

**Entrepreneurship: Creating something new and of enduring value with very limited resources**

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Entrepreneurship is about creating a successful new business with resources that you already have. Successful entrepreneurs, through their imagination, energy, talent, knowledge, contacts, and activities, create new wealth in societies. They do this in two ways. By reducing or eliminating existing inefficiencies in markets and firms or by bringing new products and problem-solutions to people. When people create new businesses or firms to exploit inefficiencies or create and sell new and innovative products we call them entrepreneurs and their activities entrepreneurial.<sup>1</sup>

Inefficiencies arise (1) when it is difficult to remove poorly used resources from where they are currently employed and reapply them in ways that are more useful, and (2) when different people have different information, conjectures, or ideas about the future prospects of resources, products, customer needs and preferences, the value chains of industries, and the broad social, economic, political and technological trends. These inefficiencies offer enterprising people a rich pool of opportunities for the creation of a successful new business. Practically every industry has pockets of such inefficiencies, although the scale and scope of such inefficiencies are likely to be much higher in newer industries, where the technologies or customer tastes and habits have had less time to form and mature, than in older ones.

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<sup>1</sup> Entrepreneurship can occur within existing firms or individuals can create new firms to pursue their business ideas.

Opportunities to create new products arise because of limits to our current knowledge and also because we humans are creative and are constantly looking at the world around us in new ways. An example of limits to our knowledge is the limitations in technology to satisfy certain known but unfulfilled market needs. We know that the curse of cancer exists, and the market for a cure is both huge and worthwhile, but we have limited knowledge and means with which to develop a cure to solve the problem. This known inefficiency is obviously a target for aspiring entrepreneurs (in universities, new bio-technology firms, and the large pharmaceutical companies). Every industry faces such technological frontiers – in design, manufacturing, distribution, sales, marketing, logistics, quality, etc. - and is a source of both *known* and sometimes *unanticipated* opportunities.

It is from these major sources, namely *stickiness* of resources, information *asymmetries*, *limited* knowledge, and *creativity* that new wealth is often created, for the enterprising entrepreneur and for society. Many of the great success stories of our times are ones in which ordinary individuals overcame significant odds to create something new and exciting just with commonly available resources. Think of companies like Apple, Netscape, Wal-Mart, and CISCO, to name a few. How did successful entrepreneurs create something from little? What can we learn from them? Is it possible to reduce their experiences to a set of principles that we can use? Let us now turn to these questions.

### **Entrepreneurial Creation**

*Entrepreneurial creation is the process of carving out a specific new business idea from the raw material of broad social, economic, technological and political trends with the help of our commonly held resources, namely, talent, imagination, energy, education, time, and contacts.*

### **Entrepreneurial Leader**

*An entrepreneurial leader is one who “imagines” a future business possibility within a framework of macro forces and trends, acts to bring the future into existence with a sense of urgency, unconstrained by the limited set of means at his or her disposal, with commitment and flexibility during the creation process, in order to profit from the journey.*

### **What is an Entrepreneurial Opportunity and where does it come from?**

The first principle of entrepreneurship is that opportunities are rarely found; they have to be created and earned.

**Principle 1: Entrepreneurial opportunities are rarely found; they have to be created and earned.**

We have all heard the apocryphal story of the economics professor walking down the street with his student when the student exclaims, “Look professor, a hundred dollar bill,” and have a good laugh when the professor says, “Don’t bother picking it up, John, – it must be a fake, for it was real someone would have picked it up by now.”

The economics textbook notion that it is impossible to anticipate and profit from “easily discovered money” appears to run counter to the many examples we find around us. We think of giant corporations, such as Microsoft and Cisco, built from modest beginnings, with many lucky breaks along the way. We also think of the many successful restaurants, retail stores and manufacturing companies that were built and run by ordinary individuals, some less talented than us. While we certainly appreciate their

hard work and sacrifice, we realize that given the right breaks and circumstances, we could be in their positions.

In one sense, the professor in our story above is indeed correct. Really, how many of us have found hundred dollar bills lying around – even once? How many people do we know who have found hundred dollar bills – once, twice, thrice? Opportunities rarely lie around – they have to be created and earned through imagination, hard work, and certainly, a little bit of good luck. What we loosely call entrepreneurial opportunities are really broad macro forces, such as social trends, demographic shifts, technological breakthroughs and inventions, and political revolutions from which we as individuals have to carve out a specific piece that eventually becomes an opportunity for creating something new.

Entrepreneurial opportunities rarely come in pre-packaged forms (like our hundred dollar bill lying around). They usually have to be created from trends and forces much larger than the ones we directly control. To understand entrepreneurship then, we have to understand the raw materials of entrepreneurial opportunities (the macro forces), how entrepreneurs imagine and crystallize specific new business ideas, the way in which the imagined future is created by embodying human aspirations in concrete products and markets, and the actions and forces that dictate which futures are worthwhile and which are not.

A major source of entrepreneurial opportunities is the emergence of significant changes in social, political, demographic, and economic forces that are largely outside the control of individuals. Economists call these kinds of macro forces *exogenous* changes because they often occur outside the boundaries of the business environment and

are rarely influenced by them. On the contrary, these changes have a profound impact on the business world. Of course, sometimes social and political changes are a result of business practices or cultures (such as globalization),<sup>2</sup> but in most cases, individual firms can rarely influence such forces.

These large-scale macro forces give rise to fundamental changes in how we live, where we live, and what we prefer, thus providing numerous opportunities for entrepreneurs to create and market new products and services. Indeed, these changes also provide opportunities to renew and reinvent existing products and services. When existing firms cannot or will not adapt to these changes, opportunities are created for entrepreneurs in new firms. Demographic changes alter the size, average age, structure, composition, employment, educational status, income, and health of the population.

Social, political and economic changes have the effect of altering the mind-sets and preferences of people. Feminism, environmentalism, globalism, health and fitness, urbanization, suburbanization, democratization, affluence, poverty, decreasing crime, and a variety of other social, economic and political movements have fundamentally changed the attitudes of people about what is important and urgent in life. Whether facts do indeed change or not, their meaning and implications do change for us. Sometimes successful products themselves have the effect of ushering in profound changes –some claim that the birth control pill ushered in feminism and all the changes associated with this movement in society. While in the rare instance we have the offerings of an entrepreneur unleashing a profound social or political change,<sup>3</sup> more often than not, social and political

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<sup>2</sup> For some compelling arguments of how business practices can influence political and social realities see Benjamin Barber's (1995) *Jihad vs. McWorld*.

<sup>3</sup> Indeed, of all the forces that give rise to change, including wars, epidemics, and revolutions, the economist, Josef Schumpeter isolated the unfailing power of innovation in goods and services to bring

changes serve as the necessary ingredients from which lucrative business ideas can be hatched.

Because of these demographic, social, political and economic changes, new needs emerge, or can be induced, in a wide variety of areas, including health, education, entertainment, financial security, housing, travel, etc. These changes also alter the relative size of segments and markets for existing products and services as once dominant or popular brands and products go out of fashion while others emerge to take their place. Thus, demographic, social, political and economic changes provide the aspiring entrepreneur with the ideal conditions for creating solutions to new, and sometimes even old, problems.

A second source of opportunity is inventions and discoveries that produce new knowledge. Technological developments and breakthroughs in university laboratories and other research institutions, corporate or otherwise, offer excellent prospects for commercial opportunities. Of course, we need not interpret technology narrowly in just scientific terms. The latest developments in science, arts, crafts, and music all present conditions for fashioning entrepreneurial opportunities. These developments may occur in scientific labs as much as in craft shops, garages, studios, and basements.

Almost all technological breakthroughs first begin as scientific or artistic discoveries or inventions. To be useful to society these discoveries and inventions have to be converted to products and processes of everyday use. It is when knowledge is

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about changes in social and political landscape. And the agent of this innovation, he argued, is the entrepreneur. The “fundamental impulse that sets and keeps” in motion such systemic change “comes from the new consumer goods, the new methods of production or transportation, the new markets, and the new forms of industrial organization” (1976). “The history of business is littered with such entrepreneurially introduced innovations. Each succeeding innovation has altered the economic, political and social landscape” (Venkataraman, 2002).

embodied in products of everyday use that the intellectual property of the artist, scientist or the lab becomes a tradable item, and can be produced and exchanged for profit. Whenever and wherever artistic and scientific breakthroughs occur, conditions are created for converting the new knowledge into products and processes either to solve existing problems or to create new needs and markets for these needs. One only needs to think of the recent developments in genetic and computing technologies to appreciate the possibilities of converting the science of these technologies to products and services to satisfy the everyday needs of people. This process of converting artistic and scientific knowledge into products and processes that satisfy specific needs and problems is another major source of entrepreneurial opportunity.

A third source of entrepreneurial opportunities is the inefficiencies embedded in a society's existing economic structure. Inefficiencies often manifest themselves in the form of incongruities. An incongruity is a "discrepancy, a dissonance, between what *is* and what *ought* to be."<sup>4</sup> Incongruities exist when there are contradictions within the economic realities of an industry (for example high growth accompanied by low profitability); when the reality of an industry clashes with the assumptions about it (when the things people within the industry "know" and "think" about themselves are different from the things people outside "know" and "think" about them); when there is a gap between perceived and actual customer needs and expectations, and when there is a gulf between the pace of change in the business processes within an industry and the world around it. Whenever and wherever these incongruities are large, we are faced

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<sup>4</sup> See Drucker, 1985.

with forces to carve out profitable new entrepreneurial opportunities. Thus, *incongruities* present conditions that are favorable for the creation of something new.

### **Individuals and Macro Forces and Trends: The Nexus of Opportunity and the Individual**

It is one thing to observe and appreciate the unfolding forces and trends, but an entirely different matter to be able to fashion an opportunity out of these trends and forces. How does one fashion a specific opportunity from such macro forces and trends? Norbert Wiener, an eminent scientist, commented that at the beginning stages of a new idea, the effectiveness of the individual is enormous: “Before any new idea can arise in theory and practice, some person or persons must have introduced it in their own minds... The absence of original mind, even though it might not have excluded a certain element of progress in the distant future, may well delay it for fifty years or a century.”<sup>5</sup>

The Oxford English Dictionary defines opportunity as “a time, juncture, or condition of things favorable to an end or purpose, or admitting of something being done or effected.” Thus, at the minimum, an opportunity involves an end or purpose, and things favorable to the achievement of it. Therefore, for something to be an opportunity there must be an “original mind” as Weiner put it. Further, in the case of an entrepreneurial opportunity, the “things favorable” consist of two categories: (a) beliefs about the future; and (b) actions based on those beliefs. Thus, “before there are products and firms, there is human imagination; and before there are markets, there are human aspirations.”<sup>6</sup> To form beliefs and to act upon them requires information and a predilection to act on this information.

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<sup>5</sup> Wiener, 1993: 7.

<sup>6</sup> See Venkataraman and Sarasvathy, 2001, page 652.

Where is the inspiration and information that allows one to endow and enrich the abstract and impersonal forces and trends with specific meaning so that the individual is able to imagine a product, a market, and the means to bring them together? It is partly within us and partly outside. The Austrian economist Friedrich von Hayek postulated the concept of dispersed knowledge where no two individuals share the same knowledge or information about the environment. We can distinguish between two types of knowledge: first, the body of scientific knowledge, which is stable and can be best known by suitably chosen experts in their respective fields; second, the dispersed information of particular time and place, whose importance only the individual possessing it can judge.<sup>7</sup> This dispersion has an extremely important implication as far as entrepreneurial opportunities are concerned. Dispersed information is a basic explanation for how an enterprising individual and the unfolding forces and trends combine to crystallize an opportunity to create and exploit new products in existing or new markets.

The key is that this information is diffused in the economy and is not a “given” or at everyone’s disposal. Thus, only a few people know about a particular scarcity, or a new invention, or a particular resource lying fallow. This knowledge is typically idiosyncratic *because it is acquired through each individual’s own circumstances including occupation, on-the-job routines, social relationships, and daily life.* It is this specific information, obtained in a particular “information corridor,” that leads to some profit making “insight.”

Each and every one of us experiences the grand and impersonal forces and trends both differentially and through our everyday activities and experiences. It is

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<sup>7</sup> Hayek, 1945. See also Shane, 2000.

useful to separate two main categories of information sources: primary sources of experience and information and secondary sources. Primary sources are those that exist within us: experiences, knowledge and information that are personal. Secondary sources are experiences of other people and institutions, and often involve deliberate search among sources outside of our own self and experience. Figure 1 indicates a brief list of such primary and secondary sources from which we can make sense of macro forces and trends to carve out a specific entrepreneurial opportunity.

We look within ourselves and use our painful and pleasurable experiences for inspiration. On the other hand, it may be our areas of competence or expertise that are the source of inspiration. Perhaps it is the experience of those near and dear to us – the ones that sociologists call “strong ties” - who are the source of inspiration about specific opportunities. Such crystallization of opportunities may occur serendipitously or through deliberate search. Sometimes the unexpected outcome of a deliberate search creates new possibilities. The search for a cure for cancer may well yield some unexpected new solution to an old problem, or even a new idea for which no known need or market exists and for which we may have to create a new market. Some of the best known names are actually products of such serendipitous creation, including “Post it” Notes, developed by 3M, and Nylon from DuPont, where the scientists set out to solve one problem but came up with an unrelated new product. The biggest success story of our time, namely Microsoft, got its break during one such failed search by IBM for an operating system to run their proposed IBM PC. Correspondingly, the necessary inspiration for ideas may come from the information and experiences of other people or

organizations. These encounters have the potential to provide us with specific information that contains the seeds of a new opportunity.

In summary, in the words of Professor Saras Sarasvathy, “entrepreneurship is a function of individuality: who you are, what you know, and who you know.”<sup>8</sup> We cannot imagine how certain firms could have come to be aside from the particularity of certain individuals: Disney without Walt Disney, Ford without Henry Ford, General Electric without Thomas Edison, Wal-Mart without Sam Walton. The bottom line is that when we use our individuality and our idiosyncratic means to make specific sense of a changing world of ideas, issues, needs, and preferences around us, and then act upon it to imagine a product-market combination, we are indeed in the presence of an entrepreneurial opportunity. We can say that we have discovered it or created it, but the fact is, it exists and it exists very much because of our individuality.

Sometimes the discovery or creation is serendipitous; sometimes it comes without much effort or search. At other times, we may have to expend much creative and physical energy to crystallize it. Some of us may be able to detect it through sheer imagination and analysis, while for others it may come only through the very act of creating a new business.

We have spoken until now about how an individual might arrive at an opportunity. It is one thing to arrive at an entrepreneurial opportunity, but an entirely different matter to act on this opportunity and ride it through to execution and profitability. Let us now turn our attention to the predilection to act on an entrepreneurial opportunity.

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<sup>8</sup> Sarasvathy, 2001.

## **Problems in Pursuing an Opportunity with Limited Resources**

Entrepreneurial opportunities present us with possibilities for both a gain and a loss. By definition, entrepreneurship requires making investments (time, effort, and money) today without knowing what the distribution of the returns will be tomorrow. Economist Frank Knight pointed out an important quality about entrepreneurial opportunities, namely that there is a fundamental uncertainty about them. He observed that one cannot collect more information or perform more analysis in order to reduce uncertainty. Rather, only the collective actions of competing entrepreneurs, resource suppliers, and customers can reduce uncertainties. There is no meaningful way in which to predict the future prospects of an entrepreneurial opportunity and then act on it. Knight pointed out this important distinction between uncertainty (outcomes that cannot be imagined and are unknowable) and risk (both outcomes and their probabilities can be subjectively assigned). While one can insure against or diversify away risk, one cannot insure against or diversify away an uncertainty.

Bringing new products and markets into existence usually involves an element of downside (partly influenced by risk and partly by uncertainty). Indeed, risk and uncertainty provide the opportunity for profit in the first place. This opportunity for profit attracts many people towards entrepreneurship. Individuals vary in their perception of downside risks, profit opportunities, and in their aptitudes and capacities to deal with and manage them. From past research we know that people have systematic biases and heuristics for dealing with risk and uncertainty. Two biases are relevant for us. These are a *bias towards analysis* and a *bias towards action*.

Sometimes people focus on the risk and uncertainty involved in an entrepreneurial opportunity. Fear of realizing the downside often prevents individuals from acting on such opportunities. Instead, individuals have a great need to search for information in an attempt to reduce the risk and clear the uncertainties. The natural reaction is to analyze the information in order to improve one's chance of success. While such analysis can certainly improve one's chance of success, too much information gathering and analysis can lead to paralysis. More information often has the effect of raising even more questions and doubts about the entrepreneurial opportunity. Recall that such opportunities involve uncertainties that cannot be reduced by more information gathering or analysis. The only way to deal with such uncertainties is to act on them. Thus, we have a conundrum. While more information gathering and analysis may certainly improve our chances of success, analysis begets more analysis and the individual may never act on the opportunity. This leads to our second principle of entrepreneurship. A fear of realizing the downside increases the bias for analysis. A bias for analysis decreases the probability of acting on an entrepreneurial opportunity, even while it improves the odds of success, if you act.

**Principle 2: A fear of realizing the downside of creating a new business biases one towards analysis. A bias for analysis significantly decreases the probability of business entry, but increases the probability of success.**

Sometimes people focus on the profit potential of an entrepreneurial opportunity. Fear of missing the upside propels individuals to act and act quickly on an entrepreneurial opportunity. In a desire to be first to market or preempt potential competitors, individuals may enter a market with poorly thought-out strategies, faulty

products, ill-conceived ideas, and insufficient resources. While the opportunity may be an attractive one, the urgency to act creates many loose ends and increases the number of things that can go wrong with the new venture. While a certain amount of reflection, analysis and planning might allow the individual to improve the quality of execution, the fear of losing the upside to real or imagined competitors, biases the entrepreneur towards action. Again, we have a conundrum. While the urgency to act certainly increases the probability of entering a market with a new product or service, the same urgency increases the probability of failure due to an ill-conceived idea and poor execution. This gives us the third principle of entrepreneurship. A fear of missing the upside of a good opportunity biases you towards action, which significantly increases the probability of business entry but often decreases the probability of success.

**Principle 3: A fear of missing the upside of a good opportunity biases one towards action. A bias for action significantly increases the probability of business entry, but often decreases the probability of success.**

How do successful entrepreneurs deal with the tension between a bias for analysis and a bias for action, between the fear of realizing the downside and the fear of losing the upside? Through her research on successful entrepreneurs, Professor Saras Sarasvathy found that such entrepreneurs used what she calls *the affordable loss* principle. Affordable loss is the amount of personal resources that the entrepreneurs feel psychologically comfortable committing to an idea, and, at an extreme, they follow the rule of using “zero” resources to market. The entrepreneurs that Sarasvathy studied chose strategies and methods that involved generating early revenues with minimum expenditure of resources such as time, effort, and money. Affordable loss

principle allows entrepreneurs to act without being paralyzed by the fear of the downside, because they do not stand to lose much if the venture fails. This leads us to the fourth principle of entrepreneurship: By adopting affordable loss principle, enterprising individuals are able to resolve the tension between a bias for analysis and a bias for action.

**Principle 4: By adopting affordable loss principle, enterprising individuals are able to resolve the tension between a bias for analysis and a bias for action.**

While idiosyncratic insight and the propensity to act on an idea are necessary for successful creation, these same qualities also present entrepreneurs with other problems. In a typical scenario, the enterprising individual does not own or control all the resources required to create the product, develop the market, establish the value-chain infrastructure, and eventually profit from his or her particular knowledge. Most of these resources have to come from other people and institutions. Thus, the entrepreneur has to assemble the resources and the value-chain infrastructure before potential profits can be realized. The process of creating products and markets implies that much of the information required by potential resource suppliers – for example technology, price, quantity, tastes, supplier networks, distributor networks, and strategy - is not reliably available. Relevant information will become available only when the market has been successfully created.<sup>9</sup> Potential stakeholders thus have to rely on the entrepreneur for information, but without the benefit of the entrepreneur's special "insight." In almost every project entrepreneurs have more information about the true qualities of the project and themselves than any of the other parties do.

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<sup>9</sup> See Arrow, 1974.

Because of this information asymmetry, neither buyers nor suppliers may be willing to commit the necessary investments in the specialized assets required by the entrepreneur or enter into formal contracts to develop the business. As a result, resources are difficult to assemble at the early phase of a new venture.<sup>10</sup>

Even if suppliers and other resource controllers were willing to overlook the uncertainty or were willing to make specialized investments by charging a risk premium, there remains the ever-present danger of “opportunism”<sup>11</sup> (where the entrepreneur, or the resource supplier, may willfully fail to comply with contracts and agreements). Once specialized investments have been committed, the entrepreneur can hold the other party “hostage” in order to drive bargains that are more favorable.<sup>12</sup> Of course, once an investment has been made, it is not possible to ensure that the entrepreneur’s every action (or inaction – also called the problem of *shirking*) is in the best interests of the resource suppliers.<sup>13</sup> In this situation, establishing cooperative relationships is difficult unless the entrepreneur is willing to make significant and irreversible commitments to the business in order to establish his or her credibility. This drives up sunk costs and therefore exposes the entrepreneur to a potential loss.

We thus have a vicious cycle. No product implies no customers; no customers implies no revenues; no revenues implies no cash for investment; no investment implies

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<sup>10</sup> Economists refer to this as the adverse selection problem (Akerlof, 1970). Overcoming this problem imposes extra costs for revealing credible information, writing in all kinds of contingencies in contracts, and at an extreme, driving better quality entrepreneurs and resource suppliers from the market (as in the case of newly emerging market economies such as Russia) unless some other mechanism exists to reduce such costs.

<sup>11</sup> See Williamson, 1975.

<sup>12</sup> Economists call this the hold-up problem (Williamson, 1985).

<sup>13</sup> Economists refer to this unobservability problem and the incentive to use others opportunistically as the moral hazard problem (Arrow, 1971). Overcoming the moral hazard problem also introduces significant post-contract costs, unless some other mechanism exists to reduce such costs.

no legitimacy or credibility; no legitimacy implies no resources; no resources implies no product. This brings us to the fifth principle of entrepreneurship: All creative endeavors involve a vicious cycle: no product ... no market... no revenues...no capital...no resources...no product.

**Principle 5: All creative endeavors involve a vicious cycle: no product implies no customers; no customers implies no revenue; no revenue implies no cash for investment; no investment implies no legitimacy or credibility; no legitimacy implies no resources; no resources implies no product.**

While affordable loss principle allows the entrepreneur to keep the loss exposure low, a strategy of starting with what you already have to build the business rapidly is important for breaking out of the vicious cycle. By using their human capital (talent, education, and knowledge), intellectual capital (creativity, resourcefulness, enthusiasm, and optimism), and social capital (contacts with people and their contacts), entrepreneurs are able to *leverage* the necessary resources required to break out of the vicious cycle without increasing their overall exposure to loss from a failed venture. In the entrepreneurship literature, we call the strategy of using commonly available resources to break out of the vicious cycle *bootstrapping*. Bootstrapping starts with the resources that the entrepreneur already has (rather than the idea or product) and allows the entrepreneur to build up the business gradually, customer by customer, product by product, employee by employee (i.e., pulling yourself up by your bootstraps).<sup>14</sup>

Professor Saras Sarasvathy extends the bootstrapping idea one step further by suggesting that many good entrepreneurs do not even start with a specific idea, but develop the business idea during the process of creation. She calls this a strategy of

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<sup>14</sup> See Amar Bhide, 1992 for a nice summary of the bootstrapping process.

*effectuation*. In the effectuation process, rather than starting out with a specific business idea, the entrepreneur tries to figure out what businesses can feasibly be created with the resources he or she controls. Given *means*, what *ends* can one create? Successful entrepreneurs do not necessarily cling to a specific product or company idea, but are willing to let these ideas emerge and evolve as they use the resources at their command to create a successful business enterprise. This leads us to the sixth principle of entrepreneurial creation: It is out of commonly available resources (intelligence, energy, enthusiasm, education, and contacts) that you have to break the vicious cycle.

**Principle 6: It is out of commonly available resources (one's own human capital, intellectual capital and social capital) that you have to break the vicious cycle.**

Bootstrapping involves at least three components. These are using assets parsimoniously, leveraging social assets, and employing resourcefulness. By studying habitual entrepreneurs (people who have started several new businesses), Professor Ian MacMillan and his colleagues highlighted the fact that these entrepreneurs used resources very sparingly.<sup>15</sup> They call the systematic approach to operating with sparse resources *asset parsimony* strategy. Asset parsimony strategy keeps the loss exposure of the entrepreneurs very low, and at the same time allows one to create something with little. As habitual entrepreneur Zenas Block says, the basic tenet of asset parsimony strategy is to *invest your imagination before you spend your money*. The logic of asset parsimony rests on using underutilized resources, thus keeping costs low. With a frugal investment strategy, the entrepreneur can pursue or create opportunities and, if

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<sup>15</sup> See Hambrick and MacMillan, 1984, Starr and MacMillan, 1990, and McGrath and MacMillan, 2000.

necessary, abandon them with limited exposure. We can illustrate how the logic works with the following rule of thumb.<sup>16</sup>

- Do not buy new what you can buy used
- Do not buy used what you can lease
- Do not lease what you can borrow
- Do not borrow when you can barter
- Do not barter what you can beg (moral obligation is incurred)
- Do not beg what you can scavenge
- Do not scavenge what you can get for free
- Do not take for free what someone will pay you for
- Do not take payment for something that people will bid for (create an auction)

While one may not be able to practice all of this successfully in an endeavor, the discipline provided by this way of thinking forces the entrepreneur, as Professors McGrath and MacMillan point out, “to find ways of avoiding costly investments and commitments until there are revenue streams to justify them. The philosophy is that assets and fixed costs are earned by the evidence of income.”<sup>17</sup>

Where does an entrepreneur pursuing an idea obtain underutilized resources? One major source of such resources is the entrepreneur’s social network. The currency of one’s social network is friendship and goodwill rather than dollars. Since entrepreneurs have limited resources to invest, they must creatively exchange the goods and services they need for non-cash assets at their disposal, such as information, friendship, charm, enthusiasm, obligations, time, and imagination. The basis of these exchanges are emotions and values, rather than logic and reason. In exchanges based on social relationships, entrepreneurs use their social skills and accumulated social capital to obtain the resources necessary to build on their initial

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<sup>16</sup> This is a significant elaboration of the principles first put forward by Block and MacMillan, 1993.

<sup>17</sup> See McGrath and MacMillan, 2000, page 245.

ideas much more cost-effectively than by purchasing these resources at open-market prices.

Professors Starr and MacMillan have identified five categories of *social capital* that are relevant for entrepreneurship. They are obligation, gratitude, trust, liking and friendship.<sup>18</sup> Think of these as debts that people owe you because of many favors you have done for them or happy moments you have shared with them over the years. In the course of our lives, we have all accumulated an inventory of social capital and are in a position to deploy these assets at the time and place of our choosing. Building a new business offers aspiring entrepreneurs an opportunity to exchange these social assets for resources of value to the business.

*Obligation* is a mutually perceived understanding of a debt incurred sometime in the past and a mutual expectation that this debt will be released under suitable circumstances. Thus, obligation is earned and discharged like any other commodity. However, it remains an unstated expectation. The other person may or may not return the favor. *Gratitude* is a more valuable asset than obligation because the emotional ties are stronger. This is a case where there is clear recognition, not just an expectation, that a favor must be repaid in the future and the account will be discharged by the return of the favor. *Trust* is even stronger than gratitude because there is a more *formal* recognition that favors will be returned, as opposed to mutual but unspoken expectation or perception. In contrast to obligation and gratitude, where there is always an uncertainty that an emotional debt will be

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<sup>18</sup> Starr and MacMillan, 1990, survey an extensive literature in sociology to come up with their typology. They have captured the essence of the diverse nature of social capital with this typology.

repaid, trust reduces the uncertainty that an appropriate repayment will take place in the future. *Liking* takes us further in this spectrum of emotional debt. The feeling for the other individual is more intense and there is a genuine desire to help the person we like. Our happiness and well-being are enhanced when the person we like does well, especially when we play a part in their achievements.

Finally, *friendship* evokes the strongest emotional reaction. Friendship's distinctive quality is that it can be used repeatedly without being exhausted, unlike gratitude and obligation, which may be exhausted after past favors or debts are fulfilled. Indeed, the act of helping a friend in need may actually reinforce the friendship. However, friendships are fragile, take a long time to initiate, nurture and deepen, and are relatively rare. There are very limited opportunities to deliberately construct and use such social assets

It is by *resourcefully* finding and using underutilized assets that an entrepreneur can work his or her way out of the vicious cycle. Using social capital resourcefully to *purchase* valuable assets is not only less costly but also less risky than acquiring these assets through regular markets. This leads us to the seventh principle of entrepreneurship: Bootstrapping is an ideal way to break the vicious cycle at start-up.

**Principle 7: Bootstrapping is an ideal way to break the vicious cycle at start-up.**

A central tenet of entrepreneurship is the refusal to accept a lack of resources as an insurmountable constraint. Indeed, many entrepreneurs claim that you are better off having sparse resources because it lowers risk, forces you to be more creative, and focuses you on generating revenues to build the business – the cheapest form of capital

available. While sparse resources has its advantages, it also presents problems. It is well known that failure rates of new business are high. While exact statistics are not available, it is fair to say more the two-thirds of all business start-ups do not make compensatory returns for their founders. The most common reason cited for failure is under capitalization. That is another way of saying the new firm ran out of cash.

Cash is the most important asset for any start-up because it is the ultimate store of value that can be traded for other valuable assets. While social capital certainly helps, it is not as liquid or as tradable as cash. Further, social capital is most effective at the earliest stages of a creative process. Growth demands a more fungible asset such as cash. The ability to *sustain* the creation process therefore hinges on the availability of cash. As soon as cash dries up in a business, it is susceptible to failure. It is important to appreciate that a business can be profitable and yet go out of business if it runs out of cash. For example, you could be very successful in selling large volumes of your product, but your customers may not pay you when you make the sale. Instead, the sale may remain locked up in *accounts receivables*. Thus, even though you have accounting profits, you have not yet collected the cash. If now you have to pay your employees or if a loan outstanding came due, you do not have the necessary cash to make these payments. While you could certainly sell your accounts receivables at a discount to institutions that are willing to purchase it, not all such assets are as liquid as cash, nor are the markets for these assets as predictable and reliable. If cash inflows and cash outflows in a business do not match each other, then the probability of running out of cash is quite high. This imbalance arises due to

many factors such as lags between sales and collections, seasonality of business, inability to reliably predict inflows and outflows because the business is too new to be able to do so, etc. The literature on entrepreneurship calls these problems the *liabilities of newness* and *liabilities of smallness*.<sup>19</sup> Because your firm is new and small, you face systematic challenges in management, especially cash management.

The worst possible time to raise cash (through debt, fresh equity infusion, speeding up inflows and drying up outflows with more effective management or through sale of assets such as accounts receivables) is when you need it most. It is then that you have the lowest bargaining power. The need is greatest at the early stages of a new venture and when you face a crisis. Not only is your bargaining power weak, but the uncertainty surrounding your business is at its highest and your personal credibility is at its lowest when you start out and when you face a crisis. As a result, the cost of capital could become prohibitive. This leads us to the eighth principle of entrepreneurship: Cash is king/queen. Cash is most expensive when you need it most.

**Principle 8: Cash is king/queen. Cash is most expensive when you need it most.**

In addition to the liabilities of newness and smallness, entrepreneurial ventures face what may be called the *liabilities of complexity*. One need not emphasize the point that managing a business venture is a highly complex process. Three specific complexities need special mention. They are management of ideas, management of attention, and management of logistics.

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<sup>19</sup> See Aldrich and Auster, 1984 for an outstanding review of these ideas.

For an entrepreneur the biggest challenge is to pursue an idea to its conclusion. Indeed, experienced entrepreneurs often claim that there is no such thing as a bad idea, only poor execution. It is generally accepted that entrepreneurs are more action oriented and need to occupy themselves with new problems and challenges. This often tends to promote short-term problem orientation and a need to demonstrate progress. This has the effect of inducing premature abandonment of ideas because even if problems are not being solved, the appearance of progress requires moving on to the next batch of problems. Thus, because of their inherent impatience, many entrepreneurs often leave behind half solved problems or premature ideas. Related to this is also the problem of management of attention.

It is well established empirically that most individuals lack the capability to deal with complexity. People have short attention spans. The average person can retain raw data in short-term memory for only few seconds. Because of this inherent limitation of the human mind, people are most efficient at repetitive tasks – you do not need to concentrate on repetitive tasks once they are mastered. But new business creation is hardly repetitive. There are many details to think about and execute. Each task and each new problem looks different from the earlier one. The entrepreneur has to take on all roles from the janitor to the strategist. An average person can hold or deal with seven plus or minus two bits of information or issues at any given time. The moment the number of issues exceed this, people become more subjective, solutions become increasingly error prone and rationalization replaces rationality. New business creation often entails dealing with more than 7+2 issues at a time.

Finally, new entrepreneurs have to learn a host of new roles and functions and create new structures and systems for everything – accounting, sales, purchasing, information systems, payroll, etc. Due to the variety and the number of tasks involved, entrepreneurs have to learn as they go. Thus, errors are common as they learn the new business. These added costs from learning-on-the-job systematically lower the probability of survival of new ventures. This leads us to the ninth principle of entrepreneurship: If cash does not kill you, logistics will!

**Principle 9: If cash does not kill you, logistics will!**

With so many challenges and so many things that can go wrong, why bother with entrepreneurship? How is it ever possible, especially for first time entrepreneurs, to ever be successful? Is luck then the only solution to success? In answering these kinds of questions, it is always to good to get back to the basics and to keep things simple. As we have emphasized throughout this book, the main business of business is to create value. Entrepreneurship is about discovering or creating a new formula or yet another way to create value. By combining resources in a new and better way or by purchasing resources more cheaply and applying them to more profitable uses, entrepreneurs can create value and keep some of that added value as a reward for the creation. Indeed, “an entrepreneurial discovery (or creation) occurs when someone makes the conjecture that a set of resources is not put to its ‘best use’ [i.e., the resources are priced ‘too low’ given a belief about the price at which the output from their combination could be sold in another location, at another time, or in another form]. If the conjecture is acted upon and is correct, the individual will earn an entrepreneurial profit. If the conjecture is acted upon

and is incorrect, the individual will incur an entrepreneurial loss.”<sup>20</sup> This is a roundabout way of saying that the essence of entrepreneurship is finding ways to “buy low and sell high”!

The point of this chapter is to make clear that each one of us already possesses the fundamental resources required to create value in the economy. We possess differential information. We have valuable contacts and social network. We possess human capital: our education and knowledge. We possess intellectual resources: our talent, imagination, and emotional energy. If success in business is all about buying low and selling high, we already start with the cheapest resources at our disposal. The task of entrepreneurship is to creatively endow these resources with value that society will appreciate and for which it will pay dearly. At the end of the day, there are only a few ways to combine resources in order to create value. These few actions either influence the costs of doing business or the sales accruing from them. At the early stages, every business has three to five variables that have the most impact on costs and revenues. The trick is to find these critical factors and focus on them. By focusing the limited time, attention, and intellectual energies on the three to five critical factors that can make or break the creation process, entrepreneurs can have more control over the process. It keeps the complex, uncertain and risky task of business creation simple and manageable. This leads us to the final principle of entrepreneurship: Every new business has three to five fundamental drivers. Find them and focus on them. The task of creation becomes easy.

**Principle 10: Every new business has three to five fundamental drivers. Find them and focus on them. The task of creation becomes easy.**

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<sup>20</sup> See Shane and Venkataraman, 2000, page 220.

Entrepreneurship is about finding new formulae or ways to create value. You profit if you can create ways to use resources more cheaply and creatively in order to create products and services that offer new value to customers. In this chapter we have seen some simple rules you can follow to ensure that the probability of success during this discovery and creation process remains high while the potential exposure to loss due to failure is kept at affordable levels.

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