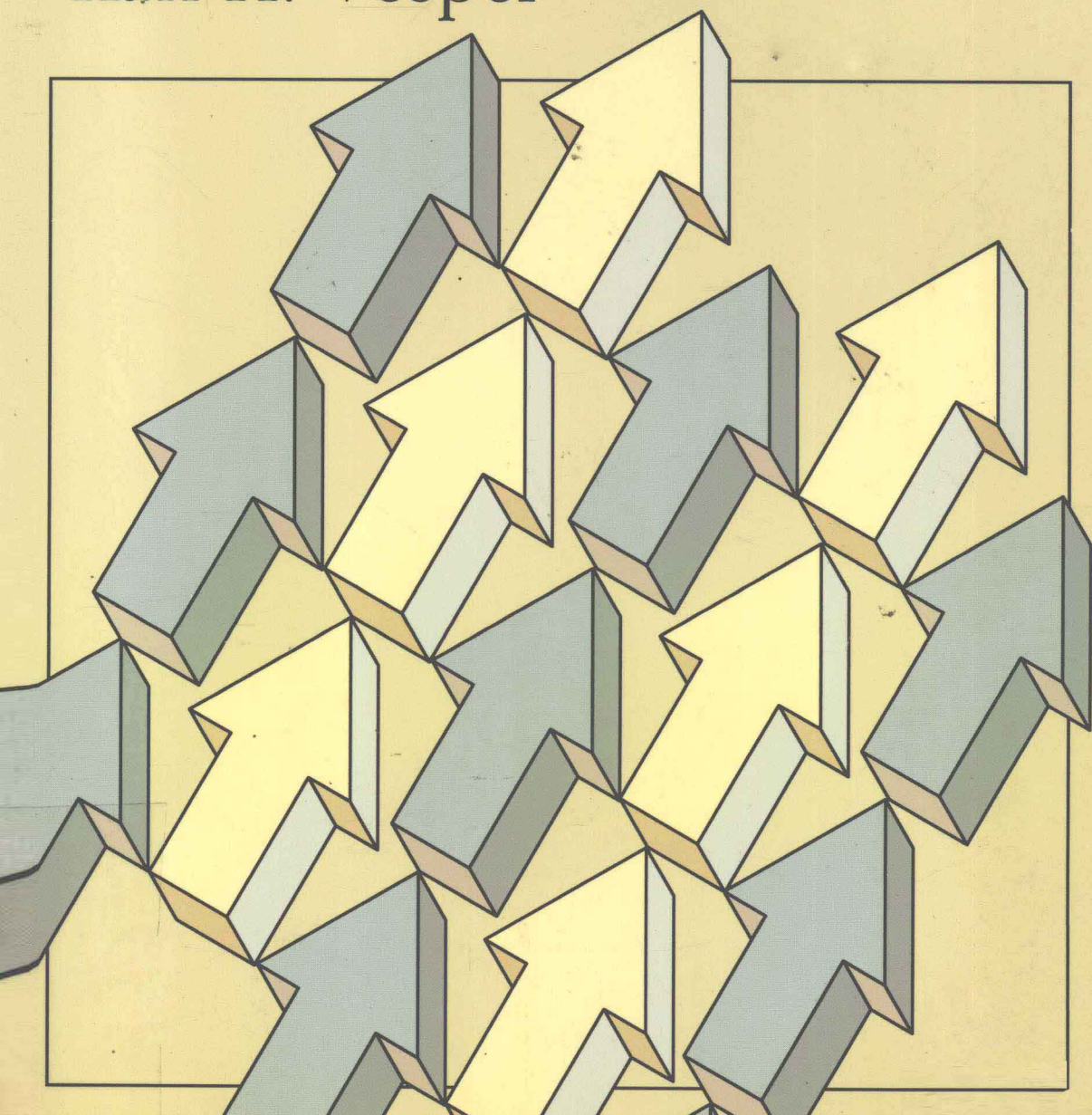


# NEW VENTURE MECHANICS

Karl H. Vesper



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**Karl H. Vesper**

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# PREFACE

*New Venture Mechanics* covers the “nuts and bolts” topics of entrepreneurship, using numerous examples from real life entrepreneurial adventures to illustrate them. Usually, such topics in themselves are neither very difficult nor, unfortunately, very interesting. But it may be important to know about them. The purpose of the examples is partly to clarify the topics and partly to give them life so that the reader will retain an awareness of them.

There are some similarities between this text and an earlier book of mine, *New Venture Strategies*. Overlap occurs in the first chapter of *New Venture Mechanics*, which briefly summarizes the strategies that are covered in much greater detail in the other book. There is also an examination of how venture opportunities arise and how they may be discovered, but that topic too is given more attention in the earlier book.

*New Venture Mechanics* gives much more attention to how venture ideas are refined, developed, protected, and implemented than did *New Venture Strategies*. It concentrates on implementation of strategy, as opposed to its formulation.

In that respect it has similarities to other entrepreneurship books on the market. Core topics such as venture capital, legal forms of business, and creation of venture plans are common fare to such books. Using examples and including the most up-to-date research data on these topics are ways this book distinguishes itself from other texts that treat those “standard” topics.

In this book, some ideas discussed, and the emphasis placed upon other topics, are markedly different. For example, with the concept of venture idea refinement, there seems to be an implicit assumption in much entrepreneurship

literature that the stages of idea conception and idea implementation follow in order—idea discovery is completed and then idea implementation begins and is carried through according to plan, creating the venture.

In fact, idea discovery is often only the starting point of a hunting process through which the idea is shaped, modified, refined, and implemented through iteration. This progressive refinement process is the focus of an entire chapter in this book. It examines idea refinement both from a design and engineering perspective and from a market fitting perspective. It is not unusual for an entrepreneurship book to pay some attention to the latter, usually under the heading of “market research.” However, a discussion of refining the technology of the product or service to fit the market often tends to be left out, apparently on the rationale that the subject is the domain of engineering and science schools and therefore not appropriate in a business school setting. In fact, technology is as much an integral part of business as is accounting, finance, personnel, or production, and that is the way this book treats it.

Another topic treated differently from what is found in other books concerns idea protection, which is typically limited to “legal aspects” such as patents, trademarks, and copyrights. In this book, too, those methods of protection are covered, but within a broader perspective that includes strategic protection not just through legal formalities but also through secrecy or by being a “fast mover,” approaches that are often cheaper and more effective.

The chapters on capitalization treat topics common to most entrepreneurship books, notably excepting *New Venture Strategies*. But most books treat capitalization alternatives either in a rather random order or by separating them between debt and equity. This book arranges the alternatives in a manner that tends more to fit the entrepreneur’s perspective, by grouping them first as to whether they require sharing ownership or not and then by likelihood of use. In that way, these chapters become a natural extension of the issue of whether to team up or go solo. This issue, a common topic of most entrepreneurship books, is treated in this text also, but as an introduction to issues of financing.

It seems ironic that more attention is not given in entrepreneurship books to questions of how to generate sales, beginning with the first customer order, in a new enterprise. *New Venture Strategies*, while elaborating very little on the topic, nevertheless gives it more treatment than many start-up books. This book, *New Venture Mechanics*, expands it to a full chapter, and begins by discussing a way many entrepreneurs get their first orders that is not even treated in marketing textbooks, namely responding to customer-initiated requests. It goes on to examine, channel by channel, the alternatives for gaining new venture sales.

The topics of finding and equipping a location for production, staffing it, and setting up needed paperwork for government approvals, taxes, insurance, and the like are similar to those in most other start-up books, although they complement rather than duplicate anything in *New Venture Strategies*. These, however, tend to be basically drab topics. Using examples from real-life ventures to illustrate them will make them more vivid, enjoyable, and memorable.

The subject of preparing formal venture plans is not, by itself, unusual in a start-up book. It was not developed in *New Venture Strategies*, however, and so its

treatment in this text casts it as a complement to that book. The way of presenting it, moreover, also contrasts in more ways than one to the treatment it is given in other books.

It is simple to give a “laundry list” of topics to cover in a venture plan and to suggest one or more possible plan outlines. But not all ventures need formal plans. Indeed, most start without them. Plans do not guarantee success. Most plans are probably never even implemented. Those venture situations in which plans are needed may call for systematic planning only on particularly crucial aspects, not all aspects of the venture. Which aspects of the plan should be worked on first can vary from one venture to another. And yet to complete a plan may require review of the whole venture, not just some parts or one part at a time.

To cope with these ambiguities, *New Venture Mechanics* does the following. First, the reader can, if he or she wishes, start with any chapter, depending on what aspects of a particular venture have the highest priority. Second, at the end of each chapter is a list of questions for developing aspects of the plan that draw upon topics covered in that chapter. Third, a chapter on pulling the whole plan together, or whatever parts of it are worth writing up, appears at the end of the book. A reader can turn to that chapter whenever he or she feels ready to formalize answers to planning questions in any of the earlier chapters.

The chapter on planning itself suggests that planning can be carried to whatever depth is most appropriate, either for the sake of instruction and learning or for the sake of an actual venture. Examples excerpted from a variety of prior business plans are included for guidance, although it is pointed out that each plan should be tailored to the needs of the venture it depicts, not to any general format.

Each of the topical chapters leading up to the plan also includes a list of possible milestones pertaining to the chapter topic. These can be applied directly, when appropriately selected to fit the individual venture, to a venture plan. Typically, too few plans include specific milestones. Those in this book may contribute directly to plan improvement as well as learning.

The variety of topics to be considered in planning a venture spans virtually the entire scope of business, since a venture aims to become a complete business. Most entrepreneurship books, consequently, tend to contain a very large number of chapters, one for each topic. A problem with this approach is that the topics can become hard to organize in memory. Instead, they simply turn into a grab bag of topical scraps, unlinked and hard to make sense of.

This book makes more sense of those topics by combining them coherently into ten chapters. For a “we read one chapter per class meeting” course that may be too little subdivision. But for a course with the philosophy that a venture is whole cloth and the full range of topics should be scanned and rescanned from the outset, it is preferable.

I would like to thank Dr. W. Ed McMullan of the University of Calgary for his exceptional encouragement in this work, many former students from whose endeavors I also learned and derived examples, and my family for their support and forbearance.

Karl H. Vesper

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# Chapter 1

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## SEIZING BUSINESS OPPORTUNITIES

### INTRODUCTION

The goal of an entrepreneur is to gain a profitable proprietary advantage in a marketplace. Discovering such an opportunity happens in a variety of ways and often comes as a surprise. According to an *Inc.* magazine survey of 500 fastest growing ventures, 47 percent of business opportunity discoveries arise out of some work activity. Fifteen percent come from making improvements on what someone else has done. Eleven percent of discoveries follow noticing an unfilled niche in the consumer marketplace. Other sources include systematic searching, brainstorming, hobbies, and a fairly large “other” category (16 percent) that could include events such as chance encounters, discoveries in the normal course of living, or an invitation from a potential partner or a customer.<sup>1</sup> Sorting individual cases into separate categories based on how ideas were discovered is a complicated task that deals with overlapping definitions and shades of gray as well as unfathomable mysteries.

The opportunity to create a venture may have been produced by recent events or may have waited a long time for discovery. It may be well suited to the person who discovers it or may better fit someone with different capabilities. It may lead to a venture of long life and high growth or to one of limited success.

<sup>1</sup>John Case, “The Origins of Entrepreneurship,” *Inc.* (June 1989), p. 54.

Deciding what can be made of a potential venture opportunity and how to do so is a job in which the entrepreneur may benefit from studying what has worked for others. The chapters to follow aim to serve that study, starting briefly with the nature of entrepreneurial opportunity and then expanding upon what may be involved in exploiting it.

## OPPORTUNITY OCCURRENCE

*Opportunity* is defined as “a set of favorable circumstances for the purpose.”<sup>2</sup> It arises from the existence of a gap between the actual state of affairs and a potentially improved state coupled with the possibility of bridging that gap. An opportunity can be considered viable when the benefits of bridging the gap or making the transformation from the present state to the improved state outweigh the costs of doing so. If there is a way to capture as a profit the difference between benefits and costs, then the opportunity can be regarded as a *business opportunity*. If the business opportunity is such that only a new, as opposed to an established, enterprise can capture that profit, then the opportunity can be considered a *new venture opportunity*.

There are always, it seems from hindsight at least, numerous possibilities for improvements in products and services available for entrepreneurial exploitation. Theoretically there should not be, because existing enterprises should take care of them. Established companies usually try to meet present customer needs and to anticipate future ones. But they don't always succeed, and hence they leave openings for entrepreneurs.

What is it that leaves a start-up opportunity “up for grabs” by entrepreneurs rather than its being seized by an established company? Answers fall into the following three categories:

1. Nobody in the company that should have exploited the opportunity thought of it, or
2. Somebody thought of it, but the company declined to go after it, or
3. The company did decide to go after it but did not do so effectively.

These situations represent three types of failures with which the entrepreneur must also contend. When an opportunity arises, there is usually more than one person who could take advantage of it. *How to be the one who does in contrast to the one who does not* is a subject that has been little studied. It may help, however, to consider some forms venture opportunities may take and the kinds of clues that may signal their presence.

The elements that combine to make an opportunity may have all been present well before discovery or may only have come together recently. An oppor-

<sup>2</sup>*Webster's New World Dictionary*: Opportunity: 1. A combination of circumstances favorable for the purpose, a fit time. 2. A good chance or occasion, as to advance oneself.

tunity may lie quietly awaiting discovery, like the message in a code, the pattern in a jumble of puzzle pieces, a winning hand in a set of cards, or a story waiting to be written. Business profits could be latent in a vein of ore in the ground, the tailings of an old mine, the talent of a painter, or a lost treasure, as well as in a product or service not yet invented that could be profitably produced as soon as someone thinks of it.

Opportunities that could have been exploited earlier if only someone had spotted and acted upon them might be described as *ready*. Examples have included

- Hot-air corn poppers
- Aseptic packaging of U.S. foods
- Just-in-time inventory control
- Fiberglass skis
- Telephone information numbers paid for by advertisers who put commercials along with the answers
- Credit cards

Who could have taken advantage of such opportunities and used them to start new companies? Possibly many people. But some were in better positions than others to do so. What makes a position better might be the possession of particular technical or market knowledge acquired from personal experience through work or hobbies in fields closely related to the opportunity.

For example, Howard Head drew upon his engineering training and his work experience as an aeronautical engineer when he undertook to design a better ski made from laminated plastic and metal. But there was more to it than that. Many others had training and experience similar to his and also skied. Head undertook to improve his skis because he was dissatisfied with their performance. Some of those other engineers may also have been dissatisfied but may not have felt sufficiently motivated to do something about it. Or if they tried, possibly they did not have quite as much ingenuity or persistence as Head. Certainly, he demonstrated extraordinary innovativeness when, after his ski enterprise fell victim to another innovation, the K-2 ski made of fiberglass rather than metal, Head sold his ski company and went on to develop another innovation, the Prince tennis racket, that made him another fortune.

Another start-up company, Farallon Industries, began with a two-person recreational submarine, which was not profitable, and then rapidly added a string of other products, which did pull the company through. Among those other products were gauges, such as pressure sensors, depth meters, and compasses that were illuminated so they could be seen underwater in the dark. One of the founders, Norman H. Moore, commented as follows:

- *It should no more have been possible for a new, upstart company to come out with the first illuminated underwater gauges in late 1972 than for me to fly to the moon on a broomstick. This should have been done long ago. The devices represent nothing that is*

*either revolutionary or technologically difficult. It is just a matter of taking good engineering and innovation to a consumer field that hasn't had much.*<sup>3</sup>

How a “more ordinary” person with similar training, experience, and motivation could reach for enhanced innovativeness as well is not known, although it is believed by scholars of creativity that trying, training, and tools such as brainstorming can help.

Alternatively, the needed expertise and talent for exploiting an opportunity could come through the recruitment of a partner who possesses it. Unfortunately, it is easier to see how such recruitment could be done *after* discovery of the opportunity than before.

In contrast to *ready* opportunities that may have lain dormant awaiting discovery are *future* opportunities that cannot be exploited until something else happens to make them possible. Examples of these would include

- Microcomputers, for which microchip technology was prerequisite
- Popular software products, for which microcomputers were prerequisite
- Biotechnology start-ups, for which gene-splicing technology was prerequisite
- Discount stock brokers, for which securities deregulation was prerequisite
- Service industries such as fast food chains, for which life-style changes were required
- Residential development of Arizona, for which economical home air conditioning was needed
- Shopping centers, which required first that enough potential customers have cars

For such opportunities as these, timing is a crucial element. They cannot be exploited until *prerequisite events* occur. Categories into which such events can be grouped include the following:

- *Technological discoveries.* Start-ups in biotechnology, microcomputers, and electronics followed.
- *Demographic changes.* Medical and nursing organizations have sprung up to serve an aging population.
- *Life-style and taste changes.* Start-ups have capitalized on new clothing trends, desire for fast food, and public interest in professional sports.
- *Economic dislocations,* such as booms or failures. The oil boycott spawned new drilling firms. Steel industry collapse was accompanied by mini-mill start-ups.
- *Calamities* such as wars and natural disasters. Henry Kaiser's business expanded to shipbuilding in World War II. Mt. St. Helen's eruption spawned new tourism firms.
- *Rule changes by government.* Environmental legislation created opportunities for new consulting firms and cleanup machinery firms. The Small Business Innovation Research Program underwrote new product innovation firms. Deregulation spawned new airlines and trucking companies.
- *Resource discoveries.* North Slope oil production spawned new construction firms in Alaska. When the price of gold rose, new companies in Colorado and Nevada started to reprocess the tailings of old mines.

<sup>3</sup>Norman H. Moore, “Farallon Industries: A Case History.” P. 42 in Donald M. Dible (ed.), *Winning the Money Game* (Santa Clara, CA: Entrepreneur Press, 1975).

It is fairly easy to trace many opportunities for start-ups back to such events as these. But going the other way can be hard. Some of these developments become apparent only after their effects, including the exploitation of start-up opportunities they created, are past. When hindsight does reveal them, it will also show that much of the opportunity exploitation has been done by preexisting companies in lines of business related to the nature of the technology or market where each opportunity arises, and not by start-ups. For some types of opportunity-generating events, such as war or production of new medicines, pesticides, and other chemicals, virtually all the business opportunities at the raw material level are seized by preexisting companies. Start-ups then may participate farther downstream in application and distribution.

One technique to help foresee prerequisite events and the opportunities they may produce is the sketching of "implication trees," "impact wheels," or "consequence chains." A presumed event, such as global warming, is written down in the center of a page. From this initial event, several impacts or consequences can be projected as spokes radiating out from the initial event. Any of those impacts can be viewed as the center of another collection of impacts that radiates out from it, and each of those as the center of yet another such collection, and so forth. By mapping these chains on a piece of paper, blackboard, or flipchart, a wide range of potential future events and their implications can be envisaged. Each of those can be used to trigger ideas about potential new product and service opportunities. Intriguing as such exercises may be, however, it is hard to find viable new business ideas that were discovered by using them.

## DETECTING OPPORTUNITY CLUES

The path to discovery of a new business opportunity must at some point include observation of clues that indicate the possible matching of a market with the production of a specific product or service. The source of opportunity is ultimately the customer for whatever the new venture will sell. Needs may exist under a variety of circumstances, some of which display obvious clues, as in the following examples:

- **Patterns of demand in an existing line of business suggest a shortage of supply of some particular product or service.** Phil Carrol and Dave Steele were on their way from Calgary, Alberta, to Vernon, British Columbia, to go skiing with a third friend, a carpenter named Rob Jensen, when they passed through a small town lined with houseboats on the Shuswap River. Thinking "what a howl to have a week on one of these," they stopped to inquire about rentals. Two things struck them. One was how shoddy many of the houseboats seemed. The other was that it was January 1982 and all of them were booked through the coming August.

Carrol and Steele had worked together on student enterprises prior to their recent graduation from the University of Calgary. The latest had been a ranch party attracting over twelve hundred students, the largest ever held at the university. They had also considered other enterprises—lawn maintenance, a "permastamp" venture, and "twenty different businesses in all." Now Carrol said to Steele, "What a fantastic business to be

in." Jensen said, "I can build boats." Steele said, "If you can build them, we can rent them."

The business was begun and soon developed into not only boat and marina rentals but also, thanks to tax depreciation technicalities, boat sales as well. Within three years, rental bookings were over \$2 million and sales over \$8 million per year.<sup>4</sup>

- **Present prices relative to quality in some field reveal the potential to provide customers with a better deal.** Rudolph Wurlitzer was surprised at the high prices of musical instruments when he browsed through a Cincinnati music store in 1865. The explanation given by the store owner was that the instruments were all imported and had to pass through a European sales agent, an exporter, an American importer and a local jobber, each of whom added to the cost. Wurlitzer believed he could do it cheaper.

He had adopted a personal policy of setting aside one-fourth of his earnings since coming to America thirteen years earlier so he could one day start his own business. Now from humble positions as a porter and later a bank cashier, he possessed \$700 which he sent to relatives in Germany along with a shopping list of musical instruments. When they arrived, he set up as a part-time wholesaler while keeping his bank job. Four years later, the venture had grown to the point where he quit the bank, and a year after that he started manufacturing. A big government order for band instruments during the Civil War, followed by innovations in low pricing, mail-order selling, and product design helped build success.<sup>5</sup>

- **Advertisements by the customer express the desire for a particular product or service.** The federal government, for instance, advertises regularly in the Commerce Business Daily to solicit bids from existing or potential suppliers. State and local governments also regularly disseminate requests for bids. Private companies typically do not advertise publicly but do maintain lists of bidders, which anyone can request to be on, to whom they send news of opportunities.

- **A problem is widely obvious but nobody has figured out what product or service might solve it.** Gail Borden had been a schoolteacher, newspaper editor, real estate salesman, customs collector and surveyor, and inveterate inventor. One of his less successful ideas was a "terraqueous wagon" or amphibious vehicle powered by sails. Another, inspired by his wife's death from yellow fever, was a refrigerated building for Galvestonians to live in during the summer to "freeze out disease." When no tenants applied, he used the building as a food plant for another invention, the "meat biscuit." It too was a commercial failure, but it earned him a Gold Medal at the 1851 London Crystal Palace Exposition.

On the voyage home he saw four children die from contaminated milk. Upon his return he began to experiment with ways of removing water from milk so it would keep better. Straight evaporation imparted a burnt taste. During a visit to friends at a Shaker colony in New Lebanon, New York, he noticed the use of vacuum pans to condense maple sugar at lowered temperature. In 1856 he received a patent for applying a similar process to condense milk. The first business he set up failed when local dairies refused him credit. A second business with a wealthy backer took hold and army purchases of condensed milk during the Civil War helped propel it to success.<sup>6</sup>

<sup>4</sup>Alan Gould, *The New Entrepreneurs* (Toronto: Seal Books, 1986), p. 308.

<sup>5</sup>Joseph J. Fucini, and Suzy Fucini, *Entrepreneurs* (Boston: G. K. Hall, 1985).

<sup>6</sup>Fucini and Fucini, *Entrepreneurs*.

- **Personal request by customers to an entrepreneur who has developed a product or service for one situation reveals further opportunity.** Elisha Otis, a bedstead factory mechanic, was asked by his employer to help move the factory to a new multistory building. In particular he was asked to design a safe elevator for lifting machinery to upper floors. The solution he devised involved suspending the elevator with a leaf spring that would expand to jam against the shaft walls if the rope pulling up on the spring broke.

After the move was satisfactorily completed, Otis quit to go prospecting for gold in California. But before he could leave, another company asked him to build such an elevator. Then yet another company made the same request, and instead of mining Otis built an elevator company.<sup>7</sup>

One injunction that would seem to follow from these examples is to look for ways to solve problems that others who can afford to pay for solutions might care about. Beyond finding solutions, it may help to ask who else might be interested in them. That will still leave, however, the important question of whether there can be a worthwhile profit in making the solution more broadly available. Note that it must also be possible to deliver results and to receive payment. More college students might like to have Ferraris, but unfortunately they cannot afford to pay for them; hence they do not comprise a viable market yet.

### Probing the Future

Clues to venture opportunities are also discovered by trial and error. An entrepreneur can enter a line of business on the assumption that opportunity is there. He or she can open a store, advertise a service, or make and offer some specimens of a new product and then let the market announce whether there was an opportunity present for that venture or not. Reaching into the unknown future to find a market can take several directions:

- **The entrepreneur clearly sees the likelihood or even the certainty of customers from a vantage point of working for a company in or adjacent to that market.** When the company declines to pursue that market, the entrepreneur does so.
- **The entrepreneur guesses that customers will want the product or service after they see it but has no way of being sure and hence must gamble.** The “Pet Rock” idea of two advertising men during the 1970s was such an idea that paid off. Illuminated road curbing with lights inside to make it easy to see at night did not.
- **The entrepreneur, having devised a product or service to fulfill a personal need or desire, finds that others want it too.** The example of Elisha Otis’s elevator fits this case. Another was the microcomputer devised as a hobby project by Steve Wozniak, whose friends then asked for duplicates, leading to the formation of Apple Computer.
- **The entrepreneur develops a product for one application and later discovers the product has a different application that gives it a market.** Development of the CP/M operating system for microcomputers was done before microcomputers even existed and not as the basis for starting a company. Much earlier, long before the idea of digital computing occurred, Boolean algebra, the basis for computer languages, was invented in pursuit of proof that God exists. The electric train was invented as a store

<sup>7</sup>Fucini and Fucini, *Entrepreneurs*.