

# The Origin and Evolution of New Businesses

## Part 2

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*The Oxford University Press (expected pub. Date: Nov. 1999)*

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## **PART 2: THE EVOLUTION OF FLEDGLING BUSINESSES.**

*In Part 1 we compared promising startups with initiatives undertaken by large corporations. The next four chapters examine how businesses change – how some fledgling businesses evolve into large, long-lived corporations. The sections below provide an overview of these chapters. I will summarize the approach and scope, the data used, the propositions developed, and the structure of the chapters.*

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Most start-ups do not evolve into large and long-lived firms. Bruce Phillip's and Bruce Kirchoff's estimates from the U.S. Government's Small Business Data Base suggest that about 60% of start-ups fail in the first six years and over 70% in the first eight.<sup>1</sup> Moreover, the evidence suggests that of the start-ups that survive, most remain small. *Inc* 500 companies – winners from the category of promising startups—appear to have higher survival and growth rates. In 1995, *Inc.* checked back on all the 500 companies in the “class of 1985” and found that only 19% were no longer in business or could not be located. Another 27% had been sold to new owners, and 6% had gone public. 48% had survived ten years under the same ownership—nearly twice the proportion, according to *Inc.*, of the typical new business. Moreover, the survivors had continued to grow. In 1984, all 500 companies on the *Inc.* list accounted for sales of \$7.4 billion and employed 64,800 workers. By 1995 just the 233 known survivors recorded over \$29 billion in revenues and 127,000 employees. Even so, only three of the 1985 *Inc.* 500 companies – Microsoft, Merisel and TechData – made *Fortune* magazine's list of the 500 largest corporations in America.<sup>2</sup>

The evolution of young businesses has more economic significance than that the small number that eventually join the ranks of well-established corporation might suggest. Building a business involves some Schumpeterian innovation; rather than capitalize on disequilibria or provide customized services to a few customers, entrepreneurs create new combinations and shape the structures of their industries and markets. And as we have already seen, the few businesses that attain significant size and longevity play a distinctive economic role: they can undertake much larger initiatives than individual entrepreneurs; their accumulated reputations and perceived staying power have a significant influence on the nature of their relationships with customers, employees, lenders and other such resource providers.

Although common wisdom and academic research concur that only a few startups evolve into long-lived corporations, the underlying factors have not been well identified. We can find considerable historical data about specific cases, but little by way of a general explanation for why certain firms survive and grow. My analysis suggests that most new businesses aren't just large businesses in miniature and that their trajectories do not point to noteworthy size and longevity. Extrapolation of the initial approach leads businesses to fail or get stuck in a rut – what Elster would call an evolutionary “local maxima”. Building a long-lived firm requires comprehensive changes. Instead of relying on opportunistic

adaptation to exploit niche opportunities, they have to formulate and implement ambitious long-term strategies.

Only exceptional entrepreneurs have the capacity and the will to make such changes. The passage from a fledgling business to a large corporation requires entrepreneurs to develop new skills and perform new roles. Entrepreneurs must also have unusual ambition and tolerance for loss. Starting a heads-I-win tails-I-don't-lose-much has a compelling financial logic. Once an entrepreneur has navigated a venture through its uncertain initial period, however, selling out to a competitor or large corporation often provides better risk-adjusted returns than efforts to grow the business. Entrepreneurs who forgo these exit options *may* eventually amass very large fortunes, but they can also lose it all. Their drive to build a large corporation transcends goals of maximizing risk-adjusted financial returns.

### **Approach and Scope**

The problem of identifying the common features of the evolution of long-lived corporations primarily derives from the lack of a general framework or theory rather than a lack of data. We can find ample information on the growth of most large corporations in the U.S. in memoirs, popular biographies and scholarly histories. Such writings tend to focus however on specific events in particular companies – how and why HP entered the printer business for instance – rather than on a general theory of firm evolution. Looking across histories of long-lived companies reveals few recurring patterns; on the surface at least their evolution seems highly idiosyncratic. In order to provide any general explanation for the data, we need some way to filter the common elements from the contextual noise. Collecting more data on long-lived corporations (or on a matched sample of short-lived businesses) without such a filter cannot provide much additional insight.

The approach I will use extends the comparative analysis of Part 1. In Part 1, we identified the features common to an otherwise heterogeneous set of promising startups through a comparison with the known features of established corporations. Now we will use the features of startups on the one side and established companies on the other to frame our inquiry of the transition between the two states. In other words, our knowledge of the origins and destinations of the typical long-lived corporation will help us identify the important common elements of their evolution.

As in Part 1, this analysis emphasizes the contribution of individual entrepreneurs. We will contrast the role they play and the problems they face in building a business with those of starting a new venture, and with the roles and problems of executives who manage established corporation. We will also examine the qualities that affect an entrepreneur's willingness and capacity to build a long-lived corporation. The focus on the roles and qualities of individual entrepreneurs represents a departure from existing economic analyses. As we will see, theories of firm evolution often assume that as industries mature, the number of competitors converges to a number determined by factors such as the economies of scale, and that chance determines which firms survive. I will argue that the ambition and capability of individual entrepreneurs has a significant impact on firm longevity and growth and by extension on the

long-run structure of markets. McDonalds likely dwarfs Oscar Mayer (the leading vendor of hot dogs in the U.S.) because of the unique abilities of Ray Kroc – I know of no intrinsically larger economies of scale in making or selling hamburgers versus hot dogs. Industries do not naturally converge to a predetermined structure, nor is their evolution a matter of pure chance. The entrepreneur’s efforts shape the structures of industries. I do not mean to suggest that exogenous factors such as technology or product characteristics do not play any role. My emphasis on the entrepreneurial factor is to redress its prior neglect.

In contrast to the earlier chapters however, I will no longer use the term ‘entrepreneurs’ synonymously with the individuals who start the business. By ‘entrepreneurs’ I will now refer to the top decision-makers—typically one or two individuals—who control the enterprise and have a significant economic stake in its fortunes. They need not be the initial founders or even hold the official title of CEO or President of the company. For instance, George Eastman, who started and built Eastman Kodak, officially served as the Treasurer of the company. Marvin Bower urged two older colleagues at the failing McKinsey, Wellington & Co. to join him to start McKinsey & Co. in 1939 and was the principal architect of its subsequent transformation into a worldwide enterprise. Bower did not however, assume the position of Managing Partner until 1950; from 1939 to 1950, he served as the deputy to a much older co-founder, Guy Crockett.

The scope of this inquiry is limited to the transition from the fledgling to the mature enterprise and does not address the issue of immortality. We will not examine why only some firms survive beyond the multi-decade life span of the *Fortune* 500-type company.\* Our goal is to explain how a few entrepreneurs like Sam Walton turn a small chain of franchised discount stores in Arkansas into the multi-billion dollar retailing enterprise, Wal-Mart. An analysis of the problems that the executives of Wal-Mart now face of sustaining an already well-established corporation is relevant to this discussion mainly because it helps us identify the different challenges that Walton faced in the transitional phase.

The normal emphasis of business research on the problems of large, established corporations makes it particularly important to keep in my mind my focus on transitional businesses. For instance, research and popular wisdom often ascribes the poor performance of companies to their lack of focus and cumbersome administrative procedures. And indeed a comparison of large companies may show that firms with more diverse lines of business and greater administrative overhead earn lower returns. Looking at the evolution of fledgling businesses, however, provides a different perspective: we find that the transition to a large enterprise requires greater heterogeneity of assets and functions and investment in administrative infrastructure.

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\* Arie de Gues reports that the typical large company in North America, Europe, and Japan that survives the difficult early years has a life span of about 4 to 5 decades. De Gues notes some exceptions however: the Japanese conglomerate, Sumitomo started as a copper casting shop in 1590. Stora, a major paper pulp and chemicals company based in Sweden had its roots in a copper mining operation more than seven centuries ago. These examples suggest to de Gues that “the natural life span of a corporation could be two

## Data

In formulating hypotheses on firm survival and growth I have relied on a somewhat different set of data and ventures than I used for drawing inferences on the origins of new businesses. My primary sources of information comprised the critical histories of successful entrepreneurs written by my students (as described in the introduction); detailed case studies that I wrote on some prominent, long-lived companies (as well as some that failed to survive); books and articles on companies like Microsoft; and, the memoirs of entrepreneurs like Walton. I relied somewhat less on the *Inc.* 500 interviews. I had interviewed the *Inc.* founders when their companies were about seven years old and their future prospects were far from assured. In contrast, the critical histories (listed in Appendix 2) and case studies (listed in the References) covered over a hundred ‘tried and tested’ companies that had survived and grown through at least a decade, and in many cases for much longer. These companies were also significantly larger than the *Inc.* ventures with revenues in the hundreds of millions or billions of dollars compared to the \$20 million median in some of the *Inc.* companies.

The varied fields from which I drew my companies (for instance Wal-Mart in discount retailing; McKinsey & Co. in management consulting; Sun Microsystems in engineering workstations; and Physicians Sales and Service (PSS) in medical products distribution), and the diversity of their experiences limits the number of generalizations we can draw. The many stories do not, for instance, conform to a simple script such as a life-cycle model. But, the repeated occurrence of a few key patterns—particularly with respect to the role of the entrepreneur—across such a varied sample offers reassurance about the robustness of the generalizations. Virtually all the data that I used, incidentally, are in the public domain so the hypotheses I have drawn are open to verification and challenge by others.

## Propositions

As we will see, some ‘life-cycle’ models suggest that businesses have a natural tendency to grow and mature, provided that the entrepreneur is willing to ‘let go’. Evolutionary theories, in contrast, assume that random events lead to differences in the growth of firms. I argue that the long-term growth and survival of a business is not simply a matter of preordination or luck; rather, I suggest that:

- A substantial gap exists between improvised startups and well-established firms in terms of their assets, coordinating mechanisms and capacity for growth.
- Closing the gap requires entrepreneurs to make larger, longer term investments than are required to start a promising business: in other words they have to undertake initiatives in the middle region of the investment-uncertainty-profit diagram. And, in order to achieve complementarity across initiatives, entrepreneurs have to formulate and implement long-term strategies instead of relying on opportunistic adaptation.

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or three centuries – or more.” By de Gues’s standard, most commercial corporations are “underachievers” that “exist at an early stage of evolution”.

- The willingness and capacity to pursue a strategic rather than opportunistic approach requires traits and skills that do not play a significant role in the start-up stage and which very few entrepreneurs have.

### **Structure**

Chapters 9 and 10 lay the groundwork. Chapter 9 examines the requirements for longevity and growth that fledgling businesses usually do not satisfy; this analysis will help us specify the gap between fledgling businesses and established corporations. Chapter 10 reviews existing theories and models on firm evolution. Although they provide some useful concepts, we will find that they seriously underplay the entrepreneur's contribution to bridging the gap between fledgling and long-lived business. \* Chapters 11 and 12 connect the transition from a fledgling to well established enterprise to the entrepreneurs' ability and willingness to pursue a strategic rather than opportunistic approach. Chapter 11 examines three crucial tasks entrepreneurs must undertake in order to build a long-lived business. First, they have to adopt and articulate an ambitious long-term goal or 'purpose' for the enterprise that goes beyond survival and generating positive cash flows. Second, they have to formulate a strategy for attaining the long-term goal. Finally, they have to implement the strategy – i.e. translate the general rules and objectives that comprise the 'strategy' into specific decisions and actions. Chapter 12 identifies the qualities and skills that affect an entrepreneur's predisposition and capacity to undertake these tasks.

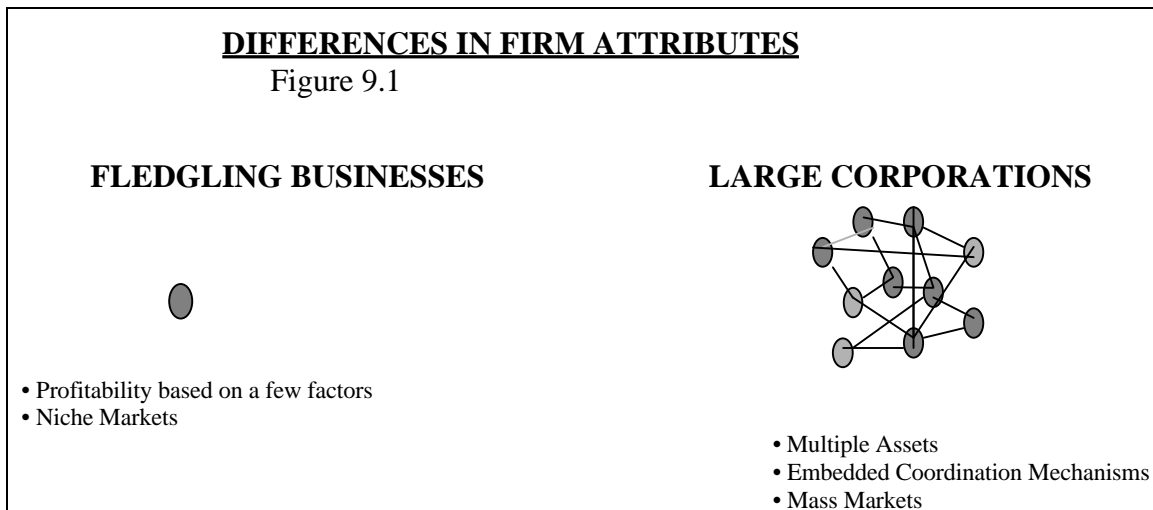
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\* After they have looked at the introduction to this chapter, readers who are already familiar with the ideas I outline may choose to skim the rest of the chapter.

## **CHAPTER 9: MISSING ATTRIBUTES**

*This chapter identifies the basic differences between fledgling businesses and large corporations. Section 1 provides the necessary definitions. Section 2 discusses why large and long-lived businesses comprise a broad portfolio of assets. Section 3 then moves on to examine the mechanisms necessary to coordinate these assets. Section 4 examines the relationship between longevity and growth. Section 5 concludes the chapter by showing how most fledgling firms don't satisfy the requirements for longevity and growth.*

The transition of a fledgling business into a large, well-established corporation requires a fundamental transformation rather than a simple scaling up, because of some basic differences in their attributes (see Figure 9.1). The profits of fledgling businesses derive from a few (and often transient) factors. Fledgling businesses also face serious growth constraints due to factors such as the small size of the markets they serve. In contrast, large long-lived corporations have a broad and well-coordinated portfolio of products, relationships, know-how and other such assets that allows them to profitably compete in large markets. Building a large and long-lived corporation therefore requires a considerable broadening of the fledgling firm's assets, establishing effective mechanisms to coordinate the assets and developing the capacity to compete in large markets.



The discussion will require us to grapple with elusive definitions: to analyze longevity, we must first specify what we mean by the life of a business. Similarly an analysis of growth requires us to define the size and boundaries of firms. The inquiry will also lead us to reevaluate common beliefs about the rationale for diversification, horizontal and vertical integration and growth. But, although we confront basic issues about the nature of businesses, I do not attempt to develop a new 'theory of the firm'. We examine the requirements for longevity and growth that fledgling businesses don't satisfy in order to identify the distinctive problems that entrepreneurs face in building a large and long-lived business.

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### **1. DEFINITIONS**

Defining the ‘longevity’ and ‘size’ and of a business (or to use the common technical term, ‘firm’) is not straightforward. Unlike a living being which has a tangible physical form, a ‘firm’ is an economic and legal abstraction whose boundaries and life span, by extension, also represent intangible constructs. Different theories use different definitions depending on the problems they seek to analyze. For instance, standard microeconomic analysis of perfectly competitive markets assumes that all firms competing in a market transform the same inputs – capital and labor – using the same technology or production function. The theory makes questions about the growth or survival of individual firms moot.

I have adopted the so-called Resource Based View (RBV) that has evolved from the efforts of some economists to develop a theory that would permit a meaningful analysis of firm growth. In 1959, Edith Penrose proposed a model that treated the firm as an “administrative unit” that wasn’t tied to a particular market or technology; it could, given appropriate resources, “produce anything for which a demand can be found or created”. Different firms had different administrative attributes, expanded into different markets and thus developed distinct identities. As we will see in Section 4, Penrose’s model helped explain the tendency of firms to grow i.e., to expand the boundaries that delineated their “area of coordination”. Other theorists, such as Nelson and Winter, have adopted and extended the view of a firm as an entity with distinctive attributes. Their work has led to a ‘resource based view’ of firms with distinct decision making routines, memories, reputations and other such intangible, and almost human, attributes.

Following the RBV approach, I define firms as comprising a distinctive bundle of assets. I use the term assets in a broad fashion: they encompass a firm’s properties (for example, its plants or patents), reputations (for fair dealing and reliability, for instance), relationships with customers and providers of inputs, and competencies or capabilities (for example, marketing know how).<sup>\*</sup> For convenience, I will refer to a ‘firm’s’ assets when they actually belong to its ‘resource providers’ such as stockholders, employees, suppliers or even the providers of complementary goods. Although it seems natural to think of a firm as an integrated living entity, we should remember that the firm merely uses the assets that one or more of its constituents own and may redeploy. For instance, employees with valuable skills can join another firm or worse yet withdraw their services while staying on the payroll. Similarly, stockholders can (acting through the board of directors) cause the sale of all or part of the “firm’s” assets.

Defining a firm as a distinctive bundle of assets leads to the following specifications of its longevity and size.

**Longevity.** This analysis associates the ‘life’ of a firm with the continuity of its asset portfolio. The composition of a firm’s portfolio of assets tends to change for a variety of reasons. Some assets become worthless or disappear: patents expire, relationships with customers sour, and valued employees retire or leave. At the same time, the pursuit of new initiatives creates new assets. The significance of

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<sup>\*</sup> Modern RBV theorists make finer distinctions, between competences, resources, static and dynamic capabilities and so on. My argument does not require these distinctions, so I will stick with the broad category of ‘assets.’



firm longevity that we discussed in Part 1 (for instance the capacity to secure unsecured credit from banks and irreversible commitments from customers) derives from its continuity rather than sameness. A long lived firm may be compared to the proverbial Japanese temple. Although its every beam has been replaced over the centuries, devotees still regard it as the same temple because the changes have been gradual. As Penrose wrote “the name of a firm may change, its managing personnel may change, its geographic location may change, its legal form may change, and still in the ordinary course of events we would consider it to be the same firm and could write the story of its life. Whether the continuity was maintained by bankers in times of crisis or by the ingenuity of a clever promoter is irrelevant, providing that the firm neither suffered such complete disruption that it lost the ‘hard core’ of its operating personnel, nor lost its identity in that of another firm”<sup>3</sup>

Firm longevity is closely associated with its capacity to provide its stockholders (or other residual claimants) a satisfactory return. Chronic losses will lead stockholders to shut down or liquidate a firm. Stockholders also have an incentive to liquidate if the price they can realize for the assets exceeds the returns they expect to receive by maintaining it as a going concern. An analysis of firm longevity is therefore virtually indistinguishable from an analysis of long run profitability. (This does not mean however that building a large, long-lived firm necessarily provides attractive returns; a firm may be worth less than the costs incurred to create it, but more than the liquidation value.)

**Size.** I will treat the size of the firm as the area of influence of its unique assets. In economic terms, this corresponds to the markets where the firm affects prices. This definition is somewhat broader than Penrose’s, who delineated firms by the area of their direct administrative control. It contrasts even more sharply with theories that use the criteria of ownership or employment as the basis for setting firm boundaries – any asset owned or person employed by the firm is ‘inside’ and the rest is outside. My definition corresponds to constructs in the management literature that refer to a firm’s ‘business system’, ‘value chain’ and ‘differentiated network’: any asset, regardless of its legal ownership, that is partially or fully specialized for the use of a firm, is part of that firm.

This definition involves tradeoffs. It makes firm size difficult to measure. It leads to overlapping boundaries when firms share assets (such as a close supplier customer relationship). And readers who are used to defining firms in terms of their assets or employees may misinterpret some of the arguments that will follow. But, I believe my definition will help us identify some critical conditions of firm longevity and growth that the sharper ownership and employment approach to delineating firms may obscure.

## **2. DIVERSE ASSETS**

Large well-established firms comprise a more heterogeneous bundle of assets and activities than most fledgling businesses. As Hewlett and Packard noted in their very first year in business, “a single product rarely [makes] a successful company.”<sup>4</sup> Mature corporations typically offer many lines of products and services, often through autonomous business units. Even the relatively few long-lived firms that stick to narrow product lines such as Wedgwood (fine china) and Cartier (jewelry) have many assets

including brand names, distributor relationships, skilled craftsmanship and design, and marketing capabilities. This is not to suggest that long-lived firms necessarily own a very broad range of assets or have employees who perform many functions; just that their overall business system encompasses many distinctive elements. Microsoft is a more complex entity now than it was in the 1970s both because it sells more products, owns more technologies, and has employees who perform more functions, and because more customers, sub-contractors and suppliers of ancillary goods and services have developed resources tied to the Microsoft system.

Increased heterogeneity naturally follows increases in the volume of a firm's business. As firms grow, they add customers, employees, locations and suppliers that are to some degree different. And more volume permits the specialization that increases the heterogeneity of their activities: for instance, larger firms can afford to separate book keeping from their financial control function. Heterogeneity can also contribute in subtle ways to a firm's survival. A broad base of assets, as we will see next, fosters longevity because of "complementarities" (or "synergies") and insurance effects. They do however create some offsetting problems, which require long-lived firms to have effective coordination mechanisms.

### **Complementarity**

The distinctive assets that give a firm its identity (such as its unique products, know-how, and relationships) have limited value on their own. Their optimal use requires other distinctive assets to complement their function. Failure to develop effective complements encourages stockholders and other resource providers to withdraw the asset from the firm.

To illustrate, consider a pharmaceutical company that owns a patented drug. Unlike the undifferentiated commodity producer assumed in models of perfect competition, the pharmaceutical company cannot sell its unique product in an anonymous auction market. In order to realize the value of its patent, the pharmaceutical company must secure the use of a complementary sales and marketing capability; through its own personnel, a joint venture, or third party distributors, it must persuade doctors to prescribe the drug. Failure to train and deploy knowledgeable sales and marketing staff limits profits from the drug and encourages stockholders to liquidate the firm to realize the value of the patent i.e. redeploy the asset in a higher valued use.\* Complementary downstream sales capabilities also help the firm retain valuable upstream research personnel: a researcher cannot derive much psychic or financial reward working for a firm that does not effectively market the products its R&D staff develop. The argument can be extended to any asset that differentiates a firm's products or services: to the extent the firm's output is unique, its value will depend on the firm's ability to locate customers who will derive the

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\* I am not suggesting that returns to investing in the complementary asset will always be positive, merely that once the investment has been made, on-going profits will be greater and that the incentives to liquidate will be lower.

most utility, educate these customers about the benefits, and analyze their willingness to pay and bargain over terms.

## **Insurance**

A broad base of assets also provides insurance against the loss of value of any one asset because of imitation by rivals, shifts in demand and so on. For instance, in a firm with strong marketing capabilities and customer relationships, the loss or diminution of the superiority of its product will reduce but not necessarily eliminate its profits. Stockholders don't have to close operations; the marketing assets buy time for the firm to recoup the loss of its product advantages.\* Multiple product lines, technologies and organizational capabilities, we should note, afford far greater protection than simply having a lot of cash on hand or having access to financial markets. Maintaining large cash balances as insurance reduces profitability. These reserves earn low returns and can make a firm a target for takeovers. And whereas a single-product firm may have easy access to equity and debt markets in good times, these sources of funds can become prohibitively costly when changes in demand or competition threaten the firm's profitability.

A broad base of assets seems particularly crucial for protecting firms against being leapfrogged by new generations of technologies. In some high technology industries, the life spans of companies that rely solely on their product development capabilities tend to coincide with the life cycle of their products. Henderson's study of the photolithography industry, Christensen's study of disk drives, and other such research suggest that winners often do not repeat in successive rounds of technological races. One explanation is that winning a round leads to myopia or incompetence—the winner does not recognize the threat from the next generation of technology or does not manage the development process efficiently. Given several keen competitors, chance may also play a significant role in determining who succeeds in developing the next technology first. Therefore, just as the random walk hypothesis tells us that the top stock picker in one period has no edge in winning in the next, we should not expect the winner of the 5 1/4 inch disk drive race to also be the first to market with 3 1/2 inch disk drives.

Multiple assets apparently provide some protection to the laggards. Long-lived companies usually are not first in every new generation of technology or market. In fact, given our discussion in Part 1, we should expect large corporations to be laggards in the development of what Christensen calls "disruptive technologies" such as personal computers that "are first commercialized in emerging or insignificant markets."<sup>5</sup> Such technologies "underperform established products in mainstream markets" and their distinctive features appeal only to "a few fringe (and generally new) customers."<sup>6</sup> And, as discussed in Part 1, the decision making processes of large corporations discourages them from pursuing small opportunities whose long term potential is highly uncertain.

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\* The long-run failure to do so will however, encourage stockholders to try to realize the value of the marketing asset through sale or liquidation of the firm.

Their broad base of assets gives companies like IBM, HP and Microsoft an opportunity to catch up with and surpass the pioneers. (See insert “Catching Up”). New entrants using the next generation of technology may wipe out a business whose profits depend primarily on its capacity to manufacture one generation of disk drives. Companies with a broad line of profitable products, brand names, close client relationships, sound engineering capabilities, financial reserves and other such assets have greater staying power. Diverse assets provide what Dixit and Pindyck<sup>7</sup> call a valuable “option to wait” until uncertainties about market size and product attributes have been reduced to the point where the corporate decision making process can endorse a substantial commitment of resources. They do not, of course, ensure success, but they give late entrants more of a chance to catch up. IBM and HP for instance could more easily cope with the threat microprocessor based workstations posed to their minicomputer businesses than could companies like Digital, Data General, Wang and Prime that focused on minicomputers.

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#### Catching Up

Long run survivors in high technology industries seem to rely as much on their capacity to catch up and surpass others’ pioneering efforts rather as on their own development of new markets or technologies. IBM, which has dominated the industry for over four decades, “came close to missing the computer business” writes Thomas J. Watson Jr. (who succeeded his father as chief executive of the company). His father (and predecessor as IBM’s chief executive) was “devoted” to punch cards; in the late 1940s, punchcard machines accounted for 85% of its revenues. IBM was also a late entrant in the mini-computer segment in the 1960s and in personal computers in the 1980s. Its marketing, sales and service capabilities and customer relationships protected IBM however. As Thomas J. Watson Jr. wrote in his memoir:

In the history of IBM, technological innovation wasn’t the thing that made us successful. Unhappily there were many times when we came in second...[but] we consistently outsold people who had better technology, because we knew how to put the story before the customer, how to install the machines successfully, and how to hang on to the customers once we had them.

HP, which has a reputation for technological leadership, derives a significant portion of its revenues from products and markets that others had developed first. An appendix in co-founder David Packard’s memoir contains pages of pioneering innovations such as the first programmable scientific desktop calculator and non-invasive fetal heart rate monitor. In its current core business however, Packard notes, HP was a late entrant. Packard records that in 1994, HP derived 78% of its total sales amounting to \$20 billion, from computer products, service and support. In 1964 HP did not have any computer sales – all of HPs revenues (amounting to \$125 million) came from instruments. Writes Packard:

This represents a remarkable transformation of our company and its business. It would be nice to claim that we foresaw the profound effect of computers on our business and that we prepared ourselves to take early advantage of the computer age. Unfortunately, the record does not justify such pride. It would be more accurate to say that we were pushed into computers...

In order to enter the computer business, HP first tried to acquire the Digital Equipment Company and then Wang Laboratories. After these acquisitions fell through, HP introduced in 1966, an automatic controller for measurement systems which became its first mini-computer, the model 2116. HP found that it was selling more 2116s as stand-alone computers than as controllers in measurement systems, writes Packard, but “we were slow to get the message”. The cancellation of Omega, an effort to develop what would have been “the world’s first 32-bit computer” provides an example of HPs “cautious approach to computers.” HP did not proceed beyond the Omega prototype, because of the expense, the new technical expertise required, and the “formidable marketing challenge”. Omega was scaled back to a 16 bit machine, the HP 3000, the company’s first general-purpose computer which was introduced in 1972. HP was also a laggard in the PC market – in 1992, it only had a 1% share of the market. Management then decided to make a determined effort in the field, and by 1998, HP had become the fourth largest supplier of personal computers with a 6.6% share of the market.<sup>8</sup>

Microsoft has introduced virtually all its significant revenue generating products after rival offerings. Its first operating system, MS-DOS, came after Digital Research’s CP/M was well established. The graphical user interface in Windows followed the Mac operating system. Microsoft’s spreadsheet Excel and word processor Word were introduced after 1-2-3 from Lotus and WordPerfect had achieved wide popularity. Its 32-bit operating systems Windows 95 and Windows NT followed IBM’s OS/2. Microsoft initially promoted its proprietary on-line service, MSN, and allowed Netscape’s Navigator to dominate the market for Internet browsers. Moreover the first version of its products, according to Mossberg have often had “serious design flaws, missing features and outright defects.”

But, after introducing products that are late and “fall far short of promises”, writes Mossberg, the company typically “mounts a massive repair effort. The fix begins with version 2.0, and usually culminates in a version 3.0 that works pretty well, or even very well.” Apparently, Microsoft’s broad portfolio of assets—its marketing and distribution capabilities, access to capital, the capacity to incorporate customer suggestions in product revisions, a near mythical reputation for invincibility and an organizational norm for taking all competitors seriously—have allowed Microsoft to catch up and pass the early leaders. For instance, Microsoft did eventually embrace the Internet; and after roughly four versions, its browser, Explorer, became a serious enough threat to Netscape’s Navigator as to attract the interest of the anti-trust lawyers in the Justice department.

We find similar patterns in finance and professional services. Goldman Sachs in investment banking and McKinsey & Co. in management consulting, the leading and most consistently profitable firms in their respective fields, have often been late in entering new markets and offering new services and products. McKinsey, for instance, was behind other consulting firms in going overseas and developing a strategy practice. McKinsey’s broad-based capabilities allowed the firm to catch up with, and eventually outdistance, the first movers in these markets and services.

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The perceived stability of firms with multiple assets can create positive feedback effects that helps them expand their portfolio of assets. As discussed in Chapter 5, firms that are expected to survive have an advantage in persuading resource providers to invest in assets that are of value to the firm. For instance, firms often make implicit promises to provide long-term rewards to employees for developing human capital (such as the sales personnel’s knowledge of the firm’s product line) that has value to the firm but is of limited use to other employers. These rewards, which might include favored promotion

opportunities and job security, are contingent on the continued survival of the firm. Therefore, all other things being equal, employees will put greater store by the promises of firms with broadly diversified assets rather than firms that rely on a few sources of differentiation.\*

The connection between longevity and a broad base of assets seems to fly in the face of the current popularity of ‘focused’ strategies. The apparent conflict derives mainly from differences in definition and perspective. The focus that many prescriptive theories recommend pertains to the assets a company directly owns and the activities that its employees carry out, whereas the heterogeneity I refer to encompasses a firm’s extended business system. The higher profitability found in more focused firms also usually derives from comparisons of mature companies that have already attained a high level of complexity. My argument pertains to the evolution of fledgling businesses. I am also more concerned with explaining longevity, not the maximization of financial returns; as mentioned, the investments required to build a long lived firm may not represent the best possible economic use of resources.

My analysis departs from the popular view about focus in one important respect. As we will see next, heterogeneity does involve costs, but there is no rigid relationship between the two. Rather, the magnitude of the costs depends on how effectively firms can cope with the problems that heterogeneity creates. The inability to develop effective mechanisms to coordinate heterogeneous assets and activities, not the heterogeneity itself, makes businesses ‘unfocused’ or ‘over-diversified.’ Some cannot manage more than one location; others realize competitive advantages from worldwide operations.† The quality of a firm’s coordination mechanisms has a profound influence on the long term profitability and viability of a business with multiple assets.

### **3. COORDINATION MECHANISMS**

The benefits of heterogeneity have offsetting costs. Complementarities also entail potential conflicts. For example, in a business whose profits result from the joint efforts of its specialized production and marketing functions, it is difficult to evaluate their relative contribution. The two units may therefore be expected to haggle over transfer prices or attempt to free ride on each other’s efforts. These problems do not arise in businesses that sell their output in an anonymous auction market. The difficulty of measuring individual contributions can also discourage talented and ambitious employees from joining the enterprise. They worry that, in a business with many interrelated parts, any out of the

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\* Some economic models suggest that employees will prefer to work in focused firms because it provides them with the opportunity to develop skills that they can use to “hold up” their employers. In my discussions with individuals seeking employment in young firms, I can think of only one instance where the opportunity to hold up the employer was of any concern. A variation on the hold up theme can be commonly observed, however, in the concerns of potential recruits about being able to add value in a large and diversified corporation.

† We see a similar pattern with national and political units. Fierce strife causes small regions like the Balkans to disintegrate. In contrast, the right structures, rules and traditions allow the United States to enjoy many benefits from its large size.

ordinary make they make may not make much of a difference to the overall enterprise and therefore will not be rewarded.

The insurance provided by multiple assets leads to moral hazard problems that can cause firms to unravel. Most insurance schemes tempt individuals to take advantage of others in the group. Purchasers of health insurance for instance have an incentive to see their doctors more often than they would if they had to bear the full costs of their visits. Since all participants face the same temptation, total benefits paid increase (unless the insurance company can monitor and penalize unnecessary visits). High benefits in turn lead to higher premiums and induce the healthiest participants to drop out.

Similar problems may undermine the risk pooling advantages provided by companies with multiple lines of business. Consider, for example, a company whose energy division offsets the losses of its steel-making business. As long as the corporation as a whole is in the black, members of the steel unit may be less willing to take the difficult steps needed to restore profitability than if they belonged to a stand-alone enterprise. And members of the healthy energy division will have an incentive to withhold contributions to the parent corporation – say, by slacking off or increasing their costs. Or they may simply leave to pursue better opportunities elsewhere. For instance in early 1988 Wasserstein, Perella and others in First Boston’s Mergers and Acquisitions department left the firm to start their own operation because they believed the profits generated by their department were being unfairly used to subsidize the trading operation.<sup>9</sup> A similar dispute has recently led to a split between the consulting and accounting units of Anderson.

As we will see below, the problems that arise due to heterogeneity defy simple ‘structural’ remedies such as common ownership of complementary assets or the adoption of multi-divisional organizational structures. Just as a nervous system that integrates specialized organs and functions pervades our bodies, a firm’s capacity to coordinate diverse assets is deeply embedded in its routines, processes, formal and tacit reporting relationships, incentive and control systems, norms, values and other such organizational attributes that influence the behavior of the employees, customers, suppliers and other resource providers. This capacity for coordination represents a critical meta-asset of long lived companies\*. Firms cannot purchase effective mechanisms to coordinate assets off the shelf (as they might, for instance, a payroll management system) or copy them from rivals; and, poor coordination mechanisms cause the unraveling of the distinctive assets that a comprise a firm.

### **Joint ownership**

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\* Henderson (1994) has discussed a different kind of “integrative competence”, namely “the ability to integrate fragmented knowledge across boundaries within a firm.” I am concerned here with the on-going problems that arise in the coordination of specialized units and resource, within or across traditional firm boundaries. We arrive at the same conclusion however, that an integrative competence represents “a potentially potent source of competitive advantage.”\*

Some “transaction cost” theorists relate the mitigation of the conflicts between complementary activities to their joint ownership. Below I summarize Oliver Williamson’s analysis of the benefits of joint ownership and review and extend Mark Granovetter’s critique.

**Williamson’s analysis.** According to Williamson, the costs of contracting between independent firms that provide complementary functions lead to their joint ownership by a single “integrated” firm. The integration of iron- and steel making, he points out, cannot be explained by the thermal economies said to be available through the integration of successive stages. “Were it possible to write and enforce a complex contingent claims contract between blast furnace and rolling mill stages, the integration of these activities, for thermal economy reasons, would be unnecessary. The prohibitive cost of such contracting is what explains the decision to integrate.”

In Williamson’s view, two conditions make contracting between independent firms engaged in successive stages of production “prohibitively costly”. One condition is the uncertainty of outcomes. The other is the small number of buyers or sellers, as may result when the minimum efficient scale is large compared to the magnitude of demand. Uncertainty makes it difficult for the parties to anticipate and incorporate into their contracts all the contingencies that would be relevant to their transactions. The problem of limited contractual protection is exacerbated by the possibilities for “opportunistic” behavior (including the use of guile and deceit) that arise when the buyers or sellers have few other parties they can do business with. Combining successive stages into a single firm, Williamson argues, alleviates opportunism and facilitates adaptation to unforeseen events, by “harmonizing interests and permitting a wider variety of sensitive incentive and control processes to be activated.”<sup>10</sup> Instead of extended haggling between independent agents over how to deal with new circumstances, executives of a single firm, organized within a well-ordered hierarchy of authority, make the necessary decisions. The hazards of “defection and cheating” are also reduced. Claims to what might otherwise have represented two separate profit streams are permanently pooled. Members of a single firm have a common interest in preserving its infrastructure. The ability to conduct internal audits discourages misrepresentation. And, the integrated firm can utilize “more refined and selective” “compliance instruments” to resolve conflicts and promote “cooperative adjustments to changing market” conditions.

Williamson acknowledges some “disabilities” of internal transactions. For instance, members of an organization may seek to promote personal goals by diverting the communication system to their own uses. Biases towards internal procurement may preserve non-viable internal capabilities. Subgroups may pursue their own objectives over those of the firm as a whole. Internal organization, Williamson claims, should therefore be regarded as a “syndrome of characteristics” with “distinctive strengths and distinctive weaknesses” which provides a clear cut advantage only when the “defects” associated with market exchange exceed a non-trivial threshold.

**Granovetter’s critique.** In his article, *Economic Action and Social Structure*, Granovetter argues that “Williamson vastly overestimates the efficacy of hierarchical power (“fiat,” in his terminology)



within organizations.”<sup>11</sup> Countering Williamson’s assertion about the efficiency of internal auditing and controls, Granovetter cites Dalton’s research which shows that, in practice, a variety of subterfuges can undermine internal audits and that “cost accounting of all kinds is a highly arbitrary and therefore easily politicized process rather than a technical procedure decided on grounds of efficiency.” In studying a large chemical plant, Dalton found that the level of services the maintenance department provided to various production departments and how it charged for those services depended on the political standing of the department heads and their relationship to the maintenance staff. Department heads could secure favored treatment “by the use of friendships, by bullying and implied threats.” Auditors, Granovetter notes, looked the other way. As one of Dalton’s sources observed: “If Auditing got to snooping around, what the hell could they find out? And if they did find anything, they’d know a damn sight better than to say anything about it...[The Department heads] have got lines through Cost Accounting. That’s a lot of bunk about Auditing being important.”<sup>12</sup>

Williamson’s analysis relies on after the fact explanations. The claim that a particular business is vertically integrated because internal transaction costs are lower than those of a market exchange is a statement of “revealed superiority” akin to explanations of individual choice based on “revealed preferences.” Such Darwinian arguments, Granovetter observes, can “careen towards a Panglossian view of whatever institution is analyzed.” The lack of clear distinctions between the nature of some hierarchical and market “defects” cited by Williamson represents another problem. What distinguishes haggling by unit managers over internal transfer prices in order to increase salaries or bonuses from haggling by the owners of adjacent businesses in order to increase their profits? Does lying by a manager to a downstream counterpart (or an internal auditor) have different transaction cost consequences from the misrepresentations by a vendor to a customer?

**Embedded Mechanisms.** Granovetter’s critique suggests a solution to some of the circularities of transaction cost analysis. Granovetter argues that the relative efficiency of vertical integration depends “on the concrete specific personal relations that develop within or between firms.” Granovetter writes that:

even with complex transactions a high level of order can often be found in the “market”—that is, across firm boundaries—and a correspondingly high level of disorder within the firm. Whether these occur, instead of what Williamson expects, depends on the nature of personal relations and networks of relations between and within firms. I claim that both order *and* disorder, honesty *and* malfeasance have more to do with structures of such relations than they do with organizational form.<sup>13</sup>

Granovetter’s suggestion that some ‘concrete personal relations’ promote order and honesty and others disorder and malfeasance corresponds to the proposition that coordination costs depend on deeply embedded mechanisms. The joint value of complementary assets depends on specific factors such as the personality and chemistry between the players, the formal and tacit rules they follow, and the incentive and control systems rather than whether the assets have joint ownership. The degree to which internal

audits become politicized or relationships with outside suppliers become acrimonious depends on many contextual factors and concrete choices. With effective coordination mechanisms the vertically integrated General Motors could become the leading U.S. automobile company and Toyota, which relies heavily on sub-contractors, could dominate the Japanese market. Similarly, Compaq and Dell have become the top leading personal computer companies in the U.S. with very different levels of vertical integration.

The quality of a firm's coordination mechanisms also affect its capacity to use a common asset across multiple activities. In the classical example, a business that rears sheep for mutton might also, in principle, profitably sell wool. Coordinating the wool and mutton lines – realizing horizontal complementarities – poses problems similar to those of coordinating complementary upstream and downstream activities. For instance, units sharing the same asset may conflict over cost allocations—how the wool and mutton businesses are charged for the costs of rearing the sheep. Conflicts may also arise, in spite of common ownership of the two lines, over asset use – how much attention a common sales force pays to two different lines and over the attempts by a less profitable unit to take a free ride on the performance of a more profitable unit. And, whether the benefits of sharing the common asset exceeds the costs of such conflicts will depend on the concrete, deeply embedded features of the coordination mechanisms.

### **Organizational Structure**

The adoption of multi-divisional organizational structures, Williamson and other theorists suggest, also represents a powerful solution to the problem of coordinating diversified assets. As we will see below, the argument, which is based on historian Alfred Chandler's studies of the modern industrial corporation, has a reasonable empirical basis. It understates, however the importance of all the other embedded mechanisms required for the multi-divisional (or any other) organizational form to play an effective role in coordinating diverse assets.

Simply put, Chandler's analysis suggests that the transformation of American industry from small scale manufacturing to dominance by large corporations resulted from the strategies adopted by some firms to increase the scale and scope of their businesses. Their expansion into "new areas, functions or product lines," writes Chandler, created "new administrative needs." Without changes in organizational structures, "the technological, financial and personnel economies of growth and size [could] not be realized."<sup>14</sup> The enterprises that came to dominate their industries developed, albeit with a lag, new organizations that met the administrative demands of their new strategies.

Chandler highlights the development of the multi-divisional organizational form (later called the M-form by Williamson) as a critical innovation. Diversification into multiple businesses placed an "intolerable strain on existing administrative structures" of the traditional functional organization. "Growth through diversification into several lines increased the number and complexity of both operational and entrepreneurial activities," writes Chandler. "The problems of obtaining materials and supplies, of manufacturing and of marketing a number of product lines for different types of customers or

in different parts of the world made the tasks of departmental headquarters exceedingly difficult to administer systematically and rationally. The coordination of product flow through several departments proved even more formidable.”<sup>15</sup> The solution was a decentralized, multi-divisional structure. Its adoption at General Motors “not only helped it to win the largest share of the automobile market in the United States, but also to expand and administer successfully its overseas manufacturing and marketing activities. Furthermore, because of its administrative structure, it was able to execute brilliantly a broad strategy of diversification into the making and selling of all types of engines, and products using engines...”<sup>16</sup>

For historians, multi-divisional organization represents a critical innovation: McCraw and Tedlow call it “one of the signal achievements of the twentieth century corporation.”<sup>17</sup> The effective administration of diversification, Chandler’s data suggest however, required a much broader effort. In Chandler’s words, the “strategies of expansion, consolidation and integration” undertaken by American industrialists “demanded structural changes and innovations *at all levels of administration.*” (Emphasis added). Chandler defines organizational structures broadly, to include “lines of communication and authority” and “the information and data that flow through these lines of communication and authority.” Chandler’s descriptions show that top executives concerned themselves, administratively speaking, with much more than the principle of organizing their corporation’s activities into quasi-autonomous divisions and deeply engaged themselves in numerous specific issues and decisions that determine the performance of a complex enterprise.

Between 1921 and 1925 for instance, General Motors “worked out highly rational and systematic procedures that permitted it, on the one hand, to coordinate and appraise the operating divisions and to plan a policy for the corporation as a whole, and on the other hand, to assure a smooth product flow from supplier to consumer and a fairly steady use of plants, facilities and personnel...”<sup>18</sup> These procedures required the design and use of detailed reports and plans such as the “Price Study” which included each division’s estimates of sales (in units and dollars), costs, profits, as well as capital requirements and returns on investment at Standard Volumes and at the rate of sales forecast for the following year.<sup>19</sup> The leadership of General Motors was also engaged in the details of personnel decisions. For example, Pierre DuPont whose family had a large investment in General Motors and served as chairman of its board reviewed “in a regular and formal fashion” the performance of all its senior executives and helped decide on their salary and bonuses.<sup>20</sup>

The ability of General Motors to realize economies of scale and scope apparently derived from a large number of managerial decisions and activities. It developed a deeply embedded and broadly based mechanisms to coordinate its diverse activities, of which its multi-divisional organization was but one (albeit important and striking) element. Today the principle of decentralization through so-called Strategic Business Units has become ubiquitous. But the complex components and architectures of effective coordination mechanisms cannot be easily replicated or purchased. Differences in coordination mechanisms therefore remain an important determinant of firm profitability and longevity. (See insert, 'Profitable Diversification.')

#### Profitable Diversification

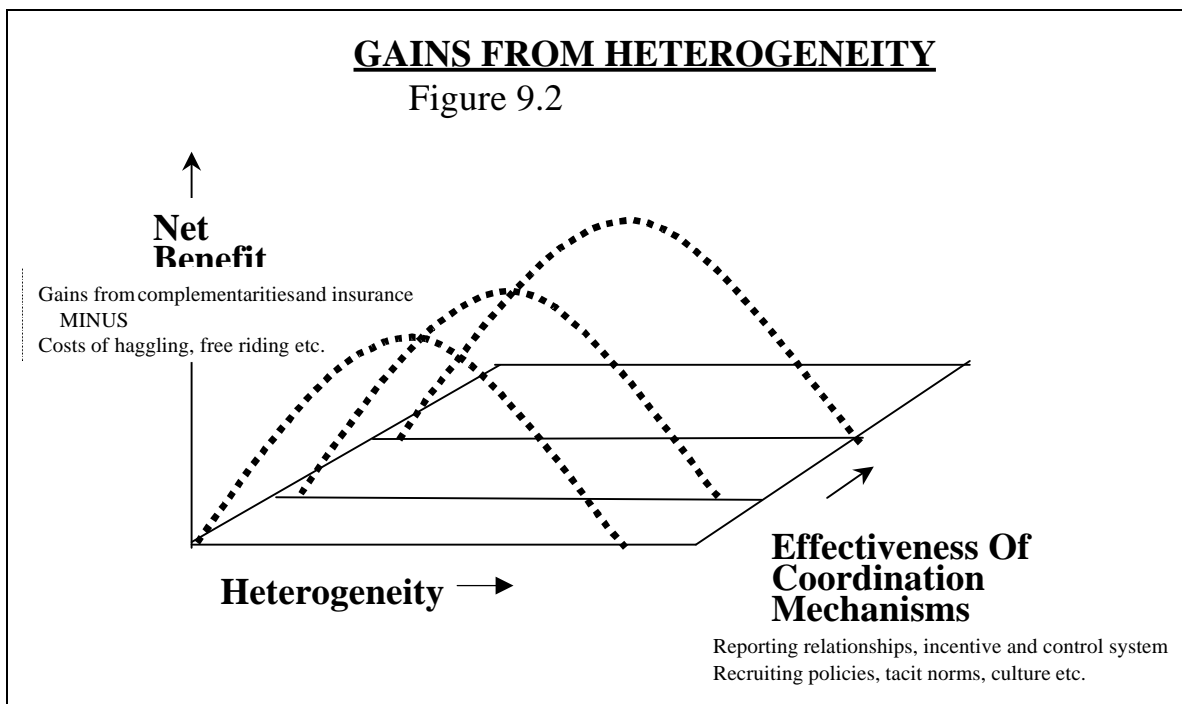
The importance of embedded coordination mechanisms in managing multiple assets is well illustrated by the extreme case of conglomerate or unrelated diversification. Most studies suggest that the widely diversified firm produces poorer returns on capital than the single-business firm or the firm that limits its diversification to "related" businesses. Stock markets typically impose a "conglomerate discount," according companies with unrelated businesses valuations considerably lower than the estimated sum of the individual components. Apparently, the cost of coordinating conglomerates usually exceeds the benefits of sharing a common managerial and fund raising resource across several businesses. But, as a 1997 *Economist* survey of the evidence on conglomeration points out, we do find exceptions.

The *Economist* noted that General Electric, a giant U.S. conglomerate, gave shareholders an annual average return of 20.8%, about 6% better than the stock market average, after Jack Welch took over as chairman in 1979. A Boston Consulting Group study of 40 of the largest American, European, and Australian conglomerates showed that the top quartile of conglomerates provided annual returns which were about five points above the average returns for all stocks listed on the market. These examples suggest that whereas "on average" the costs of the conglomerate form outweigh the benefits, "unusually talented and disciplined bosses," in the words of The *Economist*, can make unrelated diversification work. There is little proprietary about GE's general approach; indeed it is well advertised in its annual reports and presentations to Wall Street analysts. GE's reputation for motivating employees and wringing the best possible performance out of its business units indicate that its top management distinguishes itself in the details.

Even the coordination of related business activities poses difficult problems. For example, in the 1980s, several mergers in financial services attempted to create "financial supermarkets." Offering multiple products through a single distribution channel would supposedly lower sales costs and provide more convenient one-stop shopping. Under what some wags called the "socks and stocks" strategy for instance, a Dean Witter kiosk located in a Sears department store would sell insurance, brokerage services, and credit cards. These combinations failed to live up to expectations. Insurance sales staff could not, in practice, be motivated or trained to sell brokerage services and stockbrokers would not "cross-sell" insurance. Managers of the different businesses did not cooperate. If the supermarkets had worked, their architects would likely have credited themselves with brilliant strategic foresight.

In fact, the success of strategies to realize synergies across multiple businesses lies in the details. With good procedures to select, train, control and motivate its personnel General Electric's value can exceed the sum of its unrelated parts. Otherwise, obvious economies from consolidating nearly identical businesses may not be realized.

To summarize: Long-lived firms resemble species that have evolved many specialized functions rather than unicellular organisms: they have many assets to sustain their profitability. Assets cannot stand alone; their value derives from association with complementary assets. A broad base of assets also contributes to firm longevity by providing insurance against the loss of value of individual components. Heterogeneous assets also however create coordination problems that defy simple solutions – conflicts between complementary functions for instance do not go away because of their joint ownership. Rather, as illustrated in **Figure 9.2**, the net benefits of heterogeneity depend on the quality of deeply embedded coordination mechanisms. Long-lived corporations in other words exhibit a high level of coordinated heterogeneity: their coordination mechanisms allow them to derive more benefits than costs from complex business systems.



#### **4. LONGEVITY AND GROWTH**

A firm's capacity for growth has an important influence on its survival. One obvious connection between growth and longevity follows from our previous discussion of multiple assets. A small firm that relies just on the labor of its proprietors is vulnerable to the loss of their skills or motivation. To establish a more lasting source of profit than the effort of the owners can provide, the firm has to invest in assets such as proprietary technologies or brand names, increase its customer base to amortize this investment

and add employees commensurate with its expanded activities. The section below discusses a more subtle relationship between longevity and growth: A firm cannot easily stop growing after it has reached some fixed critical mass. Just as bicyclists have to keep moving to maintain their balance, competitive forces often require firms to keep growing in order to survive. We will also see how the assets and coordination that influence a firm's longevity also affect its capacity to grow.

### **Pressures to grow**

HP co-founder David Packard writes in his memoirs that over the years, he and Bill Packard had “speculated many times about the optimum size of a company.” They “did not believe that growth was important for its own sake” but eventually concluded that “continuous growth was essential” for the company to remain competitive.”<sup>21</sup> When HP published a formal list of objectives in 1966, one of the seven items was: “**Growth.** To emphasize growth as a measure of strength and a requirement for survival.”<sup>22</sup>

Penrose and subsequent theorists like Rubin have argued that the optimal size of a firm represents a moving target because of an on-going increases in its managerial capabilities and the lumpiness of its assets. The accumulation of experience and the development of decision making routines, they suggest leads a natural increase in the capacity of a firm's managerial and supervisory personnel. To quote Rubin:

Consider a firm that has just added a new product. In planning the product, management will attempt to set up decision rules for subordinates to obey. However some problems will always arise that require consultation with top management. As the firm acquires more experience with the product, it will become possible to routinize many of these decisions. Once a decision has been made, it is no longer a problem; a precedent has been set, and a subordinate can look up the appropriate rule. Thus, if an executive was kept fully occupied when production was begun, he will find himself with more and more excess time because of this process of routinization. Further, as the executive gains experience in his job, he will find that those decisions left for him will require less time.”<sup>23</sup>

Firms keep growing in the Penrose-Rubin model to utilize the progressive increase in their unused managerial capacity. The lumpiness of assets creates similar incentives to grow. A small simple firm can match the capacity of its assets to its needs relatively easily, especially if the assets are versatile. In a firm with heterogeneous assets, as Penrose pointed out, lumpiness or indivisibilities will cause the under utilization of some assets. For instance, a firm may employ two salespersons when it really needs 1.7. The unused sales capacity provides an incentive to make more products to sell, which in turn may lead to an excess of manufacturing capacity and so on.

External labor markets can also create incentives to grow. Hewlett and Packard believed that growth was a matter of survival because, HP “depended on attracting high caliber people” who wanted to “align their careers only with a company that offered ample opportunity for personal growth and progress.”<sup>24</sup> A stagnant firm risks losing its talented employees because it cannot easily offer them

opportunities to build new skills or the financial reward of a share in the economic value they help create. Once a firm's principals commit to building something more than a small lifestyle business in which they do most of the work themselves and start recruiting ambitious talent, the process cannot be easily stopped. They have to keep growing or face the disintegration of their firms. Competitive forces have a similar effect. A firm cannot remain small if its rivals increase market share by exploiting economies of scale or if customers believe that size is a precondition for long run survival. And, as mentioned in Part 1 financial markets can tip the competitive balance in favor of rapidly growing firms by providing them with a lower cost of capital.

Growth can help reduce conflicts within the firm. Research on human behavior suggests that people weigh losses of what they already have more heavily than they do new gains of a similar magnitude. When the overall pie is fixed, increasing the rewards given to one individual requires taking something away from another individual. If the pie is growing however, changes in relative shares do not require firm members to give up what they already have, so we should expect less rancorous disputes over the distribution of rewards. Growth also creates a sense of pride in the accomplishment of the organization and encourages individuals to internalize the interests of the overall group. (As discussed later, growth does however strain a firm's coordination capabilities by increasing heterogeneity.)

The incentive and pressure to grow varies. In some organizations the key tasks of the managers may not be subject to significant learning effects and routinization – a former business school dean, for instance, says that he took just as long to perform the same functions in the fifth year of his job as it did in his first. Such organizations do not need to undertake new activities to use up their excess managerial capacity. Similarly, a high technology company that competes in a market where there is room for one winner, has to attract ambitious employees from a mobile pool of labor and raise capital from the public markets, faces more intense pressure to grow than a business that does not face much competition for its customers and employees and is self-financed.

Except for the businesses that rely just on the labor of their principals, few firms can however totally avoid the pressure to grow. The owner of a building products distribution company in Massachusetts explains why he acquired a much larger company and took on debt that eventually led him to declare bankruptcy. He had built a profitable business (the “preeminent company in town”) which led him to believe he was “invincible.” Labor pressures reinforced the hubris that led him to expand: “I had five guys who I had hired and trained working for me. One of them was making \$40,000 a year, which was quite a lot of money then. But he was ready to move on and I would have had to hire and train someone all over again.”

The pressures to grow seem to have intensified in recent years with the increasing mobility of labor and capital and the aggressive pursuit of high returns. Anecdotal evidence suggests that business school students and seasoned executives alike are more willing to trade away some job security for the excitement and potential financial rewards of working in rapidly growing companies. The financial

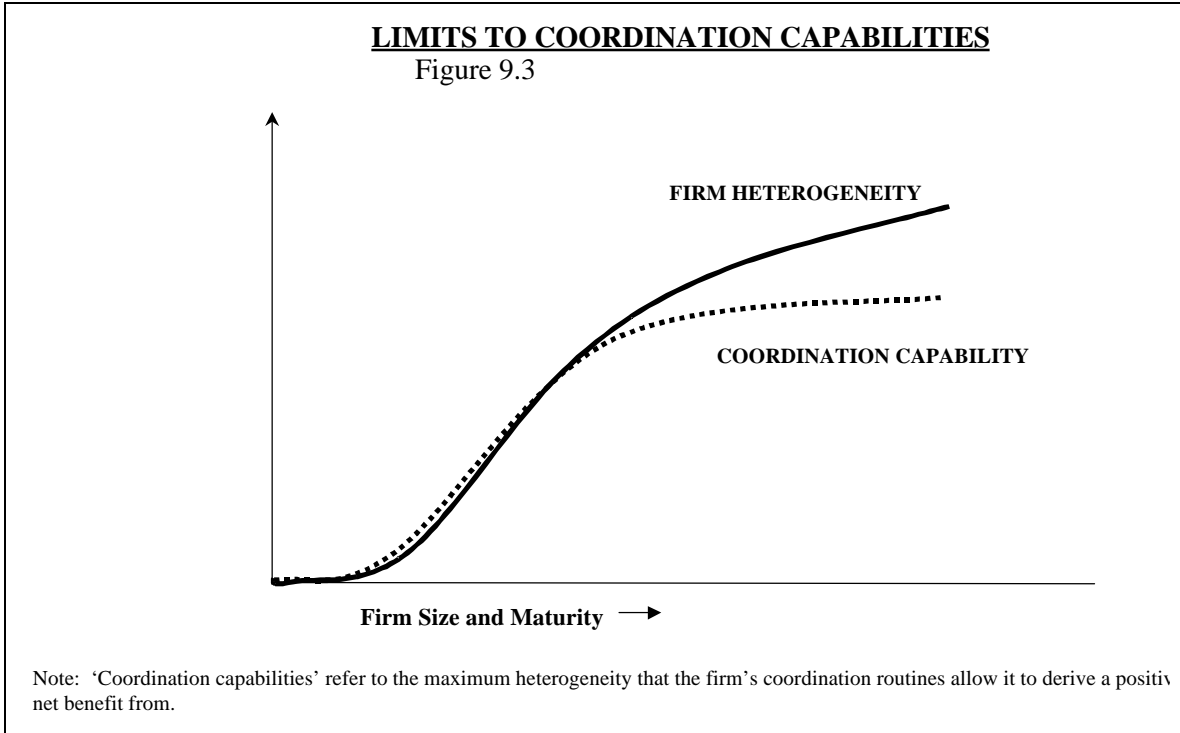
markets too, as of this writing, seem to be willing to pay a high premium for the stock such companies. But we can find evidence of such pressure from previous eras as well. The minutes of a 1956 meeting of McKinsey & Company partners record that “the question of growth in offices and size of the staff was the most frequently raised by associates” and affirm the partners’ belief that growth was “essential”, (although it could “take many forms”). Apparently the pressure to grow is pervasive feature of a market economy.

### **Capacity for Growth**

A firm’s growth potential is often related to the size of the market for its products or services. As Penrose points out however, in the long run, firms can enter new markets, serving different customers and offering different products. This long-term growth potential depends on the productive capacity of the firm’s assets and its coordination capabilities. For instance, consider a restaurant whose profits derive from difficult to replicate assets such as its location, ambience and the skills of the chef. Such a business cannot profitably grow beyond a single location – the nature of its critical assets make its markets local. In contrast, a proprietary formula for operating a hamburger store allows for worldwide expansion.

A firm’s coordination mechanisms affect its growth potential, because growth inevitably increases the diversity of assets and activities. No two customers, locations, employees, and so on are exactly alike. As the firm expands so do the coordination problems; in addition to having a formula for operating individual stores therefore, a company like McDonald’s requires a capacity to coordinate its far-flung operations. Limits on a firm’s coordination capabilities, in combination with the pressure to keep growing, can lead to its eventual demise even in the absence of significant competitive threats. This may be a reason why the natural life-span of businesses is shorter than the centuries suggested by de Gues and why companies once extolled as excellent disintegrate (see **Figure 9.3**).





The quality of a firm's coordination mechanisms also affect the *rate* at which it can expand, that is, add new assets. The coordination of existing assets resembles the functioning of an established marital relationship; the parties rely on prior agreements and understandings to adjust to unanticipated circumstances. Adding new assets involves problems similar to those of forming a new relationship, which requires developing agreements and understandings from scratch. These problems are proportional to the firm's rate of growth; the rapid addition of new locations and employees in a restaurant chain poses greater difficulties than a slow expansion. Indeed, the demise of firms is often attributed to 'excessive' growth: as HP's co-founder, David Packard puts it, "more businesses die from indigestion than starvation."<sup>25</sup>

A firm's capacity to digest new assets and activities depends on embedded mechanisms such as its incentives and control systems, recruiting and training practices and tacit norms. Effective mechanisms allow firms like Physicians Sales and Services to add employees and customers at an extremely fast rate without impairing the quality of their output or running out of cash. (See Insert, "Controlling Growth.")

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### **Controlling Growth**

Between 1987 and 1995, Physicians Sales and Services (PSS) grew from \$13 million in sales to nearly \$500 million, from 5 branches in Florida to 56 branches covering every state in the continental United States, and from 120 employees to 1,800. In his book, *Faster Company*, PSS co-founder and CEO, Pat Kelly attributes this rapid growth to several embedded mechanisms for recruiting, training and motivating employees. Here I will discuss just one of these mechanisms – PSS’s control systems. Tight financial controls played an important role in the growth according to venture capitalist and former board member, Thomas Dickerson. Dickerson notes that the PSS organizational structure gives front line employees considerable operating responsibility at the same time as a “nearly real-time control system” closely monitors results: “Each branch is run as a PSS in miniature and each branch manager is responsible for meeting targets for sales, profitability, inventory turns and receivables collections. The company builds these targets from the ground up -- top management visits all 56 centers each year, and negotiates each of the 500 salespersons' projections individually. Each evening, headquarters captures electronically the daily sales results of each sales person and receivables and inventory information from each branch.”

PSS’s systems eased staffing constraints and allowed it to grow quickly without having to recruit experienced personnel. According to founder and CEO Pat Kelly, the company gave “huge amounts of responsibility to people without much experience, many of them not long out of college.”<sup>26</sup> The control systems also allowed the company to reconcile its long-term growth objectives to the limited availability of internally and externally generated funds. The branches that PSS had to open to become a national company took about 18 months to start making a profit. New branches consumed cash and reduced reported profits – a matter of some concern because the founder Pat Kelly wanted to avoid reporting losses so that PSS would be able to eventually gain access to the public capital markets through a stock offering. The company’s budgeting and cash management system allowed it to maximize the new center openings without violating its bank borrowing covenants or falling short of its annual targets for operating income. Many young companies that lack such systems run out of cash and “grow themselves to death.”

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To summarize: In Sections 2 and 3 we examined the direct relationship between a firm’s assets and coordination mechanisms and its capacity to generate long-lived profits. In this section we found an indirect connection: Longevity goes hand in hand with growth; and a firm’s capacity for growth depends on the nature of its distinctive assets as well as its embedded coordination mechanisms.

### **5. MISSING REQUIREMENTS**

Most fledgling businesses don’t satisfy the requirements for long-term survival and growth. They lack a broad base of valuable assets. Rather, they resemble the undifferentiated firm found in models of perfect competition, that use similar inputs and technologies to produce similar products as their rivals. Promising startups, as we saw in Part 1, usually imitate or slightly modify an existing idea. Many promising startups take advantage of market disequilibria (“catch a wave”) to make their initial profits. Others rely on the personal capacity of the founders to satisfy the fuzzy wants of their customers. A small number (about 10-15% of a typical *Inc.* 500 sample) do start with a unique technology or design, but don’t offer a broad line of products or have deep R&D, manufacturing, distribution and marketing

capabilities. Capital constraints preclude most entrepreneurs from differentiating their business system along multiple fronts.

With few assets and a narrow range of activities, the fledgling enterprise does not require extensive coordination mechanisms. The founders perform most of the important functions and even some of the mundane tasks. In the early days of HP, the two founders, writes Packard, “had to tackle almost everything ourselves – from inventing and building products to pricing, to packaging, and shipping them; from dealing with customers and sales representatives to keeping the books; from writing the ads to sweeping up at the end of the day.”<sup>27</sup> The young firm doesn’t have formal reporting relationships, personnel policies, incentive and control systems and so on. The founders rely on case-by-case judgment and informal systems to manage a few employees performing unstructured roles.

Such firms cannot long survive without broadening their assets. Entrepreneurs who ride the wave of a new technology, legal regime or other such exogenous change prosper at the outset because demand exceeds the available supply. Waves crest however; as market imbalances disappear, so do many undifferentiated suppliers. Businesses that rely on the entrepreneur’s personal capacity to satisfy amorphous customer wants are vulnerable to the erosion of the principals’ drive and skills and to competition from hungrier upstarts. And single-product businesses often succumb to changes in technology or customer preferences over which they have no control.

Fledgling firms also face significant growth constraints. The business that merely rides a wave has to share its market with new entrants attracted by the high profits of the incumbents. Businesses that rely on their founders’ ability to serve amorphous wants are constrained by the productive capacity of their differentiating asset. And the growth of the few “better mousetrap” businesses like HP is limited by the size of their niche markets.

A fledgling business does provide a starting point for building coordinated assets. Although many of the entrepreneurs of the 1980s who assembled IBM PC ‘clones’ from standard components folded their businesses, Michael Dell used his dormitory room operation as a platform for building a brand name and distinctive production, logistics and marketing capabilities. Sam Walton opened his first store as a franchisee of the Ben Franklin variety store chain but soon developed the know-how to run standardized franchised stores in different and more profitable ways and then discovered opportunities in discounting. Hewlett and Packard reinvested the profits from their audio-oscillators to develop a broad line of electronic test equipment.

Entrepreneurs who operate even precarious businesses have a chance to discover opportunities that outsiders cannot see. A going business also enjoys advantages in securing the capital, customers, employees and other resources required to build the firm’s assets. Vinod Khosla, co-founder of Sun Microsystems recalls how he made over a hundred phone calls trying to recruit an experienced marketing manager to help launch the company: “Most of them just hung up on me. When you are 26 years old, look like a little kid, talk with a funny accent, and have two people in your company, and you're calling

the vice president at DEC and HP, you don't get very far. . . Besides, nobody wants to leave established companies to join someplace where they can't even see six months' of salary." One year later, when Sun booked a profit and reached a million dollars in monthly revenues, it was able to hire a senior executive, Owen Brown, away from Digital Equipment. Khosla observes: "People feel a lot more comfortable with something there and running and profitable and operating, even if it is small, relative to nothing there. There's a radical nonlinear function between those two."

Although having "something there" provides a valuable platform for building something on, the progression to well-established business is unusual. As we will see in subsequent chapters, it takes decades of sustained effort by exceptional entrepreneurs to bridge the wide gap that separates the "promising" Wal-Mart, Sun or HP from the well-established Fortune 500 enterprise.

## **6. SUMMARY AND CONCLUSIONS**

The material above provides some basic building blocks for analyzing the growth and longevity of firms. We adopted the Resource Based View of a firm as comprising a distinctive bundle of tangible and intangible assets. We associated its life span with the continuity of its assets and its size with its area of economic influence. Long-lived firms, we found, have a broad portfolio of assets and effective mechanisms for coordinating these assets. We also discussed the close connection between longevity and growth. These determinants of longevity suggested a wide gap between fledgling and well-established firms.

Going forward, we can think of the building of long-lived firms as the process of closing that gap – i.e. of investing in a broad base of assets, developing mechanisms to coordinate these assets and overcoming growth constraints. We may also contrast the challenges of firm building with those of managing a well-established business. Building a firm requires the entrepreneur to develop assets and coordination mechanisms, more or less from scratch. The concerns of the top managers of established businesses revolve around existing assets and mechanisms. Given the current set of market opportunities, are the firm's assets being put to their best possible use? Would investing in new complementary assets increase the value of the firm's portfolio? Should some components be divested because they would be more valuable to another firm? Similarly where the entrepreneur has to build coordination mechanisms, the executive has to resist being overwhelmed by them. The "way things are done around here," formal and informal organizational rules and multiple levels of decision making can all marginalize the efforts of top management and eventually lead to the demise of venerable business institutions.

The coordinated heterogeneity of large corporations we may further note influences the economic role they play. In Part 1, I suggested that the control systems decision making processes of large corporations allows and encourages them to undertake initiatives that require significant up-front investment. The analysis of this chapter suggests that the systems also facilitate the coordination of heterogeneous assets and activities. The comparative advantage of large corporations thus encompasses high capital requirements as well as complexity. In contrast to the hedge-fund manager, George Soros's

billion dollar currency speculations, the projects undertaken by companies like IBM and Intel have many moving parts.

This perspective bears a close relationship to the theories of Chester Barnard, Herbert Simon and Alfred Chandler that connect the multi-faceted administrative and social structures of firms to their economic role. The correspondence is not as close however, with the ‘transaction costs’ theories pioneered by Coase and extended by scholars such as Williamson. Their theories focus on bilateral exchanges that can either take place between two autonomous agents through market transactions or within a firm whose owners have a claim on the cash flows of both the parties. While transaction cost analyses provide many useful insights, I believe they miss important aspects of the coordination mechanisms found in real life business organizations.

Large corporations – from the early railroads to the modern Microsoft or Intel – do not just coordinate transactions between two parties. They undertake and manage initiatives which involve the joint effort of a heterogeneous group of agents. Joint ownership (or employment) represents but one tool for such multi-lateral coordination: the effectiveness of the joint effort of many agents depends on a multi-faceted, deeply embedded organizational nervous system. And, the dichotomy between ‘firms’ and ‘markets’ overlooks important differences in the coordination capacities of firms and therefore the kinds of activities they tend to specialize in. Small firms whose owners personally do most of the coordinating have an advantage in undertaking activities that do not involve many specialized assets. As firms develop more extensive coordination capabilities they tend to undertake activities where the returns from managing complexity can justify the increased administrative costs. The evolution of a firm thus involves basic changes in its economic role.

## **CHAPTER 10: EXISTING THEORIES AND MODELS**

*This chapter examines existing theories and models that might help explain why some promising new ventures undergo the transformation into large and long-lived businesses. Section 1 suggests that although the transformation is radical, it takes place gradually. Sections 2 through 5 examine possible explanations from mainstream economic theory, lifecycle models, evolutionary theory and the business strategy literature.*

Most businesses mature gradually. Only exceptional businesses start with the talent, capital and strategies that rapidly propel them into the ranks of large, well-established companies. Compaq, as we saw in the introduction, had an experienced team, \$20 million in venture capital, and a plan that allowed it to behave like a large sophisticated company from the start, selling \$100 million of its computers in its very first year. To use a biological analogy, ventures like Compaq are like the “precocial” offspring of horses, which are relatively mature at birth and can see and walk in a matter of hours. Most startups however, resemble the “altricial” young of creatures such as birds, red foxes, and humans that are born in an immature and precarious state. Altricial startups take many years, often decades, to build the assets and coordination mechanisms that characterize well-established firms. Moreover, most don’t: in contrast to human offspring, an early demise or arrested development is the rule with start-ups, survival and growth the exception. In this chapter we will examine a variety of theories and models that might explain why only a few startups go on to become large and long-lived firms.

### **1. A GRADUAL PROCESS**

Fledgling businesses turn into long-lived companies through a protracted, multi-stage process rather than through a one-shot transformation. It often requires decades of sustained investment to develop the necessary systems of coordinated assets for several reasons:

**Capital constraints.** Developing the assets that sustain a long-lived firm requires much more investment than does starting a promising business. Entrepreneurs have to undertake initiatives that require considerable out of pocket outlays or opportunity costs in order to develop brand names, technologies, broad product lines, distribution channels and so on. As we have seen, few entrepreneurs can undertake such initiatives at the outset because they lack credibility with the providers of capital and their businesses have highly uncertain prospects. As entrepreneurs build a track record, uncertainties about their ability and business propositions diminish. They gain access to more capital and can move their initiatives from the upper left hand corner to the middle of the investment-uncertainty-profit diagram. But because it takes time for capital constraints to ease, entrepreneurs cannot make a one shot investment in a system of complementary assets. Rather, they tend to invest in a few assets that have the highest likely payoff and to use standard, readily available elements in the rest of their business system. Subsequently, as they gain access to more capital, they can invest in a broader portfolio of assets. Michael Dell, the founder of Dell Computer, for example, made low price an option for sophisticated personal

computer buyers by assembling standard components and selling by mail order without frills or much sales support. As internally generated profits grew and Dell gained access to public equity markets, the company was able to build a brand name, an extensive logistics system, sales and support functions and close relationships with its suppliers.

**Foreknowledge.** Entrepreneurs cannot easily envision the design of an effective system of complementary assets in advance. For instance, the distinctive features of the Wal-Mart discount chain—its focus on underserved rural areas, low prices, purchasing skills, investments in information technology, employee culture, and even the greeters at store entrances—have an impressive logic and coherence. But while we might admire the system now, Wal-Mart’s history suggests that its founder, Sam Walton, did not envision its components beforehand. Walton started by buying what he called a “real dog” of a franchised store in a small town in Arkansas. He added more franchised stores through the 1950s and did not open his first ‘Wal-Mart’ until 1962. The Wal-Mart system then evolved, over more than a decade, after much trial-and-error and some failed initiatives, rather than through the execution of a master plan.

**Learning by doing.** Some critical assets such as know-how and reputations can only be developed through repeated action. A pharmaceutical company develops an effective capability to discover new drugs by undertaking many research projects and distilling effective management routines and practices from them.<sup>28</sup> Experience leads firms that have produced more output over time to enjoy lower costs.\* In some cases the ability to get any output at all from a technology requires, according to Polyani, an “indefinable knowledge” built through experience. Polyani recalls observing, “in Hungary a new, imported machine for blowing electric lamp bulbs, the exact counterpart of which was operating successfully in Germany, failing for a whole year to produce a single flawless bulb”<sup>29</sup>

Firms build relationships with customers by consistently providing high quality service and products. They develop valuable brand names and distribution capabilities after decades of effort and investment. For example, according to Ip, Coca Cola owes its 50% share of the world soft drink market to its “painstakingly developed brand” on which it spent, between 1919 and 1998, \$78 billion (inflation-adjusted 1998) dollars.<sup>30</sup> We can in fact reasonably argue that the time and experience required to develop such intangible assets makes them valuable and difficult to replicate.

The evolution of coordination mechanisms follows the gradual development of assets. In exceptional ventures like Compaq, experienced founders quickly delegate many of their responsibilities to employees who are recruited for well-defined positions. Administrative structures and systems are established well before they are necessary. This is unusual: in *Inc.*’s survey of the founders of companies who made the “500” lists from 1982 to 1989, only 2% reported that they had the systems in place for fast growth when the first began operations.<sup>31</sup> The typical fledgling company cannot afford the fixed costs of

maintaining an extensive administrative infrastructure and its simple, small scale of operation does not require formal systems and structures. It confronts the issue of developing coordination mechanisms after its assets and activities exceed the entrepreneur's personal limits and it has the financial capacity to support organizational overhead. (See insert, The lagged development of organizational structures and systems).

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### The Lagged Development Of Organizational Structures And Systems

Few long-lived companies devote much effort at the outset to build their organizational capabilities, and they continue to operate without formal organizational systems and structures for quite a long time. "For several years" Wal-Mart founder Sam Walton writes, "the company was just me and the managers in the stores."<sup>32</sup> There was no time for "building the company up" because "we were too busy concentrating on day to day operations."<sup>33</sup> Coordination was accomplished by "a bunch of store managers getting together early Saturday morning" when "we would review what we had bought and see how many dollars we had committed to it." The company made up for a "a lot of shortcomings – an unsophisticated buying program, a less than ideal merchandise assortment, and practically no back office support" by emphasizing item promotion – by "being merchants."<sup>34</sup> Similarly, for the first decade or so, the emphasis at McKinsey & Co. was on building a reputation and a top quality clientele. The firm had few written policies or committees – its ten or so partners would meet as a group and agree on all major decisions.

Eventually, the lack of formal structures and systems limits the evolution of the enterprise. Entrepreneurs cannot personally direct the activities of a large firm with heterogeneous assets. They need to develop mechanisms such as compensations systems, financial controls, and organizational cultures to coordinate specialized activities and units. The growing firm also has to cope with capital constraints; it therefore needs systems to forecast and monitor the availability of cash and to satisfy banks and other capital providers who will often refuse to advance funds to companies with weak controls and organizational infrastructure.

By the mid sixties, Marks writes, Walton was deeply in the "absentee ownership situation" of "putting your stores out where you, as management, aren't" and realized the need to develop systems to "control his operations, no matter where they might be." Walton became "the best utilizer of information to control absentee ownership that there's ever been" which allowed him to open a large number of far-flung stores and operate them at exceptional levels of profitability. Similarly, after McKinsey had established its client base, Marvin Bower initiated several measures in the 1950s to formalize and revamp its governance structures and recruitment and promotion policies. For instance, the firm adopted written guidelines for sharing profits and electing new partners and formed profit sharing, executive and planning committees. These initiatives allowed McKinsey to transform itself from a five office U.S. firm to an international enterprise: between 1959 and 1966, the firm opened overseas offices in London, Geneva, Melbourne, Paris, Amsterdam and Dusseldorf. The expansion would likely not have been possible if the informal style of decision making by all the partners had been retained.

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Although the process of building coordinated assets is gradual, it ultimately results in a radical transformation. Microsoft of the 1990s bears little resemblance to the Microsoft of the 1970s. Moreover,

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\* Per the well-known learning curve effects popularized by the Boston Consulting Group, manufacturing costs in many industries are a function of cumulative output.



as we will see, turning a fledgling business into a well-established one requires entrepreneurs to effect a U-turn and abandon, albeit gradually, the very policies that allowed them to get up and running with limited capital. They often have to emerge from their hospitable niches and compete with large companies. When John Katzman launched the *Princeton Review* he competed against private tutors of uneven quality in Manhattan. To become a nationally franchised operation, his company had to confront the established Stanley Kaplan chain. In order to realize economies of scale, entrepreneurs have to make more standardized products and stop offering extensive modifications and customization to their customers. Nor can they rely on employees with low opportunity costs. The growth of a business often requires replacing cheap but inexperienced staff, with well-paid professional managers. They must become more selective about the opportunities they pursue. Building know-how and reputations in a certain field often requires entrepreneurs to forgo diversionary profit opportunities.

These changes imply a basic shift in objectives. As Phil Bookman, of the software company, Siltan-Bookman put it:

In the early days, managing cash is the most important thing. It is cash that matters and cash alone. Early on, I was a cash management fanatic. I made everyone crazy. I scrutinized every expenditure. If people overspent their cash budget they had to explain that. In the early days, \$100 meant a lot. Today, I have to tell people that they should not worry so much about the little expenditures and think about the big picture.<sup>35</sup>

Few entrepreneurs successfully undertake the changes necessary to transform fledgling firms, however. The remaining sections of this chapter review the existing research that might explain why the evolution of large and long-lived firms is so unusual. We will examine the following models: mainstream economic theories; 'biologically' inspired lifecycle models and Nelson and Winter's evolutionary theory; and models from business strategy. The exercise will suggest some ideas and concepts for use in the next chapter, but we will find that the ability of the theories to explain differences in the evolution of new firms is limited. Readers who are already familiar with the ideas (summarized in **Table 10.1**) may choose to skim the rest of the chapter.

## **EXISTING THEORIES AND MODELS**

Table 10.1

<b><i>Mainstream Economic Theories</i></b>	<ul style="list-style-type: none"><li>• Do not attempt to explain why certain firms attain noteworthy size and longevity</li></ul>
<b><i>Life-cycle models</i></b>	<ul style="list-style-type: none"><li>• Directly address the issue of new venture growth</li><li>• Accurately reflect the gradual nature of firm evolution</li><li>• Inappropriately assume the firms conform to a uniform path of growth</li><li>• Oversimplify the nature of the entrepreneur's role</li></ul>
<b><i>Evolutionary Theories (Nelson and Winter)</i></b>	<ul style="list-style-type: none"><li>• Address issues such as innovation and economic change</li><li>• Assume that firms grow through a combination of luck and routines rather than through the purposive choices of a decision-maker.</li><li>• May reflect realities of large corporations, but underplay the role of entrepreneurs in fledgling firm</li></ul>
<b><i>Business Strategy Models</i></b>	<ul style="list-style-type: none"><li>• Emphasize role of top-decision maker</li><li>• Provide framework to analyze multi-period, multi-dimensional initiatives</li><li>• Implicit perspective of large company CEOs; need adaptation for analysis of transitional firms.</li></ul>

## **2. ECONOMIC THEORY**

Mainstream economics has little to tell us about how and why some firms survive and grow and others do not. In the standard microeconomic theory that focuses on perfect competition between many identical competitors, the question never arises. Variations in the size and longevity of firms have no influence on outcomes, and the evolution of a specific firm is irrelevant – it makes little difference in this theory whether changes in characteristics are treated as altering the existing firm or creating a new firm. Some theorists in fact prefer the latter approach – Penrose cites Robert Triffin who stated that it was better to say that a new firm was created when the producer's appraisal of cost and revenue conditions changed.<sup>36</sup>

The Industrial Organization (IO) sub-field of economics, which studies oligopolistic rather than perfect competition, does take notice of differences in firm size and growth. IO research suggests that the structural characteristics of an industry, including the number of competitors and their relative market shares, have a significant impact on economic outcomes. For instance, a seminal paper by Joe Bain in 1951 showed that the profitability of manufacturing industries where the eight largest firms accounted for 70% of sales was nearly twice as great as more fragmented industries where the top eight firms had a lower than 70% share of the overall market. Much of the IO research that extended Bain's paper was cross-sectional—it studied how differences in structures (and the conduct of the competitors) across industries led to different levels of profitability, efficiency, innovation and so on.

Some researchers have also studied how the structures of industries evolve over time. In keeping with the finding of low overall survival rates of startups, studies of industry evolution also point to the failure of a considerable proportion of the early entrants. According to Jovanovic and MacDonald, for instance, the growth of the automobile tire industry in the U.S. attracted 275 firms in 1922. Six years later, in 1928, the number of tire producers had more than halved to 132, and then halved again to about 60 in 1932. Gort and Klepper found the same patterns of widespread exit in the 46 industries they analyzed.

IO researchers did not probe deeply into why particular firms survive. Thus, a structural analysis might rely on factors such as economies of scale to explain why the number of viable long run competitors in the automobile industry would be smaller than the number of management consulting firms. But structural variables cannot explain why GM and Ford in particular came to dominate the U.S. automobile market when scores of other startups folded. Or, why McKinsey & Co. has flourished through several generations of partners where most consulting firms fail to outlive their partners. Detailed answers to such questions seem unnecessary for economists who are more interested in the degree of concentration in an industry and its consequences for economic efficiency.

Consider, Jovanovic and MacDonald's work on the tire industry. "In the U.S. tire industry," they write, "several key inventions appeared in the 1910-20 period. Once put to work, they allowed a dramatic increase in scale. Firms that were able to implement early were rewarded with growth in output and value; the others joined a mass exodus."<sup>37</sup> But why did only some firms implement the "key inventions", such as the 1916 Banbury mixer that greatly accelerated the process of mixing rubber with other compounds, that were, in principle, available to all? Was it, for instance, because some decision-makers had more foresight, willingness to bet on new technology, access to capital, or the ability to build organizations needed to effectively implement the new inventions? For Jovanovic and MacDonald's purpose, which is to explain why "firm numbers first rise, then later fall, as an industry evolves"<sup>38</sup> it is sufficient to assume a model in which "innovative success is stochastic, so that some firms succeed before others."<sup>39\*</sup>

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\* Some IO-based researchers like Michael Porter relate the survival and growth of a business to the strategy its managers choose and I will discuss some of their contributions in Section 5.

### **3. LIFE-CYCLE MODELS**

"Stages of growth" or "life-cycle" models offer predictions on how firms develop as well as advice to entrepreneurs on nurturing their new ventures. The models recognize that businesses evolve in a gradual way; but we will see, they assume an excessive preordination of development and they understate the entrepreneur's role.\*

The lifecycle approach posits that just as humans pass through similar stages of physiological and psychological development from infancy to adulthood, businesses evolve in predictable ways and encounter similar problems in their growth. Managers of firms at different "stages of growth" have different tasks and priorities, just as parents of children of different ages face different challenges. "A company's development stage" write Churchill and Lewis, "determines the managerial factors that must be dealt with."<sup>40</sup>

Their resonance with the biological world gives these models intuitive appeal. They give entrepreneurs the comfort that an authoritative child-rearing book can provide parents by, for example, telling them what to do and expect during their child's "terrible twos." They suggest, that as the business matures, the entrepreneur's job is to progressively "let go." Founders who do not delegate stunt the growth of their firms, just as over-controlling parents can retard the development of their offspring. "As the company grows", write Churchill and Lewis, "the owner must spend less time doing and more time managing. He or she must increase the amount of work done through other people, which means delegating. The inability of many founders to let go of doing and to begin managing and delegating explains the demise of many businesses in substage III-G [the 'success-growth' stage] and stage IV [the 'Take-off' stage]".<sup>41</sup>

As discussed in Section 1, the data seem consistent with a characterization of firm development as gradual and 'altricial' rather than one-shot or 'precocial'. Life cycle models overextend the biological metaphor, however, by asserting that businesses progress through predictable phases. We see little evidence to support the details in the Churchill-Lewis model, which suggest for instance, that operational planning is introduced in stage III-D (the "success-disengagement" stage) and extensive strategic planning in stage III-G (the "success-growth" stage). My observations suggest that ventures evolve in unpredictable, idiosyncratic ways that do not conform to one-size-fits all models of development. Lifecycle models fail to adequately account for the great variety in the manner in which firms grow.

We cannot easily map, for example, the histories of Ford and General Motors into a common evolutionary story. Rather, as described in the insert 'Ford versus. General Motors', we find great differences in how the two competitors developed their assets and routines, and in the role of their founders. If we look at firms across a range of industries, the case for a one-size-fits-all model becomes

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\* In the discussion of lifecycle models below, I will focus on Neil Churchill and Virginia Lewis's article, "The five stages of small business growth," (Churchill and Lewis (1983)) which built on prior work by McGuire, Steinmetz, and Griener, and is considered a seminal piece in the genre.

even weaker. A well-run professional firm is bound to develop along very different lines from a discount retailer. While Wal-Mart and McKinsey both built organizational capabilities gradually, the development of their control, budgeting, incentive, governance and other such routines had very little in common. Wal-Mart invested heavily in automated inventory and logistics systems. McKinsey focused on establishing committees and devoted considerable time to develop and implement criteria for evaluating and compensating its staff. Wal-Mart stuck to out of the way locations in the U.S.; it did not have any overseas locations until 1992, the year in which it recorded \$55 billion in domestic sales. McKinsey opened its first international office in 1959 when the firm's total billings were just \$5.7 million. In 1992, the year of Wal-Mart's first overseas initiative, McKinsey operated in 31 countries.

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#### **Ford versus General Motors.**

The Ford Motor Company and General Motors, which came to dominate the U.S. automobile industry evolved in markedly different ways. Ford's evolution reflects founder Henry Ford's engineering and manufacturing interests. Henry Ford, who was born on a Michigan farm in 1863, pursued mechanical hobbies from his boyhood. He joined the Detroit Edison Company as an engineer and built internal combustion engines in his spare time and sold his first "gasoline buggy" in 1892. In 1899, Ford was dismissed as chief engineer of Detroit Edison because his superiors believed he had become excessively preoccupied with his side interests. He then started the Detroit Automobile Company, but soon withdrew after a dispute with his financial backers. After a stint as a developer of racing cars, he started the Ford Motor Company (FMC) in 1903 using capital that he raised from friends. FMC produced over 1,700 cars in its first year in a converted wagon factory. The company soon relocated to larger facility in Detroit and opened a plant in Canada.

Ford wanted FMC to use large-scale production to manufacture cars that everyone could afford but some of the company's investors did not share his vision. Ford thereupon bought them out, secured majority control and assumed the presidency of FMC in 1906. In 1908, the company introduced the Model T. It was produced on a moving assembly line, with machines specialized for minute tasks and extreme division of labor. The system of mass production of a single, standardized product yielded cost-savings, which allowed for low prices, which in turn helped expanded consumer demand.

FMC grew by replicating this system in ever larger and more vertically integrated facilities. In 1919, after minority investors objected to Ford's plan to build a gigantic manufacturing complex, complete with its own steel mill, he bought them out and reregistered the company as a Delaware corporation. Ford proceeded to build the complex at River Rouge, near Detroit and continued to manufacture the Model T until 1927.

General Motors (GM) which caught up with and then surpassed FMC in the late 1920s followed a different trajectory. In its early years it grew through acquisitions rather than by building its own plants. Founder William Durant, the son of a Michigan governor, had been in the carriage making business in the 1890s. In 1904, he bought the failing Buick Motor Company, one many small companies then in automobile production. Using Buick as his base, he persuaded the suppliers who had previously made him carriages to make automobiles, and bought more companies in the automobile business. In 1908, he formed GM as a holding company for further acquisitions. Starting with Buick, Oldsmobile and a bodymaker in Flint, GM acquired, within the space of eighteen months, large

blocks of stock in Cadillac and Oakland (renamed Pontiac), six other automobile companies, three truck firms, and ten parts and accessories companies.

These rapid acquisitions caused a financial crisis. In 1910, GM's lenders forced Durant to relinquish control. Five years later, with the financial support of the DuPont family, Durant managed to regain control and resumed his acquisition spree. By 1920, GM had acquired more than 30 companies. A business downturn that year, however, precipitated another debt crisis. Durant relinquished the presidency of GM to Pierre du Pont, who had the confidence of the company's creditors. Du Pont turned to Alfred Sloan, Jr., to run the company. According to McCraw and Tedlow, Sloan reveled in the subtleties and nuances of organizational issues, and helped create "a system for managing human relations that was just as rationally planned and efficient for business organization as Henry Ford's assembly line had been for production."

Under Sloan, GM adopted a multidivisional structure that "combined the virtues of centralized control with those of decentralized decision making."<sup>42</sup> GM was organized into several divisions (such as Buick, Olds and Pontiac), each of which was responsible for a distinct price segment of the market. Where Ford offered a single Model T, GM's divisions catered to the increasingly differentiated tastes of different customer segments. At the same time GM did not lose the cost advantages of high volume production, because it used common components that went into several makes and models.

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I do not mean to suggest that the absence of preordained development paths precludes some common features in the growth of companies and industries. We have to distinguish, however, between the identification and explanation of historical patterns and propositions with predictive value. For instance, Alfred Chandler's work on the evolution of large industrial companies suggests that the adoption of a multi-divisional organizational structure followed strategies of diversification into multiple lines of business, after a significant period of experimentation. Today, as the benefits of decentralized business units have been widely accepted, we should not expect to find a similar lag – the durable hypothesis one can draw from Chandler's work is that the effective implementation of strategy requires the adoption of appropriate organizational structures and routines.<sup>43</sup> Therefore, the model of firm evolution that I will propose does not try to force empirical regularities into a recurring temporal sequence. Rather, I will use these regularities to identify the critical tasks that entrepreneurs have to perform to build a large and long-lived firm and the skills and traits they need to perform these tasks.

Another noteworthy limitation of lifecycle models lies in their oversimplification of the entrepreneur's role. One cannot dispute the proposition that as their businesses grow entrepreneurs 'do less and delegate more', making a smaller proportion of the decisions. The simple injunction to "let go" does not however reflect the complex nature of the tasks that entrepreneurs like Henry Ford, Alfred Sloan, Sam Walton and Marvin Bower performed over several decades. For reasons that we will analyze in the next chapter, these entrepreneurs combined the visionary tasks formulating long-term strategies with a "hands-on" role in their implementation. Walton not only formulated his company's strategy of putting

“good-sized discount stores into little one horse towns which everybody else was ignoring,”<sup>44</sup> he also scouted for locations from a plane that he personally flew. Walton writes:

From up in the air we could check out traffic flows, see which way cities and towns were growing, and evaluate the location of the competition...I loved doing it myself. I'd get down low, turn my plane up on its side, and fly right over a town. Once we had a spot picked out, we'd land, go find out who owned the property, and try to negotiate the deal right then...I guarantee you not many principals of retailing companies were flying around sideways studying development patterns...”<sup>45</sup>

Walton picked the first 120 or 130 stores in this fashion and until Wal-Mart grew to about 500 stores continued to “keep up with every real estate deal we made and got to view most locations before we signed any kind of commitment” because “a good location and what we have to pay for it, is so important to the success of a store.” Similarly, in his long stint at the helm of McKinsey & Co. Marvin Bower played an important role in securing and directing several pivotal studies. He directed a study for Shell Oil's operating company in Venezuela in 1956 which was a “tryout” for an overall study of Shell's organization structure, “spending several weeks at a time on location.”<sup>46</sup> In 1957, he negotiated the follow on organizational study which provided the basis for opening an office in London. On learning in 1962 that the chairman of Imperial Chemical Industries (ICI) had expressed an interest in meeting Bower when he was “next in London,” Bower flew over immediately. The study he negotiated with ICI, the largest industrial enterprise in the U.K., provided the “client breakthrough” after which the London office was “swamped with major new British clients.”

Few entrepreneurs who build durable companies, in fact, ever adopt a purely visionary or statesmanlike role within their organizations. Marvin Bower did not stop working on client studies until he was about 90. Sam Walton writes that until he got “really sick” in 1991 (he died of cancer in 1992) he remained fully engaged in the operational details: “If I wasn't in the stores trying to pump up our associates to do an even better job, or in the office looking over the numbers to see where the next trouble spot was going to pop up, or leading cheers at a Saturday morning meeting, I was probably at the stick of my airplane... checking out the number of cars in those K-Mart parking lots.”<sup>47</sup> Bill Gates, co-founder and CEO of the multibillion-dollar software powerhouse, Microsoft, still reportedly reviews the code programmers write. Psychoanalyst and emeritus HBS professor Abraham Zaleznik argues that the effective leadership of an enterprise requires top executives to engage in the “real work” of “thinking about and acting on products, markets and customers.” When top executives “put interpersonal matters, power relations and pouring oil on troubled waters ahead of real work” subordinates follow their lead. Group norms appear to “foster the appearances of getting along... Process takes precedence over substance. Attention turns inward to the organization's politics rather than outward to the real work of making and marketing goods and services.”<sup>48</sup>

This is not to suggest that Walton's or Bower's role remained the same as their companies grew. In fact the next two chapters suggest that building a long lived firm entails radical changes in the

entrepreneurs role. But, these changes I will argue involve a broadening and expansion of responsibilities, rather than the narrowing implied in “letting go.”

#### **4. EVOLUTIONARY THEORIES**

The evolutionary approach (in contrast to life cycle models) has attracted considerable interest in recent years. Some scholars believe that models based on natural selection can better explain ‘real world’ phenomena than standard economic theory. Rather than review this growing literature however, I will concentrate below on Nelson and Winter’s pioneering work, which has almost become synonymous with evolutionary theory. After summarizing the features of the Nelson and Winter models which distinguish them from mainstream economic theory, I will examine the degree to which they explain observed patterns of the evolution of fledgling businesses.

Evolutionary theories, like life cycle models, are based on a biological analogy but with an important difference. Life cycle models implicitly compare the development of firms to the predetermined aspects of biological maturation that are programmed into the genetic code of a species. Evolutionary theories are inspired by models of how the inherited traits of a species change through chance variation and natural selection. There is accordingly nothing predestined about firm development in evolutionary models. Different firms grow at different rates. History matters—firm development is “path-dependent.”

##### **Distinguishing Features**

Unlike the formal mathematical analysis found in standard economic models, Nelson and Winter use multi-period computer simulations to address problems such as explaining rates of technical change, how industry structures influence and are influenced by the R&D activities of firms and the interaction of innovation and imitation. They typically start with a population of firms (or an “industry”) that follow specified rules to search for new techniques or investments in research and development. A stochastic process follows—the model assigns random probabilities to the success of the efforts of each firm. The cumulative or accretive effects of these random draws over many rounds leads some firms to grow faster than others and helps determine the structure of the industry.

Besides using different modeling techniques, Nelson and Winter also depart from some basic assumptions of standard economics in the decision making processes they assume their firms follow. In the conventional microeconomic theory, the perfectly informed, perfectly rational decision-maker finds optimal solutions to problems. In the Nelson and Winter models, the search by firms for new techniques—assumed to be an important precursor for their growth—is based on ‘satisficing’ rather than ‘optimizing’ behavior. In their early models of growth, firms retain their existing techniques if their profitability exceeds a certain threshold; otherwise, they search for new techniques or imitate those of other firms. Later models assume that firms satisfice on the levels of their R and D spending, routinely investing fixed proportions of their available funds in the search for new techniques.



Another feature that distinguishes the Nelson and Winter models from the usual assumptions of microeconomics is their emphasis on ‘routinized’ decision making. Traditional microeconomic theory assumes that decision-makers respond optimally to changes in exogenous market conditions. In the Nelson and Winter models, the internal routines of a firm drive their behavior.<sup>49</sup> Summarizing their view on “the realities of organizational functioning,” Nelson and Winter write:

As a first approximation, therefore, firms may be expected to behave in the future according to the routines they have employed in the past. This does not imply a literal identity of behavior over time, since routines may be keyed in complex ways to signals from the environment. It does imply that it is quite inappropriate to conceive of firm behavior in terms of deliberate choice from a broad menu of alternatives that some external observer considers to be “available” opportunities for the organization. The menu is not broad, but narrow and idiosyncratic; it is built into the firm’s routines, and most of the “choosing” is also accomplished automatically by those routines.<sup>50</sup>

### **Explaining Firm Evolution**

Some features of the Nelson and Winter models suggest useful ideas for analyzing the evolution of fledgling businesses. The concept of ‘satisficing’ search is crucial. An entrepreneur’s thresholds of satisfaction makes a significant difference to the growth of the firm: ambitious entrepreneurs are much more likely to search for ways to broaden their firm’s assets than individuals who are satisfied with the status quo. Similarly, Nelson and Winter’s emphasis on organizational routines as an important determinant of firm behavior corresponds closely to our previous discussion of embedded coordination mechanisms as a necessary condition for firm longevity: one could easily substitute the term ‘embedded coordination mechanisms’ with ‘organizational routines.’

The complete exclusion of differences in the skills and efforts of individual decision-makers from the models limits their utility however in explaining the evolution of firms. Nelson and Winter repeatedly insist that their theories are ‘Schumpeterian’. They are, to the degree that the models involve continuous change through an infinite number of periods rather than the instantaneous attainment of equilibrium. But the theories do not, Jon Elster observes in his insightful review of Nelson and Winter’s work, incorporate Schumpeter’s “emphasis on supernormal ability and energy.”<sup>51</sup> They implicitly assume that all decision-makers are endowed with identical drive, foresight and ingenuity. Judgement plays no more a role in their view of decision making than it does in standard microeconomics. Instead of an omniscient decision-maker who always finds the unique optimizing solution, we have equally mechanistic organizational routines.

The assumption of purely routinized decision making leads Nelson and Winter to throw the responsibility for outcomes into the hands of chance, on the grounds that the results of decisions based on organizational routines are hard to predict. They write that

...even the sophisticated problem-solving efforts of an organization fall into quasi-routine patterns, whose general outlines can be anticipated on the basis of experience with previous problem-solving efforts of that organization. But the

patterning of the problem-solving activity is reflected only vaguely in the immediate outcomes of that activity and even less clearly in the gross changes in firm behavior that these problem solutions may trigger. From the viewpoint of an external observer who has no access to the sophisticated workings within the organization, the results are hard to predict and on that ground are best regarded as stochastic.<sup>52</sup>

Elsewhere, Nelson and Winter argue that in a typical competitive situation, “luck is the principal factor that finally distinguishes winners from near-winners—although vast differentials of skill and competence may separate contenders from non-contenders.”<sup>53</sup>

The Nelson and Winter assumptions may fit mature firms. In *An Evolutionary Theory of Economic Change*, they write that their

...framework applies most naturally to organizations that are engaged in the provision of goods and services that are visibly “the same” over extended periods—manufacturing hand tools, teaching second graders, and so forth—and for which well-defined routines structure a large part of organizational functioning at any particular time.

They also focus on organizations that are already large and complex:

The organizations we envisage are ones that face a substantial coordination problem, typically because they have many members, performing many distinct roles, who make complementary contributions to the production of a relatively small range of goods and services. In such organizations, most of the working interactions of a large number of the members are primarily with other members rather than with the organization’s environment. Also, while the organizations we describe are of the sort that have a top management that is concerned with the general direction of the organization, the scale and complexity of the organization are presumed to make it impossible for that top management to direct or observe many of the details of the organization’s functioning.<sup>54</sup>

This inquiry has a different focus. We want to explain how small firms become large and complex. Firms that have not yet established well-defined organizational routines or settled on providing “goods and services that are visibly “the same” over extended periods” are of crucial concern. We are interested in stages of competition where “differentials in skill and competence” matter at least as much as luck. As Edith Penrose argues in her classic *The Theory of the Growth of the Firm* “enterprising management is the one identifiable condition without which continued growth is precluded.”<sup>55</sup> To assume that all firms are equally endowed with enterprising management seriously misrepresents the realities of growing businesses.

In our universe of interest, conscious choices matter. In a large complex firm, organizational constraints may limit the influence of top managers to shaping broad policies (or “meta-routines”). More specific decisions may, as Nelson and Winter propose, represent reflexive or automated responses of organizational routines to the stimuli they are exposed to. In a small fledgling business, the principals make conscious choices—albeit within their informational and cognitive limits—about products, technologies, personnel and so on. Without stretching the meaning of randomness and routine to a point

where they explain ‘everything and nothing’ we cannot avoid relating these conscious, concrete decisions to the fledgling firm’s maturation.

Entrepreneurs who start promising niche businesses usually do not face obvious growth opportunities. It takes an act of will – and dissatisfaction with the status quo – to search for larger opportunities and invest in a portfolio of assets. As Penrose put it:

“The decision on the part of the firm to investigate the prospective profitability of expansion is an enterprising decision, in the sense that whenever expansion is neither pressing nor particularly obvious, a firm has the choice of continuing in its existing course or of expending effort and committing resources to the investigation of whether there are further opportunities of which it is not yet aware. This is a decision which depends on the ‘enterprise’ of the firm and not on sober calculations as to whether the investigation is likely to turn up enticing opportunities, for it is, in effect, the decision to make some calculations. This is truly the ‘first’ decision, and it is here that the ‘spirit of enterprise,’ or a general entrepreneurial bias in favor of ‘growth’ has perhaps its greatest significance.”

Today, companies like HP may, per the Nelson and Winter models, ‘routinely’ invest a certain percentage of profits in developing new products or technologies. But such routines do not create themselves or emerge by chance. HP grew from a company making one product in 1938, the Model 200B audio oscillator, to over one hundred items in 1952 to over 300 in 1957. The founders consciously chose to reinvest all profits (and pay themselves low salaries) to broaden the product line. In early 1939 David Packard recalls, their sales representative, Norman Neely, impressed upon them the importance of offering more than one product, so they decided to develop a full line of audio-frequency measuring instruments.<sup>56</sup> The software firm Intuit’s first product, Quicken, had more attractive features and was easier to use than other personal-finance software programs. Intuit’s founders believed that competitors could also make their products easy to use, so, to enhance its position with distributors, the company developed a family of products for small businesses and invested heavily in marketing and sales support.

All entrepreneurs do not reflexively invest in broadening their product line and marketing capabilities. As I will argue in Chapter 12, developing the broad base of assets that sustain long-lived firms exposes entrepreneurs to considerably greater personal risk than does starting a new business or expanding one after it has become well-established. As we have seen, founders of the typical bootstrapped startup do not face much financial risk. The CEOs of large, well-diversified corporations do not face much personal financial loss from unsuccessful initiatives. Entrepreneurs who reinvest profits or secure loans against personal guarantees to invest in new assets (after the venture has passed the startup stage) risk losing most or all of the wealth they have accumulated. If, as is sometime the case, entrepreneurs borrow against personal guarantees to finance their firms’ investments, they can face personal bankruptcy. Therefore, only individuals with unusual ambition and tolerance for risk make the sustained investments needed to build long-lived companies.

Bold purposive changes are especially important for young businesses that are caught in a rut. As discussed in Chapter 3, myopic choices made by cash constrained entrepreneurs can lead a business into an undesirable ‘local maxima’ from which it cannot escape by undertaking small ‘evolutionary changes’. But as the example of several of today’s well-established companies shows, a determined entrepreneur can transform a dead-end business through radical changes. IBM for example started as the Computing-Tabulating-Recording (C-T-R) Company in 1911 through the merger of several small firms. Its product lines included scales, coffee grinders, meat slicers, time clocks and a line of punchcard tabulating machines. In 1914, Charles Flint, the financier who had put together C-T-R hired Thomas J. Watson to run the company. According to the historian Rowena Olegario, Watson had “grandiose visions” for C-T-R. He eliminated the coffee grinders and meat slicers and renamed C-T-R as the International Business Machines Company, “even though at the time the firm was not actually very international.” Watson introduced several innovations that he had observed in his previous employment at the National Cash Register Company that transformed the motley conglomerate into an organization with exceptional sales and marketing capabilities.<sup>57</sup>

IBM is by no means an isolated illustration of the consequences of deliberate choice. In historian Alfred Chandler’s *Scale and Scope* which analyzes the histories of the two hundred largest manufacturing companies in the United States, Great Britain, and Germany, we find a recurring pattern. “The institutional history told here,” Chandler writes,

is the outcome of innumerable decisions made by individual entrepreneurs, owners, and managers. For these decision-makers the choices among alternatives were limited and the outcomes uncertain, but almost always there *were* choices. Indeed, where they made decisions collectively, the decision-makers disagreed as often as they agreed.<sup>58</sup>

These “decisions and actions,” Chandler continues, “did much to determine the performance of individual firms, industries and even nations.”<sup>59</sup>

To conclude: Natural selection offers an attractive metaphor for describing the dynamic world of business. We can speak of Darwinian struggles for survival and – as in the very title of this book – of the evolution of businesses. In using these terms, however, we should bear in mind Elster’s analysis of the differences between purposive human action and natural selection. As mentioned in Chapter 3, natural selection is mechanistic and myopic. The ‘evolutionary machine’ accepts any randomly generated mutation if it endows an organism with a superior reproductive capacity without regard to its long-term consequences. It has no capacity to wait or invest in the future. Human action involves judgement. We do not automatically accept good variations and reject bad ones. We can imagine variations that have not actually occurred. We can defer gratification and invest in the future. We can attempt radical changes to escape undesirable local maxima. And, we can drastically alter our environment instead of just adapting to it.

These distinctive human qualities have a profound influence on the ‘evolution’ of businesses. Differences between entrepreneurs’ capacity for good judgment, imagination, willingness to make long term investments, and not just chance, affect the longevity and size of firms and the structure of their markets. The path dependency of natural selection may preclude woolly mammoths from evolving into giraffes, but a determined and capable Thomas Watson can turn a C-T-R into an IBM and in so doing shape the worldwide structure of the computer industry. To incorporate these purposive factors into an explanation of business evolution requires constructs beyond those of natural selection or the life-cycle concept of “letting go.” The following section shows how we can derive appropriate constructs and terms from the field of business strategy that will help us identify entrepreneurs’ contributions to the apparently idiosyncratic evolution of their businesses.

## **5. BUSINESS STRATEGY MODELS**

Business strategy research highlights the importance of broad rules or policies. Strategy models assume that the chief executive or top manager of a large and diversified corporation, effectively attend to every detail. They can however make a significant contribution to their firms’ long run profitability by formulating and implementing a strategy for the enterprise. This proposition, which stands in clear contrast to the focus on randomness and routine in Nelson and Winter’s models, helps us relate the multi-faceted, multi-period initiatives required to build a long-lived firm to the entrepreneur’s willingness and ability to adopt a strategic approach. So although strategy research implicitly takes the perspective of executives of corporations that are already large and well established, we can adapt the framework to analyze the evolution of young firms as well.

In the section below, I briefly sketch the development of some key ideas in the field of business strategy, review criticisms of the approach and discuss the adaptations that will help us analyze the entrepreneurs’ role in a transitional firm.

### **A Brief Sketch**

The concept of strategy, Nelson and Winter write, has been “developed by a number of investigators associated with the Harvard Business School.”<sup>60</sup> As the following abbreviated sketch will show, the field of strategy in fact, has a broad ancestry\*. It likely emerged from the increasing number of large and complex organizations whose top executives could not micromanage their businesses and did not wish to abdicate control to invisible and unplanned “routines”. For instance, James O. McKinsey (“Mac”), a professor at the University of Chicago articulated an “integrated” or “top-management approach” in *Business Administration*, published in 1924. Mac expanded on this approach in the *General Survey Outline* after he launched a consulting partnership in 1929. The outline, Marvin Bower noted, was “a checklist for making a strategic general survey of a business.”<sup>61</sup> It required consultants to analyze

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\* See P. Ghemawat’s “Competition and Business Strategy in Historical Perspective” HBS Note 9-797-136 for a more comprehensive overview.

the industry and the client's competitive position before considering anything specific to the organization.

It also forced:

an orderly approach by requiring examination of the elements of managing in an undeviating sequence: goals, strategy, policies, organization structure, facilities, procedures, and personnel—in that order. To emphasize the sequential approach, Mac would ask: “Would you polish the brass on a sinking ship?”<sup>62</sup>

Mac's firm was subsequently dissolved, but his approach was adopted and extensively applied in the corporate world by the successor firm, McKinsey Co., launched by Marvin Bower and two partners in 1939.

In 1962, Alfred Chandler, then a business historian at MIT, published the influential *Strategy and Structure*. The book studied the evolution of DuPont, General Motors, and Sears, primarily through the eyes of the top executives of these companies. To classify their decisions and actions, Chandler used strategic decision making as a critical component of top-executive work. Chandler distinguished between strategic decisions which “clearly deal very largely with defining basic goals and the course of action and procedures necessary to achieve these goals” from decisions about “day-to-day operations carried out within the broader framework of goals, policies and procedures.” Chandler's classification and descriptions of executive tasks helped frame the language of business strategy.

Kenneth Andrews published a comprehensive synthesis, *The Concept of Corporate Strategy*, in 1971. A firm's strategy was “the pattern of purposes and policies defining the company and its business” which the chief executive or president had to formulate and then implement.<sup>63</sup> Formulating strategy (“deciding what to do”) required the consideration of factors such as the goals and values of the decision-makers, the company's resources and competencies, and the external or market opportunities and threats. An optimal strategy involved a good “match” between goals, resources, and opportunities. The implementation (“achieving results”) of strategy comprised “primarily administrative” activities such as establishing or modifying the organizational structures, incentive and control systems and the recruitment of personnel.

Michael Porter, who started out as an IO economist, revolutionized the field of strategy, in part by recognizing that variables IO research had shown to affect the profitability of an industry could be used by strategists to identify the attractiveness of a business. As Ghemawat has put it: “IO economists focused on issues of public policy rather than business policy: they concerned themselves with the minimization rather than the maximization of “excess” profits.” Porter instead tried to “turn IO on its head by focusing on the business policy objective of profit maximization rather than the public policy objective of minimizing “excess” profits.”<sup>64</sup> His 1980 book, *Competitive Strategy*, Ghemawat writes, “owed much of its success to Porter's elaborate framework for the structural analysis of industry attractiveness.”

Porter's "five forces" framework also incorporated practical rules of thumb that did not come out of the IO research.\* The incorporation of experiential rules into a framework with prima-facia plausibility and consistency had a profound influence on the process strategy formulation. Porter's framework made the ad-hoc process of matching a company's goals, opportunities and assets much more systematic and standardized. He also gave business strategists a common vocabulary that helped establish strategy formulation as a specialized business function.

### **Criticisms**

Quinn has criticized the "top down" approach to strategy on the grounds that companies rarely use "grand design" strategic plans in practice. After studying companies like General Mills, Pilkington, IT&T, and Exxon he concluded that when successful, well-managed companies make strategic changes, "the approaches they use frequently bear little resemblance to the rational, analytic systems so often described in the planning literature."<sup>65</sup> Strategies, Quinn found, were typically formulated at a sub-system level, in response to precipitating events over which top managers did not have much control – a finding consistent with Nelson and Winter's claim about routines. Given these organizational realities, Quinn recommended that managers adopt a process of "logical incrementalism." In contrast to the traditional, top-down, anticipatory approach to strategy formulation Quinn suggested that "the prudent and rational executive make final commitments *as late as possible* consistent with the information available."<sup>66</sup>

Arguably, the incrementalism discovered by Quinn might have been even more disruptive and chaotic in the absence of a top-down strategy. Selznik's studies of large organizations suggest an interactive relationship between routines and policies formulated by the organizations' leaders. Selznik wrote that "organizational processes profoundly influence the kinds of policy that can be made, and policy in turn shapes the machinery of organizations..."<sup>67</sup> Abdication of the policy making role by top executives could lead to the disintegration of the enterprise or at least an inability to perform what Selznik calls its "mission". Furthermore, the resistance of sub-units and entrenched routines is less likely to limit the influence of top management in a small, young organization<sup>68</sup> thus making the strategic model an especially appealing one for analyzing the actions and choices of entrepreneurs. For our purposes, the proposition that the growth and longevity of a firm is a function of the entrepreneur's ability to formulate and effectively implement an appropriate long-term strategy seems a reasonable one.

### **Modifications**

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\* According to Ghemawat, "managers routinely have to consider much longer lists of variables than are embedded in the simple models used by economists. In the case of the five forces, [Richard Schmalensee's] survey of empirical literature in the late 1980s – more than a decade after Porter first developed his framework – revealed that only a few points were strongly supported by the empirical literature generated by the IO field" (Ghemawat (1997), p.13). Ghemawat's accompanying diagram indicates that only 6 of 47 points have strong empirical support but he points out: "This does not mean

I will make two modifications however, in order to adapt the strategy models, which are implicitly based on the perspective of the CEO of a large corporation, to the domain of fledgling enterprises. First, I will emphasize the goals of a firm's top decision-makers, which are often glossed over in the strategy literature. For instance, Andrews does suggest that the personal values and aspirations of senior management be considered in the formulation of strategy. But he lists this third in the list of factors to be considered, after "market opportunities" and "corporate competence and resources."<sup>69</sup> In the subsequent work of Porter, we find little mention of the decision-maker's personal goals.

We cannot evaluate the effectiveness of a strategy without reference to the goals it is supposed to achieve. Similarly if we expect a causal link between consciously formulated strategies and outcomes we should also expect a prior link between goals and the strategy. With a CEO of a public corporation with diffused stockholding, it may be reasonable to suggest, at least in a prescriptive way, that the decision-maker should seek to maximize shareholder wealth, without consideration of personal preferences. With entrepreneurs who own their businesses outright or can choose to raise money from like-minded investors, personal goals must come before—in a prescriptive or predictive analysis—the formulation or implementation of strategy. In explaining differences between the growth and longevity of different firms, therefore, I will treat the goals and preferences of the entrepreneur as a distinct variable that precedes the formulation and implementation of strategy.

Second, I will modify the strategy model to suit firms that have not yet developed their portfolio of assets and coordination mechanisms. The orientation of strategy theorists towards established companies leads them to assume a more or less stable pre-existing base of business activity. For instance, in choosing between strategic alternatives, Andrews suggests that "the company's strengths and weaknesses should be appraised together with the resources on hand and available" in order to match "opportunity and corporate capability at an acceptable level of risk."<sup>70</sup> An existing, going business is also assumed in Andrews' classification of strategies as low-growth or forced growth (through the acquisition of competitors, vertical integration, geographic expansion and diversification). Such assumptions, we will see in the next chapter, lead to a more analytical or deductive process of strategy formulation than is practical for the CEO of a fledgling business, who starts with a more or less clean slate.

The assumption of an established business also affects the variables that decision-makers can manipulate. For instance, organizational policies and norms help determine the effectiveness of a firm's coordination mechanisms, and by extension, its longevity and growth. Once they are in place, however changing such policies entails great disruption; and, because CEOs of established companies cannot easily change organizational policies and norms, they are therefore often glossed over in the strategy literature. In the management literature, the reformulation of organizational policy typically falls under the specialized rubric of 'change' or 'crisis management.' In a fledgling business, which has yet to establish

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that the other points are in conflict with IO research; rather, they reflect the experience of strategy practitioners, including Porter himself."



its coordination mechanisms, organizational choices represent important variables in the formulation of a strategy.

## **6. SUMMARY AND CONCLUSIONS**

The last chapter identified a wide gap between fledgling and well-established firms in terms of their assets, coordination mechanisms and capacity for growth. In this chapter I suggested that filling this gap requires entrepreneurs to undertake many complementary initiatives that occupy the middle of the investment-uncertainty-profit diagram. Existing models of firm growth do not adequately explain why only some entrepreneurs effectively undertake a program of such initiatives. Nelson and Winter's evolutionary theory (and some Industrial Organization models) attribute differences in firm growth to chance. Life-cycle models assume that firms will progress through preordained stages, as long as the entrepreneur is willing to "let go." Business strategy models emphasize the role of the top decision-maker in shaping the development of a firm through the formulation and implementation of a long-term strategy. The concepts of strategy formulation and implementation offer a useful framework for analyzing the purposive, multi-dimensional, multi-period entrepreneurial effort required to transform fledgling ventures into well-established corporation. The framework, which implicitly address the concerns of the executives of mature firms, needs to be modified however to fit the distinctive problems of the fledgling enterprises.

## **CHAPTER 11: CRITICAL TASKS**

*This chapter analyzes the critical tasks that entrepreneurs face in turning fledgling businesses into long lived corporations. The sections cover, in sequence, the three tasks of goal setting, strategy formulation and implementation. Each section discusses the nature and importance of the tasks and their distinctive aspects in the transitional phase of a firm. Examining these tasks will help us, in the next chapter, to infer the personal qualities and skills that affect an entrepreneur's propensity and capacity for building a long-lived business.*

Transforming a fledgling enterprise into a large and long-lived corporation requires entrepreneurs to adopt a strategic rather than an opportunistic approach. Drawing on the business strategy framework outlined in the previous chapter, I will discuss three tasks entrepreneurs must perform:

- 1) Articulation of audacious goals and 'purpose' for the enterprise;
- 2) Formulation of a 'strategy' – a set of general rules or boundary conditions – for realizing their goals, and,
- 3) Effective implementation of the strategy – i.e. translating the general rules into specific actions and decisions.

To clarify the nature of the tasks required to transform a fledgling business, I will distinguish them from the challenges involved in starting a new venture and managing a large corporation. Audacious goals do not play an important role in starting a promising business. And, as we saw in Part 1, the survival of such businesses depends more on effective adaptation to unexpected problems and opportunities than on the entrepreneur's ability to formulate and implement a strategy. Long-term strategies do play an important role in the management of large corporations. But, we will see the process of formulating a strategy and its content is different in the transitional phase than it is after a firm becomes well established.

### **1. GOALS**

Entrepreneurs who build long-lived firms establish audacious goals for their companies. The goals are audacious in that they envision a sharply different and difficult to realize future state, in terms of revenues, competitive rank, geographic scope and so on. Entrepreneurs also articulate a long run purpose for the organization that helps define the broad class of products or services it will offer and the types of wants it seeks to satisfy.

Founders of promising businesses may have a far-reaching vision but it is not necessary for starting their ventures. Len Bosack and Sandy Lerner did not articulate audacious goals when they started Cisco Systems in their home in 1984. Five years later Cisco's VCs recruited John Morgridge as CEO and he established a revenue goal of \$100 million – a twenty-fold increase from 1989 revenues of \$5 million.

The top executives of large corporations do not have to establish visionary goals for the enterprise either, unless it is stagnating or failing.

The section below discusses how the adoption of audacious goals plays an important role in building a long-lived firm and, by contrast, why it is not as crucial in the startup or mature stages.

### **Importance of Goals**

Audacious goals help entrepreneurs build large, long-lived firms in several ways.

**Impetus.** Fledgling businesses do not automatically undertake the initiatives and investments needed to build a system of coordinated assets; according to the satisficing principle, audacious goals stimulate the search for these initiatives and investments. In 1989, for instance, Pat Kelly declared that PSS would become the first national distributor of medical products to physicians' offices in the U.S. At the time, it was an "itty bitty company in Florida" with seven branches. PSS had made *Inc.*'s 1988 list of the 500 fastest growing companies in the U.S., but with just \$20 million in revenues, it had no significant economies of scale that would justify nationwide operation. Like a lot of young companies Kelly recalls, PSS relied on "hard work", "good people", "seat of the pants navigation", and "a lot of luck."

The goal of becoming a national company, was displayed in big banners in every branch, mentioned in every company document and repeated by Kelly and his top managers.<sup>71</sup> It provided the impetus to search for initiatives that created economies of scale. In 1991 PSS started rationalizing its product lines – the company standardized on one or two suppliers in several lines so that it could negotiate price breaks for bulk purchases. The same year, it opened 'PSS University' which provided economies in training recruits. In 1994, PSS developed ICON, an order entry system based on hand held computers which increased the speed of deliveries and enabled PSS to reduce the inventories it had to carry.

**Justification.** As discussed in Chapter 4, providing even illogical 'reasons' ("May I use the Xerox machine, because I have to make some copies?") can provide a psychological inducement to make a certain choice. Entrepreneurs cannot easily justify the initiatives required to build a large corporation just on the basis of financial projections. Although the uncertainty of firm-building initiatives is usually lower than the uncertainty of startup opportunities, the irreversible investment and the personal financial exposure of the entrepreneur is substantially greater. The initiatives required to build a large corporation, as I will argue in the next chapter, may not represent a wealth maximizing investment of resources. But when entrepreneurs convince themselves and other resource providers that their long-term goal or vision is, in and of itself, worthwhile, that goal becomes a cognitive anchor or objective function that justifies a variety of investments whose financial merits cannot be easily demonstrated.

To illustrate: In 1959 McKinsey & Co. opened its first overseas office (in London) and in the eight years following added offices in Switzerland, Holland, France, Germany and Australia. The expansion involved significant out of pocket and opportunity costs. The firm did not have the manpower to satisfy the demand for its services from its U.S. clients and the consultants who transferred overseas lost the client relationships in the cities they left behind. Moreover, the senior partners of the firm could not

hope to recoup their share of forgone firm income through a long term capital gain: under the terms of McKinsey's ownership plan, retiring partners had to sell their shares at their "book" rather than their true economic value. Nevertheless the McKinsey partners unanimously supported Managing Director Bower's drive to expand overseas. Apparently, the firm members had bought into the goal of building the world's leading consulting company. This goal justified investments that might fail the test of personal wealth maximization.

**Securing resources.** Ambitious goals help businesses secure commitments from resource providers. The publicity generated by the promise of a grand adventure and the psychic benefits it can afford can help persuade employees and customers to take a chance on a fledgling business. For instance, the other founders of Sun adopted the goal of competing with IBM and Digital in their mainstream businesses.<sup>72</sup> Sun's ambitious goals helped it attract top quality talent and gain exposure with potential customers. Sun's concept, of building workstations with a Motorola 68000 microprocessor, a bitmapped display, and the UNIX operating system connected to an Ethernet network, was hardly unique in 1982. These were, according to Sun's co-founder and former CEO Vinod Khosla, "the only reasonable specs" and by 1983 "there were maybe 30 companies implementing exactly the same spec." As *Datamation* noted in March 1983: "The new venture uniform of UNIX and the Motorola 68000 is getting as fashionable as IBM's blue and white stripes."<sup>73</sup> But only Sun's founders claimed they would build a company on the scale of an IBM or Digital. This audacity helped Sun attract top-quality talent and gave Sun high visibility in the industry: At the UNIX trade show in 1983, Khosla reports, "one of the most important sessions was "News from AT&T, DEC and Sun."<sup>74</sup>

Management scholars Bartlett and Ghoshal emphasize the value of goals that embody a higher "purpose" with which employees can identify and find satisfying. "Companies that assert more boldly what they stand for," they write, "typically attract and retain employees who identify with their values and become more deeply committed to the organization that embodies them."<sup>75</sup> Similarly, customers can also develop attachments to firms that they believe have a worthwhile mission. The loyalty of Apple's customers, for example, seems to go beyond a rational financial interest in having their vendor survive. Conversely, customers who disdain their vendor's goals and values will more eagerly search for alternative sources of supply.

**Cooperation.** Articulating an audacious goal and "purpose" for the firm can help reduce conflicts between firm members within and across specialized functions and sub-units. As discussed, long-lived firms have to coordinate complementary assets. These coordination problems cannot be easily solved because it is difficult to foresee and contract for all contingencies and because the relative contribution of the complementary assets to what they jointly produce cannot be accurately assessed. For instance, the satisfaction of PSS's customers with the quality of service it provides depends on the efforts of its sales people as well as its logistics and delivery staff, but it is difficult to assess and provide appropriate compensation for the contribution of the two groups. Interests may be aligned to some degree

by providing all contributors with a stake in the long-term financial success of the enterprise. But even with rewards tied to the overall success of the business (for instance, through stock options) there is still room for conflict. For instance, disagreements may arise over how many options the delivery staff get as compared to the sales personnel.

Internalization of the firm's long term goals by its members reduces such conflicts. In contrast to bonuses or options allocated from a finite pool, the satisfaction an individual derives from contributing to a common goal does not curtail any one else's satisfaction. The intrinsic and intangible nature of the satisfaction also eliminates the envious comparisons that can follow from the tangible rewards and recognition awarded by superiors. Employees whose individual contributions cannot be accurately measured are therefore more likely to tolerate perceived errors in the distribution of financial rewards if they are joined by a common interest in the firm's goals and purpose. The shared excitement of rapid national expansion at PSS or the challenge of taking on IBM at Sun Microsystems, can play an important role in facilitating the coordination of individuals and functions.

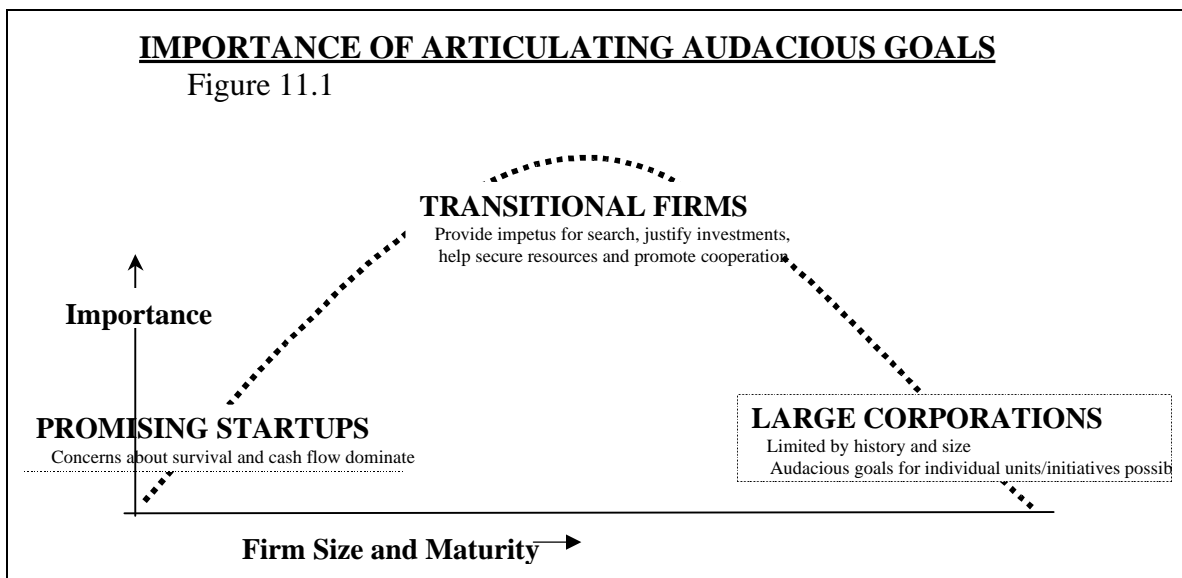
### **Distinctive Features and Contrasts**

Audacious goals do not play as significant a role at the start-up stage of promising business as they do in the transitional phase of a business. Some founders may have one – Allen and Gates reportedly had the vision of having a computer on every desk and in every home, all running Microsoft software – but, audacious goals do not represent an important precondition for starting a promising business. As we saw in Part 1, promising businesses start out on a small scale. Their founders do not have to coordinate many employees and (unlike Bower and his partners) do not face much financial risk. They generally do not have in mind the idea of building a firm that will last in perpetuity. Entrepreneurs often start their businesses with the modest objective of becoming their own boss, to earn a little money, or just as a lark. Bill Hewlett and David Packard started with “tentative plans to try to do something on our own.”<sup>76</sup> As they built various devices “to make a little money,” Packard writes, the notion grew “in the back of our minds” that “maybe one of these devices could be developed into a viable product.”<sup>77</sup> In 1995, The Princeton Review had attained the leading position in the SAT preparation market, claiming a 40% share, compared to Stanley Kaplan's reported 20%.<sup>78</sup> When John Katzman launched the business in 1981, he “never intended to make Princeton Review into a national company; all I wanted to do was to make some profits to start a software company.” *Inc.* asked the founders of companies that made its “500” lists from 1982 to 1989 about their original intentions for their firms. Only a third had planned to grow as fast as possible. 12% had planned to stay small, 27% had planned to grow slowly and the rest didn't plan at all – they “just wanted to get started.”<sup>79</sup>

Articulating audacious goals and a well-defined “purpose” at the outset seems to be more important however for the unusual entrepreneurs who put themselves at considerable risk from the start or who have to raise significant outside funding. For instance, Marvin Bower and two partners took on the unprofitable East Coast practice and lease obligations (for which they assumed unlimited personal

liability) of a struggling consulting firm to launch McKinsey & Co. Bower recalls that in the midst of the Great Depression, the partners “established, in our minds, the goal of becoming the leading management consulting firm in the United States” which would “continue into perpetuity.” Although they did not make a formal declaration of their goal, the three discussed their “lofty ambitions almost constantly among ourselves. If we had not been ambitious, optimistic and visionary, we would never have had the courage to go ahead at all.”<sup>80</sup>

Adopting audacious goals or defining an uplifting ‘purpose’ for the enterprise does not represent an important task for the top executives of an established enterprise either. Audacious goals are a necessary condition for building a long-lived firm, but once an enterprise has matured, its basic goals and values cannot be easily changed. The top managers’ role can modify or reaffirm existing goals, but they don’t have a clean sheet on which they can sketch new ones. As Bartlett and Ghoshal advise executives: “New values cannot be instilled through a crash program...In fact, the goal for most companies should be to build on the strengths and modify the limitations of the existing set of values, not to make radical changes in values”<sup>81</sup> Moreover, past accomplishments limit the audacity of an established company’s aspirations. The founders of a fledgling Sun Microsystems can make bold declarations about taking on IBM -- a goal which involves exponential growth. The CEO of IBM, whose current market value of \$154 billion<sup>82</sup> exceeds the GNP of nations such as Chile, Israel, Nigeria and Singapore, cannot hope to attain similar rates of growth. Audacious goals in large companies typically are set at the level of specific initiatives (“become the number one company in PCs) and business unit level (see **Figure 11.1**).



## **2. STRATEGY**

Building a durable corporation requires long term goals as well as rules to channel investments and initiatives towards the achievement of these goals. These rules—which I will call a ‘strategy\*’— have several dimensions. A strategy defines in broad terms where and how the firm will seek to add value, the opportunities it will pursue, the breadth and attributes of the firm’s product lines, its pricing policies, distribution channels, technologies, R & D efforts and so on. As I use the term, a strategy includes organizational rules pertaining to matters such the firm’s hierarchical structure, the personalities and qualifications of its staff, and informal norms or culture. PSS, for example, adopted a policy of carrying a broad line of products and charging higher prices than its competitors while offering prompter deliveries and higher quality service. Its target customers were physicians working solo or in small practices. Organizationally the PSS policy was to hire young, good-looking college graduates (rather than experienced personnel) for its sales staff, train them intensively, set challenging sales quotas, pay handsome commissions, keep a flat structure and foster a gung-ho, ‘work-hard play-hard’ culture.

The section below discusses the importance of such strategies, how they develop, and their distinctive features in the transitional period of a firm.

### **Importance of Strategy**

Many entrepreneurs start their businesses in an improvised way and rely on imitation or small modification of existing ideas to serve niche markets. Their subsequent search for a more differentiated and larger business also tends to be ad-hoc rather than systematic. The entrepreneur may find a new combination that is closely related to the initial business or only very tangentially so. The discovery may be immediate, take several years and false starts, or the entrepreneur may never find a better business model. Factors such as luck, the intensity of dissatisfaction with the current situation and the willingness to take a chance on an unconventional perspective rather than a strategy play a determining role. In Karl Popper’s terms, finding a source of differentiation tends to be an inductive rather than a deductive process.

Whenever or however the entrepreneur establishes a venture’s first differentiation, it will usually be of limited scope.† The subsequent broadening of the firm’s assets and the development of routines requires a more systematic effort than the typically opportunistic search for the initial source of differentiation. Investing in opportunities with positive expected returns without regard to their interactive effects may make an entrepreneur rich. Many individuals have prospered through a sequence of unrelated transactions in real estate and other such deals. But, barring an extraordinary coincidence, one-off investments will not create a firm with a system of complementary assets. To build such a system, entrepreneurs have to formulate a strategy. As we will see next, strategies complement the role that an entrepreneur’s goals play in building complementary assets. They promote consistency and

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\* The strategy literature contains many definitions; I have chosen a relatively simple and broad definition that I believe best reflects the role of strategy in a transitional firms.

† As we saw in the last chapter, entrepreneurs lack the capital to acquire a portfolio of complementary resources in one shot as well as the foreknowledge of the components and their linkages.

coherence across multiple initiatives, help develop intangible assets such as expertise and reputation, and help solve coordination problems by fostering cooperation and teamwork.

**Coherence of Initiatives.** Firms develop new assets through an ongoing process of searching for and experimenting with new initiatives. A strategy defines the boundary conditions or envelope within which new initiatives are more likely to result in complementarities or synergies than if they were randomly selected. For instance, the Wal-Mart system is the result of many years of continuous change. Sam Walton was an avid innovator and imitator who quickly tried out many new ideas. But his experiments all fit a long-term strategy of low cost, mass market, discount distribution and thus cumulatively provided Wal-Mart with significant competitive advantages. The evolution of McKinsey's system is similarly characterized by considerable experimentation within the framework of a long-term strategy of providing independent high-quality advice to the top managers of prestigious companies. The partners discarded or modified initiatives and activities that fell outside the framework and kept those that fit. For example, in 1951 McKinsey abandoned a profitable executive recruiting practice after 12 years when the partners concluded it might compromise the objectivity of their consulting services.

Thomas J. Watson Sr. (who came to be known as "T.J.") introduced a variety of innovations at IBM. These included, according to Olegario, "providing professional training for all new sales recruits, giving sales people exclusive rights to their territories, and implementing sales quotas."<sup>83</sup> Although he was not an engineer, "T.J. played the key role in developing new products" and through the 1920s and 1930s "moved IBM's focus away from low-tech machines and into that period's state-of-the-art tabulating instrument, the punchcard machine."<sup>84</sup> He added printers to IBM's line, so that the tabulating instruments "could be adapted for use in every large office in America."<sup>85</sup> He implemented a policy of leasing rather than selling products to customers. Under T.J., IBM expanded overseas, opening offices in 78 countries by the end of World War II. T.J. adopted a "decentralized approach by establishing wholly owned national companies that were managed and staffed primarily by local citizens."<sup>86</sup>

These varied initiatives did have a common theme, however. Through the 1940s, T.J. focused on punchcard machines. A memorable consequence of what Olegario calls a "stubborn adherence"<sup>87</sup> to punchcard technology was that T.J. turned down the chance to buy the patents for Xerography. T.J.'s son, Thomas J. Jr., recalls in his memoirs that "the inventor Chester Carlson came over from Queens and offered [the patents] to Dad. That was the biggest opportunity my old man ever missed." Thomas Jr. also notes that although "sometimes Dad stuck to his last a little too closely", without his "devotion to punch cards, IBM would have lost its focus; it might have become a hodgepodge conglomerate like Remington Rand."<sup>88</sup>\* (And as we previously discussed, the cash flow and complementary assets from punchcards allowed IBM to make a late but successful entry into computers in the 1950s.)

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\* In the 1920s Remington Rand and IBM had shared leadership of the U.S. tabulating equipment market.



**Reputations and Expertise.** Besides promoting synergies across different initiatives and investments, rules and boundary conditions also help firms develop assets such as know-how and reputations that, as discussed in the previous chapter, require repetition and constancy of effort. McKinsey's policy of serving top managers of prestigious companies entailed turning down profitable assignments that fell outside this definition. Over time, this focus enabled McKinsey to build a reputation and ability in the field of top-management consulting that rivals who were more opportunistic in the assignments they chose to pursue have found hard to match. Similarly HP developed technological expertise by focusing its product development efforts. David Packard writes that as the company expanded its product line during World War II, it stuck with instruments "designed to test electronic equipment. They reflected our strategy to concentrate on building a group of complementary products rather than becoming involved in a lot of unrelated things." Accordingly HP turned down some big production contracts during the war; Packard felt the company should build a "solid base [in] designing and manufacturing high quality instruments."<sup>89</sup>

**Cooperation.** Organizational policies can promote cooperation and mitigate a firm's coordination problems in both direct and indirect ways. Many long-lived companies, such as HP, adopt policies directly intended to promote what David Packard calls "commonness of purpose and teamwork." In the early years, according to Packard, the company did not need explicit policies, because "we were all working on the same problems" and "each employee felt that he or she was a member of the team." But, as the company grew "we could no longer take team work for granted. We had to emphasize and strengthen it."<sup>90</sup> HP developed personnel policies whose "underlying principle", writes Packard, "became the concept of sharing – sharing the responsibilities for defining and meeting goals, sharing in company ownership through stock purchase plans, sharing in profits, sharing the opportunities for personal and professional development, and even sharing the burdens created by occasional downturns in the business."<sup>91</sup>

Similarly, McKinsey's founders adopted a management philosophy that gave "broad participation in the affairs of the firm to as many partners as possible." All the partners had to agree to all major decisions even if this practice resulted in considerable delays. Unlike some other professional firms, McKinsey did not concentrate decision-making power with the managing partner or a small executive committee. In order to mitigate conflicts between offices, the firm formulated a 'One Firm' policy. Under the policy, all consultants would be recruited and promoted by the firm rather than by an office; partner's profit shares would derive from a firm pool, not an office pool; and each client was to be treated as a client of the firm, not of an office or even a particular partner.

Organizational rules also facilitate teamwork and mitigate conflict in indirect ways. Microsoft's policy of hiring the brightest individuals it can find or PSS's policy of recruiting young, personable college graduates and putting them through a boot camp style training program (with a drop out rate of about 30%) helps create a cadre of like-minded individuals who understand and can work with each other.

Policies that shape the firm's culture reinforce the selection criteria by encouraging the individuals who don't fit to leave the firm. Long term rules and norms also provide a "constitutional framework" for adjusting to unexpected circumstances and increase the mutual predictability of firm members' behavior. When faced with unexpected contingencies and conflicts, the concerned parties can rely on shared principles for problem solving and renegotiations of past agreements. So even consistent norms of aggressive individualism can promote coordination.

As the above discussion suggests, effective strategies have an optimal level of precision. Broad strategies provide the latitude to adapt to unexpected setbacks and opportunities and guide the search for complementary assets. For instance, the decision by a tent manufacturing company to define itself as a provider of 'high-performance outdoor equipment' can stimulate the development of line of products sold through the same channel and a versatile brand name. At the same time, defining goals and rules too broadly limits their utility in coordinating the firm's efforts. A useful strategy precludes not just palpably unprofitable activities but also ones that could be reasonably undertaken by a firm following a different strategy. A strategy that is so broadly defined that it encompasses anything a company does is tantamount to not having a strategy. For instance, claiming to be in the leisure and entertainment business does not preclude a tent manufacturer from operating casinos or making films, and therefore does not provide much focus to the company's efforts.

The difficulty of communicating an imprecise strategy also limits its utility. The value of long-term rules partly depends on the degree they are understood by the firm's key constituents such as employees, customers and investors. Clearly understood dos and don'ts, for example, help direct the search by employees for new innovations and investments. Similarly, acquiring useful external reputations also requires outside constituents to know what the firm stands for and what it can or cannot be counted on to do. Such understandings are obviously difficult to establish if the firm's leaders cannot clearly and concisely communicate their strategy.

To summarize: The previous chapter suggested that long-lived firms do not acquire coordinated assets through one shot or even a pre-planned sequence of investments. The process is evolutionary but not random, as with the proverbial monkeys who type out *The Origin of Species* by chance. Rather, building a long-lived firm requires entrepreneurs to formulate a strategy to achieve their firm's the long term goals. that guides their initiatives and investments.

### **Distinctive Features and Contrasts**

Long-term strategies, we saw in Part 1, play a limited role in the launch of promising businesses. The formulation of an overall strategy does represent an important concern for the top managers of large diversified companies like IBM who have to delegate considerable responsibility to more knowledgeable subordinates and who face the risk of being overwhelmed by diffused firm routines. As discussed next however, we find important differences between transitional firms and large corporations in the content and process of the formulation of their strategies.

The strategies that bring order and focus to a fledgling company's efforts are not themselves the result of a systematic research and careful analysis of alternatives. Rather, strategies emerge from the entrepreneurs' goals and past experiences and adaptation to unforeseen circumstances rather than through a structured approach to maximizing returns.

**Goals and Prior Experiences.** The entrepreneur's overall goals can lead to rules about specific policies. Vinod Khosla recalls how Sun's goal of building a general-purpose workstation to take on IBM and DEC in their mainstream business shaped the company's product development choices:

"We wouldn't develop any applications software [and] whenever we had a trade-off we'd go after the general computing environment. For example, should we use our resources to build better compilers in the UNIX development environment, or should we build a fast graphics thing like Silicon Graphics was doing? We'd pick the general one [i.e. the compilers], which we'd need to compete against DEC."

The goal of building a large computer company led Sun to build a direct sales force, because, says Khosla:

that was what all the successful computer companies had. I did not know anybody who had been successful through third-party distribution and third-party support. It was very hard, because you didn't know how you were going to get revenue with a direct sales force, and you knew on the distribution side you could probably pick up revenue fairly quickly...Our calculations showed we would not have money for anything besides a direct sales force and direct support. So marketing went out of the window at Sun. We couldn't afford a PR firm and all those things, so we did without those. If we did not get money to put a color brochure together, that was OK.

Formative experiences that shape the worldview of the entrepreneur play an important role in determining firm strategies. The origins of Wal-Mart's strategy of serving out-of-the-way markets can be traced back to chance events that lead the founder, Sam Walton, into discount retailing in rural Arkansas. Walton worked briefly in the department store business, for J.C. Penney, before joining the U.S. Army. When he returned to civilian life in 1945, he and a friend decided to become partners in a franchised store in St. Louis. But because Walton's wife insisted they live in a town with less than 10,000 inhabitants, he bought a franchised store in Newport, Arkansas instead. When the landlord declined to renew the lease three years later, Walton decided to move to Bentonville, another small town in Northwestern Arkansas. Bentonville was closer to his wife's family and its location allowed Walton to more fully satisfy a passion, acquired from his father-in-law, for quail hunting. By 1960 Walton had 15 stores with total sales of \$1.4 million in and around Arkansas. If circumstances had let Walton to start in St. Louis or if he had developed different recreational tastes, he might have adopted a different strategy for Wal-Mart; perhaps he might have developed a chain of up-scale specialty stores in large cities like the Nordstrom chain.\*

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\* Nordstrom's history also illustrates the influence of formative experiences on long-term strategies. Nordstrom began as a shoe store in Seattle in 1901. The founder, John W. Nordstrom, had three sons who built a national shoe chain before branching out into fashion retailing. According to the company,

John Chambers's prior experiences influenced Cisco Systems' technology strategy. In 1991 Cisco's then CEO, John Morgridge recruited Chambers to succeed him. Chambers had worked at Wang Laboratories where he witnessed "a painful downsizing." One lesson he drew from the experience was to avoid relying on a single technology – Wang was a company built around mini-computers. When Chambers assumed the leadership of Cisco, he sought to diversify its portfolio of technologies through acquisitions of or minority investments in small firms. Between 1993 and 1996, Cisco made 17 such acquisitions or investments. In 1996, according to its chief technical officer, Cisco's technological base comprised about a dozen technologies.<sup>92</sup>

Many the policies Marvin Bower adopted at McKinsey & Co. derived from a previous stint at Jones, Day & Co. the leading law firm in Cleveland. When he joined Jones, Day in 1930, Bower recalls, he got "a chance to work for Mr. Ginn, the senior partner. Because I had heard so much about him and the firm he had shaped, I made it an immediate objective to learn why it had been so successful. From observation and analysis during my Jones, Day years began the formulation of the program that I later brought with me to McKinsey." Bower made note of Jones, Day's professional approach, recruiting standards, and the prominence of its partners in Cleveland's charitable, social, and cultural organizations. If Bower had worked at an advertising or accounting firm instead of Jones, Day, he might not have emphasized the prestige and standing of McKinsey and its partners as much.

McKinsey's organizational principles likewise reflect Bower's dissatisfaction with the discord and authoritarian leadership he had witnessed at the antecedent firms, James O. McKinsey & Co. and McKinsey Wellington. Bower's distaste for the "controlling type of leadership" practiced by McKinsey Wellington's managing partner (and to a certain extent by James O. McKinsey) led to the adoption of a consensual form of governance. Similarly, his unhappiness with inter-office rivalries at McKinsey Wellington led to McKinsey's One-Firm policy.

**Adaptation.** Entrepreneurs do not formulate their strategies all at once – they adapt and expand the scope of their policies in response to unforeseen problems and opportunities. HP's founders, for instance, did not formulate explicit organizational policies for nearly twenty years. Writes Packard: "We did not much concern ourselves with organizational matters until well into the 1950s. There was no need to. We had a well defined line of related products, designed and manufactured in one location, sold through an established network of sales representatives, and had a highly centralized company in which management was organized on a fundamental basis with vice presidents for marketing, manufacturing, R&D and finance."<sup>93</sup> Continued growth and diversification of product lines "brought to light some organizational weaknesses"<sup>94</sup> and led the founders to "consider some sort of decentralized strategy."<sup>95</sup> In

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Nordstrom's strategy of emphasizing customer service, derives from its origins in the shoe business: "Selling shoes is the epitome of one-to-one service—nowhere else in the fashion business will you find a sales person on his or her knees in an effort to please the customer." (Moskowitz, Levering and Katz (1990), 223.)

1957, they divided the ninety engineers engaged in product development into four groups, each of which concentrated on a family of related products.<sup>96</sup> The formation of product development groups was followed by further “divisionalization steps” spurred by geographic expansion of manufacturing operations in Colorado and Germany and by the acquisition of new businesses. By the mid-1960s, HP had over a dozen “integrated, self-sustaining” operating divisions responsible for developing, manufacturing and marketing their own products.<sup>97</sup>

Hewlett and Packard also codified organizational norms in response to the company’s growth and diversification. In 1957, the company held its first off-site meeting of senior managers. A group comprising of about twenty people reviewed and studied a set of corporate objectives that Packard had previously drafted and discussed with Hewlett. As Packard describes it: “Bill and I often thought about how a company like ours should be organized and managed. We thought that if we could get everybody to agree on what our objectives were and to understand what we were trying to do, then we could turn them loose and they would move in a common direction.” The principles discussed in 1957 were subsequently refined based on experience and on changes in the business environment.”<sup>98</sup>

Limited growth opportunities in the businesses it had initially concentrated on lead HP to change its product-market focus. “By the late 1950s”, Packard writes, “the need for diversification was clear. We were becoming the largest supplier in most of the major segments of the electronic-instrumentation business. But these segments, in total, were growing at only 6 percent per year, whereas we were growing out of profits, at 22 percent. Obviously, that kind of growth could not continue without diversification.”<sup>99</sup> HP subsequently established an operation to engage in solid state research and development. As previously mentioned, it entered the medical field by acquiring the Sanborn Company, and the field of instrumentation for chemical analysis by acquiring F&M Scientific<sup>100</sup>. These strategy defining acquisitions provided a base for entering new markets where HP could exploit and extend its capacity for developing technology based products.

Similarly, important elements of Wal-Mart’s strategy evolved over several decades, in response to unanticipated problems and opportunities. Distribution centers or warehouses have been a cornerstone of the company’s expansion: Wal-Mart grew from state to state, methodically saturating markets surrounding distribution centers with its stores. With each store located within a day’s drive of a distribution center, Wal-Mart could replenish store inventories, Walton estimated in 1992, over twice as fast and at about a 35-40% lower cost than its competitors.<sup>101</sup> The strategy was born out of necessity. The company started building its first center in 1968 according to Walton, because “we didn’t have distributors falling over themselves to serve us like our competitors did in larger towns. Our only alternative was to build our own warehouses so we could buy in volume at attractive prices.”<sup>102</sup>

Investments in computer and communications systems have been another important critical element of the retailer’s strategy. Abe Marks, the first president of the National Mass Retailers Institute, writes that without computerization, it would have been impossible for Walton to “have built a retailing

empire the size of what he's built, the way he built it. He's done a lot of other things right, too, but he could not have done it without the computer."<sup>103</sup> For many years, however, Walton relied on rudimentary, labor intensive systems. Writes Walton:

By the early sixties, we had eighteen variety stores and a handful of Wal-Marts.... We kept a little pigeonhole on the wall for the cash receipts and paperwork of each store. I had a blue binder ledger book for each store. When we added a store, we added a pigeonhole. I know we did that at least up to twenty stores. Then once a month, Wanda Wiseman and I would close those books—enter the merchandise, enter the sales, enter the cash, balance it, and close them.<sup>104</sup>

In 1966, Walton enrolled in an IBM course for retailers. He recognized that Wal-Mart “had to get better organized” and that “quite a few people were beginning to go into computerization.”<sup>105</sup> After this course, Walton began to recruit the personnel who would develop Wal-Mart’s systems. In 1968 Wal-Mart hired Ron Meyer, and from that point on Walton writes, “we as a company have been ahead of most other retailers in investing in sophisticated equipment and technology.”<sup>106</sup> So it was more than two decades after Walton had opened his first store that a critical element of Wal-Mart’s strategy was put in place. The principle of “treating employees as partners” through profit sharing and other benefit programs was adopted even later. Initially, Walton writes, “I was so obsessed with turning in a profit margin of 6 percent or higher that I ignored some of the basic needs of our people.”<sup>107</sup> Subsequently after skirmishes with unions led Walton to start “experimenting with this idea of treating our associates [employees] as partners, it didn’t take long to realize the enormous potential it had for improving our business.”<sup>108</sup>

Although policies often result from adaptation, this does not mean that effective strategies are in a state of constant flux: rules need some stability to guide a firm’s activities. At the same time, effective strategies for building a long-lived firm are not static either. Goals and prior experiences shape the initial policies. External developments such as a union organization drive or the availability of cheap computing power cause entrepreneurs like Sam Walton to reformulate their initial strategies. As the example of HP shows, firms may also develop new policies because they outgrow their target markets and their organizational structures and routines. Thus we find fledgling firms undertake two kinds of initiatives. Some initiatives, such as HP’s efforts to develop new electronic instruments, fall within the framework of the existing strategy. Other initiatives, such as HP’s search for new markets, attempt to modify the framework. Successful frame-modifying initiatives lead to new policies – for instance HP’s acquisition of the Sanborn Company lead to a long-term commitment to the medical products market. Like a system of common law, effective strategies are both consistent and responsive to changing circumstances.

**Analysis and research.** Although entrepreneurs formulate their strategies in a purposeful and goal-oriented way, little formal analysis or research informs their choices: they pick long-term rules without much study of whether an alternative set would lead to superior results. For instance, McKinsey’s “top management approach” of working only “with the approval and liaison of its client’s chief executive

officer” and “probing deeply the over-all aims and abilities of its client” was a matter of faith<sup>109</sup>. A cover story in the September 24, 1955 issue of BusinessWeek noted:

Some of McKinsey’s competitors laugh at the “top management approach”. One of them says, “While they’re talking to the president, we’ve moved into the sales promotion manager’s office and gotten the order for a new marketing survey.” To this, a McKinsey partner says, “That doesn’t bother us one bit. We decided long ago that in our consulting we would take into account more than one just one piece of the picture. And we haven’t suffered for it.

As the phrase “haven’t suffered for it” suggests, entrepreneurs make satisficing rather than ‘maximizing’ strategic choices. Indeed, entrepreneurs cannot determine whether they made the possible choice even after the fact. In their formative years, firms confront a vast number of options, which are difficult to enumerate, let alone subject to a rigorous comparative analysis. Consider, by way of illustration, the case of Steve Belkin, the founder of TransNational Travel (TNT). In 1972, Belkin began working at Group Touring Associates (GTA). GTA developed and sold charter travel tours to various affinity groups by mail, using the membership lists of these groups. About a year later, Belkin left to start a company, TNT, which replicated GTA’s business. As the charter travel industry was in its infancy and profit margins were high, TNT generated significant cash flows right from the outset. Belkin then built on TNT’s direct mail capabilities to sell products such as affinity credit cards by mail order. TNT’s direct mail strategy proved rewarding; in the early 1990s, Belkin sold off the credit card businesses for \$200 million. But the redefinition reflected Belkin’s dislike for investing in fixed assets rather than a careful financial comparison of all possible alternatives. Otherwise, Belkin could have decided to build a vertically integrated travel service company and perhaps made a fortune developing hotels and resorts instead.

The risks of seemingly arbitrary choices are, to a degree, mitigated by the gradual evolution of a firm’s strategy. Although entrepreneurs like Sam Walton, Bill Hewlett and David Packard have limited experience when they start, over time they gain a deep, almost intuitive understanding of the businesses and markets, which can compensate for the sketchiness of their formal research and analysis. The 27-year-old Sam Walton had limited business knowledge when he opened his first store in 1945. He got “suckered into... an awful lease”<sup>110</sup> which didn’t have a renewal option. By the time Walton refined the Wal-Mart formula in the late 1960s and 1970s, he had accumulated a deep knowledge of retailing through first hand experience and by studying others operations. “I probably visited,” Walton writes, “more headquarters offices of more discounters than anyone else – ever.”

And, although the breadth of possible options makes it impossible to identify the best possible choice, entrepreneurs can analyze the merits of their intuitive leanings. We have previously noted that as firms evolve, they pursue opportunities that require more initial investment and involve less uncertainty. Accordingly, entrepreneurs have both the option and the incentive to make a serious effort to investigate

the risks and returns of their strategy defining initiatives. Walton's 1945 store was a leap into the dark. The returns were highly uncertain because they depended on Walton's unproven capacity to manage a small franchised store. The economic contribution of Wal-Mart's first distribution center was less uncertain and could be more easily analyzed. The much larger capital required for the 72,000 square foot facility also gave Walton an incentive to do more research and planning. Similarly in the early 1960s, when HP could have diversified into many fields, the founders could not determine whether medical products and instruments for chemical analysis represented the optimal choice. But they had the incentive and the means to analyze their acquisition of the Sanborn Company and F&M Scientific more thoroughly than they had the development of their Model 200A audio oscillator in 1939.

**Corporate strategies.** Strategy formulation in a mature business involves the consideration of a limited number of options because of a large preexisting stock of assets and embedded coordination mechanisms. Companies like IBM today already have a base of customers, a broad line of products, reputations, know-how, personnel policies, transfer pricing mechanisms, norms, and so on. These assets and mechanisms cannot be easily altered and the costs for their acquisition are already sunk. Strategy formulation in such companies, according to the business school theorist Andrews, involves "matching" the firm's assets with its market opportunities. Similarly, IO economist Richard Caves represents "strategic choice" in a large firm as a "constrained optimization problem"; The "best strategy" maximizes some objective function, subject to constraints set by the firm's assets and market environment.<sup>111</sup>

In this process of matching (or constrained optimization) decision-makers face limited choices. When Hewlett and Packard sought to enter new markets in the late 1950s, they could have considered opportunities in telecommunications or process control instead of medical products. In the early years, Michael Dell could have decided to enter computer retailing or the manufacture of peripherals instead of desktop computers. Today, the existing assets of HP and Dell limit the range of complementary new markets and businesses they can enter. Prior commitments and assets similarly limit the number of options that mature companies have in the choice of their technologies, manufacturing capacity, product features, pricing, joint venture partners, policies, distribution channels and other such strategic variables.

History (or 'path dependencies') not only limits the feasible range of values or states that a strategic variable can take, it also limits the number of variables that decision-makers can consider manipulating. As one important example, top managers of mature firms cannot easily alter basic organizational policies and rules. Entrepreneurs like Bower, Hewlett, and Packard pay considerable attention to policies regarding compensation, promotion, recruiting and firm governance and to establishing the basic norms or values of their organizations. The choices they make in the formative period of their organizations have a profound impact on their firm's coordinative capacities and longevity. McKinsey's Managing Director or HP's CEO cannot easily change core organizational policies. They also have little reason to try to do so: firms don't enjoy the long-term success of an HP or a McKinsey with obviously flawed organizational policies. Therefore, unless a mature firm faces a crisis its



organizational rules represent more of a constraint than a variable; and indeed, strategy models which take the perspective of the CEOs of large companies often exclude the organizational dimension. (See the insert “Organizational Variables in Strategy models.”)

#### **Organizational Variables in Strategy Models**

Organizational variables have long occupied an ambiguous place in the business strategy literature. The definitions of strategy used by Chandler in 1962 (“defining basic goals and the course of action and procedures necessary to achieve these goals”) and then by Andrews in 1971 (“pattern of purposes and policies defining the company”) should include the organizational policies that help firms achieve their goals and “define the company”. Chandler’s central thesis that organizational structure follows strategy however implies a distinction between the organizational and the strategic. A similar ambivalence is reflected in Andrew’s discussion of “economic strategy” and classification of some organizational policy issues under the rubric of strategy “implementation.” Porter’s framework, which so profoundly influenced the field of strategy, excluded organizational variables altogether. Porter dealt almost exclusively with the formulation of what Andrews would call “economic” strategy and unlike Chandler and Andrews, did not discuss organizational issues much, either as separate variables or under the rubric of implementation. There was similarly little analysis of what Philip Selznik had called the firms “mission” or “purpose” – an organizational concern that pervades Andrews’s view of strategy.

Stanford economist David Kreps offers the following description of how Porter and other scholars who have been “weaned on the economic paradigm” ignore variables such as firm culture in their approach to business strategy. In the Porter approach, Kreps writes:

The firm and its capabilities are more or less taken as givens, and one looks at the tangible characteristics of an industry to explain profitability. It sometimes seems, in this approach, that there are good industries (or segments of industries) and bad: Find yourself in a bad industry (low entry barriers, many substitutes, powerful customers and suppliers, many and surly competitors), and you can do nothing except get out at the first opportunity. Now, this is assuredly a caricature of the Porter approach. The size of entry barriers, relations with suppliers/customers, and, especially, competitive discipline within an industry are all at least partially endogenous. Bad industries can sometimes be made good, and (perhaps a more accurate rendering of Porter) good niches can be found or formed even in bad industries.

This approach carries with it a powerful legacy from textbook microeconomics: The firm is an exogenously specified cost function or production possibilities set, and market structures (also exogenous) determine how it will fare. The actual purpose of the firm qua organization is not considered. This is rather strange, for if one has an economic mind-set, one must believe that the firm itself performs some economic (efficiency-promoting) function. From there it is a short step to consider as part, perhaps the largest part, of successful strategy those actions designed to increase the firm’s organizational efficiency. But since textbook economics doesn’t explain firms qua organizations, it comes up empty as a discipline for analyzing this part of strategy.”<sup>112</sup>

Recent work in the strategy field has begun to emphasize the organizational dimension. According to Henderson (1994) the growing popularity of the resource base view (RBV) has led to “a renewed interest in heterogeneous organizational capability” with several scholars suggesting that “organizational knowledge, structure, culture or ‘capabilities’” represent an important source of competitive advantage.<sup>113</sup> How firms developed their organizationally embedded advantages is often, however, not well specified. Some RBV theorists who have followed in the intellectual traditions of Nelson and Winter do not include a purposive top manager. Valuable organizational capabilities develop in their models develop by chance rather than by choice. This assumption seems inconsistent with the great effort that entrepreneurs who build long-lived firms put into organizational development. There may not be a simple relationship between intentions and outcomes but it is implausible that conscious choices don't matter.

The exclusion of organizational variables, especially in ‘prescriptive’ strategy models derives perhaps, from their established company orientation. From the point of view of the executive of an established company, organizational policies are much more difficult to change compared to the traditional strategic variables of product line, markets, capacity expansion and so on. In empirical studies, measurement problems likely lead to the exclusion of organizational variables. Researchers cannot readily quantify the efforts and investment that go into building an organization, as they can the expenditures on R & D, advertising or physical plant. In a young enterprise, however, whose routines have not yet been established, consciously formulated organizational policies have a significant influence over the firm's ability to develop a portfolio of assets and to overcome growth constraints. And, our inability to quantify the efforts of an Andy Grove at Intel or a Bill Gates at Microsoft to root out complacency and build an intensely competitive organizational culture should not lead us to discount its importance.

Internal control systems also limit a mature corporation's options. As discussed in Part 1, the fixed costs of evaluating and monitoring new initiatives leads to a high threshold of expected profit. Instead of considering many niche opportunities, top decision-makers restrict their attention to a few large investments. A critical strategic issue for HP in the early 1990s, for instance, was whether to withdraw from or increase its commitment to the multi-billion dollar personal computer market. For Wal-Mart, it was whether or not to expand overseas.

Fewer options permit a more detailed evaluation of strategic alternatives. In fledgling companies, where entrepreneurs have to decide what assets they want to develop rather than match opportunities to existing assets, the overwhelming number of possibilities leads to intuitive, satisficing judgements. The constrained optimization of strategy formulation in large corporations facilitates research and analysis to pick the best option. Decision-makers in HP could systematically investigate the pros and cons of a commitment to PCs in the 1990s.

The control systems of mature corporations also provide the capacity to evaluate strategies in a systematic way. Fledgling companies usually lack the personnel to conduct detailed analysis of strategies. The system of checks and balances of mature corporations includes a staff specialized evaluating strategies. Although the size of their staffs vary, practically every Fortune 500 company has senior executives and analysts dedicated to strategic planning and established routines for formulating and

evaluating strategies. They also make extensive use of management consultants. Strategy assignments for large corporations, generated according to one estimate, worldwide revenues of about \$6.3 billion for the top twenty consulting firms in the field in 1997.<sup>114</sup> In the 1960s, by contrast, Sam Walton personally did much of the analysis and research that went into formulating Wal-Mart's strategy.

Business school faculty and management consultants have developed many analytical tools and processes for the systematic formulation of corporate strategy. In Porter's "five force" framework, the analyst evaluates strategic options in terms of their effect on five categories of factors that affect the profitability of the firm's industry – the degree of rivalry between direct competitors, the likelihood of new entry, the threat from substitutes, buyer power and supplier power. Porter provides numerous heuristics or checklists for analyzing these factors and for evaluating the effects of different types of strategic moves. The exercise involves extensive collection of data on customers, internal cost structures, competitors, potential entrants and so on. In his book *Competitive Strategy*, Porter observes that "a full blown analysis is a massive task".<sup>115</sup> In the appendix on 'How to Conduct an Industry Analysis' Porter defines 13 principal categories on which data should be compiled by company, by year, and by functional area.\* Corporate analysts may not, in fact, develop this "comprehensive picture of industry structure and competitors' profiles"<sup>116</sup> that Porter recommends; but compared to decision-makers in fledgling companies, they at least have to resources to aspire to do so.

To conclude this section, we may thus sketch the following progression in the evolution of the strategies of promising ventures. Entrepreneurs start their business in an ad-hoc way, without any systematic effort to find the best possible opportunity. They serve small markets and often rely on their personal efforts and market disequilibria to turn a profit. Through a determined, but usually not systematic, search, some entrepreneurs find larger opportunities that provide a platform for building a coordinated system of assets that can sustain a long-lived firm. The development of the system is neither random nor fully planned; rather, it evolves through experiments conducted within the framework of the firm's strategy. Although the long-term rules, which comprise the strategy, provide a consistent, systematic structure for the firm's initiatives and investments, the formulation of the strategy itself is arbitrary and evolutionary. Entrepreneurs make a-priori choices about the type of firm they would like to build and rules they will adopt to do so. The entrepreneur conducts many experiments within the guidelines of long-term rules and also experiments to refine and expand the rules.

Over time the firm accumulates a distinctive bundle of assets which are best deployed against a limited number of market opportunities. These accumulated assets rather than the entrepreneur's intuitive

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\* These categories, with sub-categories in parentheses, comprise: product lines; buyers and their behavior; complementary products; substitute products growth (rate, pattern and determinants), the technology of production and distribution (cost structure, economies of scale, value added, logistics and labor) marketing and selling (market segmentation and marketing practices); suppliers; distribution channels; innovation (types, sources, rate and economies of scale); competitors – strategy, goals, strengths and weaknesses, and assumptions; social, political and legal environment; and, macroeconomic environment.

choices set the boundary for subsequent initiatives and make the formulation of strategy more deductive and analytic than is possible in the transitional phase (See **Table 11.1**) Arguably, over-constrained strategies deduced from the existing asset base can prove ossifying and may lead to the slow demise of the corporation. Management gurus like Hamel and Prahalad suggest that senior managers “unlearn” the successful strategies the corporation has used in the past and “write off its depreciating intellectual capital” quickly.<sup>117</sup> The analysis of such advice is beyond the scope of this work; for our purposes it is sufficient to note that as an empirical matter, mature companies rarely offload their core assets and successfully make significant changes in direction.

**STRATEGY FORMULATION:  
TRANSITIONAL FIRMS VS. LARGE CORPORATIONS**

Table 11.1

	<b>TRANSITIONAL FIRMS</b>	<b>LARGE CORPORATIONS</b>
<b><i>Role</i></b>	Helps create a coordinated system of assets	Helps maintain and expand system
<b><i>Content</i></b>	Many variables and options	Variables and options limited by existing assets and past choices
<b><i>Process</i></b>	Based on entrepreneur’s goals and past experiences and adaptation to unexpected circumstances	Limited options and availability of staff permit extensive comparative analysis

**3. IMPLEMENTATION**

In addition to the formulation of a strategy, building a durable firm requires its consummate implementation. By implementation I refer to concrete decisions and actions, in contrast to the choice of general rules or principles involved in strategy formulation. For example, Wal-Mart’s adoption of a rule to locate stores in small towns or Microsoft’s policy of recruiting and training programmers straight out of college (rather than hiring experienced personnel) represent, in the terminology I use, strategy formulation choices. Finding specific store locations (or candidates) and negotiating leases (or compensation arrangements) represent, in my usage, the implementation of the strategy. Similarly, adopting the principle of having a decentralized organization represents a formulation choice. Determining the specific division of functions between headquarters and the decentralized units;

designing, negotiating and reviewing budgets; selecting managers for the units and setting their pay and bonuses and so on, all represent implementation choices.

The difference between formulation and implementation does not, in my usage, correspond to the distinction between short-term or 'tactical' decisions and long-term or 'strategic' decisions. As discussed below, choices about specific store locations and personnel can have a significant long-term impact on firm evolution.

### **Importance of Implementation.**

The quality of implementation matters at least as much as, and sometimes more than, the formulation of rules and policies. A typical business strategy resembles a map of Everest rather than directions for making withdrawals from a numbered Swiss bank account. In the latter case, the directions are of value, while the execution is routine. In contrast, getting to the top of Everest is challenging, not because of the scarcity of reliable maps but because of the difficulty of the climb. Reaching the summit of Everest requires, in addition to a reliable map, exceptional determination, technique, endurance and the ability to make judgments under difficult conditions. Similarly, while goals and rules help direct and coordinate effort, building a durable firm also requires an exceptional capacity to execute or implement strategy. Implementation is especially important when competitors monitor each other's strategies. A firm's general rules and objectives are typically intended for wide communication and thus may be easily observed by rivals. If rivals choose to adopt the same broad approach, success will be largely determined by differences in the quality of implementation.

Implementation has obvious importance at the level of the individual functions of a business. Wal-Mart would not have become a multi-billion dollar enterprise without excellence in buying and merchandising goods and Sam Walton's talent for picking good locations from his airplane. If Sun Microsystems had been weak in its software or hardware engineering efforts, it would not have captured a significant share of the workstation market – according to Vinod Khosla, several other companies that started with the same product specifications and technology as Sun were simply unable to do the follow-on engineering required to make a good product. The inability to get products to work is a common reason for the failure of high technology ventures. Apple Computers, for example, launched the hand-held Newton in 1993 with great fanfare. It became an object of derision, not because of a strategic or marketing mistake; the Newton's handwriting recognition capability – a crucial feature of the product – just did not work satisfactorily.

Implementation also affects a firm's capacity to coordinate multiple assets and activities. The effectiveness of deeply embedded coordination mechanisms depends on many specific choices not just a few overall principles. For instance, whether a policy of hiring team players instead of brilliant, but difficult stars has the desired consequences will depend on the traits of the individuals actually recruited. We might further expect that the effectiveness of specific choices depends on changing contextual factors.

The marketing and production heads may, for instance, develop a mutual dislike; effective coordination of the two units may therefore require replacing one or both heads.

### **Distinctive Features and Contrasts**

Although the success of a strategy depends on its effective implementation, regardless of a firm's age or size, we can find differences between mature and fledgling firms in the role played by the top decision makers and in the nature of the implementation tasks.

**Role.** The top managers of large, well-established firms often focus on broad policies and delegate the responsibility for specific choices to subordinates. (As the insert "Implementation in strategy models" suggests, many prescriptive strategy models reflect the interest of large company executive in strategy formulation). In contrast, for reasons that we will explore in the next chapter, the principals of a fledgling enterprise cannot delegate the responsibility for implementation as easily. They have to play an active role in the formulation of general policies as well as their translation into concrete initiatives and investments.

Consider, for instance, Sam Walton's role at Wal-Mart. Wal-Mart took a large number of ideas from other retailers to implement its overall strategy of providing exceptional value to discount shoppers. Walton told employees, a former store manager recalls, to "check everyone who is our competition. And don't look for the bad. Look for the good. If you get one good idea, that's one more than you went into the store with and we must try to incorporate it into our company."<sup>118</sup> Moreover, Walton did not rely just on store managers to find these ideas. Don Soderquist, who used to run the data processing operations for a chain of variety stores, describes how Walton met with him to talk about computers:

"He wanted to know all about how we were using them, and how we were planning to use them. And he took everything I said down on this yellow legal pad.

"The next day was Saturday, and I went shopping ... at the Kmart near my house. I walked over into the apparel section and saw this guy talking to one of the clerks. I thought 'Jeez, that looks like that guy I met yesterday...He's writing everything [the clerk] says in a little spiral notebook. Then Sam gets down on his hands and knees and he's looking under this stack table, and he opens the sliding doors and says, 'How do you know how much you've got under here when you're placing that order?'"<sup>119</sup>

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### **Implementation in strategy models**

Many models underplay the role of the implementation of strategies. They suggest that choices along a few policy dimensions are the main determinants of long-run profitability; implicitly or explicitly, they assume a firm can readily acquire the capacity to implement effectively the right policy choices. For instance in his 1980 book *Competitive Strategy*, Porter emphasized the importance of picking inherently profitable industries and sub-groups of industries. His formulation of strategy has evolved since then, but the emphasis on policy choices remains. In an award-winning 1996 article in the *Harvard Business Review*, Porter argues that operational effectiveness (“performing similar activities better than rivals perform them.”) has limited value. “Few companies have competed successfully on the basis of operational effectiveness over an extended period,” Porter writes, because of “the rapid diffusion of best practices. Competitors can quickly imitate management techniques, new technologies, input improvements, and superior ways of meeting customers’ needs.” Rather, long run profits derive from differences in strategic positioning: “performing different activities from rivals” or “performing similar activities in different ways.”

The new formulation of strategy contains ambiguities. How can a firm achieve operational effectiveness – “perform similar activities better than rivals” – without performing them in at least slightly different ways? And, how could we expect any differences in the profitability of firms performing the same activities in the same way? More importantly, the spirit of the claim seems to lack empirical support. We can find several examples of companies making similar policy choices but enjoying quite different levels of long-term profitability because of differences in the implementation of strategies. When it gets down to the details, competitors cannot “quickly imitate management techniques” and “best practices” do not diffuse as readily as Porter suggests. Goldman Sachs and Morgan Guaranty, for instance, have enjoyed exceptional returns over several decades, providing the same services, drawing professionals from the same labor pool, and using the same technologies as their rivals, primarily because their capacity to provide higher quality service or control risk has proved difficult to replicate. And, the sociologist Paul Adler’s work on the General Motors-Toyota joint venture, NUMMI, describes the practical difficulties of transplanting manufacturing and human relation practices even when managers can observe them at close range.<sup>120</sup>

The focus of the Porter and similar models on strategy formulation likely reflects their interest in the top managers of large, established firms who delegate many implementation decisions to subordinates. Moreover, a mature firm’s effectiveness in implementing strategies often derives from difficult to change routines and procedures. Like established organizational policies, therefore, the firm’s ‘capacity to implement’ represents more of a constraint than a decision variable. In fledgling firms however, specific implementation choices made by the top-decision makers have a considerable impact on long-run profitability.

**Tasks.** Strategy implementation in a transitional firm also involves some distinctive tasks. Below, I discuss two special challenges that entrepreneurs face in implementing strategies: upgrading the firm’s resource providers and, building the organizational infrastructure.

**Upgrading resources.** The existing base of resource providers in a mature company represents a constraint or a “given” in the formulation of its strategy. In young firms, where strategies derive more from the entrepreneur’s hopes than from the existing stock of resource, entrepreneurs often have to ‘reconstitute’ their resource providers to close the significant gap between their aspirations and their current position. They have to find new employees, customers and sources of capital.

As we saw in Part 1, many new ventures cannot initially attract top-notch employees. Moreover, while the basic strategy is still in flux and it is not clear what kind of workforce will be needed in the long term, it may be imprudent to hire expensive, high quality talent too soon. If the initial business concept proves to be unviable, the entrepreneur has to change course while paying high salaries of underutilized employees. In the early stages therefore expediency rules: the founders provide most of the crucial skills and recruit whomever they can for tasks they are too stretched to perform themselves.

After they have formulated long-term goals and policies, however, entrepreneurs require more qualified personnel. The urgency of rapid expansion may preclude training underqualified or inexperienced initial employees for critical positions. Some individuals may also lack the innate ability or motivation to take on increased responsibility. And, recruiting experienced staff provides evidence of the firm's long-term prospects and a signal of the entrepreneur's commitment to building a long-lived firm.

Recruiting Steve Ballmer, for instance, helped Microsoft secure the crucial contract to provide an operating system for IBM's PCs. Ballmer joined Microsoft in June 1980. Steve Wood, the general manager, and his wife, Marla, who kept the books, had just left. Marla had been overwhelmed by the workload; her husband was drawn by the greater opportunity he saw at Datapoint: at the time, Microsoft owners, Bill Gates and Paul Allen, did not offer employees equity. Ballmer, a former college roommate of Gates, had previously worked at Procter & Gamble and attended Stanford's business school. Gates recalled later:

“When we got up to 30 (employees), it was still just me, a secretary, and 28 programmers. I wrote all the checks, answered the mail, took the phone calls—it was a great research and development group, nothing more. Then I brought in Steve Ballmer, who knew a lot about business and not much about computers.”<sup>121</sup>

One month after Ballmer joined, IBM approached Microsoft to secure software for its planned introduction of a PC. Ballmer's corporate experience (and, jokes Gates, possession of a business suit) helped Microsoft allay IBM's concerns about entrusting the development of the PC's operating system to a small company that might not be able to provide on-going service and support.

The growth of Cisco Systems required substantial changes in the composition of its workforce. Len Bosack and Sandy Lerner persuaded friends and relatives to work for deferred pay when they started the company in 1984. The founders continued to rely on improvised staffing for five years: a 70 year-old retired physicist served as a plant managers for instance.<sup>122</sup> John Morgridge “built the management structure” after he was recruited to run the company in 1989. According to Morgridge, the company hired “professional and experienced people in all the main functional areas – a chief financial officer, a vice-president of engineering, a vice-president of manufacturing and a marketing person” and recruited a professional sales staff.<sup>123</sup>

In 1996, Cisco had more than 7000 employees, making it one of the largest employers in California's Silicon Valley. The company, which took on a thousand employees in each quarter of that



year, had completely changed its initial recruitment policy. Instead of relying on individuals with low opportunity costs, it sought out 'passive job seekers', who were happy and successful in their jobs. According to Cisco's vice president for human resources the "top 10%" type staff that the company tried to recruit, were not "typically found in the first round of layoffs from other companies" and weren't "cruising through the want ads."<sup>124</sup>

Customers represent another important area for upgrading. The customers who are most willing to buy from a new venture may not fit the firm's long-term strategy. As the example of Sun Microsystems illustrates, survival of the enterprise may hinge on making a sale to a new type of customer. In its first year, Sun sold what Vinod Khosla calls its "half-baked" workstations to a relatively small academic market. Universities could use "a not-fully-developed machine" Khosla recalls "because they did all kinds of kludgy stuff themselves and they did not mind putting in the resources. Typically, they were trying something new so they did not have to rely on the whole hardware as much."<sup>125</sup> Sun could not initially sell to commercial "system integrators" or OEMs, who might also have been able to use its unfinished workstations, Khosla found, because Sun lacked credibility. The OEMs instead turned to Apollo which was nearly ten times better capitalized than Sun. Apollo also had "well connected senior management" an area in which Sun had "diddly squat."

Sun had managed to sell its workstations to 42 of its target list of the top 50 computer science departments in the U.S. in its first year. In the meantime, Apollo had secured Calma, Autotrol and Mentor Graphics, the three largest commercial customers for workstations and was rapidly on the way to establishing its platform as the industry standard. In the following year, Sun managed to secure an order from Computervision, which had decided to buy rather than make its own workstations. According to Khosla, if Apollo had got the Computervision order, it would have been "all over" for Sun.<sup>126</sup>

Cisco founders Bosack and Lerner initially secured orders from fellow engineers in universities. According to Morgridge: "They were basically selling to their peer group, thorough word of mouth. The initial customer set started with the lunatic fringe – the kind of people who are way out on the leading edge. The early people were very technical and tolerant."<sup>127</sup> Morgridge established a systematic marketing program, hired professional sales staff and targeted business customers. The company's sales grew from \$5 million in 1989 to \$183 million for the 1991 fiscal year as it secured over a 75% share of the market for routers.

Finally, ventures may need to change their sources of capital. We have seen that startups are usually bootstrapped, using personal funds or money provided by friends and family. Bank loans are provided, if at all, by small local banks that cannot find larger more creditworthy borrowers. Such sources often cannot provide much additional capital, however. The subsequent growth of the firm therefore often requires upgrading to professional venture capital, credit from larger banks, or the public markets in order to fund faster growth and for the credibility that the more well-known sources provide.

To illustrate: Sam Walton opened his first store, a Ben Franklin franchise, in 1945 with \$5000 of personal funds and \$20,000 borrowed from his father-in-law. He financed more franchised stores through limited partnerships, in which the managers had a roughly 2% share, with Walton and his relatives holding the rest. Walton financed 95% of the first Wal-Mart in 1962 by taking out a personal loan against his assets; his brother and the store manager provided the other 5% of capital. Internally generated funds and a bank line of credit financed Wal-Mart's growth until 1969. In May 1969, Wal-Mart narrowly averted a liquidity crisis when a new banker became nervous about expansion plans and refused to allow the company to draw on its line of credit. Walton, who planned to open at least a dozen stores a year, then secured a term loan of \$2.5 million from the Prudential and Mass Mutual insurance companies, and in October 1970 completed a public offering which raised \$4.6 million.

Bosack and Lerner financed Cisco Systems with their personal savings and borrowings. In 1987 they raised funds from Sequoia Capital, a venture capital firm. In February 1990 the company went public and the value of its stock rose about 70 times over the following seven years. The rapidly appreciating stock provided the currency to acquire other companies and broaden its portfolio of its products, technologies and customers.

**Building the organizational infrastructure:** Just as the employees of a large firm are relatively fixed, so are the organizational structures and routines through which they work and interact. The formulation and implementation of new organizational policies becomes an issue mainly in times of crises. Most startups have no organization to speak of; entrepreneurs who want to build long lived firms face the task of formulating and implementing policies to build the firm's organizational infrastructure from scratch.

In building the hard elements of the infrastructure such as the formal reporting relationships, incentive plans and control systems, entrepreneurs often seek to capture the knowledge and experience of mature firms by recruiting experienced managers from them. For instance although Sam Walton had a keen intuitive sense for financial controls and had developed reasonably effective paper based systems, he relied heavily on recruits, such as Ron Mayer from Duckwall stores, to install the computerized systems that allowed Wal-Mart to grow rapidly. Consultants represent another means for acquiring expertise on the design of formal structures and systems. In the first half of this century, firms like DuPont and General Motors had to invent their organizations without the benefit of existing models. Knowledge of the formal components of organization can now be directly or indirectly purchased.

The 'soft' elements of organizations such as appropriate norms and culture cannot be acquired in the same fashion, however. Edgar Schein's study of how organizations "create cultures through the actions of founders" identified five "primary mechanisms for culture embedding and reinforcement."

These were:

- 1) What leaders pay attention to, measure and control;
- 2) leader reactions to critical incidents and organizational crises;

- 3) deliberate role modeling, teaching and coaching by leaders;
- 4) criteria for allocation of rewards and status; and,
- 5) criteria for recruitment, selection, promotion, retirement and excommunication.<sup>128</sup>

Schein's analysis and other studies of company cultures show that effective norms cannot be built simply by hiring experienced managers or consultants. Nor can entrepreneurs easily copy the cultures of the firms they admire; they have to customize the specific mechanisms for "embedding" culture to their specific circumstances. We thus see great variety across long-lived firms: the culture at Wal-Mart, according to Walton, reflects the traditions of small-town America, whereas the McKinsey culture is that of an elite, prestigious professional firm. The mechanisms used by the founders to implement the culture were also different. At Wal-Mart, Walton used to start executive meetings by doing the University of Arkansas's Razorback cheer and once wore a grass skirt to do a hula on Wall Street. Walton describes several other "corny" activities undertaken by executives in order to "make our people part of a family"<sup>129</sup>: a persimmon seed spitting contest with the general counsel as target; wrestling a bear; and dressing up a male in pink tights and a long blond wig for a horse ride around the town square in Bentonville.

Bower, in contrast, insisted on a conservative dress code; until the 1960's, consultants were expected to wear hats and calf-length socks. He concerned himself with the look of reports to clients and wrote cautionary memos to firm members on the excessive use of ellipses. Bower describes his efforts to build 'professionalism,' a key element of McKinsey's culture, thus:

The history of our program to establish professionalism in the firm reflects few dramatic highlights. It has been slogging work. The hours devoted to it cannot be numbered. I put out what I am sure was for many a monotonous series of memorandums and made an equally monotonous series of speeches at firm and office training meetings. Untold hours were also devoted to applying the professional approach to all aspects of our thinking, client work, prospective client relationships and relationships among ourselves.

Although Bower's efforts to mold the McKinsey culture seem very different from Walton's, they did have in common, a concern with detail: establishing the high principle of professionalism at McKinsey culture involved attention to consultants' purchases from the haberdashery.

#### **4. SUMMARY AND CONCLUSIONS**

In the previous chapter we saw that the transformation of a fledgling enterprise into a well-established corporation involves a gradual accretive process which requires a purposive coordination of effort across functions and across time. In other words, entrepreneurs have to adopt a 'strategic' approach. In this chapter we examined the importance and nature of three elements of the strategic approach: the adoption of audacious long-term goals for the firm; the formulation of general rules and policies to achieve the goals; and, the translation (or "implementation") of the general rules into concrete decisions.

The strategic approach to building a firm stands in obvious contrast to the opportunistic or improvised approach adopted by the founders of promising new ventures. It also has some noteworthy differences, we saw, with the strategic tasks of the top executives of mature firms. The existing assets and norms limit the variables that the top managers of mature firms can manipulate: for instance, they cannot easily change the firm's basic purpose or its organizational climate. The need to match new initiatives with existing assets similarly limits technology and product market choices. And, with fewer choices (and greater resources) they can derive strategies in a more deductive analytical way. In a fledgling venture, by contrast, entrepreneurs can choose the long term goal for their firm, the norms it will seek to develop, the customers it will target and the assets it will invest in. These choices are made in an intuitive and adaptive fashion. In a young firm, policies reflect the entrepreneurs' beliefs and adaptive responses to unexpected events rather than a formal process to deduce a strategy.

## **CHAPTER 12: EXCEPTIONAL QUALITIES**

*This chapter examines the traits that entrepreneurs must have in order to build a large and long-lived firm. The first three sections discuss the traits that determine an entrepreneur's willingness and capacity to undertake the tasks involved in building a long-lived firm. They conform to the taxonomy used in the previous chapter: Section 1 discusses the traits that predispose individuals to adopt audacious goals. Sections 2 and 3 discuss the traits that affect an entrepreneur's ability to formulate and implement long-term strategies. Section 4 examines why entrepreneurs who lack the qualities needed to build long-lived firms cannot delegate or transfer responsibility to others. Section 5 contrasts entrepreneurial qualities with innate economies of scale and scope as an explanation for firm longevity and size.*

Building a firm requires different qualities from starting a new business because it involves different tasks. In Chapter 5 we discussed how starting a business in an uncertain niche through a process of opportunistic adaptation requires qualities and skills such as a tolerance for ambiguity, open-mindedness, perceptiveness and tactical ingenuity and a capacity for face-to-face selling. Adopting a strategic rather than opportunistic approach to building a large, long-lived firm, we should expect, involves a different set of qualities. For instance, pursuing ambitious long-term strategies, we will see, requires considerably greater tolerance for risk than does starting a niche business.

Many entrepreneurs who start promising businesses don't have the traits necessary to build long-lived corporations. Nor can they easily delegate or transfer the responsibility for critical firm-building tasks to other individuals who may be better equipped to handle them. The very small number of individuals who have the willingness and capacity to both start **and** build a business helps explain why few new ventures attain the longevity and size of an HP, Wal-Mart, or Microsoft. This explanation stands in contrast to the idea that natural economies of scale and "barriers to entry" determine the size and longevity of firms. Unusually driven and capable entrepreneurs like Sam Walton and Bill Gates, I will argue, help create the economies of scale and the barriers to entry that allow their companies to dominate their markets.

### **1. PREDISPOSITION**

Audacious goals, we saw in the last chapter, provide impetus and direction to an entrepreneur's efforts to build a long-lived firm. The sections below relate the audacity of goals to the nature of an entrepreneur's ambitions and willingness to take risks.

#### **Nature of Ambitions**

Starting a promising niche business does not require exceptional ambition. The goal of building a long-lived enterprise derives from what Schumpeter described as "the dream and will to found a private kingdom; the will to conquer, to succeed for the sake not of the fruits of success, but of success itself; and finally the joy of creating, of getting things done."<sup>130</sup>

Entrepreneurs vary in the degree of their ambitions. Some “very good businessmen” Penrose writes:

may have a high degree of managerial skill and imagination; they may be hard and efficient workers, but the ambition that would drive other men in the same circumstances to expand their operations in an unending search for more profit, and perhaps greater prestige, may be lacking. There is no inconsistency here: a good businessman need not be a particularly ambitious one, and so long as a firm is dominated by men who are not ambitious always to make profits it is unlikely that the firm will grow very large.<sup>131</sup>

The nature of an entrepreneur’s ambitions also matter. The “dream and will to found a private kingdom” has different consequences from “an unending search for more profit”. The desire for profit does not require the entrepreneurs to adopt the goal of building a long-lived firm. The profit-maximizing individual can take advantage of transient opportunities and move on without making an effort to leave a permanent mark. To illustrate, consider Sam Walton’s contrast of his motives with those of the other entrepreneurs who also started discount stores at around the time he did.

...discounting attracted mostly promoters in the beginning—people who had been in the distribution center business or who were real estate promoters, guys who weren’t really even aspiring merchants but who saw a huge opportunity. You didn’t have to be a genius to see discounting as a new trend that was going to sweep the country, and all kinds of folks came jumping into it.... They would take a carbon copy of somebody’s store in Connecticut or Boston, hire some buyers and some supervisors who were supposed to know the business, and start opening up stores. From about 1958 until around 1970, it was phenomenally successful.<sup>132</sup>

Many promoters eventually “fell apart” after established mass-merchandisers like K-Mart “got their machine in gear and began to do it better and better.”<sup>133</sup> Others “built their companies to a point, and then said, “I’ve had enough!” and sold out and bought an island.”<sup>134</sup> Walton had the personality of a showman and promoter, he writes, but underneath, he had the soul of “somebody who wants to make things work well, then better, then the best they possibly can be.” He was mistaken for a “fly-by-night” operator—in the discount business one day, and “selling cars or swampland the next.” In fact, he was “never in anything for the short haul; I always wanted to build as fine a retailing organization as I could.”<sup>135</sup> Wal-Mart didn’t remain a regional operator or sell out to a national chain,<sup>136</sup> because Walton wanted to “leave a legacy.”\*

The distinction between accumulating wealth and leaving a legacy seems especially important today because of an active mergers and acquisitions market. Many ambitious individuals today start ventures which they expect to sell to a larger company; their goal is to develop products or technologies that complement another firm’s assets rather than to build their own long-lived firms. And several

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entrepreneurs have indeed become wealthy in recent years by selling their businesses at the peak of what has later turned out to be a transitory success.

In some cases entrepreneurs who start their businesses for purely pecuniary reasons later develop different ambitions. Patrick Kelly recalls that when he and his co-founders started PSS in 1983, they “wanted to make money. We figured that’s what it was all about: making money. If you could make money you could have all the stuff you wanted.” In five years, they were “making plenty of money.” They had “nice homes, boats, a couple of cars apiece.” If they sold PSS, then a \$20 million dollar revenue company, the founders would have realized a few million dollars. Kelly felt he had earned enough to satisfy his personal consumption needs when a chance encounter with a speaker at a conference, convinced him of the need for “a new challenge. Something big. Something no one had done before.” Kelly then adopted the goal of making PSS the first national distributor of supplies to physicians.<sup>137</sup>

### **Willingness to Take Risk**

The pursuit of audacious goals requires entrepreneurs to assume more risk than they usually do in starting their businesses. As we saw in Part 1, startups usually exploit opportunities that do not require much up-front investment. Entrepreneurs perform an arbitrage function in turbulent markets or provide customized services to satisfy the amorphous wants of their customers. They do not sink much money or time to develop specialized assets; and, they persuade customers and resource providers to bear much of the risk. Building large corporation, however, requires initiatives with greater up-front investment. Wal-Mart constructed dedicated warehouses instead of relying on distributors. Microsoft invested in an advertising campaign to build durable brand names after initially relying on word-of-mouth and contracts with hardware manufacturers to sell its software. Dell developed its own design and engineering capabilities after selling computers assembled from off the shelf components. These initiatives happened to pay off, but ex-ante, they represented risky irreversible commitments. Moreover, because it takes many initiatives to develop the system of coordinated assets that sustains a large corporation, the aggregate investment is substantial.

Although entrepreneurs who start by bootstrapping their ventures often bring in outside investors to help finance these investments, they still face considerable personal financial risk. Usually, they cannot withdraw their share of their capital and must keep reinvesting their share of the profits. If the firm fails, they stand to lose much of their wealth. They face the risk that the new investors they take on will force them to relinquish control. They may also have to sign personal guarantees for bank loans that put their personal assets at risk. Until 1970, when Wal-Mart went public, and could retire its bank debt, Sam Walton and his wife Helen were “always borrowed to the hilt.” Helen co-signed notes with Sam, pledging “houses and property, everything we had.”<sup>138</sup>

Overcoming growth constraints also involves risk. Promising firms have to emerge from their niche and compete with large companies in mainstream markets. For instance, Wal-Mart initially served rural markets, where according to one analyst, its pricing did not have to be “so sharp” and having the right

merchandise wasn't critical because customers had no alternatives."<sup>139</sup> In order to expand to a national scale, Wal-Mart subsequently "buted heads with other regional discounters like Gibson's and the Magic Mart" and in 1972, started competing against the multi-billion dollar industry leader, K-Mart<sup>140</sup>. Growth may require entrusting inexperienced employees with decisions that could potentially sink the company. As mentioned, PSS had to give "huge amounts of responsibility to people without much experience."<sup>141</sup> Growth involves developing formal structures and systems that increase the firm's fixed costs and hence the risk of bankruptcy. And growth involves some irreversible investment in working capital – the cost of a firm's inventory and accounts receivable usually exceed its liquidation value.

Many entrepreneurs who readily start businesses with a small, 'nothing-to-lose' business find it psychologically difficult to make the investment required for building a large, long-lived firm. As the founder of a chain of out-patient diagnostic clinics noted: "When you start, you "Just do it", like Nike says. You are naive because you haven't made your mistakes yet. Then you learn about all the things that can go wrong; and, because your equity now has value, you feel you have a lot more to lose. We have a hard time taking risks today that we once took almost without thinking." From an objective point of view, the failure of the twenty first clinic did not pose as great a threat to the survival of the enterprise as would have the failure of the second or third clinic. But the equity the entrepreneur had built in the business brought out an innate tendency towards 'loss-aversion' and (together with the greater knowledge of what could go wrong) made investments in additional clinics seem more, rather than less, risky.

The fear of losing the wealth they have accumulated leads some entrepreneurs to sell their businesses. In Chapter 2 we encountered Bob Reiss, whose company Valdawn capitalized on the trend towards fashion watches. Starting with \$1000 of initial capital, by 1994, Reiss had turned Valdawn into an Inc. 500 company with over \$7 million in revenues and pre-tax profit margins exceeding 15%. In order to finance Valdawn's growing inventories and receivables, however, Reiss had to reinvest most of the profits, and by 1994 had over \$1.4 million tied up in the business. In November of that year, Reiss sold Valdawn to a group of investors. "I am pretty confident that I could have continued to grow the business and achieved a greater payoff from selling later," says Reiss. "But I would have had to put in more capital and if there was a downturn in sales I would have forfeit the payoff that was available."

The unwillingness of many entrepreneurs to take the risks needed to build long-lived businesses is consistent with the claim made in Chapter 5 that the predisposition to start a promising business depends on an individual's tolerance for ambiguity rather than for risk. And, as mentioned in that chapter, the experimental evidence suggests that ambiguity aversion is uncorrelated with risk aversion. The typical entrepreneur who has a high tolerance for ambiguity will likely have only an average tolerance for risk. Only very unusual individuals like Sam Walton will have the ambiguity tolerance needed to start an uncertain business and the risk tolerance needed to build it.



## **Relationship to Financial Returns**

Although the analysis above suggests that in the long run, ambitious entrepreneurs with a high tolerance for risk are more likely to dominate their markets, this does not mean that they earn superior financial returns. Starting a business without putting up much capital and subsequently developing the assets that facilitate its acquisition by other companies or investment groups offers attractive rewards compared to the risks. The likely cash flows do not easily justify the protracted investment and effort required to build a large corporation, however. The most aggressive entrepreneurs may be victims of a winner's curse who overpay for the market share they secure.

In fact, the best financial course for an entrepreneur may be to sell out to a more optimistic or ambitious competitor. Acquisition by a large corporation seeking to enter a new market represents another attractive exit option. Corporate executives often believe that they can exploit the assets of smaller firms more effectively, and are willing to offer entrepreneurs a price that reflects the value they think they can add. The pressure to grow also makes large corporations eager acquirers of up-and coming businesses.

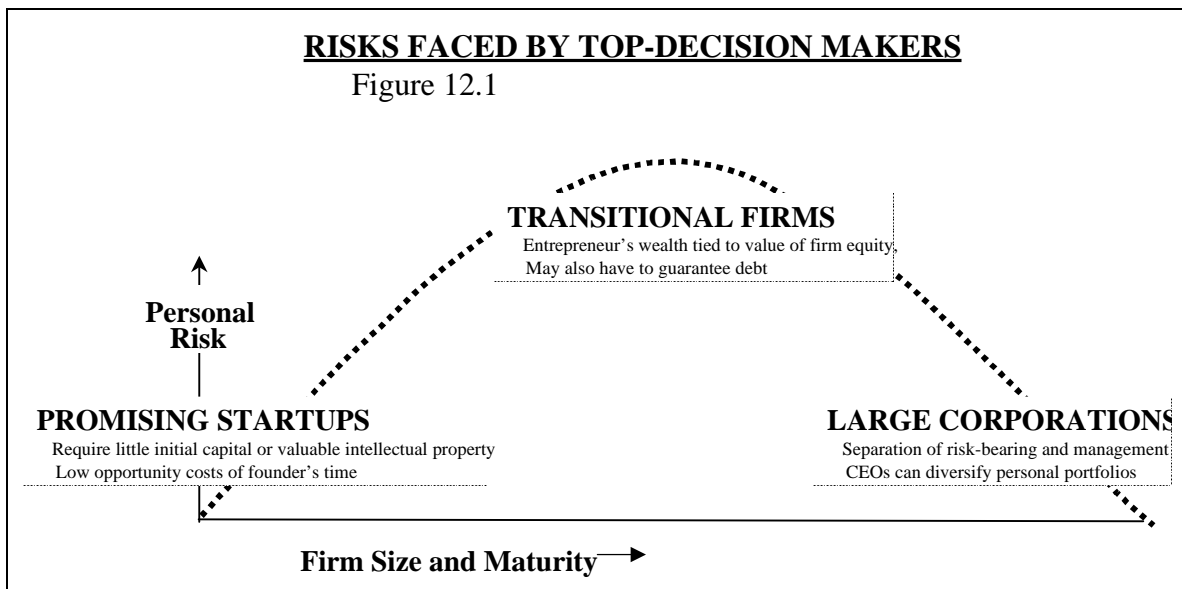
At the same time, the decision to avoid growth or exit can be myopic and riskier in the long run than taking a bet on expansion if rivals have aggressive growth plans. For example, as long as the hardware distribution industry was fragmented, the size of a business was a matter of the owner's choice – some were content with a single store whereas others built small regional chains. Once companies like Home Depot, however, started investing in mega-stores and committed resources to finding national economies of scale through bulk purchasing and so on, small operators could not, in the long run, afford to stand still. Labor and capital markets may also preclude niche strategies. In Silicon Valley, for instance, a high technology company that does not espouse a strategy of high growth will likely face difficulty today in recruiting engineers or raising venture capital.

Moreover, even entrepreneurs who run small, profitable ventures cannot count on enjoying the quiet life. An entrepreneur's long hours often never come to an end because of the inability to attract talented employees; besides, without sharp colleagues, they find their existence lonely and boring. Founders may also get locked into their business because personal franchises are difficult to sell and face financial distress if they fall sick or get burnt out. "I'm always running, running, running," one entrepreneur told my class. Although his business made the entrepreneur half a million dollars a year he complained: "I work fourteen hour days and I can't remember the last time I took a vacation. My wife spends everything I make so I can't let up. I would like to sell the business, but who wants to buy a company with no infrastructure or employees?"

To summarize: entrepreneurial ambitions matter a great deal in determining which firms will grow. In a world populated with perfectly rational and prescient decision-makers, if one entrepreneur decided to grow aggressively, competitors (for customers or resources) would either follow suit or exit if they had that choice. But, 'loss aversion' and the fear of change can lead to a myopic disregard for the loss of

competitive position over the long-term. Many individuals will stand pat, especially if they are satisfied with the status quo. Entrepreneurial ambition, even if it does not have pecuniary roots, can therefore lead to superior financial outcomes. Entrepreneurs with the will to grow a large firm can even enjoy more leisure in the long run than those who restrict their ambitions, supposedly in order to enjoy a better life style.

Ambition and risk taking, we may also note does not play as important a role in starting a promising business or after it becomes large and well-established. The question of risk taking is moot in startups where an entrepreneur does not have much capital to lose and does not face high opportunity costs. (See **Figure 12.1**) Similarly, ambition and risk taking are not critical in managing a large corporation. Executives of firms whose distinguishing characteristic is the separation of risk-bearing and management, do not have to put their personal wealth on the line. And, as mentioned in the last chapter, the existing assets and activities of their firms limits their capacity to act boldly.



## **2. FORMULATING STRATEGIES**

The task of formulating a long-term strategy for a fledgling business involves mental faculties that do not play a significant role in starting a venture. These faculties include the imagination to envision a different kind of future, a capacity for creative synthesis and a capacity for abstraction.

**Imagination.** As we saw in the previous chapter, entrepreneurs cannot deduce the long-term strategy for a fledgling business by matching existing resources with market opportunities. Starting with a relatively clean slate, they have to use their imaginations to envision what their firms could become along several dimensions such as the markets they will serve, the tangible and intangible assets they will acquire and their organization's climate and norms. The capacity for seeing the possibilities, we should note

does not correspond to a gift of prophesy; the process of building a long-lived firm represents an effort to make the future conform to one's vision rather than of making accurate long-term forecasts.

**Creative Synthesis.** Entrepreneurs often copy many elements of their strategy from other firms. Patrick Kelly of PSS writes: "I don't think I've ever had an original idea in my life. At PSS all the great ones were borrowed from somebody else..."<sup>142</sup> But, unlike the nearly complete replication of someone else's model that we often find at the start up stage, entrepreneurs creatively select and integrate ideas from several sources. Kelly credits a variety of sources for providing the building blocks of PSS's strategy, ranging from an airline (SAS), Federal Express, an automotive component manufacturer (Dana Corporation), motivational speakers and popular business books. Marvin Bower derived several elements of McKinsey & Co.'s strategy from his experiences as a lawyer at Jones, Day, a leading law firm in Cleveland. He borrowed the principle of providing objective, independent counsel and cultivating a prestigious clientele; he implicitly rejected however, the Jones, Day, strategy of having a single office in Cleveland. Similarly, McKinsey & Co. retained the "top management approach" and emphasis on training from its predecessor firm, James O. McKinsey & Co, but Bower consciously rejected its strategy of offering both accounting and consulting services and its centralized management style.

**Abstraction.** The strategies of fledgling firms, we have seen, evolve as entrepreneurs adapt to unforeseen opportunities and problems. This requires what Elster would call "artificial" selection of new policy: the entrepreneur has to go beyond solving a concrete problem, and distill (from often quite sketchy data) a general rule that guides subsequent investments and initiatives. As mentioned, Wal-Mart started building its own warehouses because it couldn't get distributors to serve its rural stores. It expanded around the warehouses, so that each store would be within a day's drive from a warehouse. "We would go as far as we could from a warehouse and put in a store" writes Walton and then "fill in a map of that territory... until we had saturated that market area."<sup>143</sup> Deriving this rule took more than just problem solving. "Our growth strategy was born out of necessity, but at least we recognized it as a strategy early on"<sup>144</sup> writes Sam Walton. "We just started repeating what worked, stamping out stores cookie-cutter style."<sup>145</sup>

Many entrepreneurs who start businesses to seize short-term opportunities cannot make the transition from a purely tactical to a strategic orientation because they don't have the necessary imagination and capacity for synthesis and abstraction. Some individuals are "doers" with a great faculty for operating detail but lack the imagination needed to envision a large enterprise. Others have imaginations that seem optimized for short-term projects or deals. As discussed in Chapter 5, they may show great 'tactical' creativity in making a sale, securing extended payment terms, or finding underutilized production capacity that they can rent for a low price. But, they may be uncomfortable going beyond the here and now to imagine what their firms might become after a decade. We often find such deal-oriented imaginations in the fields of finance and real estate. For example, the so-called "raiders" in the 'eighties' such as Sir James Goldsmith, Irwin Jacobs, and Ronald Perelman showed noteworthy creativity in

acquiring diversified companies like Crown Zellerbach, AMF, and Revlon and selling off several of their business units for a considerable profit. The same individuals have not enjoyed similar success in building and growing businesses.

An entrepreneur's imagination and creativity may also be limited in scope. For instance, in the high technology field, we often find entrepreneurs with technical foresight but limited interest in formulating marketing or organizational policies. As a result, the marketing function may consist of little more than order taking personnel. The firm may develop dysfunctional norms because its culture is shaped, by default, by employees recruited mainly for their technical skills and credentials. Without the active efforts of entrepreneurs like Bill Gates at Microsoft or Andrew Grove at Intel to proactively develop a culture of insecurity and paranoia, success may engender hubris and slack. Unlike Intel, Microsoft or HP such a firm will tend to disintegrate when a rival develops a superior technology, because it lacks the buffer of good marketing, high employee morale and the capacity to respond quickly to setbacks.

### **3. IMPLEMENTATION**

In the last chapter we found that implementing strategies to build long lived firms required the upgrading of resources and the building of an organizational infrastructure. Now we turn to looking at the qualities that determine an entrepreneur's capacity to perform these tasks. These are: constancy, the capacity to inspire and intimidate, and the ability to learn new skills.

**Constancy.** The congruence of broad strategic rules and concrete actions depends on the entrepreneur's constancy – “the steadfastness of attachment to a cause”, according to one definition in the dictionary. This is not an important trait in the “opportunistic” start up phase of a promising business; a strong commitment to an idea may in fact conflict with the ‘open-mindedness’ required to adapt to fluid markets and customer needs. Constancy is critical, however, in implementing strategies to build customer relationships, reputations, and organizational infrastructure.

Focusing on a particular set of customers or needs usually involves the willingness to incur opportunity costs. As previously mentioned, the McKinsey partners turned away market survey work and studies for sales managers in order to build a “top management clientele.” Hewlett and Packard turned down large production contracts during the Second World War to focus on developing high quality instruments.<sup>146</sup> The implementation of organizational principles can require terminating productive employees. Patrick Kelly describes letting go of one of his early partners because his managerial style conflicted with the values Kelly wanted to instill at PSS.<sup>147</sup> McKinsey started implemented an ‘up-or-out’ policy for associates in 1952 in order to build an ‘elite’ organization, even though the policy reduced the firm's productive capacity (and the incomes of the partners). The willingness to incur such opportunity costs likely derives from a strong conviction about the merits of the underlying principle, as well as a considerable self-control and capacity to delay gratification.

In extreme cases, constancy may entail betting the company, not just forgoing incremental profit opportunities. A strategy of replacing second-tier customers or employees may be crucial for long-run

survival. But the rate at which the new resources become available is unpredictable; giving up the cash flow generated by the current customers and employees can sink the company. To proceed with the upgrade, therefore, entrepreneurs require an unusual tolerance for risk as well as self-control and conviction in the strategy. (See insert 'Upgrading the Telluride Company's Client Base' for an example). For individuals with "bounded will-power" the incentive to procrastinate can be strong.

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### **Upgrading the Telluride Company's Client Base**

Jeff Behrens, founder of the Telluride Company, a provider of computer related services, recalls:

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I started Telluride from my bedroom. I worked alone and did whatever clients wanted for \$50/hour: I installed computers and software, fixed bugs, researched software, did some database programming and some network and systems administration. It amazed me then that people would pay a untrained kid \$50 an hour. I didn't know how to do things very well and had to figure them out with some trial and error.

Within 3 years I had hired an associate and rented office space. I was still doing anything and everything on an hourly basis. It became a real drag. Cash flow was hard to predict and perhaps most infuriating were clients who I had worked for 1-2 years and who I billed regularly -- perhaps \$500 - \$1000/month: They would pick apart my bills, demanding to know why X had taken 1.5 hours and not 1.2. In order to grow and build a sustainable business we needed more predictable cash flow and less painful client relationships. We devised the "SMP" -- System Management Plan -- where clients would pay a fixed fee each month depending upon their size and complexity and get all services they needed.

The transformation was difficult and painful. No one wanted the SMP: clients liked the feeling that if they didn't call me, they didn't incur any charges. Finally I made the scary and risky decision to tell clients that they would have to do the SMP or find someone else to work with. Over the course of 12 months we lost 75% of our clients and over 18 months we lost all but 1 client. But we were able to find much better clients during this process, in essence replacing bad revenue with good. We became much more profitable and average revenue per client went way up. But, if I had known that I would lose all but 1 client I am not sure I would have had the resolve to do it.

Today, 2 years later, we are facing another transition point. The company has grown to 11 people and our SMP and associated services bring in good cash flow. We can find business easily and convert leads to clients well. However hiring technical managers has become the most difficult aspect of the business. Good technical managers are expensive and are paid 50-75% more than we pay our current personnel. I have to create a compensation plan that will allow us to bring in more management talent. This may force us to revisit our rates, evaluate or even fire existing managers and will potentially be equally transformative and devastating as the SMP introduction. I guess I don't have much choice if I want to keep growing Telluride. What makes it hard is now I am making a good living and have a viable if small business -- I have far more to lose!

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Entrepreneurs' "steadfastness of attachment" to a strategy for upgrading resources may conflict with their personal attachments. Many cannot easily reconcile their desire to build the firm with a sense of loyalty or obligation to their initial employees. Bill Nussey, who co-founded the software company, Da Vinci Systems, recalls that as the company grew, "it became increasingly obvious that the demands of the company had outgrown the people." Terminating these employees who had "struggled and cried and sacrificed with the company" was "the hardest thing he ever had to do." Loyalty to individuals can also reinforce, and provide a rationalization for the fear that changing even a sub-optimal organization may make things worse.

**Inspiration and intimidation.** Building a firm requires a different kind of persuasiveness than does starting a new business. In the startup phase, we saw in Part 1, perceptive entrepreneurs get others to take a (relatively modest) chance on the venture by understanding and adapting to their needs. For instance they provide customized products and services to customers and jobs for individuals with limited employment prospects. The entrepreneur's challenge subsequently shifts from adaptation to others' wants and beliefs to bending others to the entrepreneur's will.

At this stage, an entrepreneur's capacity to inspire others assumes a more significant role. As charismatic leaders, entrepreneurs have to shape the preferences and wants of others: Patrick Kelly, for instance, had to persuade his staff to adopt and internalize his goal of building a national distribution company and Bower had to convince his partners that creating a professional firm that would "last in perpetuity" was a worthwhile enough cause for them to sacrifice some income. Entrepreneurs also have to get others to share their convictions about means as well as ends – that the steadfast adherence to the firm's strategy will lead to the attainment of long-term goals. (I do not mean to suggest that individuals like Kelly and Bower ignore the innate wants and beliefs of others; their perceptiveness about how others see the world can be of considerable use in getting others to see the world their way).

A capacity for intimidation, or what Herbert Simon might call the provision of "inducements" that cause others to suspend their "critical faculties for choosing between alternatives"<sup>148</sup> reinforces the entrepreneur's ability to inspire. The capacity matters little in the early stages of a business when the entrepreneurs have little bargaining power and must often adopt the role of a supplicant. In fact, as mentioned in Chapter 5, in order to make a sale they have to be disarming and non-threatening. Intimidation plays a role after a business has acquired the capacity to offer positive and negative inducements. For instance, Microsoft's principals had to be very responsive to the demands of IBM executives to secure the crucial order for MS-DOS from IBM in 1980. After the success of the IBM PC, Microsoft could drive hard bargains with PC manufacturers to consolidate its position in the operating system market.

Although intimidation requires an objective basis, its effective use depends on the entrepreneur's skill in shaping the perceptions of others. Entrepreneurs have to understand and exploit others' loss and ambiguity aversion – the fear of losing what they have and uncertainty about their alternatives. Entrepreneurs also have to have or project an unusual willingness to take risks in order to achieve their goals. By managing perceptions effectively, entrepreneurs can secure much greater compliance than their actual bargaining position merits. It is not coincidence that entrepreneurs like Bill Gates who build long-lived businesses are frequently described as "tough" or "ruthless" and seem to follow Machiavelli's advice to be more "feared than loved."

**Learning new skills.** Implementing a strategy to build a firm involves different concrete tasks from those required to start a new venture. For instance, the entrepreneur has to negotiate with bankers instead of extending payment terms to suppliers; focus more effort on developing marketing programs and less on

personal selling; determine reporting relationships and shape norms rather than using under-qualified staff to somehow get the product out of the door. These tasks require skills, that we might broadly call business or administrative skills, that few founders have at the outset. As we saw in Part 1, entrepreneurs like Rod Canion who had extensive business and managerial experience are unusual. More commonly, long lived firms are started by young individuals like Bill Gates, Michael Dell, Sam Walton, William Hewlett and David Packard who do not have much experience or formal training in business.

The capacity of such individuals to broaden their skills, to transform themselves from scrappy bootstrappers to managers of a complex business, helps determine whether they can effectuate a corresponding transformation from a fledgling business to an established corporation. The time it takes to develop new skills limits the rate at which their firms evolve and may help explain why it can take decades for companies like HP and Wal-Mart to become large and well established. Many entrepreneurs, however, lack the willingness or the ability to learn new skills. A psychological “status quo” bias leads them to deepen their existing knowledge rather than broaden their repertoire of skills to new domains. The oft-observed reluctance of entrepreneurs to “let go” likely represents a symptom of their inability to learn managerial skills, which also limits them to operating businesses of limited scale and scope.

To summarize: Formulating a strategy to build a long-lived firm requires entrepreneurs to have the imagination to envision a different kind of future, the ability to creatively select and integrate principle taken from several sources so that they form a congruent whole, and the ability to distill general rules from specific situations. Implementation requires constancy or steadfastness of commitment to the strategy, the capacity to inspire and, if necessary, intimidate others in order to impose one’s will on them, and the willingness and ability to learn new skills.

#### **4. LIMITS TO SPECIALIZATION**

Few entrepreneurs who have the qualities required to start a promising business also possess the qualities required to build a large corporation. The qualities are not only different (see **Figure 12.2**), they



may also be in conflict. The open-mindedness needed at the outset, for instance, may be incongruent with a subsequent steadfastness of commitment to a strategy, or the initial ability to take advantage of others' sympathy for an underdog with a subsequent capacity to intimidate. The lack of overlap raises the following question: Why don't the entrepreneurs who successfully start new businesses but lack the capacity to build long-lived firms, recruit employees to supply the missing qualities or transfer control to individuals who have them? What prevents in other words the specialization of firm-building tasks across people or across time?

### **Functional Indivisibility**

Entrepreneurs cannot hire others to set audacious goals. A mentor or a book may raise provocative questions, but the ambition of building a large and long-lived firm and the willingness to take the necessary risk must spring from within the entrepreneur. Nor can entrepreneurs delegate the tasks of strategy formulation to consultants or a planning staff, as might for instance, the CEO of a mature company. As we have seen, strategy formulation in a fledgling enterprise is more a creative than a deductive exercise. Questions of "defining the business" and establishing its organizational principles turn more on the entrepreneur's aspirations and prior experiences than on objective analysis and research. Entrepreneurs make a-priori and somewhat arbitrary initial choices of long-term policies which they subsequently adapt in response to new problems and opportunities.

The creative limits of an individual's capacity to formulate strategy can be mitigated to a degree through partnerships. Partnerships are common in new ventures—they represent 70 percent of the *Inc.* start-ups I studied. *Inc.*'s survey of the companies on its 1992 "500" list also showed that about two thirds were started as partnerships.<sup>149</sup> One of the advantages of partnerships lies in the joining of a detail-oriented founder who can take care of operations with a founder who provides the strategic vision. Marvin Bower, for instance, teamed up with Guy Crockett to start McKinsey; Crockett was chiefly interested in "day-to-day operating matters," whereas Bower's primary interests were "conceptual and long term."

The partnership solution is effective only to the degree that the entrepreneurs have complementary strengths (rather than overlapping limitations) and can act as a team. The evidence suggests that coordination problems limit the number of partners a team can have and that even small teams can disintegrate due to interpersonal conflict. In my *Inc.* sample, for instance, two-thirds of the ventures started as partnerships had just two founders and none had more than four. A third of the partnerships were no longer intact about seven years after launch.

The problem of delegating the concrete tasks of implementing a strategy has some subtle and often misunderstood features. Entrepreneurs clearly have to hand off many of their tasks to subordinates for their firms to grow. Bill Gates and Paul Allen do not continue writing all the code for Microsoft and Michael Dell has long given up assembling computers. It is also obvious that entrepreneurs have to make a transition from spending virtually no time on formulating long-term policies to devoting a considerable



effort in this area. This does **not** mean however that they can concentrate just on strategy formulation and leave its implementation to others. Although the nature of concrete tasks entrepreneurs have to perform changes, their capacity as “doer” remains crucial for a long time.

The delegation of implementation tasks is limited by the degree to which customers, employees, investors, lenders and other resource providers trust the entrepreneur rather than the firm. The credibility and reputation of a young firm is closely linked to that of the entrepreneur. In placing an order or extending a line of credit, customers and bankers will, therefore, typically require the entrepreneur’s close involvement with the transaction. Sun Microsystems secured its all-important commercial order from CVD only after the all-out effort of Sun’s co-founder and chief executive, Vinod Khosla. Similarly, Marvin Bower personally negotiated studies with McKinney’s breakthrough overseas clients, Shell and ICI.

The derivation of policies from concrete choices makes it difficult to separate the formulation and implementation of strategies. Entrepreneurs like Sam Walton can distill policies from specific problems and opportunities because of their close involvement with the day-to-day activities of the enterprise. Such involvement also helps them control the inadvertent adoption of inappropriate policies, as may occur when a special favor done for a customer or employee sets the precedent for poor marketing or compensation practices.

Entrepreneurs have to apply case-by-case judgements to reconcile long term strategies and immediate financial constraints. Although transitional firms have access to more funds than startups, their opportunities for strategic investment usually outstrip their available capital. While enunciating visionary strategies, therefore, entrepreneurs have to maintain tight controls over specific expenditures. Walton, for instance, balanced a long-term commitment to computerization at Wal-Mart with a close scrutiny of individual projects. Writes Walton:

...everybody at Wal-Mart knows that I’ve fought all these technology expenditures as hard as I could. All these guys love to talk about how I never wanted any of this technology, and how they had to lay down their life to get it. The truth is, I did want it, I knew we needed it, but I just couldn’t bring myself to say, “Okay, sure, spend what you need.” I always questioned everything. It was important to me to make them think that maybe the technology wasn’t as good as they thought it was, or that maybe it really wasn’t the end-all they promised it would be. It seems to me that they try just a little harder and check into things a little bit closer if they think they might have a chance to prove me wrong. If I really hadn’t wanted the technology, I wouldn’t have sprung the money loose to pay for it.”<sup>150</sup>

Concrete choices made by a firm’s top leaders help determine its culture. The founders of HP, McKinsey or Wal-Mart articulated broad principles and brought them to life by taking advantage of specific opportunities to celebrate their application and punish transgressions. Unless entrepreneurs “lead by example” and closely monitor the behavior of subordinates, opportunistic deviations lead to sharp differences between the espoused and actual norms of the organization.

## **The Value of Continuity**

It might seem optimal for the many individuals who only have the skills needed to start a business to transfer control to individuals who have the capacity to build a firm, but not the capacity to start one. This does not seem to commonly occur however: In the case of all but one of the companies from the *Inc.* class of 1985 that had crossed \$500 million in revenue in 1995 (including Microsoft and Oracle), the same CEO was still involved in management.<sup>151</sup> The evidence suggests that long-lived firms like HP, Wal-Mart, Microsoft and McKinsey are built, over several decades, by the individuals who started them. In some cases, such as IBM, 3M and McDonalds, where the founders bowed out early, we find a similar continuity of leadership provided by individuals who took control when the firm is still in an unformed state. As mentioned, Thomas Watson Sr. joined C-T-R in 1914, three years after its formation. He ran the company (which he later renamed IBM) for forty years thereafter. William McKnight, who turned a failing sandpaper manufacturer into 3M, served as its president and then chairman between from 1929 to 1969.

Of course exceptions can be found. For instance, Sandy Lerner and Len Bosack started Cisco Systems in 1984. Venture capitalists recruited John Morgridge to run the company in 1989 when it was a \$5 million concern with 35 employees. Morgridge hired Chambers from Wang in 1991; Chambers was appointed CEO, when Morgridge became the chairman of the company's board. According to Morgridge, he had reached his goal of building a \$1 billion sales company; he believed that Cisco had the potential to reach \$10 billion, but at age 61, didn't want to make the five year commitment it would take.<sup>152</sup>

The goals and incentives of a company's founders limit the frequency of top management changes. The individuals who start businesses are often unwilling to relinquish control: Venture capitalists more or less forced out Lerner and Bosack from Cisco's management team. Some founders do not realize they lack the ability to build a large corporation. Others consciously choose to operate a small business that provides a comfortable income and a congenial life-style. Limited alternatives may encourage entrepreneurs to stay with their firms: it is not obvious, for instance, that Hewlett and Packard or Bill Gates would have found a more rewarding use for their time if they had departed from their companies in the transitional phase.

The entrepreneurs who do choose to move on, often find it financially more rewarding to sell their businesses to another firm than to hand over control to another individual. As mentioned, up and coming businesses can have a higher value as acquisition candidates than as stand-alone firms. Such acquisitions, which extinguish the independent existence of the selling firm, contribute to infrequency of top management changes in long-lived firms; they lead to a transfer of assets from one firm to another rather than rather than a passing of the CEOs baton from one individual to another.

On the positive side, when entrepreneurs have (or can develop) the requisite skills, their ongoing leadership can also help their firms attain noteworthy size and longevity. As mentioned, the value of a firm in its very early stages is closely tied to the entrepreneur's personal knowledge, skills, reputations,

and legitimacy; ownership of the firm cannot be transferred to others. The example of firms like HP and Microsoft suggest that even after firms acquire an independent portfolio of assets, continuity of leadership remains valuable. Temporal specialization—passing on control of the firm to new individuals as the set of desirable skills changes—apparently has drawbacks similar to those of dividing up entrepreneurial responsibilities. Instead of a relay race or frequent changing of the guard, we usually find in long-lived firms an evolution in the roles and skills of the entrepreneur.

To summarize: Transforming a fledgling enterprise into a large long-lived corporation requires entrepreneurs to perform many inter-related tasks. They have to exercise their imaginations to formulate long term strategies, design their organization's structure and systems, and mold its culture and character. Besides performing these creative and visionary roles, entrepreneurs have to remain engaged in the day-to-day activities and make difficult specific trade-offs. While they sketch out an expansive view of the possibilities to inspire and attract constituents, entrepreneurs have to keep firm control over expenses and cash, and closely monitor operating performance. The interrelationships between these tasks makes it difficult to delegate them. Nor can entrepreneurs easily transfer their knowledge, contacts and legitimacy to another person. Companies typically attain noteworthy size and longevity under the leadership of individuals who have an exceptional capacity and willingness to broaden their skills and roles.

## **5. RELATIONSHIP TO INDUSTRY STRUCTURE**

In Chapter 10 I briefly alluded to the view of Industrial Organization researchers who provide an alternative to the proposition that it takes entrepreneurs with unusual will and capacities to build large and long-lived companies. The IO research holds that factors such as technology and consumer tastes determine the economies of scale and scope in an industry and thus the optimal number of competitors. If economies of scale are high, competitive forces eliminate all but a few firms, whereas in their absence, we find fragmented industries with many small firms. Exogenous innovations that increase the economies of scale reduce the number of viable firms and increase their average size: recall Jovanovic and MacDonald's example of the appearance of the Banbury mixer in 1916 that led to a shakeout in the tire industry. Surviving such shakeouts does not require exceptional ambition or multi-faceted capabilities, merely the luck or the foresight to adopt the innovation quickly.

To evaluate the claim that economies of scale and scope pre-determine the number of survivors in a market, we will first review the evidence. Then we will look at the direction of the causality. I argue that the efforts of entrepreneurs to build large and long-lived firms, not just exogenous factors, are important determinants of the economies of scale and scope found in an industry.

### **Evidence**

According to Scherer's 1980 text, standard industrial organization theory (IO) posits that "market structures [i.e., the number and size of competitors in an industry] are the more or less determinate result of variables such as technology [and] the receptiveness of consumers to advertising."<sup>153</sup>

Cross country comparisons of concentration ratios (usually measured as the market shares of the top 4 firms) in different industries seem to support this assumption. “Sufficient similarity in concentration patterns exists among nations to suspect that some common cluster of concentration determining forces is at work,”<sup>154</sup> writes Scherer. Sutton’s 1996 review also notes that “the ranking of industries by concentration level tends to be closely similar from one country to another: an industry that is dominated by a handful of firms in one country is likely to be dominated by a handful of firms elsewhere, too. The large majority of studies argue in favor of such regularity and interpret it as a reflection of the fact that the pattern of technology and tastes that characterize a given market may be expected to be similar across different countries.”<sup>155</sup>

Exogenous variables that limit the number of competitors in a market, according to IO models, also contribute to the longevity of the incumbents. High irreversible investments required to reach the minimum efficient scale, the argument goes, protect the “first movers” against new entrants. So, if the “minimum efficient scale” of production is one-tenth the total demand, we will find no more than 10 firms serving the market at any time, *and* over time, we would find the same 10 firms.

Business historians echo the claim of IO research that exogenous factors such technology determine the size and longevity of firms. Consider, for instance, Alfred Chandler’s observations about the “clustering” of the large modern industrial enterprise in “industries having similar characteristics.”<sup>156</sup> In his 1990 book, *Scale and Scope*, Chandler analysed the distribution of all the industrial corporations in the world that employed more than 20,000 workers in 1973. Of 401 such companies, 289 (72%) were clustered in food, chemicals, petroleum, primary metals, machinery and transportation equipment industries. Just under 23% were in cigarettes, tires, newsprint, plate and flat glass, cans, razor blades and cameras. Only 5.2% were drawn from textiles, apparel, lumber, furniture, leather, printing and publishing industries.<sup>157</sup> The clustering of large companies in certain industries, according to Chandler, reflects the invention or vast improvement in “processes of production” that led to “unprecedented” opportunities to realize “cost advantages of the economies of scale and scope”.<sup>158</sup> In apparel, lumber, furniture, printing and other such industries in which “the large modern firm remained relatively rare” improvements in equipment and plant design did not bring “extensive” economies of scale. Large companies could not enjoy “striking” cost advantages over smaller competitors in these industries.<sup>159</sup>

Another historian, McCraw, writes:

Only certain kinds of industries lend themselves to large operations. Such industries either have major economies of scale (electric utilities, steel, oil refining, chemicals, automobile manufacturing) or economies of scope (pharmaceuticals, discount retailers, branded snack foods). Throughout American history, entrepreneurs have tried, sometimes desperately, to create big businesses out of naturally small-scale operations. It has not worked. Everyone knows about National Biscuit (RJR Nabisco) but few people have ever heard of National Novelty, National Salt, National Starch, National Wallpaper, and National Cordage, all of which perished soon after they were incorporated. Standard Oil became one of the world’s largest companies, but Standard Rope and Twine quickly dropped from sight. United States Steel prospered, but United States Button came and went in a flash.<sup>160</sup>

## The Entrepreneur's Role

A simple reconciliation of predetermined industry structures and entrepreneurial talent would be as follows: exogenous economies of scale determine the number of competitors in a market whereas the capacities of the individual entrepreneurs determine their identities. Many qualities, not just chance, determine which entrepreneurs can successfully adapt to the appearance of innovations like the Banbury mixer that increase the efficient scale of operation. The survivors are hungrier for market share. They are more willing to take the risks of investing in a new technology and have the capacity to raise the necessary finances. They can market and sell a high volume of output. And they can establish effective mechanisms to solve the coordination problems involved in realizing economies of scale (such as the conflicts between the production and marketing functions).

Similar logic can be used to explain why many firms have market shares greater than what we would expect from scale effects alone. Scale effects establish a lower bound to the level of concentration—the minimum efficient scale determines the maximum number of viable firms in a market. In fact we usually find fewer competitors. Several observers have noted that “actual concentration levels seem to lie far above the levels warranted by [minimum efficient scale] arguments.”<sup>161</sup> We might attribute the difference to exceptionally capable entrepreneurs who can extract greater economies than are ‘predetermined’ by factors such as technology or taste.

We can however go beyond this simple reconciliation. In *Business Cycles* (1939) Schumpeter argued that innovations “are neither transcendental and unknowable, nor mechanical and foreordained,” and that only an exceptional entrepreneur could take advantage of the latent opportunities to innovate.<sup>162</sup> Both the cotton and wool industries provided opportunities to innovate in late eighteenth-century England, Schumpeter pointed out, but only the cotton industry had the entrepreneurs who could take advantage of the possibilities. We can extend the relationship between entrepreneurial ability and innovation to industry structure: Below I argue that the apparently exogenous determinants of industry structure often result from the efforts of entrepreneurs. Differences in the technology and tastes that lead to differences in production, marketing or other such economies across industries reflect the ambition and talent of the entrepreneurs who sought to build their business in their industries.

**Production Economies.** As mentioned, Chandler contrasts industries where new processes of production led to the realization of significant economies through large scale production with industries where the processes of production did not allow steep reductions in costs with increasing scale. But where did the new processes of production in the former category come from? The research of Chandler and other historians points to the efforts of ambitious entrepreneurs with multi-faceted talents.

Henry Ford, for instance, transformed the manufacturing of automobiles from a batch process to mass production on an assembly line. Ford was more than a “mechanical genius.” Historians McCraw and Tedlow note a variety of his innovations and talents that made mass production a success. Ford introduced the five-dollar day for his workers—more than twice the prevailing wage—in order to reduce

worker turnover, which sometimes reached 300-400 percent per year because of “the strength-sapping and mind-numbing character” of assembly line work.<sup>163</sup> Ford had a “brilliant” intuition about “the nature of a car for the masses, and saw that “the proper *design* of the car must precede all other considerations.”<sup>164</sup>

For his time, we may also credit Ford with an unusual capacity for organization. McCraw and Tedlow write that Ford “had great difficulty in delegating authority to anyone.”<sup>165</sup> and contrast his “impulsive entrepreneurship” with the temperament of Alfred Sloan —the “patient, persuasive and systematic organization man”—who built General Motors.<sup>166</sup> But we should note that Ford’s company grew from making 40,000 cars in 1911 to 1.4 million in 1925 which it sold through a distribution system comprising 6,400 dealers. In 1997 Ford produced 1.68 million passenger cars in North America<sup>167</sup>, or only about 20% more than in 1925. In 1925 Ford’s workforce exceeded 100,000 employees in 1925, 58,000 of whom worked at the River Rouge plant. Historian David Lewis writes that in the mid 1920s, the Rouge facility, which occupied over 1,115 acres, was “easily the greatest industrial domain in the world.”<sup>168</sup> Even today, with our considerable knowledge of large organizations, a deep pool of professional managers, and sophisticated information technology, it is difficult to imagine an entrepreneur creating an enterprise on the scale of the Ford Motor Company without a considerable talent for organization. Given the conditions prevailing in the 1920s, we might fairly characterize Ford’s organizational capacities both as unusual and necessary for realizing economies of mass production.

Exceptional entrepreneurs also stimulate scale-increasing innovations by their eagerness and capacity to utilize new technology. Eric Von Hippel’s research suggests that in many industries, the users rather than the producers often drive product innovation.<sup>169</sup> Ambitious entrepreneurs who want to dominate their markets may therefore push their suppliers to develop equipment that increases the minimum efficient scale. In the steel industry, for instance, Andrew Carnegie, “fanatically focused on achieving cost leadership by investing heavily in process improvements” whereas his competitors “focused on making and breaking price-fixing covenants.”<sup>170</sup> His firm was the first to adopt several innovations like the Thomas process. If Carnegie had had the same approach as his competitors, these innovations might well not have been developed for commercial use to the degree they were.

There is perhaps something intrinsically different about automobiles and steel that permits greater economies of scale than in the production of lumber and furniture. To my knowledge, arguments about natural economies of scale do not make this difference clear. Rather, such arguments implicitly assume that if furniture could be mass-produced in the same way as automobiles, someone would have done so already. This Darwinian premise, I believe flies in the face of the historical evidence about the crucial role exceptional entrepreneurs have played in bringing about product and process innovations.

**Marketing and distribution economies.** In many industries ranging from soft-drinks to main-frame computers, the economies of scale and scope derive more from the marketing and distribution functions than from a production process where unit costs decline steeply with output. As mentioned, some scholars argue that these economies derive from exogenous factors such as consumer ‘tastes’ or

‘receptiveness to advertising’: in product categories where customers are more receptive, we find greater economies and barriers to entry.

The inherent attributes and function of buttons and twine may doom efforts to realize marketing and distribution on a national scale. Differences in product attributes cannot easily explain why the chewing gum company, Wrigley, could build a global brand while lollipop companies did not. It is not obvious that the inherently greater receptiveness of consumers to advertising for cola drinks and diamonds allowed Coke and DeBeers to achieve many times the revenues of companies marketing ginger-ale or rubies. Or, to use a recent example, we cannot plausibly attribute the national expansion of Starbucks’s coffee shops to a spontaneous change in the tastes of U.S. consumers, several centuries after the availability of the beverage.

Just as Henry Ford played a critical role in the mass production of automobiles, William Wrigley, Asa Candler (of Coca-Cola) and Howard Schultz (of Starbucks) helped create marketing and distribution economies in chewing gum, cola-drinks and coffee shops. These entrepreneurs did not merely have a “talent for marketing.” Like Ford, they performed a variety of tasks, involving a variety of qualities. They envisioned building large businesses in previously fragmented markets, took considerable personal risks, formulated strategies, mobilized resources, recruited and motivated talented employees and built effective organizations. As the insert, Starbucks and the Coffee Connection, suggests without Howard Schultz’s ambition and capacity to build a large enterprise with a broad base of coordinated assets (such as good locations, a brand name, and buying and merchandizing capabilities) coffee retailing would have remained a “naturally” local or regional business.

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### **Starbucks and the Coffee Connection**

Starbucks traces its origins to a business started in 1971 by three coffee aficionados. By 1998, Starbucks had become the leading coffee retailer in the US with over 1600 locations, with a new store being opened almost every day. Its evolution illustrates the nature of the entrepreneurial effort and talent involved in realizing economies in marketing and distribution.

Coffee retailing has traditionally been a local or regional business. Like other firms in the field, Starbucks operated in just one city, Seattle, from 1971 to the mid-1980s. In 1982, the founders of Starbucks hired Howard Schultz to “bring marketing savvy to the loosely run company.” A year later, after a buying trip to Milan, Schultz became determined to build a national chain of cafes modeled after Italian coffee bars. Schultz’s bosses resisted the idea because they “wanted to be in the coffee bean business, not the restaurant business.” In April 1986, Schultz left to open his own coffee bars, which turned out to be instant successes. The following year, in 1987, Schultz bought out his former bosses at Starbucks.

From 1987 to 1993, Starbucks grew from 11 stores to over 270, expanding from Seattle to cities in the west like Portland, to the mid-west (in Chicago) and then to the East Coast. In each market, Starbucks followed a strategy of placing multiple locations close to each other in high-traffic, high visibility locations, acquiring competitors when it could. “Designed to be sophisticated and inviting,” York writes, Starbucks stores were “fairly spacious, well-lighted places featuring lots of burnished wood, gleaming espresso machines, art work and opera music.” Starbucks also published a direct mail catalog offering its coffees and coffee-making equipment which it believed supported its new retail stores and reinforced brand recognition in existing markets. In 1992, Starbucks went public.

Schultz hired experienced executives from companies like Pepsi Co. to establish the organizational base of the company. He claimed that Starbucks had two sources of “competitive advantage”—“Our coffee and our people.” To ensure high quality coffee, Starbucks ran a vertically integrated operation and gave its staff 25 hours of training before they worked behind the counter. Investments in employees took the form of an unusual level of health care and other benefits and stock options for all employees, including part timers.

Starbucks’s evolution may be contrasted with that of The Coffee Connection (TCC), launched by George Howell on the opposite coast, in Boston. In 1975, Howell, his wife and a partner, started a store in Harvard Square with the purpose of teaching customers how to “appreciate and care for a good cup of coffee.” Started as a retailer of coffee beans, the Harvard Square store developed into a coffee bar. In 1976, Howell opened a second Boston store. Subsequent growth was slow, however. Fastlich, Knakowski, and Lesser attribute TCC’s slow growth to “a lack of systems and controls and dependence on constant supervision from Howell...[whose] time was split between management, recruiting, site selection, supervision, broker relationships and purchasing.” Unlike Schultz who hired executives from PepsiCo, Howell “tried to develop some key operations people from within” because he felt that outsiders wouldn’t have “the coffee background and education required to serve TCC’s unique clientele.”

In contrast to Starbucks’s sophisticated marketing and merchandising, the Coffee Connection “persisted in maintaining a strategy that stressed quality above all else and had practically no marketing program in place.” It was “managed in a ‘loose, hippie-style’ manner. The stores had very little in common other than the superior quality coffee and the Huichol Indian art displayed on the store walls.

In 1989, Starbucks approached Howell with an offer to acquire the Coffee Connection stores. Howell initially refused and, as a defensive measure intended to keep Starbucks out of the Boston market, formed a joint venture with Au Bon Pain, an East Coast bakery restaurant chain. Eventually, however, after the Seattle based company decided to open its own stores in Boston, The Coffee Connection was sold to Starbucks.

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**Network Economies.** We can extend the argument about entrepreneurial ambition and ability to firms that capitalize on “network economies.” W. Brian Arthur and others have in recent years highlighted the phenomenon of increasing returns to scale enjoyed by certain technologies and standards. As is now well known, the value of internet standards or computer operating systems grows with the number of users and suppliers of complementary software. These network effects can lead a technology such as the VHS format for video recorders or Qwerty keyboards to dominate the market even if the alternative beta format or Dvork keyboard is technically superior. The benefits of network economies are not ‘inevitably’ realized however. For instance in the heyday of mainframe and mini-computers, hardware



manufacturers developed their own operating systems. Correspondingly, word-processing and other applications in the 1970s generated files that could not be used across different systems. When dominant technologies or networking standards do emerge, there is no compelling reason that they be owned or controlled by a single firm; rather we should expect that users would more likely adopt as standards, technologies that were as close to a public good as possible. Indeed, many of the frequently cited examples of network economies--VHS, computer languages like Fortran, the Qwerty keyboard, the Internet, IBM's PC architecture, and the UNIX operating system--are based on standards that are more or less in the public domain.

An entrepreneur must have exceptional abilities to create and control a significant networking standard. Microsoft's hold over personal computer operating systems (and some applications software) represents an out-of-the-ordinary outcome akin to a typewriter manufacturer's exclusive control over the layout of a keyboard. It ultimately derives, according to my analysis, from the ability of Microsoft's founder Bill Gates and (from 1980) top lieutenant Steve Ballmer, to establish a nearly mythical reputation for invincibility. As discussed in the insert, 'Self-fulfilling Prophecies', Microsoft has been able to establish and own crucial standards because it has convinced users, hardware manufacturers and suppliers of complementary goods that it will almost inevitably prevail in any market it chooses to dominate.

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#### **Self-fulfilling Prophecies**

The perception that Bill Gates holds little back in his drive to win has played a valuable role in Microsoft's domination of PC software. Bill Gates's reputation in the media and computer industry is reflected, report Wallace and Erickson, in headlines such as "The Whiz They Love to Hate" in Newsweek, "One Day, Junior Got Too Big" in the Sunday New York Times and "From Computer Whiz to Bullying Billionaire" in the Seattle Post-Intelligencer. (p. 380) Wallace and Erickson write that as "far as Bill Gates is concerned, business is war." (p.381) Gates looks for "any business opportunity that lets Microsoft win," they continue. Complaints about how Microsoft does business are common not just from competitors like Phillippe Kahn, Chairman of Borland, and John Warnock, CEO of Adobe Systems, but from erstwhile collaborators and partners:

Bob Metcalf, founder of 3Com Corporation, likened a disastrous joint marketing venture with Gates in the late 1980s to "black widow spiders mating – you'd be lucky to get out alive." Metcalf said Microsoft double-crossed 3Com and precipitated his company's first multi-million dollar quarterly loss in 1991.

Gates's reputation for ruthlessness may well derive just from the jealousy of less successful individuals. Whatever its origins, the widespread belief that he will not allow Microsoft to lose and may visit "negative inducements" on those who stand in his way have helped the company survive attacks not just from giants like IBM. The perception of invincibility rather seems to have been the critical factor behind the success of Microsoft's Windows 95 over IBM's 32-bit operating system OS/2. IBM's OS/2 was fully compatible with existing Windows 3.1 programs and available in a robust state nearly two years before Windows 95. IBM management repeatedly affirmed their intent to support OS/2 for the long term and demonstrated their commitment by spending over a billion dollars in marketing and promotion. Nevertheless, the once much-feared IBM (which like Microsoft, had been the target of Justice Department investigations for anti-competitive practices) seemed unable to overcome the perception of being a spent force in personal computer software. Customers and independent software vendors were prepared to wait for Windows 95 rather than commit to an operating system they believed would ultimately lose.

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To summarize: The goals and abilities entrepreneurs help shape the structures of markets. As we saw in Part 1, entrepreneurs tend to start businesses in niche markets. They take advantage of small opportunities, serving specialized needs or taking advantage of information gaps to buy cheap and sell dear. Their ventures usually do not have much lasting impact on industry structure. Fragmented markets remain so. But when entrepreneurs, who may have started out exploiting exogenous market conditions, have an out-of-the ordinary will and ability, their effort to build large, long-lived firms helps transform the economic landscape.

## **6. SUMMARY AND CONCLUSIONS**

Entrepreneurs have to perform different tasks and play different roles to build long-lived firms than they do when they start businesses. Their predisposition and capacity to perform these tasks depends on different set of qualities. The willingness of entrepreneurs to adopt audacious goals for their firms depends on the nature of their ambition and tolerance for risk. Formulating long-term strategies to coordinate initiatives and investments requires an expansive imagination, a capacity for creative synthesis and a capacity for abstracting general principles from specific situations. The implementation of strategies requires constancy, the capacity to inspire and intimidate others and the willingness and ability to learn new managerial skills.

The limited correlation between the qualities involved in starting and building businesses helps explain why so few new ventures become long-lived institutions. Success at the start-up stage depends on an individual's capacity for opportunistic adaptation. As described in Part 1, traits and skills such as a tolerance for ambiguity, perceptiveness, tactical ingenuity, and capacity for face to face selling help determine which new ventures survive. Only some of those who make the first cut have the ambition to build a large, durable business and the tolerance for the requisite sacrifices and risks. Then, from the ranks of the ambitious, the forces of competition leave standing those very select firms whose principals have (or can develop) the capacity to formulate and implement a sound long-term strategy. The evolution of the long-lived firm turns on the effort of truly exceptional entrepreneurs.



## Endnotes

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- <sup>1</sup> Case (1995), 24.
  - <sup>2</sup> Mangeldorf (1996), 84.
  - <sup>3</sup> Penrose (1959), 22.
  - <sup>4</sup> Packard (1996) p. 46
  - <sup>5</sup> Christensen (1997) xvii
  - <sup>6</sup> Christensen (1997) xv
  - <sup>7</sup> Dixit and Pindyck (1994)
  - <sup>8</sup> Nee (1998), p 54
  - <sup>9</sup> I have discussed the advantages and disadvantages of corporate diversification more fully in ‘Reversing Corporate Diversification’, Bhidé (1990)
  - <sup>10</sup> Williamson (1975), 104.
  - <sup>11</sup> Granovetter (1985), 68.
  - <sup>12</sup> Granovetter (1985) 69, quoting Dalton, 32.
  - <sup>13</sup> Granovetter (1985), 72.
  - <sup>14</sup> Chandler (1984), 16.
  - <sup>15</sup> Chandler (1984), 44.
  - <sup>16</sup> Chandler (1984), 46.
  - <sup>17</sup> McCraw and Tedlow (1997) p.285
  - <sup>18</sup> Chandler (1984), 152.
  - <sup>19</sup> Chandler (1984), 151.
  - <sup>20</sup> Chandler and Salsbury (1971), 573, 580.
  - <sup>21</sup> Packard (1995) p. 141
  - <sup>22</sup> Packard (1995) p. 81
  - <sup>23</sup> Rubin (1973), 939.
  - <sup>24</sup> Packard (1995) p. 141
  - <sup>25</sup> Packard (1995), p 52
  - <sup>26</sup> Kelly (1998), p. 26
  - <sup>27</sup> Packard (1995) 48
  - <sup>28</sup> Henderson (1994).
  - <sup>29</sup> Polyani (1964), p. 52 cited in Nelson and Winter (1982) p. 119
  - <sup>30</sup> Ip (1998), p. C1
  - <sup>31</sup> Case (1989), 51.
  - <sup>32</sup> Walton (1993), 68.
  - <sup>33</sup> Walton (1993), 67.
  - <sup>34</sup> Walton (1993), 80.
  - <sup>35</sup> Author’s *Inc.* 500 company interviews
  - <sup>36</sup> Penrose (1959),.
  - <sup>37</sup> Jovanovic, MacDonald (YEAR), 346.
  - <sup>38</sup> Jovanovic, MacDonald, 322.
  - <sup>39</sup> Jovanovic, MacDonald, 326.
  - <sup>40</sup> Churchill and Lewis (May June 1983), 12.
  - <sup>41</sup> Churchill and Lewis (May June 1983,) 9.
  - <sup>42</sup> McCraw and Tedlow (1997), pp. 285-287
  - <sup>43</sup> I am indebted to Bruce Scott for this observation.
  - <sup>44</sup> Walton (1993), 140.
  - <sup>45</sup> Walton (1993), 144.
  - <sup>46</sup> Bhidé (1993), 8.
  - <sup>47</sup> Walton (1993), 318-19.
  - <sup>48</sup> Zaleznik (1989), 61.
  - <sup>49</sup> Nelson and Winter (1982), 128.

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- <sup>50</sup> Nelson and Winter (1982), 134.  
<sup>51</sup> Elster (1993), 139, 147.  
<sup>52</sup> Nelson and Winter (1982), 136.  
<sup>53</sup> Nelson and Winter (1978), 524.  
<sup>54</sup> Nelson and Winter (1982), 97.  
<sup>55</sup> Penrose (1959), 8.  
<sup>56</sup> Packard (1995), 46  
<sup>57</sup> Olegario (1997) 356  
<sup>58</sup> Chandler (1990), 9.  
<sup>59</sup> Chandler (1990), 11.  
<sup>60</sup> Nelson and Winter (1982), 133.  
<sup>61</sup> Bhidé (1992), p.4.  
<sup>62</sup> Bhidé (1992), 13.  
<sup>63</sup> Andrews (1980), 28.  
<sup>64</sup> Ghemawat (1997), 12.  
<sup>65</sup> Quinn (1980), 14.  
<sup>66</sup> Quinn (1980), 52.  
<sup>67</sup> Selznik (1984), 36.  
<sup>68</sup> See Mintzberg (1973) 'Strategy Making in Three Modes'.  
<sup>69</sup> Andrews (1971), 26.  
<sup>70</sup> Andrews (1971), 25.  
<sup>71</sup> Kelly (1998) 60-61  
<sup>72</sup> Bhidé (1989a), p10.  
<sup>73</sup> Bhidé (1989), 5.  
<sup>74</sup> Bhidé (1989), 16.  
<sup>75</sup> Bartlett and Ghoshal (1994) 84  
<sup>76</sup> Packard (1996) 24  
<sup>77</sup> Packard (1996) 40  
<sup>78</sup> Murphy (1995), p 77.  
<sup>79</sup> Case (1989), p. 51  
<sup>80</sup> Bhidé (1992), 9.  
<sup>81</sup> Bartlett and Ghoshal (1994) 85  
<sup>82</sup> As of November 24, 1998  
<sup>83</sup> Olegario (1997) 356  
<sup>84</sup> Olegario (1997) 357  
<sup>85</sup> Olegario (1997) 358  
<sup>86</sup> Olegario (1997) 359  
<sup>87</sup> Olegario (1997) 360  
<sup>88</sup> Watson and Petre (1990) 218  
<sup>89</sup> Packard (1996) 61  
<sup>90</sup> Packard (1996) 128  
<sup>91</sup> Packard (1996) 132  
<sup>92</sup> Pelling (1996)  
<sup>93</sup> Packard (1996) 139  
<sup>94</sup> Packard (1996) 76  
<sup>95</sup> Packard (1996) 139  
<sup>96</sup> Packard (1996) 77  
<sup>97</sup> Packard (1996) 140  
<sup>98</sup> Packard (1996) 80  
<sup>99</sup> Packard (1996) 141-142  
<sup>100</sup> Packard (1996) 142-143  
<sup>101</sup> Walton (1993) 265  
<sup>102</sup> Interview in *Forbes*, August 10, 1987

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- <sup>103</sup> Walton (1993) 111  
<sup>104</sup> Walton (1993) 65-66  
<sup>105</sup> Walton (1993) 107  
<sup>106</sup> Walton (1993) 117  
<sup>107</sup> Walton (1993) 163  
<sup>108</sup> Walton (1993) 165  
<sup>109</sup> Bhide (1992 b) p. 12  
<sup>110</sup> Walton (1993) 38-39  
<sup>111</sup> Caves (1980) 88  
<sup>112</sup> Kreps (1990), p. 91  
<sup>113</sup> Henderson (1994), p. 607  
<sup>114</sup> *Consultants News*, June 1998, p. 9  
<sup>115</sup> Porter (1980) 368  
<sup>116</sup> Porte (1980) 369  
<sup>117</sup> Hamel and Prahalad (1994) 55  
<sup>118</sup> Walton (1993) 81  
<sup>119</sup> Walton (1993) 62  
<sup>120</sup> Adler (1993) discusses the issue of transplanting manufacturing practices. Adler (1999) discusses human relation practices.  
<sup>121</sup> Wallace and Erickson (1993), 163.  
<sup>122</sup> Pitta (1992)  
<sup>123</sup> Khanna (1997)  
<sup>124</sup> Nakache (1997) p. 275  
<sup>125</sup> Bhidé (1989), “Vinod Khosla and Sun Microsystems (A)”, 12-13.  
<sup>126</sup> Bhidé (1989), “Vinod Khosla and Sun Microsystems (C)”, p.1  
<sup>127</sup> Pitta (1992)  
<sup>128</sup> Schein (1985) 225  
<sup>129</sup> Walton (1993), p. 201  
<sup>130</sup> Cited in Elster (1993), 116.  
<sup>131</sup> Penrose (1959), 35.  
<sup>132</sup> Walton (1993), 101-102.  
<sup>133</sup> Walton (1993), 104.  
<sup>134</sup> Walton (1993), 319  
<sup>135</sup> Walton (1993), 101-102.  
<sup>136</sup> Walton (1993) 241-242  
<sup>137</sup> Kelly (1998) 58.  
<sup>138</sup> Walton (1993), 56.  
<sup>139</sup> Walton (1993) 248  
<sup>140</sup> Walton (1993) 243  
<sup>141</sup> Kelly (1998), p. 26  
<sup>142</sup> Kelly (1998) 31  
<sup>143</sup> Walton (1993) 141  
<sup>144</sup> Walton (1993) 140  
<sup>145</sup> Walton (1993) 142  
<sup>146</sup> Packard (1996) 61  
<sup>147</sup> Kelly (1998) 115  
<sup>148</sup> Simon (1976)  
<sup>149</sup> Brokaw (1993), 56.  
<sup>150</sup> Walton (1993) 117  
<sup>151</sup> Mangelsdorf (1996), 84.  
<sup>152</sup> Peline (1996) p. B1  
<sup>153</sup> Scherer (1980) 145  
<sup>154</sup> Scherer (1980) 72

- <sup>155</sup> Sutton (1996) 3
- <sup>156</sup> Chandler (1990) 18
- <sup>157</sup> Chandler (1990) 20
- <sup>158</sup> Chandler (1990) 22-23
- <sup>159</sup> Chandler (1990) 22
- <sup>160</sup> McCraw (1997) 324
- <sup>161</sup> Sutton (1996) p. 25
- <sup>162</sup> Cited in Elster (1993), 121.
- <sup>163</sup> McCraw and Tedlow (1997) 275
- <sup>164</sup> McCraw and Tedlow (1997) 273
- <sup>165</sup> McCraw and Tedlow (1997) 272
- <sup>166</sup> McCraw and Tedlow (1997) 288
- <sup>167</sup> Automotive News 1998 Market Data Book
- <sup>168</sup> Lewis (1976) p. 160-161
- <sup>169</sup> Von Hippel (1988)
- <sup>170</sup> Unpublished paper by Mark Casey