that there will be common issues across many firms and early feedback can quickly move you to a much tighter presentation. That's why it's also important to bring along a partner who can take notes and record questions and reactions to your presentation. Be careful not to appear to be "shopping the deal" by broadly presenting to too many VCs at once. Finally, I would tend not to use more than one presenter at the first presentation.

Keep in mind that we all are used to advanced quality in media presentations through our saturation by television and movies. Your first impression will consist of not only your clothing, style of speech but also the sophistication of your media presentation. The better you prepare each of these, the more likely you will "set that hook." There are several sophisticated programs like Microsoft "Photo Story" and "Moviemaker" that can be used in addition to "PowerPoint" to add sophistication to your presentation. I know from experience that it is much harder to convert someone from an early bad impression back into a positive frame. Alternatively, building upon a positive initial impression is far simpler. When giving the presentation, speak slowly, pausing after each slide to allow your audience to digest the information.

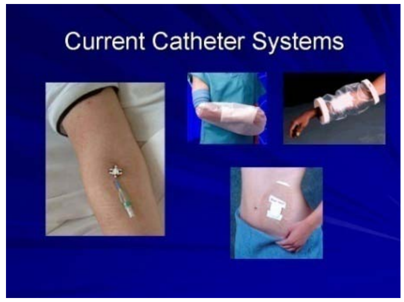
The following table represents a well structured initial venture presentation for a product that was developed in one of my classes by Seth Kudzal. The presentation example should be self explanatory. Developing this type of storyboard will help you in creating the flow for your venture presentation.

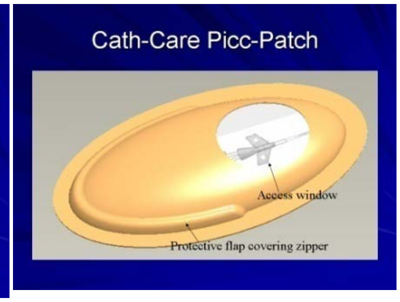
Venture Presentation Story Board

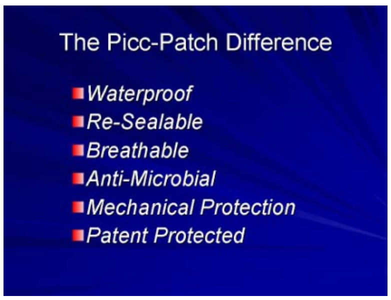
Slide	Commentary
Cath-Care	Good morning. My name is Seth Kudzal. I'm CEO of a new company called Cath-Care and I'm here with my Vice President of Marketing, Melinda Chiou.
Picture of arm with catheter along with other protection devices	Millions of people worldwide are being treated for a myriad of conditions including cancer and renal failure with catheters that are either permanently or semi-permanently attached to a major artery. These patients must live with the discomfort and inconvenience of dealing with this catheter on a day by day basis. A simple shower takes dealing with a variety of contraptions that attempt to keep the wound dry to prevent infection.
Picture of new product	Let me introduce you our first new product at Cath-Care called Picc-Patch which is the world's first re-closable, waterproof bandage for protecting and managing a catheter. A provisional patent is in process and our initial patent research indicates that we have a valuable protected position with this product. In addition, we have thus far determined that there are no regulatory compliance issues for this type of product.
The Picc-Patch Difference Waterproof Re-sealable Breathable Anti-Microbial Mechanical Protection	The Picc-Patch provides mechanical stability to the catheter to prevent pull-outs and tears while also providing a safe waterproof environment that allows the patient to easily shower. The material is Gortex which provides breath ability and there is an anti-microbial agent to prevent possible infection. The Picc- Patch is designed to be worn for up to 4 days.
Market size graph Market Growth graph	Currently, there are approximately 1 million patients in the US who could benefit from this product. Given the average time that a catheter is worn for these patients, there is a total market of 77 million bandage days per year with a compounded growth rate of 20%.
Channel Strategy Direct Marketing Free Samples Major Clinics Longer term OEM	Our initial market penetration strategy is to provide the device for free to major clinics along with documentation necessary to allow the patient to reorder directly from Cath-Care. In the longer term we believe that the catheter manufacturers offer an excellent opportunity for OEM distribution. Currently, the catheter manufacturing industry is $YYB with YY major players. Our product can serve an important role in helping one or more of these manufacturers differentiate their product.

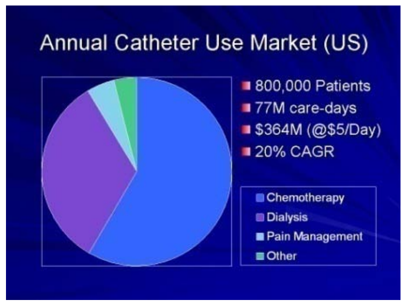
Slide	**Commentary**
Next Steps: Complete Patent Prototypes Test plan at Hospital Investigate Liability	Our short term plan involves the next critical steps: We are having prototype units built for testing while we complete our patent process. We will be looking to establish a relationship with a leading cancer care provider like Dana Farber or Sloan Kettering for product testing and endorsement. We are interviewing potential Asian manufacturers and establishing pricing. Finally we are further investigating product liability issues.
Team	Our team currently consists of XX with the following titles and experience. We are assembling a board of advisors being led by Dr. X from the Dana Farber Cancer center.
Pro-forma P&L	Here are our estimated revenue forecasts. We see the opportunity to grow this single segment to over $12M in 5 years.
Questions	Thank you. Are there any questions?

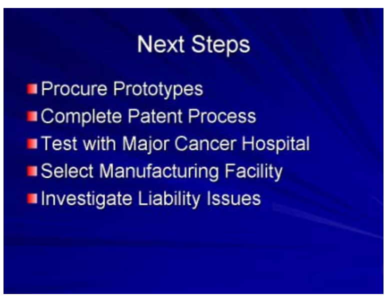
The following were the slides that were developed to this story board:

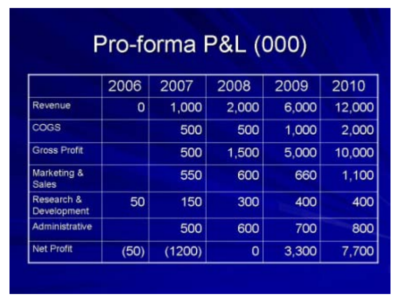












2.4.4.12 Get the Money

The problem that often occurs when raising venture capital is that the truth isn't compelling enough for the investors. So, in essence, they ask you to lie a little and set targets that are a bit more aggressive in order to justify a higher valuation and predict a better return on their investment.

2.4.4.13 Got the Money

This wouldn't be a problem if it wasn't for the good intentions of the entrepreneur. After raising the money, the typical entrepreneur sincerely tries to meet the inflated revenue expectations established during the money raising process. All too often, the growth of revenue can't be forced simply by spending more money, although it sure seems like a good idea at the time. Pretty soon, the cupboard is running bare and the entrepreneur is faced with the unfortunate dilemma of soon running out of money and having to sell more stock.

2.4.4.14 Spent the Money

You can guess what happens the second time you go to the venture community after having not made your initial goals (or lies as the case may be). Now the pound of flesh becomes an entire arm or leg and pretty soon you wind up being an employee at your own company or even worse, an ex-employee.

2.4.4.15 The Power of Positive Cash Flow

Happiness is a positive cash flow. The sooner you get off the addictive nature of spending other people's money and create an entity that is no longer a charity but rather a business, the sooner you have the leverage to decide when you will next choose to raise capital and under what terms.

I cannot emphasize strongly enough that the most important things an entrepreneur can do are:

- Get to profitability or more importantly, a positive cash flow as quickly as possible. That means that you should not spend money on things that you cannot afford.
- Once you get there, stay there. That means, you must shed expenses without haste when revenues fall.

Entrepreneurs would make their selves richer and would even gladden the hearts of their venture investors if they would take a single round of financing and hoard the cash adequately to establish a cash flow positive business and never to return to the venture funding community. Follow-on funding could be obtained at lower cost in the form of debt financing, mezzanine financing or even a public offering.

Thus, while it might be OK to be extraordinarily optimistic about sales projections to get the money, once you've got it, you must manage your business to eliminate the dependency on external capital as quickly as possible.

2.4.4.16 Mortgaging Your House

Are you out of your frigging mind? Most likely, if you're a student, you don't have a house to mortgage anyway. However, it's the principle of the thing. You're using your sweat and talent to build a company and the value of your innovation should be strong enough to get others to finance your dream. If not, find another product where the value proposition is stronger, and return to the concept of having one of your "food-chain" partners finance your venture.

2.5 Leadership Skills

Since most of the students in this course are future CEOs, I thought that I should close with a short note about what your job really entails.

The most important skill of a CEO is communication. The primary job of the CEO is to create a consensus of people who are contributing their efforts, money and time towards a common goal. As the company grows, the circle of "believers" gets larger and larger and the CEO is at the center of the circle. Never flinch. Never show doubt about your conviction that this will succeed and has already succeeded. It's essentially a cheer leader without the pompoms. My list of the qualities of a leader is as follows:

Quality	Interpretation
Integrity	You must maintain an absolute of honesty and integrity in all of your business dealings under all conditions. No exceptions.
Fairness	You must treat your customers, vendors and employees with a fair and balanced approach to the relationship.
Industry	You must lead by example. Be the first to arrive in the morning and the last to leave in the evening.

Decisiveness	As others look to you to make difficult decisions, make them, and more importantly, be willing to change your mind later when compelling evidence demonstrates the past error of your ways. Don't worry endlessly about whether it's right or wrong. After careful consideration, and counsel from your team, make your mind up. You're the boss; you can change your mind later when new information makes the decision clearer.
Communication	Carefully and thoroughly communicate your ideas to your employees, your customers and your vendors. If they don't understand, it's your problem, not theirs.
Rationality	Attempt to make all decisions on the basis of fact and rationality that can be explained and justified to others.
Bravery	Take chances when they seem to you to be prudent. Don't wait for all of the evidence to be visible and thus the opportunities to become stale.
Confidence	Demonstrate to others your conviction in your team's ability to succeed and the value of your product.
Vision	Maintain a vision of where you are carrying your company and coworkers.

I can assure you that there is a considerable amount of fun in building a company. In fact, it's more fun than spending the potential money that you make. Make sure that you take the time to enjoy the process.

2.5.1 Building Your Team

Next, you must surround yourself with people who understand their jobs better than you do. Otherwise, you really don't need them. I would suggest that you wait as long as possible to hire employees. The fixed burn rate associated with building an employee pool is difficult and expensive to shed and should not be taken lightly.

Here are some general guidelines for building a team:

- When you do believe it is time to recruit a position, start by writing a "job specification" that would describe the perfect candidate. Then make sure that you have at least three qualified candidates before you make your selection and finally, check references carefully. It's really hard during an interview to gather a real appreciation of how well a person will meet your needs. I often prefer talking to references who I obtain indirectly from the references given by the applicant. Ideally, it is preferable to hire with some sort of trial period, typically 3 months, after which an evaluation is done and both parties consider whether to move forward.
- If there is any lapse of integrity or honesty on the part of the candidate, do not hire them under any circumstances.
- Always consider the first 90 days of employment as probationary and if you figure out that you made a mistake deal with it and move on.
- Shed unneeded personnel expenses as soon as there is a downturn in your business. Do not wait until you burn through your cash reserve. You can always hire back people later.
- Do not hire relatives, friends or friends of relatives or anyone else for whom discipline would be difficult to accomplish because of personal relationships.
- Always hire too late and shed costs, when there is a downturn in your business, too early. In other words: protect your cash flow first.

Partnerships are a special form of team. In my case I had the good fortune to have three marvelous partners for my second company. The key factor was trust between us. Part of that was their trust in me to be CEO and make the CEO's decisions. A partnership is just like a marriage. You must continue to build and reinforce the trust and value of your partners. You must guard against petty squabbles coming between you. You must trust your partners and they must trust you without reservation. Needless to say, you and they must never violate that trust. My rule is fairly simple: I start pretty much by expecting the best out of people. If they disappoint me due to a lack of skill, it's my duty to help them. If they disappoint me due to a lack of integrity, then it's my duty to end the relationship immediately and not return.

This also applies to your customers and vendors. I have tended in my career to not depend upon lots of legal documents for protection. Rather I've counted on the basic integrity of those I did business with.

It is extraordinarily important that once you learn that a person cannot be trusted that you sever all ties regardless of whether you believe you can outsmart them next time. The words to Cleopatra were: "what did you expect? If you play with snakes you're going to get bit."

2.5.2 Managing Your Employees

When managing your team, you must establish clear ownership and authority for your employees. To do this, you want to create a "contract" with each employee which states what their objectives are with milestones for measurement. Then, at a meeting where you have the opportunity to review their performance to the milestone, you need to create an understanding of whether the time between milestones should be shortened so that they have more guidance during the process. In the best of all cases, you would like to create compensation plans with every employee that is tied to individual performance as well as team performance.

As CEO, I would suggest that you should institute a weekly staff meeting with the heads of each of your departments. At that meeting, you should ask each department head to report on the last week's progress and the next week's objectives. As well, your staff meeting becomes the forum though which interdepartmental issues can be raised and rectified.

Never discipline an employee in public. Allow your employees to learn from their mistakes and grow with the company. Treat your employees with respect and courtesy and expect no less in return.

Common mistakes in management include micro-managing employees and not letting them take ownership for the processes that they are responsible. In general, you should try to limit the number of direct reports to no more than eight.

Keep in mind that every failed employee is a failure as well by their manager. At worst, the selection process needs to be fixed. At best, the failure can lead to modifications in the creation of milestones and objectives that more carefully guides the employee to success.

I strongly urge you to "manage by walking around" so that you are constantly aware on an intuitive level of the workings of your organization on a personal level. As CEO you **must** constantly be visiting customers and employees so that you are constantly aware of where there are problems and opportunities. However, it is also important that you limit your "drive-by-shootings." Keep in mind that anything that you say can influence an employee or your organization in ways that you did not intend because of the weight of your office.

Therefore, you must be extraordinarily careful not to inadvertently change the direction of an employee who is not your direct report.

When managing employees I have had a simple rule: I will accept good news or bad news but never a surprise where the employee knew beforehand but failed to tell me. In general, my process of management works as follows. First, I encourage the employee to establish a goal which, for example, must be met by this coming Friday. Next, I wait for Friday and see what has happened. If the employee met the goal, then I understand that the employee is pretty good at both self management and estimation. I tend therefore to extend the time period until the next goal, thus requiring less management on my part.

Alternatively, if the goal was not met by Friday, then the indication is that this employee is not good at either self regulation or estimation and I shorten the period to the next agreed to goal. Even if the goals shorten to a half day at a time, I continue shortening them until the employee learns to estimate and self regulate. Then, once they are successful at estimating and meeting a goal, I start to extend the time period.

The only unacceptable alternative is that the employee knew that they weren't going to meet the goal, for example, by Wednesday, and failed to let me know. It's impossible for me to do my job if I am operating in a vacuum. Thus, it is essential that an employee never surprise me with information that they had which changed an agreement that we had established before.

2.5.3 Stock Options

A common question is whether and how to use stock to entice employees. First, it depends upon your sense of need to spread ownership of the company to your employee base as a method of obtaining commitment and potentially spreading the benefit of success. More importantly it relates to the need to use stock as a further incentive to bring the desired talent in to a small and somewhat risky operation.

Most typically, stock is used to motivate and attract members of management. The distribution of stock to all employees is completely up to you.

The actual method involves the use of an option agreement (drawn up by your counsel) that sells the stock to the employee at some discounted value upon exercise of the option. Typically the total number of shares that can be purchased is vested (earned) through continuous service to the company. For example, you offer 1000 shares with a linear vesting period of four years pro-rata to the month. Thus after 1 year, 250 shares would be "earned" and could be purchased. Most often, the exercise of the option is left open until either the company is sold, the stock goes public or some fixed time (usually a few months) after the employee terminates their employment.

Keep in mind that options have no voting rights. Only after the stock is purchased does it obtain the privileges of ownership.

The concept of an option was invented to postpone the tax effects to the employee of the purchase until later on when the stock is actually purchased by the employee.

2.5.4 Self Deception

I plead Guilty your honor. This is extraordinarily common amongst entrepreneurs. There's bad news, a problem, a risk, but I just don't want to deal with it right now. So often, I've been in meetings where a small voice has warned me about a problem and I've chosen to ignore it. What can I say? Don't do it. Here is a list of common self-deceptions:

2.5.4.1 It will only be a short downturn

Probably the most dangerous form of self deception deals with recognizing downturns in your business whether they are related to the economy, industry, market, or just you. Your failure to act quickly and adjust your spending rate to meet your real income level will jeopardize your survival. It is hard to fire people, especially when it is through no fault of theirs. However, I cannot emphasize strongly enough, operating at a positive cash flow is essential and maintaining that above all else should be a rule that you live by.

Two of my former student, Brian Hayden and Duncan Miller started a company called Heatspring that provides educational services in the geothermal heating and air conditioning and solar markets. They're growth was excellent over their first year of operation as they built to over a million in revenue and expanded to offer courses throughout the US.

During one of our many meetings, they asked me what might be a prudent amount of cash to build their reserves to and I responded that anywhere from three to six months of operation cash would be nice.

Within several months, they proudly reported that they had succeeded in building the desired cash reserves and even still had enough extra cash to offer bonuses to their employees. The company was still tiny by any measurement with only four full time employees and a number of consulting vendors.

Their analysis of their results after the two years of operations demonstrated continuing growth in what appeared an almost linear fashion. Their confidence grew that they could add staff and double their sales during their third year of operation.

I can recall during one of our conversations warning them that it appeared to me that the economic downturn was going to be deeper than anyone might imagine and to watch out.

Six months later, they had added staff, but the upturn in their business did not materialize and they had burned through the reserves that they had built. The next step was simply their need to survive as they cut staff back to the original four.

There were several lessons that could be learned. First, the reason that one builds a reserve of operating cash is not so that you can extend your lifetime by three to six months, but rather that one believes that it might take that long and that much cash if you react immediately to protect your company. For example, the payment of severance requires cash. Changing strategy requires cash.

The time to act is not after your reserves drop to zero, but literally as soon as the drop below the desired high watermark.

Second, in retrospect it would seem obvious that the worst economic downturn since the great depression might influence one's own business and that you shouldn't take it personally as a sign of weakness or ineptitude. But, even in this case, I know that Brian and Duncan have a difficult time accepting the realities of their dilemma without guilt.

In the end, the inevitable happened. They were forced to shed the expenses and people to whom they promised employment. Their paternalistic tendencies led them to believe that they were responsible for the fates of their employees and the company. Unfortunately, neither is necessarily true or possible.

The key lesson is that one must have the humility to understand that you're not in complete control. As I discussed during in the prior chapter on the random influences on small companies, the principal reality of a small company is that it is tossed violently by its environment; sometimes towards opportunities, and sometimes towards problems. The entrepreneur must accept his or her reality and simply deal with it.

In general, I've always advised small companies that they should "hire late and fire early." By this I mean that they should avoid increasing their expenses as long as possible and cut them quickly when they perceive the earliest indication of a downturn.

In general, it's far easier to add expenses and people than one thinks. But, alternatively, if you die, your dead and resurrection isn't known to work frequently.

One implication of this is that you will experience fear that a competitor will overtake you if the market grows faster than you can serve. In my thirty six years of experience I frankly have not seen this that often. In some cases, for example, in direct television marketing it is somewhat more common for competitors to be hiding in the bushes waiting for the first indication of a successful campaign so that they can knock off the product and enter the fray, but this is the exception, not the rule. And, in general, a cautious entrance into a market along with controlled growth is advisable for small companies given their fragility.

In Brian and Duncan's case, they must continue to look for alternative business models that offer growth, make sure that they return to cash flow neutrality (or growth) as soon as possible and have the patience to ride out the economic storm that they are floating in. From a distance, the absurdity of taking the current downturn personally seems obvious, but when you're on the front lines, it still hurts.

2.5.4.2 He will never figure out that he's making an error

Another popular form of self deception is to underestimate the intelligence of your customer. I have frequently seen entrepreneurs gleefully hoping to sign deals that just didn't make rational sense for their customer. In the end, their customer eventually figured it out and killed the deal, even if it was after signing it. I urge you to attempt to build business relationships on rational basis where you would gladly take either side of the deal. You've all heard the phrase win-win. I hate the phrase, but it's true.

This is especially true when building OEM relationships. One of the keys to this logic is that "you can't win in court" when you have disproportionately smaller resources than your enemy. Thus, you need to avoid confrontations at all costs. In fact, I believe and have frequently suggested to small companies that they walk away from litigation battles and focus instead on finding new and better business models.

2.5.4.3 Two weeks

When you ask an engineer when something will be done, there are only 3 possible answers: it's impossible, two weeks, or it's finished. It seems that two weeks seems like just long enough to finish virtually anything, but it hardly ever is. When you get the Two Week answer, help by breaking down the task into smaller pieces which can be estimated individually. Don't allow any part of the plan to take more than one week to reach a discrete and understandable milestone.

2.5.5 Focus

The nemesis of small companies is lack of focus. There always seems to be too much to do and too many opportunities to chase. The critical discipline that must be encouraged in a small team is to create a list of items that need to be done, and then to prioritize them and start at the top. The tendency is to do the one that is the easiest. The net result being that you feel like you accomplished something, but the critical actions get left undone.

For example, you know that you need to create a marketing plan, create literature and vacuum the carpets. Twenty minutes later, you're carpets are clean and you feel like you've really accomplished something. You've got to learn to leave the carpets for later and focus on the marketing plan until it's done.

The hardest part is: knowing when to give up. Focus and persistence are absolutely necessary in order to succeed. However, sometimes, more than I'd like to admit, we wind up following a defective muse and it then becomes the time to "cut bait."

2.5.6 Leverage

Key to successful business negotiation is to understand leverage. Often the details of how and why two parties are engaging in a business deal are not what they seem to be on the surface. Your ability to successfully negotiate on behalf of your company depends upon understanding both what leverage you have and also what leverage the other side has. It's pointless and often a waste of effort to attempt to get more than you can rightfully expect, it's irresponsible to not take what you are entitled to.

As an example, previously mentioned, at my second company, Leaf Systems, we introduced an innovation for newspaper photographers in the late 1980s. During this time there were considerable competitive pressures between the Associated Press (AP) and UPI, competing wire services. As well, newspapers at that time had lots of profit and 1988 was going to be a big news year in that there were two presidential conventions and campaigns and the Seoul Olympics.

Leaf's innovation was not only viewed by our OEM customer, the AP as a method to make money through resale, nor was it only a method to enhance the productivity of their own photographers, more importantly it was seen as a statement in comparison to UPI about AP's leadership in technology to their customer base. As such, Leaf had extraordinary leverage in its ability to negotiate payment terms (30 days before delivery), and prices (70% Gross Margin) given that the AP's motivations were not heavily weighted to these issues.

Developing a clear understanding of your customer, the industry, competitive pressures, market changes and other attributes of your environment are essential to understanding what leverage you have to make a deal that is particularly favorable for you and your company.

2.6 Conclusion on Entrepreneurship

Starting and running your own business can be extraordinarily rewarding. It can provide you with lifelong friendships and an opportunity to travel the world. Most of all it is simply fun. If you persevere and if you're lucky, maybe you'll make your fortune. But, don't worry about it. It's the making of the money that is where the fun is, not in the spending of it. And, while I'm sure that Bill Gates made more money than I did, I'm not sure that he had any more fun building his company.

"Beter ryk leven dan ryk skerven.[19]"

[19] *Dutch Proverb - "Better a rich life than a rich death"*