STRATEGIC THINKING

A Comprehensive Guide
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Leadership and strategy are intricately connected, because one of the primary responsibilities of leaders is to formulate strategy; and in an organization, only the leader has the power to implement change, strategic change. Thus, strategic thinking is a necessary and fundamental cognitive ability of a leader — or should be so.

Strategic thinking is about (1) imagining a future world and (2) taking a sequence of short-term tactical actions to achieve it. It requires both an idealism (to imagine a better world) and a realism (to acquire the resources, skills, and organization to get there). However, most organizations focus and encourage only short-term thinking for their employees and leave long-term strategy to the executives. And many books on strategy assume this is appropriate and do not question the practice. But there is a serious error about “realism,” in a view of only “top-down” strategy. No high-level executive in any organization, at any time, in any place, is ever fully knowledgeable about the details of operations — activities on the ground, the current reality in the trenches. This is because the executive level is far above the actual operations of production/sales and so can be “out-of-touch” with the operational. In climbing their careers to the top of organizational power, executives probably knew the past realities quite well. It is their grasp of current reality which can be in question. This is what strategy is for — to distinguish past reality from current reality and to prepare for future reality.

Thus for realistic strategy, there is a need for good “top-down” and “bottom-up” communication — between the executives at the top-management level and the technical personnel at the bottom-operations level. When organizational communication is only top-down (due to the overwhelming power-of-the-boss), then in such an organization, high-level strategy can become only “wishful thinking” by the CEO — a wishing that can actually impose harmful management pressure on operations. Harmful pressure has resulted in terrible examples of organizational ineffectiveness, loss of competitiveness, and even fraud.

Unfortunately, there are many historical examples of this. Cases of contemporary financial failure and fraud abound in the modern world — all due to unreal strategy at the top. Some of these were: the Libor Fraud of 2011, the Eurodollar Crisis of 2010–2014, the Global Financial Collapse of 2007–2008, the Bankruptcy of Enron and the Demise of Arthur Anderson in 2001. In each case, high-level officials in government and business were unrealistic about strategy — allowing dishonesty of trading in Barclays, funding excessive sovereign borrowing in European Union countries by EU banks, securitization of fraudulent mortgage derivative products, and the off-book speculative investments by a company. In each of these cases, there was a serious failure of strategic thinking by top business and government officials. The wishful strategic thinking by bank executives in
the Libor case was that Libor was an honest index. The wishful strategic thinking by government officials in the Eurodollar Crisis was that government debt could forever finance government services without taxes. The wishful strategic thinking in the Global Financial Crisis was the financial markets are “perfect” (self-regulating). The wishful strategic thinking in the Bankruptcy of Enron and the failure of Anderson was that accounting need not be fully transparent. A purpose of proper strategic thinking is to eliminate “wishful-thinking” from strategic thinking.

Yet there are splendid examples of strategic thinking that has been extraordinarily successful, such as: IBM in its early days, Xerox in its early days; the resurrection of the Japanese economy and SONY, Honda, Toyota in Japan; the building of the South Korean economy and Samsung, Hyundai, Posco in Korea.

What is the type of thinking which leads to long-term success and survival, not just a big payoff in the short term? This is “strategic thinking.” Strategic thinking is necessary at every level of an organization, and not just at the top. We use actual histories of business successes or failures to illustrate theoretical concepts in strategic thinking.

These concepts are summarized in each chapter.

*Theoretical Principles of Strategy*

1.1 All actions are directed toward the future; and intelligent action is most likely to succeed.
1.2 Correct vision is necessary to survive discontinuities.
1.3 Technology strategy is a basic component of competitive strategy.
1.4 Strategy is cognitively more synthetic (intuition); while planning is more analytic (thinking).
1.5 Intuition is primarily based upon experience.
1.6 The ‘way’ of experience is perception, preparation, and commitment.
1.7 Strategic wisdom is expressed in the form of ‘precepts’.
2.1 Strategy is implemented in a sequence of tactics leading toward the mission.
2.2 Entrepreneurial strategy is proper for the launching of new businesses.
2.3 Technology progress is a major source of entrepreneurial opportunity
3.1 While entrepreneurial management is necessary to starting a new business, professional management is necessary to grow the business competitively.
3.2 Tactical milestones are steps in achieving a long-term strategy.
4.1 Strategic change is periodically necessary to survive and prosper.
4.2 Strategy divides into content (strategic issues) and into process (strategic planning).
4.3 Strategic perspective divides into top-down perspective (executive perspective) and bottom-up perspective (operational perspective).

4.4 The strategy process requires formulation of the ‘big picture’ as a strategic scenario and the ‘operations picture’ as a strategic business model.

5.1 The four factors of product success are: performance, innovation, market focus, competitive pricing.

5.2 Six kinds of strategic business models can be constructed from the combination of the factors of capital, profit, sales, resources.

5.3 Strategic business models are implemented by the technique of a strategic policy matrix.

6.1 There are ‘opportunity costs’ to keep any business competitive, even businesses in the portfolio of diversified firms.

6.2 Integrity and trust between a holding company and its portfolio of businesses is essential to the strategic survival of the holding company.

7.1 Scenarios depict the trends for opportunities or threats.

7.2 The accuracy of forecasts depends upon the stability of underlying structure.

8.1 Structure and function in a society can be partitioned into four societal systems: economic systems, political systems, cultural systems, and technology systems.

8.2 Changes in the structure and functioning of any of the systems will impact the functioning of the other systems.

8.3 The ‘big picture’ of change in a society can be depicted as changes in the four systems of a society.

9.1 The strategic business model of a holding company focuses upon the financial markets; whereas the strategic business model of a portfolio company focuses upon customer markets.

9.2 Short-term executive greed can doom the long-term future of a company, when executives lack integrity.

10.1 The successful implementation of a plan is as important as good planning.

10.2 Leadership in implementing a good plan requires access to proper technology, sufficient capital, market entry, competitive operations, and management integrity.

The book is aimed at the general trade market of business books, but it is also appropriate for MBA classes on strategy and strategic planning. There are many books on strategy; but many focus mostly upon the process of formulating strategy, the strategic process. This book balances the emphasis on “process” in strategy and with that of “content” in strategic thinking. The content in strategic thinking requires vision, competence, and integrity.
Strategic Vision

Introduction

Strategic thinking is about trying to anticipate and bring about a “desirable future” – a vision for a future.

To realize that vision, a decision to act must be made; and the logic of an action, decision can be formulated as a “means” of action toward an “end” of action. A primary responsibility of leadership strategy is to make decisions about the future (strategy) and to implement present action (tactics). This concept of “strategic thinking” as action toward a future is based upon a philosophy of action; and in that philosophy, there are three postulates.

1. All action is directed to a future.
2. For action, there are two futures – immediate and distant.
3. Intelligent action is more likely to be productive than unintelligent action.

As shown in Figure 1.1, modern decision theory sketches out the postulate of all action being directed toward a future.

![Figure 1.1: Decision Theory.](image)

MEANS/ENDS AND ACTOR/VISION ARE TWO FUNDAMENTAL DICHOTOMIES IN THE PHILOSOPHY OF ACTION.

IN DECISION THEORY, THE ACTOR IS CALLED DECISION-MAKER AND THE FUTURE OUTCOME REALIZES A VISION.

First, a decision orients an action in the present toward a future outcome. An action can be analyzed into means and ends of the action. The means chosen for action are the “tactics” of the action. The ends, toward which the means are directed, are of “value” to the actor. The “vision” that had been imagined as a valuable end occurring in the future. “Efficiency” is a measure of the likelihood (or resources consumed) of a means attaining an end. “Effectiveness” is how valuable an end is to the actor. The “goals” are measures of the attainment of the envisioned outcome for a given value.
Postulate 2 expresses the possibility that the vision of a desired future might not be attained in a single action but as a subsequent result of a series of actions. A long-term “outcome” may need to be attained as a sequence of actions, each action being a tactic of the actor (decision-maker). Strategy threads a sequence of tactics together for present actions in the short-term sequence to attain a future in the long term.

The third postulate relates knowledge to action. Intelligent action is more likely to be productive than unintelligent action. Unintelligent action can arise from being uninformed, incompetent, foolish, irresponsible, corrupt, immoral, etc. The more a decision-maker knows about a choice of means and ends and values and goals, the more likely the actor is to be successful in the future. The more honest and responsible a decision-maker, the more likely others may follow and implement decisions. In the modern world, science and technology provide the knowledge for action, and management and power provide motivation and the capability of action. Leadership is expected (by its followers) to formulate “intelligent” action in an organization; and for this, strategic vision is a basic responsibility of leadership.

Strategic change cannot occur without top leadership having a vision and commitment to change. The relationship of leadership to strategic vision is thus basic:

1. Strategic vision is the fundamental responsibility of leadership, since only top management has the authority to make major changes in operating organizations.
2. Strategic change is only periodically necessary; but to be effective such change must be envisioned, anticipated, and planned.
3. Sources for strategic vision are either external in the environments of the organization or internal as opportunities developed within the organization.

For example, back in the year 2000, “Worth” magazine interviewed successful chief executive officers (CEOs) and noted their concern for the importance of visionary leadership.

Koici Nishimura of Solectron said:

When you are leading a company, you have to figure out, conceptually, what you are trying to do. Once you have decide that, and you think its okay, the second thing you have to figure out is: What tactics are you going to use? … You continually have to ask: Are the assumptions I made still good? My job is to continually reassess the assumptions or the foundation that the company is built on.


Raymond Gimartin of Merck said:

You need to have a vision that is the anchor point for what you’re doing … There needs to be some form of overarching statement that makes sense and on which the ECO stakes his or her job.
Eric Schmidt of Novell said:

Leadership is defined about perception, not just reality. So there’s always this tension in leadership to overhype. And to make promises that you can’t keep and articulate things that can’t happen … You want to do some level of overselling, but the problem is that the people you’re communicating to are smart. If they think you’re a snake-oil salesman, then your whole credibility goes to zero. So leadership is also defined by credibility.

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**CASE**

**Origin of Sony Corporation**

One can see a case of extraordinary strategic vision in the origin of Sony. Sony’s visionary founders were Akio Morita and Masaru Ibuka.

In 1944 during the last years of the Second World War in Japan, Akio Morita was finishing his education, while developing an interest in the new technology of electronics. Morita was a university student studying applied physics under Professor Tsunesaburo Asada, at Tokyo University. Asada’s laboratory was performing research for the Japanese navy as its war effort. Morita worked for him on electronics. Physics applied in the technology of electronics is an area of applied knowledge and in the interface between science and technology. It is in such science/technology interfaces that advanced technologies are created. Morita was being trained by Asada with a scientific orientation but motivated to create advanced technology. This provided a lasting influence on Morita, as a basis for his future strategy intuitions in business.

After the 1860s in Japan, the society had faced the challenges of industrialization and officials had encouraged an active interest in acquiring and innovating technology. Professor Asada wrote a weekly column for Tokyo newspapers, in which he explained the latest developments in research and technology. Sometimes when Asada was busy, he would let his student, Morita, write these for him. One column Morita wrote was about the theory of atomic energy, in which Morita noted that the energy in the atom was so great that if a weapon could be made using the atom’s energy it would be an extremely powerful weapon. But in 1944, no one in Japan knew that their enemy, the Americans, had made such a weapon which soon would be used upon Japan.

Morita was trained to learn the new advances in science and to imagine
what technological use could be made of them. Morita viewed science as source of ideas for new technologies. Viewing science as a source for new technology was been the hallmark for successful vision of high-tech firms in the twentieth century.

When Morita neared graduation, he had not yet been drafted. But the war was still going on, and he learned that he could enlist as a career technical officer in the navy by taking an examination and then be assigned to a research facility instead of a ship (which would allow him to finish his education). In early 1945, he was assigned to the optics laboratory in Office of Aviation Technology at Yokosuka. There he worked on the problem of preventing static electric streaks on the films of aerial mapping cameras.

Then graduating from the university, he underwent a four-month officer’s indoctrination and training, and he received the rank of lieutenant. He was assigned back to the optical division and began supervising a unit working on thermally guided weapons and also on a night-vision gun sight. This was in a small town south of Kamakura on Sagami bay. Morita wrote: “We were based in a big old country house in Zushi …. The house was built on the Western style, faced with stucco, with a courtyard garden … The house was built at the foot of a cliff just above the beach, and I took a room at the nearby Nagisa Hotel …. It seemed incongruous because sometimes it was as peaceful as any beach resort, yet we were right under the return path of the B-29’s …” (Morita et al., 1986).

The American long range bombers, B-29s, were dropping incendiary bombs on major Japanese cities, destroying entire cities. Morita was worried about the American bombers but felt lucky to be at Sagami bay. During July 1945, the Tokyo-Yokohama area was bombed almost daily. Morita watched the big silver B-29’s passing overhead, and watching with him was a colleague on the special project, Masaru Ibuka. Morita and Ibuka became good friends (and after the war, they would together found the Sony Corporation). One of their worries was that the Japanese military might not give up the war, no matter how badly it was going. An American invasion would likely occur, where they were stationed on the Miura Peninsula at Sagami Bay. They knew that this peninsula would become a bloody and last battleground.

In August of 1945, Morita took leave to visit his family at their ancestral home in Kosugaya. While he was there, the two atomic bombs were dropped on Nagasaki and Hiroshima. The military did obey the Emperor’s order to surrender. Morita recalled the occasion: “I was shaken awake by my mother in the early morning … She said the Emperor Hirohito was going to make an announcement on the radio at noon. Even the announcement that the emperor would speak to the nation was stunning …. The emperor’s voice had never been heard by the Japanese people … Because I was, after all, a naval officer, I put on my full uniform, including my sword, and I stood at
attention while we listened to the broadcast … the high, thin voice of His Majesty came through …. ‘The war was over’ ” (Morita et al., 1986).

Emperor Shōwa was the 124th Emperor of Japan (According to the Traditional Order, Reigning from 1926 to 1989). His Personal Name was Hirohito. Source: United States Library of Congress.

The postwar world was one of grim survival. Morita returned to his station on August 16. American occupation forces arrived without incident. Morita waited at the station for days without orders. Finally, Morita received the order to close the project. He bartered equipment for railway tickets and sent the staff home. Morita wrote: “The new period of peace was strange. The bombers did not come anymore, but many cities looked as though there was nothing more to bomb …. The Morita family was fortunate because we had lost no one in the war and the company offices and factory in Nagoya and even our home, survived with no serous bombing damage” (Morita et al., 1986).

The Morita family business was a brewery run by Morita’s father. Although elder sons, such as Akio Morita, were expected to succeed their father in the business, but his father was still healthy and robust and did not yet need him. Besides, Morita’s interests were in advanced electronics, and he accepted a position to teach physics at the Tokyo Institute of Technology. There he looked up for his friend Ibuka. Ibuka was going to start a new electronics company. Since Morita did not really want to teach but to create new technology, he decided to join Ibuka in founding a new company. He left the institute and worked with Ibuka. His father invested in the new firm, which first they called Tokyo Telecommunications Engineering Company and later renamed it as Sony.
Morita’s family traced its origin back to the Edo Period of the seventeenth century, when the head of the family Kyusaemon Morita established a sake brewery in Kosugaya Village, at the center of the Chita Peninsula in Aichi Prefecture. Morita’s father was the fourteenth head of family, with the traditional name of Kyusaemon Morita XIV. Thus Akio Morita would have had the traditional name of Kyusaemon Morita XV, had he continued the brewing business; instead Akio founded Sony.

Discontinuities occur in a society in war and its aftermath. As Japanese industry was so heavily destroyed by U.S. bombing in Second World War, Japan had to rebuild its industry. It was in this societal discontinuity that Morita and Ibuka would begin their new firm.

Vision and Discontinuities

The importance of strategic vision for effective leadership has long been recognized in the business literature. The early writings of the business theorist, Chester Barnard, emphasized that strategy was an important executive function (Barnard, 1938). Many other writers on management, such as A. Chandler (Chandler, 1962) and J. B. Quinn (Quinn, 1988), further emphasized the executive importance of rethinking strategy when structural change has made past strategy ineffective.

John P. Kotter observed more than 100 companies trying to change themselves to become improved competitors: “A few of these corporate change efforts have been very successful. A few have been utter failures. Most fall somewhere in between …” (Kotter, 1996). Kotter saw strategic vision of leadership as the vital role in change, suggesting that several steps were necessary to change an organization:

– establishing a sense of urgency for change and forming a high-level management coalition for change,

– creating a vision of change and communicating that vision through the organization,

– empowering managers to act on the vision and planning for and creating short-term wins about change,

– consolidating improvements and institutionalizing new approaches for continuing change.

These steps all require top-level leadership in envisioning a future. A strategic vision summarizes the need and purpose of strategic change.

Why leadership in large organizations often fails to perform such steps for change arises from the nature of leadership in large organizations. In large organizations, leaders
are usually selected as those who are successful at doing “more of the same.” Managers often rise up to leadership because they embody a vision of the organization’s past. The vision of the past represented a tested story of success. Past leadership built organizational structures and culture that evolved into a successful company. But when the business environment changes, the earlier structures, cultures, and leadership became ineffectual in the new conditions. Despite the tendency for management not to make changes, the need for long-term change is indigenous: organizations have little control over change in their environments. Particularly, businesses are forced by competition to change or die.

Many students of strategy and organization have argued that instability is a periodic experience for all organizations. For example, Michael Tushman and Elaine Romanelli argued that organizations experience periods of relative stability interrupted by sharp strategic reorientations (Tushman & Romanelli, 1985). They saw organizational change as a kind of evolution, stimulated by responding to change in business and economic structures.

Michael Tushman and Elaine Romanelli with Beverly Virany nicely summarized the connection between strategic vision, environmental (structural) change, and organizational decline: “At least part of the reason for substantial organization decline in the face of environmental change lies with the executive team. A set of executives who have been historically successful may become complacent with existing systems and/or be less vigilant to environmental changes. Or, even if an executive team registers external threat, they may not have the energy and/or competence to effectively deal with fundamentally different competitive conditions. The importance of an effective executive team is accentuated in industries where the rate of change in underlying technologies is substantial” (Tushman et al., 1985).

Also students of innovation have documented that a major source of changes in the business environment and within the economic structure consists of applied knowledge discontinuities, which Tushman called “technology discontinuities” (Tushman et al., 1985) and later Clayton Christensen called “disruptive change” (Christensen, 2000).

As an example, Tushman and his colleagues looked at the mini computer industry, focusing on 59 firms started between 1967 and 1971. They compared firm records of success and failure over a subsequent 14-year period. In their analysis of the reasons, some firms survived and many failed; they argued that one must understand how the conduct of the firm in the context of the changing economic structure affected the performance of the firm.

The conduct of firms consists of the strategic, tactical, and organizational activities guided by the executive team (CEO and other principal executive officers). Conduct must alter as the context of the firm changes when alterations in the economic structure affect competition. Changes can arise from: (1) technological changes, (2) market changes, (3) resource changes, (4) regulation changes, and (5) competitive changes.

Successful leadership performance depends upon the executive team’s ability to envision, anticipate a correct future, and formulate a correct strategy and organization for the future operations of the business. Such vision, strategy, and organization correctly
anticipates technological opportunities for new products, market changes for new needs and applications, resource changes which affect the availability and cost of materials and energy, and changes in government regulations affecting safety, monopolies, taxes, etc.

Over the periods in which industries faced changes in economic structural factors, Tushman et al. found that those firms – whose executive teams lacked vision and made no changes in strategy and organization and product – failed after the structural changes occurred. Even those firms with correct vision but whose executives constantly made changes in strategy, organization, and product (whether or not structural changes were occurring) also failed. The firms which survived and prospered through a competitive discontinuity (a disruptive change) are those whose executive teams: (1) envision and correctly anticipate the discontinuity and prepare for it with appropriate product strategy and re-organization, and (2) after making the appropriate strategic changes hold a steady course to produce proper products/services with quality and low costs.

It is difficult for the company to formulate a new product strategy when it hits a competitive discontinuity generated by new applied knowledge. The principal reasons in the difficulty of formulating a new product strategy in a competitive discontinuity are: (1) the technical uncertainties of a new applied knowledge vision, (2) the differing perspectives among the different product-group managers and the technical staff about that vision.

In order for a company to develop a radically new next-generation product-line strategy, the whole company must fight out different visions about the product plans in a new applied knowledge situation. To formulate a next-generation product plan for an applied-knowledge competitive-discontinuity, it is necessary for a high-level executive team to envision and formulate a strategy issue and to organize the effort necessary to formulate and implement a new strategy for the whole company.

Competitive discontinuities are a common problem for a firm initially successful in a radically new industry because, as we have seen in the industrial life cycle, applied knowledge in the industry continues to progress for a long time. The crisis is that competitive discontinuities due to rapid progress in applied knowledge force not only changes in product strategy but also changes in business strategy to exploit the changing market. This is why competitive discontinuities are strategically challenging. And this is why a strategic vision that foresees discontinuities and strategic planning that prepares for discontinuities are the key challenges of strategic thinking.

CASE CONTINUED

Sony Corporation

Starting their firm, the situation facing Ibuka and Morita was a very uncertain future. They could not then have devised a meaningful and detailed plan, since postwar Japan would be new and uncharted territory. Morita and Ibuka were going into unexplored territory. Their new firm was a
company with only a strategic vision about being high-tech; they had no specific product plan.

Morita’s partner, Masaru Ibuka, had been born in 1908 in Nikko City, north of Tokyo. His father was an engineer, but he had died when Ibuka was only three years old. His mother was a graduate of Japan Women’s College (Nihon Joshi Daigaku) and had taught kindergarten. Ibuka was inventive and had always been fascinated with technology. As a boy, Ibuka had liked radio and built one using three vacuum tubes. But since vacuum tubes then were expensive in Japan, Ibuka had fabricated his own tubes. Ibuka went to Waseda University and studied engineering. He patented the first of his many inventions while a student. (During Ibuka’s life, he continued to invent and design, so that by the age of 83 in 1991, he had acquired 104 patents. He would design Japan’s first transistor radio, transistorized television, a video cassette recorder for home use, the Walkman personal stereo, and a compact disc player.)

In 1946, when Morita and Ibuka formed their new firm with $500, they did not even have a product plan. They searched for a product to produce; and they considered producing radios. But Ibuka decided this was a bad commercial strategy, since he was certain the existing large Japanese electronics firms would soon produce radios and be unwilling to sell components to others. Moreover, the radio was then a standard technology and could not provide their new company with an innovative competitive edge. Lead time is essential for using innovation in competitive strategy. Ibuka was anticipating the competitive conditions in the industrial value chain. Ibuka wanted a product in which they were the technology leaders. A small firm has a chance against bigger competitors only with strategic leadership in technology and knowledge.

But what competitive edge? What product? Immediate products were necessary for cash flow survival. At first, they made shortwave radio adapters to enhance the medium-wave radios that were widely owned in Japan. Shortwave could receive broadcasts from other countries, an important source of news in occupied Japan. Shortwave radios were in short supply, and this product began their business.

Next they noted that many Japanese households had prewar phonographs that needed repair. They began making new motors and magnetic pickups. American things were arriving in Japan, and the American swing and jazz records were very popular. But the parts business was not a future. They still wanted to produce a completely new high-tech consumer product – that was their strategic technology attitude.

At that time they knew of the wire recorder, which had been invented in Germany just before the war. Ibuka found a company, Sumitomo Metals Corporation, which could make for Sony the special kind of small, precise-
diameter steel wire for such a recorder. Ibuka decided to produce a wire recorder. But there was a problem. Sumitomo was not interested in a small order from a new, untried company. Without this, they would not then be able to produce a wire recorder. Ibuka and Morita continued to keep the company afloat with their parts business.

Meanwhile, the U.S. occupation forces had taken over the Japan Broadcasting Company (NHK) and needed new technical equipment. Ibuka was familiar with audio-mixing units and submitted a bid to make one for the U.S. forces. He received a contract and made the mixing unit. When delivering the unit to the NHK station, he saw a new American high-tech product, a Wilcox-Gay tape recorder, which the Army had brought from the United States. It was the first tape recorder Ibuka had ever seen. He looked it over and could see immediately that it had technical advantages over wire recorders.

In the wire recorder, the wire had to pass over the recording and playback heads at very high speeds to obtain decent fidelity in the reproduction of sound. But the tape of the tape recorder with its wide size provided a much larger magnetic area for signal recording and therefore could be allowed to travel much more slowly in providing fidelity of reproduction. Also, to get a long enough playing time, wire reels had to be very big; whereas the larger magnetic area of a recording tape meant that tape reels could be much shorter for the same playing time. The wire could not be spliced as tape could, in order to correct recording errors or to rearrange recorded sequences. For these reasons, Ibuka knew that tape would inevitably replace wire in audio recorders. This was the new high-tech product for which he had been searching! Ibuka understood what kind of electronics, physics, and chemistry would be required to copy and develop the new technology. Ibuka decided tape recorders were to be their product.

One sees here a strategic vision at work. Ibuka was committed to a high-tech consumer electronic product – he had no plan, just a commitment. He was looking for a new high-tech product with which to compete with the bigger but slower-moving established Japanese electronics firms. He saw an innovative foreign technology and decided to duplicate it. His decision was based upon the distinct advantages of the new technology.

There are many technical problems in innovating a new product, but Ibuka and Morita knew how to proceed – with systems analysis of the high-tech product and with new applied knowledge through the process of applied scientific research. The realized the critical part of the system which they did know how to make was the recording tape. Earlier, they had worked on wire recorders as a possible high-tech product and understood how to make the mechanical and electrical components of a recorder.

The tape was a subsystem of the new high-tech product, providing the
recording medium. The tape would be composed of materials that were both physical and chemically based. The rest of the system was based in electronic circuitry and mechanical processes. Ibuka and Morita wanted to produce the tape as well as the machine, in order to obtain a follow-on sales business. This commercial strategy to produce tape as well as tape recorders occurred immediately after they had made a decision to produce tape recorders, and the research necessary for the recorder began immediately.

Ibuka’s and Morita’s first technical problem was the base material for the tape, but again there was a supply problem. The American firm 3M was then the source of the base tape material, but they were also the major tape producer. Ibuka and Morita thought they might not wish to supply tape to a small Japanese competitor.

There were severe materials shortages in postwar Japan. Ibuka and Morita found they could not obtain cellophane in Japan, which was their first idea for a base. They tried it, even knowing it might prove inadequate. It turned out to be wholly inadequate. They cut it into long quarter-inch-wide strips and coated it with various ferromagnetic materials. The cellophane stretched hopelessly after only one or two passes as tape on the machine. They even hired chemists to improve cellophane but without success.

They needed another material. Morita went to one of his cousins, Goro Kodera, who worked for Honsu Paper Company. Morita asked him if they could produce a very strong, very thin and very smooth craft-paper for their tape. Kodera said he would try. He did, and it worked. They had a base material, which they sliced into tape, using razor blades at first.

The next problem was the magnetic coating to put on the paper tape. Nobutoshi Kihara, one of the young engineers they had hired, did empirical research by grinding up magnetic materials for the powder for the tape. At first the magnetic materials were too powerful for the system. Then Kihara tried by burning to transform the oxalic ferrite into ferric oxide. That worked! Morita and Kihara searched all the pharmaceutical wholesalers in their district of Tokyo, finding the only store that stocked oxalic ferrite. They bought two bottles of it, cooked it in a pan until it turned brown and black. The brown stuff being the ferric oxide they wanted and the black stuff being ferrous tetra oxide, which they didn’t want.

Next they mixed the brown stuff with Japanese lacquer and tried to airbrush it onto the tape. That didn’t work. They tried brushes. They found that a brush made from the very fine bristles from the fur of a raccoon’s belly did the best job.

Still it was terrible tape, of very poor fidelity. They really needed plastic tape. Finally, they got a supply of plastic tape. With a supply of plastic tape and the ferric oxide coating, they had a recording-tape technology. Tape became a major source of cash flow for Sony. They continued to put heavy
development into it. (Many years later, in 1965, IBM chose Sony magnetic tape as their suppliers for IBM computer magnetic data storage.)

In the year of 1950, Ibuka’s and Morita’s first tape machine, which used their new plastic-based magnetic tape, had turned out to be very bulky and heavy (about 75 pounds) and expensive (170 thousand yen). Next, they began learning something about the marketing of new and expensive high-tech products. Japanese consumers simply wouldn’t buy it. They had to look for another market.

At the time, there was an acute labor shortage of stenographers. During the war, so many students had been pushed from school into war material production. Ibuka and Morita demonstrated their new tape recorder to the Japan Supreme Court and immediately sold 20 machines. It was the breakthrough sale for their new high-tech product. We see that from their strategic vision to produce leading edge high-tech consumer products, they were learning about product and marketing strategy.

They redesigned their tape recorder into a medium-sized machine, a little larger than an attaché case. They also simplified it for a single speed and sold it at a much lower price. They then sold their modified product to schools for English language instruction to Japanese students.

As their product and marketing strategy progressed, they next developed an intellectual property strategy. To obtain a high-quality recorded-signal, they had purchased a license to an invention patented by Dr. Knszo Nagai, which was a high-frequency AC bias system for recording. This demagnetized the tape before it reached the recording head, reducing background and prior recording noise. At that time, the patent was owned by Anritsu Electric, and they bought half-rights in the patent from them in 1949. Eventually, when Americans imported U.S.-made tape recorders into Japan using the AC bias system technology, the U.S. firms had to pay royalties to Sony. This encouraged Sony to be aggressive about intellectual property.

By 1950, the new company had products, tape recorders, magnetic recording tapes, and intellectual property. They were using their strategic vision; but they still did not have a strategic plan. That was to come next.

Vision as “Exploration” or as “Repetition-in-Action”

We pause in this case to discuss a basic idea to the concept of strategic vision – the differences between repetitive action and exploratory action – planning to “go-where-one-has-been-before” and planning to “go-where-no-one-has-gone-before.”

Successful vision is based upon the same conditions that all successful intuition rests – an experiential base. Therefore, the basis of experience provides the grounds for and
foundation of intuition. Repetitive action provides a detailed experiential base for detailed planning. Exploratory action provides an inexperienced base for only sketchy planning.

Repetitive action can be planned in operational detail – since one has gone there before and the route of the action has been well mapped. This is the common kind of planning performed in organizations for the short-term time horizons – quarterly and yearly planning. For example, if one now plans a drive from New York to Portland in the United States, one can purchase detailed road maps and plan precisely the route and times of the travel. However, the first U.S. citizens to explore the route of what then came to be known historically as the “Oregon trail” had no such maps and had to explore and find the route, using the help of American Indians living in the area at the time. Strategy planning is about “exploration” into an uncharted future – Ibuka’s and Morita’s vision to create a new high-tech business.

A plan is a systematic approach into the future. But known and unknown futures require different balances of analysis/intuition planning. An example of this can be seen in construction projects. To the extent that one has previously designed similar buildings and used similar processes, a new construction project will be a customization of previously used designs. A construction project can be carefully analyzed and planned in detail and then scheduled, using the prior experience of the previous designs and projects. In this case, project planning tools (such as PERT) are extremely useful in laying out the scheduled map for the project (such as Ibuka setting the tasks of developing a recording tape, designing the tape recorder, redesigning the tape recorder, etc.).

To the extent a future is repetitive, than analysis is more important in planning than intuition.

To the extent a future is unexplored, unique and non-repetitive, then intuition is more important in planning than is analysis.

In the cases of uniqueness, such as radically innovative projects, a project is an exploration into the unknown, and not a similar repetition of the projects of the past. Such non-repetitive project planning is more like being on an adventure into unknown territory. One may start with a plan but the plan will likely change when something new is discovered. Thus, more important than an initial plan is method, preparation, supplies, and rapid learning in new environments.

In exploration, vision and method are more important to success than initial plans.

Strategic visions are necessary to long-term planning because: nothing in the long-term future ever really happens quite as planned. The longer the term into the future, the more it happens that one learns “real goals,” as the future unfolds. It is a strategic vision which enables the explorer to effectively use a planning process as a real guide in any long-term action:
– The strategic vision allows the planner to exploit unplanned opportunities and to revise goals.
– The strategic vision allows a plan to cope with unanticipated delays and problems.
– A delayed and altered plan can be rescheduled and redirected, because the strategic vision will provide continuing long-term direction.

Sony and Technological Innovation of Transistorized Products

In 1952, Ibuka decided to try exporting their tapes and recording machines to the United States. He visited the United States to study its markets. He had earlier read about the invention of the transistor at Bell Labs, Figure 1.2. He visited Western Electric in New York (then the patent holder on the transistor). Ibuka was impressed by the new technology; he wanted it. In the following year in 1953, Morita went to America to purchase a license to the transistor from Western Electric for $25,000 dollars – a big sum to the new company in those days.

![Figure 1.2: John Bardeen, William Shockley, and Walter Brattain at Bell Labs, 1948. Source: AT&T; Photographer: Jack St. (last part of name not stamped well enough to read), New York, NY (http://en.wikipedia.org/wiki/Transistors).](image)

Ibuka appreciated the inherently great performance advantage that transistors potentially had over vacuum tubes. A transistor could operate in a fraction of the size and at a fraction of operating current. Ibuka and Morita knew that any business which made portable consumer electronics products would have eventually change from vacuum tube circuits to transistorized circuits. This was the beginning of Sony’s technology strategy – transistorized circuitry and miniaturization. Ibuka and Morita were a team – Ibuka the
technical strategist and Morita the business strategist. Now they had a strategic technology which focused upon a core technology competency – transistorized electronics.

But the transistor invention had to be improved to use it in a radio. They had to improve the frequency response of the transistor across a wider range. The problem with the original transistor invented at Bell Labs was its poor frequency response. The original transistors were constructed out of two kinds of semiconductors, arranged like a sandwich, in which the middle slab controls the current flow between the outer two slabs. Since current in semiconductors can either be carried by electrons or by holes (holes are unfilled electronic orbits around atoms), one can design either hole-electron-hole carrier combinations (positive-negative-positive: pnp) or electron-hole-electron combinations (negative-positive-negative: npn).

The original Bell Labs transistor had a pnp sandwich of germanium-indium-germanium. Electrons (the negative carriers) inherently move faster through a semiconductor than holes (the positive carriers). The physical reason for this is that holes wait for an electron to put into its empty orbit from a neighboring atom before that empty orbit appears to have moved from one atom to another. This is inherently a slower process than a relatively freely moving electron passing by one atom after another. So the first thing the Sony researchers had to do to make the new technology of the transistor useful was to speed up the signal processing capability of the transistor by using electrons rather than holes as carriers. The Sony researchers accordingly reversed the order of the transistor sandwich: from a positive-negative-positive structure to a negative-positive-negative structure (indium-germanium-germanium).

The development of the transistor by altering its phenomenal basis from hole conduction to electron conduction is an example of a technology strategy. If Ibuka’s and Morita’s new electronics firm had been staffed with only electronics engineers and without any scientists, they would not have been able to understand the new physics of semiconductors. They would not have had the technical imagination to begin developing the transistor, knowing they could reverse the combination to seek a higher frequency response. Ibuka and Morita had established a firm with both an innovative electronics technical capability and also with an innovative applied physics capability. That’s how Morita was trained. Applied physics underlay Morita’s knowledge strategy.

The next problem the researchers faced was the choice of materials for the bases of the transistor and its impurities. Without adding a small quantity of different atoms “doping,” neither germanium nor indium conducts electricity. The doped atoms “impurities” make these materials semiconducting, as opposed to non-conducting. They decided to discard the indium used in Bell Labs’ original version of the transistor. Indium had too low a melting point for use in a commercial transistor. They tried working with the combination of gallium with antimony as its doping atom. That didn’t work well either.

Next they tried replacing the doping element of antimony in the gallium with phosphorus. At first, the results were not encouraging, but they persisted. Eventually, they found just the right level of phosphorus doping. Then they had an npn transistor of gallium-germanium-gallium structure, with just the right amount of phosphorus atoms
doping the gallium material; Sony researchers had developed a high-frequency germanium transistor, which was commercially adequate for their pocket radio.

The new firm had good research physicists. In fact, they were so good that during the course of the transistor research one of them, Leo Esaki, discovered a new fundamental phenomenon of physics – quantum tunneling (in which electrons can sometimes tunnel through physical barriers that would bar them, if they obeyed classical physical laws and not quantum physics). He had been born in Osaka, Japan, in 1925. He graduated from the University of Tokyo with a B.S. in physics in 1947 and a Ph.D. in 1959. After working at Sony, he moved to IBM Research Center in Yorktown Heights, New York, USA. There he designed new semiconductor quantum structures. In 1973, Esaki won the Nobel Prize in physics.

The radio – a consumer product that Ibuka would not produce a few years back since at that time the new firm had no technological competitive advantage – would now become a second flagship product line, the pocket radio. In 1955, they produced their first transistorized radio in a small size, as a pocket transistor radio. However, since the radio turned out to be just a little larger than a standard men’s shirt pocket, they did sew a slightly larger pocket on the front of their salesmen shirts, when they went out to market the new product.

The development of the transistor for radio application is an example of the Japanese strategic acquisition of a foreign-invented applied knowledge and the subsequent improvement of that knowledge for commercialization by their knowledge-asset capability of applied research. This pattern of acquisition of foreign-originated knowledge and subsequent improvement of applied knowledge for commercialization was the common pattern in both early and later industrial development of Japan that led to its emergence first as a world-military power and second as a world-economic power.

With their new knowledge strategy of the transistor and the new product of the pocket radio, Ibuka and Morita decided to change the name of the new firm. They now had global aspirations and they wanted a globally recognizable name. They changed from the Tokyo Telecommunications Engineering Company to Sony.

When Sony introduced its transistorized pocket radio into America, they discovered that Texas Instruments (TI) had independently innovated a transistorized pocket radio. But TI had no strong commitment to the consumer market, and they soon dropped the product. Sony was committed to the consumer electronics market and began their climb to a world leader in consumer electronics. This is the second element of a strategic leadership – commitment. TI’s commercial successes remained in the industrial and military markets, where its real heart was – its strategic perception and commitment.

Sony focused upon the consumer electronics market and became an innovative, high-tech, top-quality consumer electronics firm and a giant, global company. Sony also introduced the first transistorized small black and white television set. In color television, Sony innovated a single-gun, three-color TV tube. It innovated the Walkman series of miniature audio players. It innovated the first home video cassette recorder (VCR), after the industrial version had been invented in the United States. Ibuka and Morita had
imbued their new corporation with a strategic technology attitude which searched for and focused new technologies on advanced consumer electronics products – with a corporate technology competence in transistorized and miniaturized products.

We see in this case on the founders’ strategic vision. They had no operational plan, only a direction, innovative consumer electronics. The experiential base of their vision occurred in the postwar situation with its overwhelming need to rebuild Japan upon an advanced high-tech company basis. Their other experiential base was an understanding of progress in the knowledge area of physics and the applied knowledge area of electronics. Upon these experiential bases, their vision was to build a new company upon an area of advancing applied knowledge. To do this, they committed to exploration for a new business. They found, acquired, developed, and applied new knowledge on electronics to build innovate consumer electronic products. They acquired new applied knowledge by licensing the new technology of the transistor. They then had a knowledge strategy to continue to develop the new technology through research. Their product strategy was then to apply the new technology in a stream of new miniaturized products, such as pocket radios, Walkman, VCRs, and so on. Their policies were to create new markets through innovation.

Intuition and Vision

Henry Mintzberg emphasized that the formulation of “strategic vision” is an “intuitive” activity (Mintzberg, 1990). About “intuition,” the Swiss psychologist, Carl Jung, had emphasized that intuition is one of the four basic cognitive functions – operations of mental processes. In 1913 at a Munich Psychological Congress, Jung described a set of cognitive processes (and in 1921 published this in his book, Psychological Types). Jung described the conscious operations of the mind as occurring in different processes of thinking (T), of feeling (F), of intuition (I), and of sensation (S). A way to understand Jung’s cognition types is to place them in a taxonomy, constructed by two dichotomies of mental–body and analysis–synthesis.

<table>
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<tr>
<th>MENTAL</th>
<th>ANALYSIS</th>
<th>SYNTHESES</th>
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<td>THINKING</td>
<td>THINKING</td>
<td>INTUITION</td>
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<td>SENSATION</td>
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Thinking is a cognitive process which is primarily mental in focus and analytical in approach.

Intuition is a cognitive process which is primarily mental in focus and synthetic in approach.

Sensation is a cognitive process which is primarily bodily in focus and analytical in approach.
Feeling is a cognitive process which is primarily bodily in focus and synthetic in approach.

A strategic vision is a synthetic cognition of the idea about how a future can or might occur – an intuition of the future.

Carl Jung (1875–1961) was born in Thurgau, Switzerland. He attended the University of Basel, graduating in medicine in 1900. He practiced psychiatric medicine and in 1906 sent copy of his book on Studies in Word Association to Sigmund Freud, after which they became friends for the next six years.

In 1941, Katharine Cook Briggs and Isabel Briggs Myers introduced sets of questions to help identify which of the cognitive functions (T, I, S, F) are preferred in frequency-of-use by a given individual’s cognition – called the Myers-Briggs Type Indicator.

Analysis and synthesis are complementary operations in human thought. Analysis takes a complex concept into parts, into simpler component ideas. Synthesis assembles/generalizes different-but-related ideas into a unifying idea – in which the assembled sub-ideas now become components of the unifying idea. Analysis divides, and synthesis unites.

In the plans by large organizations, often too much emphasis on analysis over synthesis can occur, since it is easier to organize group processes for analysis than for synthesis. When this happens, plans can be deficient in vision. One symptom of a failure in strategic vision can be seen, when a strategic planning process results in a very voluminous planning report, which is then neither read nor used. Another symptom is when a large corporation creates an expensive corporate research laboratory that remains isolated from the firm’s business units and is always being criticized by management as unrelated to the firm’s businesses. Another symptom of a lack of strategic vision in a diversified firm is when a strategic business unit’s product development incorrectly implements research results from corporate research, because the business divisions are looking sideways and backwards towards competitor’s past technology and not forward toward technology which can leapfrog a competitor’s capabilities. Other symptoms are when a firm’s productivity lags and continues to lag behind competition, when new products are not getting out in a timely manner, and when a firm is falling behind competitors in the race of competence. Failure in strategic vision can result in failure to meet future challenges in a firm.

CASE STUDY

Musashi: A Samurai’s Strategic Vision
In the Western management literature, while there are many books on “creativity,” but there is little consensus as to how synthesis occurs or how to facilitate synthesis. For example, even in Mintzberg’s emphasis on the importance of intuition in strategy, he himself offered only a vague description of intuition: “Intuition is a deeply held sense that something is going to work. It is grounded in the context in which it is relevant and based on experience of that context. I cannot be intuitive about something I know nothing about” (Campbell, 1990, p. 109). And this negative judgment is probably the most certain thing one can say about intuition, from the Western literature on intuition: One cannot be successfully intuitive if lacking a proper experiential base.

Yet this is the nub of the problem of “action.” If one must be intuitive to perceive correct strategy for an action, how can one gain the experience which only previous action can provide? But prior to a given action? Minyuomoto Musashi had a way to do this as Way (Dao) of the Warrior, in his A Book of Five Rings. This book had been long popular with Japanese management and became popular with American management readers in the 1980s (Musashi, 1982).

Musashi was a literate and highly cultivated warrior, but he was a warrior (Figure 1.3). Before he turned to writing, Musashi claimed he fought 60 sword duels without a single defeat. Paraphrasing Musashi, we can list nine of his admonishments to warriors:
This is the Way for warriors who want to learn my (Musashi’s) strategy:

1. Do not think dishonestly.
2. The Way is in training.
3. Become acquainted with every art.
4. Know the Ways of all professions.
5. Distinguish between gain and loss in worldly matters.
6. Develop intuitive judgement and understanding for everything.
7. Perceive things which cannot be seen.
8. Pay attention even to trifles.
9. Do nothing which is of no use.

In what way do his principles contribute to a “philosophy of action?”
First, if one thinks dishonestly, one cannot be honest with oneself; and
without self-honesty one cannot think clearly.

Second the path to the attitude (“Way,” “Dao”) must be in training if the attitude is one of action; for without training, one cannot act with skill.

Third and Fourth, action always occurs within a complicated, holistic context – a system, in which many skills or arts and professions may be required to carry out an action. (This is why, for example, in innovation teams are necessary including personnel with technical, marketing, production, and financial skills.)

Fifth, action always requires some resources, tools, or supplies and results in outcomes that either deplete or replenish and/or improve previous resources. Thus all action must be strategically judged in gain or loss of goals.

Six and Seven refer to the importance of the intuitive facility in the heat of action. Actions are complex, contradictory situations of flux and motion – in which totalities must be instantly synthesized comprehended. Hence a warrior’s (or a manager’s) intuitive ability is as important as his/her analytical ability. Musashi’s precepts here argue that in the heat of battle, intuition and perception are critical cognitive functions, and hence must be trained and exercised before battle.

In the Eighth precept, Musashi emphasized that in action, a detail can sidetrack or defeat a whole project. (For example bugs in software programs have often destroyed a whole company’s product reputation. As another example, once a poorly mixed antifreeze solution caused thousands of new automobiles to be recalled, harming the company’s reputation for quality.)

Finally his Ninth precept emphasizes that in action, economy is important, for action consumes resources. Action must be focused, disciplined and economically executed.

In summary, we see from this example of a strategic vision for a Samurai warrior (Figure 1.3) that the precepts are sensible ways to prepare for and behave in battle – they are efficient and effective guides to action.

Dimensions of Vision

One can summarize the “way” of action in strategic thinking with three ideas in the dimension of vision: (1) perception, (2) preparation, and (3) commitment. Perception arises from experience. Preparation creates skills and abilities. Commitment assembles resources. One can picture these component ideas as a cognitive space for “vision” in Figure 1.4.
In the *perception* of future opportunities, one’s *experience* is critical to what one can foresee – what one can imagine. In the *preparation* for attaining a future opportunity, one’s *skills* are critical – the capability of attaining a future. In the *commitment* to attain a future opportunity, one’s *resources* are critical – the means of attaining a future.

Vision is based upon intuition, and hence formed upon an experiential base. Perception is about what one sees in the world. Strategic perception is what one sees in the future of the world. In the case of Morita and Ibuka, the immediate and stark perception in Japan then was the loss of the war, the terrible devastation, and the desperate need for survival into the future. The perception of the future which Morita and Ibuka shared was the opportunities in consumer electronics. Their commitment was to begin a high-tech consumer electronics company. The preparation to do so required the search for a first high-tech product, which they found in the wire recorder. Their policy was to innovate, and their product would not be the wire recorder but an innovative tape recorder.

In a visionary perception of the world, to what does one commit? A strategic vision is not only a perception of the future but also a commitment to a direction of action in the future. In the Sony case, Morita’s and Ibuka’s strategic perception centered upon the applied knowledge area of electronics (and later transistorized electronics) but their strategic commitment was to consumer electronics. Therefore, they had to match perception to commitment – which they did first with tape recorders and then with transistorized consumer electronic products.

Once a strategic perception and commitment is made in a strategic vision, then one needs to prepare for future action in the direction of the commitment. Preparation usually requires acquiring knowledge and skills and resources for future action. Morita and Ibuka
prepared for the commitment to consumer electronics by licensing technologies and doing applied research to develop the applied knowledge into products. They built the resources necessary to pursue this first by manufacturing radio parts’ kits and then by manufacturing and selling the tape recorder.

The case of Sony shows how the company was constructed and guided by a strategic vision with strategic components of: (1) the perceptions and (2) commitment of their founders on the importance of advanced technology applied to consumer goods, and (3) their preparation in developing corporate competency in innovation. Good strategic “vision” is thus a concrete ideational process in action – and not some vague, nebulous thing – that “strategy thing.” The components of strategic vision constitute very concrete elements for “intuition” in strategy as formulating corporate goals.

With this idea of strategic vision as involving strategic perception, commitment, preparation, and policies, we can better understand the roles of analysis and intuition in strategy: In strategy, intuition arises from an experiential basis as a strategic perception and commitment, – which together creates a visionary goal. Analysis can then detail the perception, commitment, preparation, and policies to reach a strategic goal.

**Strategic Vision and Competitiveness**

The environment for competition continues to change as technology alters and as the world industrializes. Many students of modern economic change have noted the rapid pace of technological change and economic change.

For example, Kim Clark and T. Fujimoto emphasized some of the changing features of competition, among which are:

- A continuing and growing worldwide dissemination of scientific and technical knowledge.
- An increasing number of global competitors competing in different national markets.
- At the same time, the fragmentation of mass markets into market niches and rapidly changing customer preferences as a wider variety of products are offered.
- A continuing revolution in computer and communications technologies that provide corporate capabilities of more rapid responsiveness and greater flexibility.
- The proliferation of the number of technologies that may be relevant to any given product, including mechanical, electronic and software technologies and choices of materials (Clark & Fujimoto, 1988).

In the light of the above changes, Clark and Fujimoto proposed five precepts for corporate strategy:
– Managers should understand the technological core of a business and envision that as a strategic advantage.
– Managers should take a broad, world-wide view of technical competence, seeking out the best technology wherever it can be found.
– Managers should focus upon time as the critical factor in using innovation for competitive advantage.
– Managers should discipline business function around the function of production (in production the technical knowledge of the company is focused into a value-adding activity to the customer).
– Managers should integrate all business functions through the information system of the firm.

We see that Clark’s and Fujimoto’s precepts for a strategic vision require deepening manager’s concerns for technology, widening their horizons on technical change, focusing their attention on timeliness, and integrating technical activities around the science of manufacturing.

As another example, T. G. Eshenbach and G. A. Geistauts offered precepts for engineers. They argued that the perspective of engineers should be broadened to view their companies as kinds of socio-technical systems:

– Think of the firm as a total system.
– Focus on the interaction between the firm and its environment.
– Concentrate on the firm’s most fundamental questions and issues, including the basic mission, definition of the business and goals.
– Be explicit about value judgments in technology assessments and R&D cost/benefit analyses.
– Emphasize anticipatory adaptive control for the firm to optimize long-run performance in the face of inherent uncertainty.
– Articulate a philosophy of management that represents a permanent commitment to integrative, systematic long-range planning.
– Develop an ongoing planning process, wherein strategy is continuously reexamined. (Eshenbach & Geistauts, 1987, p. 63).

We note in this strategic philosophy the emphasis upon perceiving the business in a systems view, envisioning the firm as an economic value-adding transformation. In addition they emphasized that engineers should focus upon the interaction between technology and business goals. They also advocated an emphasis on anticipatory attitudes,
formalized in a planning process. Technology planning processes in firms should be
designed to foster a business strategic attitude in their research scientists and engineers to
enable them to collaborate strategically with business managers.

As a third example of strategic precepts for managing innovative firms, Lowell Steele
(Steel, 1989, p. 345) offered what he thought a “technologically effective” enterprise
should be capable of:

– taking a systems view of technology,
– being aware of the dynamics of maturation of technologies and industries,
– being explicit about how the enterprise uses technology for a competitive
  advantage,
– articulating a clear sense of what are the businesses of a firm,
– knowing who are its competitors,
– being aware of the changing nature of competition,
– being relentless in its pursuit of excellence.

For all the above examples of commentators on corporate strategic vision, their
precepts provide the elements for their philosophies of action, their “Way,” “Tao.” Clark’s
and Fujimoto’s “Way” drew from the perspective of the manager and emphasized the need
for a manager to be aware of technology and commitment to globalization, time, and
production. Eshenbach and Geistauts’ “Way” drew from the perspective of the engineer
and emphasized the need for an engineer to be aware of the business system and
commitment to adaptive control and long-range planning. Steele’s “Way” drew from the
interface of research and business and emphasized need for a balance between business
and engineering views on an enterprise, with commitments to competitiveness and
excellence.

Which “Way” is best? They are all best, depending upon one’s experience of the
world, position, and commitment to action. Each “Way” sees the world from the particular
experiential base of action. For technology strategy, the management personnel require a
“Way” to be more aware of and attendant to technology as a competitive factor. Technical
personnel require a “Way” to be more aware of and attendant to the business implications
of technology as a part of the enterprise. Formulating strategic attitudes in the corporation
requires bringing each group into a “Way,” in order for all groups to cooperate in the total
business enterprise.

Strategic Precepts

Management’s strategic precepts about the nature of the world and about the values for
action chose the focus of corporate perception, commitment, preparation, and policy. A “precept” is a command or principle intended as a general rule of action. In the case of Musashi’s expressions of their principles of action, we see they are stated as precepts. Strategic visions are expressed as precepts. We summarize some of the precepts which have been suggested about strategy:

A. On Intuition
   – Do not think dishonestly.
   – Face reality as it is – not as it was or as you wish it were.
   – Perceive things which cannot be seen.
   – Pay attention even to trifles.
   – Deal with uncertainty and ambiguity.
   – Develop intuitive judgment and understanding for everything.
   – The Way is in training.

B. On Action
   – Time is the essence.
   – Develop an ongoing planning process, wherein strategy is continuously re-examined.
   – Emphasize anticipatory and adaptive control in the face of inherent uncertainty.
   – Control your own destiny, or someone else will.

C. On Business
   – Distinguish between gain and loss in worldly matters.
   – Think of the firm as a total system.
   – Focus on the interaction between the firm and its environment.
   – Articulate a clear sense of what businesses a firm is in.
   – Be relentless in pursuit of excellence.
   – Discipline technical functions around the science of production.
   – Integrate operations around the information system.

D. On Competition
   – Know who are your competitors.
– Be aware of the changing nature of competition.
– If you don’t have a competitive advantage, don’t compete.

E. On Technology
– Become acquainted with every art.
– Know the Ways of all professions.
– Take a systems view of technology.
– Take a global view on the distribution of technical competence.
– Be aware of the dynamics of maturation of technologies and industries.
– Be explicit about how one uses technology for a competitive advantage.
– Know the technological core of a company and link it to strategic intent.

Summary
Strategic precepts about action instruct one about how to act in cases of exploratory action, as opposed to repetitive action. Strategic vision of a company needs to be expressed in strategic precepts that focus upon the change needed for the company’s future prosperity and survival. Precepts which merely reinforce current practices provide no strategic guidance beyond the precept – continue to do as you are doing. Strategic vision should be expressed as a brief set of strategic precepts as to what kind of and how change should be implemented.

Theoretical Principles

1. All actions are directed toward the future; and intelligent action is most likely to succeed.
2. Correct vision is necessary to survive discontinuities.
3. Technology strategy is a basic component of competitive strategy.
4. Strategy is cognitively more synthetic (intuition); while planning is more analytic (thinking).
5. Intuition is primarily based upon experience.
6. The “way” of experience is perception, preparation, and commitment.
7. Strategic wisdom is expressed in the form of “precepts”.
Strategic Venture

Introduction

The launching of a new business is an adventure in vision — a new venture. But to gain the new venture vision, actions must be taken over time, in sequence — a series of tactics. This is shown Figure 2.1, as the long-term time dimension of venture action occurs over time as a series of sequential tactics.

A long-term outcome may need to be attained as a sequence of actions, each action being a tactic of the actor (decision-maker). Strategy threads the sequence of tactics together for present actions in the short-term sequence to attain a future in the long term.

A new business venture nicely illustrates the need for sequential strategy — strategy occurring in steps of time, strategy and tactics. To illustrate this, we review the case of the founding of Cisco Systems at the end of the twentieth century, based upon the new science and technology of computer communications — the Internet. The case is not recent; but then all cases (even recent cases) eventually become business history. The importance of using a case in business history is to illustrate theory. In the cases of the Cisco and Internet, one sees the historic importance of business opportunities — when new technologies create new industries. This has been and will continue to be the ‘impact of technological innovation on business’ — new business opportunities — new venture strategy.
Cisco Systems

The decision makers in new ventures are the entrepreneurs who start the company. And their first two strategic decisions are (1) the kinds of products the new business will make and (2) who are the customers for the product. The steps of implementing such strategy are the tactics necessary to achieve success. The tactics include (1) acquiring start-up capital, (2) development of a new product/service, (3) building production capabilities, and (4) initial sales and growth. We will examine the origin of Cisco Systems to illustrate the theory of strategic business ventures.

Cisco Systems began in the USA as one of the companies which built its business strategy on the new technology of the Internet. Cisco had been founded by Sandy Lerner and Leonard Bosack. In 1977, they met and married while both were at Stanford University. She was a graduate student in statistics and computer science, and he was teaching in Stanford’s computer science department (with a master’s degree in computer science from Stanford).

Universities and industrial firms have both been important in the innovation of the information technologies. The U.S. Department of Defense funded the basic research in networking computers, through the Advanced Research Projects Network (ARPAnet); and ARPAnet had a major impact upon computer science in universities. Stanford was one of the universities on the cutting edge of innovation in computer networking in the early 1980s. Stanford had about 5000 different computers on its campus, and the need for computers to talk to each other was strong. Then computers could only talk to each other by ‘going outside’ through ARPAnet. At the end of 1979, the adjacent Xerox corporate research laboratory, Palo Alto Research Center (PARC) donated to Stanford a copy of its then innovative ‘Altos’ computer network, along with its Ethernet connectivity.

Using PARC’s ethernet local-area-network information technology, Stanford’s medical school and computer science department each installed separate networks. Networking engineers were working to connect the different discrete local-area-networks, springing up at Stanford, by constructing ‘bridges’ to extend networks. But the idea of a ‘router’ to ‘route’ messages from ‘network’ to ‘network’ was an effective way for moving messages around and through networks. An engineer, William Yeager, was working in Stanford’s medical school and designing routers for the school’s network. In 1980, he developed a prototype of a router, using a DEC minicomputer which connected the network of the medical school to the network of the computer science department. From 1980 to 1982, many
efforts continued in Stanford to construct inter-communicating networks across the campus Ethernet — using workstations running Unix operating systems. This project was called Stanford University Network (SUN). But the project ran only Unix systems and was not effective in connecting everything.

John Dix interviewed William Yeager, and Yeager recalled the beginning of his ‘router’ project: “This project started for me in January of 1980, when essentially the boss said, ‘You’re our networking guy. Go do something to connect the computer science department, medical center and department of electrical engineering … We had mainframes, of course, DEC10 Systems, a number of Xerox PARC Lisp machines, Altos file servers and printers, and over the next year or so added DEC VAXs, Texas Instruments’ Explorers and Symbolic systems. All of these things had to be hooked together, because we were spread across buildings on campus, and people were tired of carrying tapes around. I thought about this for a bit, and I said, well really what you need is an operating system. So while the cables were being pulled and tested, I developed a network operating system [NOS] and routing code [to run on a] DEC PDP11/05 … It’s important to remember the PDP11/05 only had 56KB of user memory, and was diskless. The struggle was always a balance between how many input buffers you could have. You really had to squeeze things, because there was no disk and if you ran out of memory for input buffers you were dead in the water. So you had all of these constraints, which actually had a lot to do with how good it ended up being, because I had to do a lot of work to both assure the memory allocation algorithms would never run out of memory, as well as get things scheduled right. I spent an entire summer making sure the NOS scheduling and packet-switching algorithms were optimal. All in all we had the basic systems put together and working in about three months, and at six months the first router was in place in Pine Hall in a telephone closet. Pine Hall was midway between the medical center and the department of computer science. It was about a 2,000 feet cable run on either side of the router.” (Dix, 2006)

Yeager had met the Bosacks in Stanford: “In the spring of 1985 Len Bosack and another guy knocked on my office door and asked if they could have access to sources for the router code. I said, what do you want to do? They said, we want to improve it, add more features. I said, well that would be great, because I have other research tasks to do, and I gave them the password and away they went. I had no idea Cisco had been founded in’84. I’d never heard of it. Right. So we had weekly meetings and they were indeed working on the sources … So I guess sometime in’86 I found out about Cisco. We all found out about Cisco and what Len was up to. And yeah, they were developing that code on Stanford time for Cisco. But this was not exactly bad, because other things had happened like that at Stanford before. But Stanford was deciding it was time to put its foot down. ‘Guys,
you develop something on Stanford’s campus, we want to profit from it’, right?… This was just kind of the general tenor. So I was called into Stanford Legal and the lawyer told me to bring my sources on paper. Since [Len’s partner] was in the Double E department he had the Double E sources. And I sat down, and the lawyer said, ‘Will you do a comparison’. And I said, well let’s start with the operating system. That’s sort of the heart and soul of this. And it was identical except for changing variables names. I said, can you see this? She said, ‘I’m a lawyer and I can see this is identical’. … Well, then Stanford really put its foot down and Len [and his partners, including Cisco co-founder Sandy Lerner] left the university to focus on Cisco”. (Dix, 2006)

Thus the invention of the router concept had happened at Stanford but Cisco innovated the router product. Sandy Lerner Bosack had been director of computer facilities in Stanford’s business school; and Leonard Bosack was the director of Stanford’s computer science department. In connecting to the computer science department, the Bosacks got to know Yeager. Together, with other colleagues, they began their own ‘bootleg’ experiments in connecting networks, without sanction from higher university authorities, using the router concept. They ran coaxial cable from one building to another across the campus; and they installed routers and servers for computers to communicate with each other and also externally with the ARPAnet. Yeager added code to the Stanford routers to coordinate the network and others added more code to the routers to provide additional network service. David Bunnell wrote: “The project was a success. The router enabled the connection of normally incompatible individual networks … Soon enough, the bootleg system became the official Stanford University Network.” (Bunnell, 2000)

Thus to connect local area networks of computers to the internet of computing, the Bosacks and Yeager had developed a device (software upon a minicomputer) which could connect networks to networks — a ‘router’. Before we continue with the case of Cisco Systems, let us briefly review the innovation of the Internet.

**Origin of the Internet**

As shown in Figure 2.2, the Internet is a technology for computer-to-computer networking and was implemented through the connection of products from several kinds of businesses:
Figure 2.2: Implementation of Internet Technology as Products/Services.

(1) the sale of personal computers (e.g. Dell), containing a microprocessor (e.g. Intel CPU) and an operating system (e.g. Microsoft Windows) and later smart phones and tablets (e.g. Apple, Samsung);

(2) an Internet service provider (e.g. Comcast, Verizon, SKT, etc.);

(3) a server and router (e.g. Cisco, Dell, IBM, etc.);

(4) a local-area network or wide-area network in a business (e.g. Cisco, Erickson, etc.);

(5) an Internet back-bone communications system (e.g. AT&T, Verizon, Sprint, etc.);

(6) internet search services (e.g. Google, Yahoo, Alibaba, etc.);

(7) retail services (e.g. Amazon, eBay, etc.);

(8) social networks (e.g. Facebook, YouTube, Twitter, etc.).

As a technology system, the Internet developed over a period from the 1970s through the 1990s. This is a remarkable period, as the Internet created a renaissance in commerce, which some have called a ‘second industrial revolution’.

The invention of this Internet technology historically traced back to an earlier computer network called ARPAnet. ARPAnet’s origin, in turn, can be traced to Dr. J. C. R. Licklider. Licklider served in 1962 in the government...
agency, Advanced Research Projects Agency, funding military research projects for the U.S. Department of Defense. He headed research in ARPA on how to use computers for military command and control (Hauben, 1993). Licklider began funding projects on networking computers; and he wrote a series of memos on his thoughts about networking computers, which were to influence the computer science research community.

About the same time, a key idea in computer networking derived from research of Leonard Kleinrock. Kleinrock had the idea of sending information in packaged groups, packet switching. He published his first paper on packet switching in 1962 and a second in 1964. Packet switching enabled computers to send messages swiftly in bursts of information — without tying up communication lines very long and thus vastly increasing communication capacities of network lines.

In 1965, Lawrence Roberts at the Massachusetts Institute of Technology (MIT) connected a computer at MIT to one in California through a telephone line. In 1966, Roberts submitted a proposal to ARPA to develop a computer network for a military need (defense) for protection of U.S. Military communications under a nuclear attack. This was called the Advanced Research Projects Administration Network, or ARPAnet (and was to develop, eventually, into the Internet).

Robert W. Taylor had replaced Licklider as program officer of ARPA’s Information Processing Techniques Office. Taylor had read Licklider’s memos and was also thinking about the importance of computer networks. He funded Robert’s ARPAnet project. Earlier, Taylor had been a systems engineer at the Martin Company and next a research manager at the National Aeronautics and Space Administration (NASA), funding advances in computer knowledge. Then he went to ARPA and became interested in the possibility of communications between computers. In his office, there were three terminals time-sharing computers in three different (research) programs that ARPA was supporting. He watched communities of people build up around each time-sharing computers. Taylor was struck by the fact that each time-sharing computer system had its own commands. He decided that there should be one set of commands to communicate. Taylor’s contribution to the concept of the Internet was the need for standards in computer-to-computer communications. And in 1965 in Washington D.C. while program manager in ARPA, Taylor proposed to the head of ARPA, Charlie Herzfeld, the idea for a communications computer network, using standard protocols.

Next in 1967, a meeting was held by ARPA to discuss and reach a consensus on the technical specifications for a standard protocol for sending messages between computers. These were called the ‘Interface Messaging Processor’ (IMP). Using these to design messaging software, the first node on the new
ARPAnet was installed on a computer on the campus of the University of California at Los Angeles. The second node was installed at the Stanford Research Institute, and the ARPAnet began to grow from one computer research setting to another. By 1969, ARPAnet was up and running. Taylor left ARPA to work at Xerox’s Palo Alto Research Center.

As the ARPAnet grew, there was the need for control of the system. It was decided to control it through another protocol, called Network Control Protocol (NCP); and this was begun in December 1970 by a private committee of researchers called the Network Working Group. The ARPAnet grew as an overall interconnected multiple sets of independent smaller networks. In 1972, a new program officer at ARPA, Robert Kahn, proposed an advance of the protocols for communication as an ‘open architecture’ accessible to anyone. These were formulated as the Transmission Control Protocol/Internet Protocol (TCP/IP). They became the open standards, upon which later the world’s Internet would be based.

While the ARPAnet was being expanded in the 1970s, other computer networks were being constructed by other government agencies and universities. In 1981, the National Science Foundation (NSF) established a supercomputer centers program, which needed to have researchers throughout the U.S. able to connect to the five NSF-funded supercomputer centers (in order for researcher’s computers to use these supercomputers). NSF and ARPA began sharing communication between the networks, and the possibility of a truly national Internet began to be envisioned. In 1988, a committee of the National Research Council, was formed to explore the idea of an open, commercialized Internet. They sponsored a series of public conferences at Harvard’s Kennedy School of Government on the ‘Commercialization and privatization of the internet’. In April 1995, NSF stopped supporting its own NSFnet ‘backbone’ of leased communication lines; and the Internet was privatized. The Internet grew to connect over 50,000 networks all over the world. On October 24, 1995, the Federal Network Council defined the Internet as: (1) logically linked together by a globally unique address space based on the Internet Protocol (IP), and able to support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) standards.

‘Big Picture’ in Business Strategy — The Challenge of Technology in the Modern World

The cases we are reviewing — of the origin of the Internet technology and the business opportunities the Bosacks’ found in starting a router company — are exemplars of a general and important pattern in modern civilization. Technology has been one of the principle drivers of economic development and business strategy for the last two hundred years in the modern industrialized world. And the modern history of technological change and its
impacts on society is a history both dramatic and ruthless. The drama is the total transformation of societies in the world from feudal and tribal to industrial. The ruthlessness in technological change has been its force which no society could resist and which has been called the ‘technology imperative’. For the last five hundred years, technological change has been irresistible in military conflict, in business competition, and in societal transformations. The ‘technology imperative’ is that superior technology of a competitor cannot be ignored by other competitors, except at their peril.

Historically, there were two technological innovations that marked the beginning of the modern era: the gun and the printing press. The gun ended the ancient dominance of the feudal warrior, and the printing press secularized knowledge. This combination of the rise of the mercantile class and the secularization of knowledge are hallmarks of modern societies. From the fourteenth century through the twentieth century, the political histories of all the world are stories of the struggles between nations and peoples — wherein the determining factors are competitive superiorities made possible by new technologies. But after the sixteenth century, a new societal force appeared in the world — the creation of ‘science’. Scientific knowledge then drove further technological innovation. Although the innovations of the gun and printing press were not made on a science basis, afterwards all the other major new technologies in the world have been made upon a science basis. Continuing technological progress in the world has been made possible by the origin and growth of science. Figure 2.3 summarizes the major historical milestones of changes in science, technology and economy.
Science began in the European civilization in the century of the 1600s when Newton combined new ideas of physics (due to Copernicus, Brahe, Kepler, and Galileo) with new ideas in mathematics (due to Descartes and others) and invented the mathematical theory of space, time and forces (the Newtonian paradigm of physics). In the next century of the 1700s, these new ideas were further developed into the new scientific disciplines of physics, chemistry, and mathematics. The centuries of the 1800s and 1900s found dramatic advances in these disciplines, along with the founding of the scientific discipline of biology. By the end of the 1900s, the physics of the small parts of matter and the largest spaces of matter was established, the chemistry of inanimate and animate matter was established, the molecular biology of the inheritance of life was established, and the computational science of mind and communication was being extended. And all this began and occurred in an international context from the very beginnings of science, so that one can see the four hundred years of the origin and development of science as a period of the internationalization of science.

In contrast to this international context of science, the economic and technological developments occurred within purely national contexts. Each nation industrialized on a national basis and in competition with other nations. From about 1765 to about 1865, the principal industrialization occurred in the European nations of England, France, and Germany. From
1865 to about 1965 (the second hundred years) other European nations began industrializing; but the principal industrialization shifted to North America.

By the middle of the twentieth century in the 1940s, the U.S. industrial capacity was alone so large and innovative as to be a determining factor in the conclusion of the Second World War of that century. For the second half of the twentieth century, U.S. industrial prowess continued, and European nations rebuilt their industrial capabilities that had been destroyed by that war. From 1950 to the end of the twentieth century, several Asian countries began emerging as globally-competitive industrial nations: Japan, Taiwan, South Korea, Singapore.

It was only after the death of Mao Zedong that economic reforms were begun in China, by Deng Xiaoping. Then China began to rapidly industrialize, quickly becoming a major manufacturing nation in the world in the twenty-first century. Also India, throwing off decades of socialism began to further industrialize, particularly in the information technologies. All other Asian countries were also moving toward globally-competitive capability: Vietnam, Thailand, Philippines, Malaysia, Indonesia. (One can note that historically Asian industrialization actually begun in Japan in 1865 — but was diverted principally to a military-dominated society. After the second world war, a re-industrialization of Japan occurred.)

In summary, there was a pattern of three hundred years of world industrialization in which different regions of the world began to develop globally-competitive industrial industries:

(1) first hundred years (1765–1865) — Europe,
(2) second hundred years (1865–1965) — North America,
(3) third hundred years (1965–2065) — Asia.

Along with industry, the patterns of developing technological progress also occurred upon a national basis, with technology viewed as a national asset. However, the pace with which modern technology became internationally transferred increased in the second half of the 1900s, so that when the twenty-first century began, a new pattern of change in the modern world emerged as the beginning of the globalization of technological innovation.

Thus by the time the twentieth century ended, there was in the world a widespread appreciation that science & technology was critical to international economic competitiveness. World markets and industrial production had become global affairs. In 1980, global trade had already accounted for about 17% of total economic activity, increasing by 2000 to 26%, worldwide...
(Kahn, 2001). The economic mechanism of the global trade were multinational firms: “Global trade increased rapidly throughout the 1990s, as multinational companies shipped products through a global supply chain that minimized costs and maximized efficiency with little regard for national borders (Kahn, 2001, p. A4). And the Internet was one technology which was contributing significantly to this globalization of the world.

Case Continued Cisco Systems

Back to the case of Cisco Systems. With the experience of connecting networks together on the Stanford campus, Sandy and Leonard Bosack understood the importance of ‘routers’ for connecting computer networks together. Next they went to Stanford’s administration with a proposal to build routers for sale under the school’s structure. Bunnell wrote: “Although (Stanford’s) Office of Technology Licensing was cognizant of the opportunity the couple had offered, they were unable to take any action to support the development of Len and Sandy’s router business in any time less than a year or two … The decision makers did not give Len and Sandy permission to continue their business on campus or to use school resources for making routers for colleagues at Xerox Labs and Hewlett Packard. Livid, the couple decided to gather up their technology, quit their jobs, and leave Stanford to start their own business.” (Bunnell, 2000)

In 1984, they had started their own router business (financed with their credit cards and mortgage on their home) — naming the new company ‘Cisco Systems’. Sandy Bosack took a day-time job at Schumberger to support them, while the new business was started. For a year and a half, they worked out of their home, along with colleagues Kirk Lougheed, Greg Satz, and Richard Troiano. They wrote code, assembled computer hardware and tested new prototypes of routers. They sold routers by word-of-mouth and e-mail to universities and big corporations, which needed to hook together their networks. Nocera wrote: “The building of these early systems was a collaborative effort, with the customers often working side by side with the Cisco engineers. (Sandy) Lerner was so intense about keeping customers happy that she gave herself the task of setting up Cisco’s customer-support group, labeling it the ‘customer advocacy’ group.” (Nocera, 1995)

They priced the routers between $7,000 to $50,000 dollars. In the year fiscal year ending July 1987, they had a profit of $83,000 dollars on $1.5 million sales. Cisco was then moved to a business building in Menlo Park, California (the city in which Stanford University is located). The timing of Cisco was opportune. By 1985, university and corporate demands for computer networking was exploding, and companies would pay up front for the unique product. Cisco was therefore able to grow on cash flow, without expensive debts for production expansion.
Innovation and Finance in Strategy — The Dot.com Bubble

Part of the ‘big picture’ in strategy (the environment of strategic decision-making) is not only technology innovation but also financial innovation. In addition to technology, a financial system is also a part of the environment in which business strategy is formulated. Technological innovation and financial developments interact in the economies of industrialized societies. For example, the innovation of a new technology, the Internet, had provided strategic opportunities for new businesses, such as Cisco and also impacted investments in the U.S. economy. It had also provided investment opportunities for a whole new range of businesses, but also altered existing industries. It was another strategic revolution in industrial/commercial technologies. For example in the last decade of that century a new stock market boom exploded from 1995, the so-called ‘dot.com financial bubble’.

Technological innovation of the Internet and its impact on commerce made that decade a very interesting and challenging time — even scandalous — as summarized by Joseph Nocera and Tim Carvell: “The Internet decade has seen the unscrupulous rewarded, the dimwitted suckered, the ill-qualified enriched at a pace greater than at any other time in history. The Internet has been a gift to charlatans, hypemasters, and merchants of vapour … and despite all that, it still changes everything.” (Nocera & Carvell, 2000, p. 137)

The growth of the Internet had been exciting and rapid. For example in 1996 in the United States, 14% of the population used the Internet, which jumped to 22% in 1997, 31% in 1998, 38% in 1999, and 44% in 2000 (Elliott & Rutenberg, 2000). In 2000, the average monthly hours spent on line per user was 19 hours. U.S. consumer spending online grew from a few million in 1996 to $3 billion dollars in 1997, $7 billion in 1998, $19 billion in 1999, and $36 billion in 2000. Of the $36 billion spent in 2000, $11.0 billion was for travel, $7.7 billion for PCs, $2.4 billion for clothes, $13.4 billion for books, and $13.4 billion for other merchandise. The Internet stimulated an economic expansion in the United States economy. This pattern of technological innovation stimulating an economic expansion has been a general pattern in modern economies.

Modern progress in technology arises from research, and advanced research requires large and sustained funding. And in addition to research funding, technological innovation also requires intensive capital funding for commercialization of the new technology. A coincident event in the middle of the 1990s was a deregulation of the telecommunications business in the United States. In this and the new Internet, many entrepreneurs saw new business opportunities. They launched new telecommunication businesses and many new businesses in electronic commerce (or “dot.com businesses”). These telecommunication and dot.com businesses connect technological innovation to business innovation.

Excited by innovations and business opportunities of the Internet, venture capital funds poured huge amounts of capital into hundreds of ideas for new dot.com businesses, and immediately took many of these public as IPOs (initial public offerings). From 1997 to 2000, the excitement over the Internet and the new dot.com businesses drove stock
markets to new highs. Business pundits then wrote that the Internet was creating a “new economy”, for which one need not need worry about profitability of a new business but market growth. In the year 2000 this stock bubble burst. The so-called “new economy” fell back to the principles of the old economy, which always required profitable businesses. Many new unprofitable dot.com businesses collapsed. The NASDAQ average dropped 65% early in 2000. Following the Internet stock bubble bursting in 2000, there was a rash of major corporate failures — due to the greed and misdeeds stimulated by the bubble. Some of the failed companies included Enron, WorldCom, Global Crossing, Andersen, and so on.

Historically, the Internet stock bubble was just one of the many examples of financial enthusiasm about technological innovation. Another example of an earlier financial bubble was the U.S. railroad bubble which occurred a hundred years earlier in the late 1800s. There are important strategic lessons that one can learn about innovation in business and capital from history:

First, scientific research is necessary to invent new basic technologies.
Second, new basic technologies create new economic opportunities.
Third, the path to wealth in economic opportunities is usually rocky.
Forth, however rocky the entrepreneurial path, economic development from technological innovation becomes a permanent feature of societal structures (despite that stock bubble, the Internet and electronic commerce was in the world to stay).
Fifth, technological innovation and economic development is neither simple nor inevitable.
Sixth, if progress in technology is to occur and be successfully implemented in business opportunities, technological innovation needs to be carefully managed.

Since all humans are biological animals, requiring the satisfaction of physical needs to survive (such as air, water, food, clothing, shelter, safety, etc.), technology is essential to humanity as the knowledge of how to obtain the things from nature needed to satisfy the physical needs of human societies. Of course, there are many other needs of society other than physical (such as social needs for communication, justice, education, etc.). Technology also affects the capability of society for fulfilling its social needs (for example, military technology or communications technology). Accordingly, our conception of nature includes human society itself. From a biological perspective, human society can be conceived as one example of the social nature of animals (as compared to bee society or wolf society). In this broad sense of nature (as both the physical and social aspects of the human animal), technology is the knowledge of the manipulation of both physical and social nature to satisfy human purpose. Technology provides the knowledge bases for all the functional capabilities of a society.

New functional capabilities in a society occur through the process of innovation. Figure 2.4 sketches how a process of knowledge creation, innovation process, links new
knowledge of nature down to the utility of new products based upon new technology.

![Figure 2.4: The Innovation Process.](image)

Things exist naturally in ‘nature’, such as iron ore, silicon atoms, etc. Scientists perform research to discover what exists in nature and how it exists. Technologists take the natural phenomena discovered by science and then invent how to use nature for human purposes. For example, the Bessemer process in the 1700s was invented to make steel from iron ore using coal ‘coke’ for heating the ore. This invention was a key to the industrial revolution of the 1800s, driving the world’s economic development over that century. In the 1960s, technologists invented how to inscribe electronic circuits on circular slabs of silicon, inventing the integrated circuit semiconductor chip (IC chip) — thereby revolutionizing electronics and the electronics industry.

*The innovation process — from nature to utility through science, technology, and commercialization — is the basic knowledge process of modern civilization. It is the ‘big picture’ of the strategic process for new high-tech venture.*

**Summary**

Strategic thinking is about trying to anticipate and bring about a ‘desirable future’ — in the long-term through a series of short-term actions. All action is directed to a future; and intelligent action is more likely to be productive than unintelligent action. A long-term outcome may need to be attained as a sequence of actions, each action being a tactic of the actor (decision-maker). Strategy threads the sequence of tactics together for present actions in the short-term sequence to attain a future in the long term. Technological innovation and capital innovation together create business opportunities in the ‘big picture’ of the environment of business strategy.

**Theoretical Principles**
1. Strategy is implemented in a sequence of tactics leading toward the mission.
2. Entrepreneurial strategy is proper for the launching of new businesses.
3. Technology progress is a major source of entrepreneurial opportunity.
Strategic Management

Introduction

Strategic management is focused upon the continuing competitiveness of firm into the future. Starting up a new business is strategically “entrepreneurial” and continuing to grow the business against competition is strategically “professional.” Thus in strategic thinking, there are two management styles, entrepreneurial and professional. In the previous case of Cisco, we saw how the Bosacks started the company as entrepreneurs. But it happened that another kind of management, professional managers grow the company into a competitive giant. We continue the case of Cisco, but focusing upon the kind of management needed to make a success out of a new venture – strategic management – the professional manager.

CASE STUDY

Cisco Systems

After the entrepreneurs start a company, the next step in a new venture is the introduction of “venture capital” for financing. The Bosacks sought out venture capital to grow the company against competition. The networks market was growing hot by 1987, and several competitors began entering the router market. A special incentive to the growth of the market that year was a decision by the U.S. Congress to transform the government-sponsored ARPAnet/NSFnet to a commercial Internet.

The Bosacks saw that this commercialization would greatly increase demand for routers. They knew that Cisco Systems needed to grow very rapidly to dominate the market. They decided to seek venture capital to assist in expansion. They pitched their company to about seven venture capital firms without success until they found Don Valentine, who then was the founder and general partner at Sequoia Capital.

But Valentine’s terms were tough. Joseph Nocera wrote: “Did Valentine cut an almost obscene deal for himself? Of course he did; he’s a venture capitalist. In return for just $2.5 million (money that Cisco never even spent) as its own revenues continued to grow, Valentine’s venture fund received close to one-third of the company’s stock … (Learner and Bosack retained 35% of the stock.) In addition to stock, Valentine stipulated that he be able to shape the company’s management team” (Nocera, 1995).
Don Valentine immediately looked for a new CEO for Cisco and found John P. Morgridge. David Bunnell wrote: “(Valentine) wanted someone who was an industry veteran, a proven leader, a fiscal conservative, and a grown-up presence. Ironically, the best place to find such executives is often at a company that is failing. Companies in trouble shed their best executives first” (Bunnell, 2000, p. 16).

In 1988, John P. Morgridge was 54 years old and president of a failing PC company called Grid Systems. The company was selling a top-of-the-line and high-priced portable computer without any major proprietary performance advantages and thus was losing out to competitors (and was then being sold to another company). Morgridge accepted Valentine’s offer to run Cisco, receiving a stock option of 6% of the company. Previous to Morgridge’s two year stint at Grid, he had spent many years as a salesman at Honeywell.

Conflict began right away between the founders and the new management. David Bunnell wrote: “Morgridge, as the new boss, found himself sparring with the company’s founders every step of the way. Cisco was becoming a real corporation, and Sandy in particular was not the corporate type. Sandy had always been a self-proclaimed rebel and iconoclast” (Bunnell, 2000).

One of the things Morgridge did to try to improve cooperation was hiring a company psychologist to improve relations. But the differences between entrepreneurs and professional managers about the culture of the organization were unbridgeable. However in 1989, they all agreed to take the company public, as that year Cisco had $4.2 million in profits and growing. The first quarter of the fiscal year of 1990, profits had already soared to $2.5 million. On February 16 of 1990, the stock opened at $18 a share and closed that day at $22.50. But tensions continued. Joseph Nocera wrote: “… the IPO had made (Sandy Learner Bosack) rich, but with her role diminished and her company moving further away from its roots, she was deeply unhappy. Increasingly, she began lashing out. This she largely concedes — ‘I was screaming about a lot of things,’ she says — but her view is that there were a lot of things going wrong at Cisco, and her screaming was necessary. ‘Yes,’ she adds, ‘I’m guilty of standing in someone’s office and not taking no for an answer when a customer needed something done’ ” (Nocera, 1995).

In the summer of 1990, the conflict came to a head. Nocera wrote: “… All the top executives except Morgridge went to Valentine and said in essence, either she goes or we go. For Valentine, of course, that was an easy call …. (Len) Bosack walked out with his wife” (Nocera, 1995). In the contract the Bosacks had signed with Valentine, there were no protections on their employment with the company they had founded. They had agreed to a provision which gave the right to Valentine to purchase the Bosack’s shares.
Robert Cringley quoted Sandy Learner. She said: “It was not my intention to get rich. My intention was to not be poor. We worked 20 hours per day, saying the check is in the mail over and over to our vendors. In 1987 we finally got money from our seventieth or eightieth venture capitalist … Then I was fired by the venture capitalists in August 1990, and Len walked out in support of me. After financing the business on our credit cards for three years, we had a four-year vesting agreement! With some hassling, we were finally allowed to vest, got the stock and sold it” (Cringley, 1997).

In December of 1990, they sold their two-thirds shares of Cisco for about $170 million. They were both multi-millionaires. (Had they hung on to most of their shares until the late 1990s, they could have been billionaires.) Sandy and Len Bosack divorced soon after leaving Cisco. They put much of the money into two charitable funds. Leonard Bosack moved to Redmond, Washington, and started a new venture producing network equipment. Sandy purchased a mansion of 50 rooms on 275 acres in Chawton, England – that once belonged to Jane Austen’s brother. She restored and converted the house into a Jane Austen study center for early English women’s literature. In 1995, Sandy had also founded a cosmetics start-up company, Urban Decay: “Under the tagline ‘Does pink make you puke?’ UD’s line of nail polishes and lipsticks come in an array of volatile colors with suggestive names like bruise, frostbite, gash, toxin, asphyxia, and oil slick” (Bunnell, 2000).

**Entrepreneurial Management**

In strategy, there are the two management styles, of entrepreneurs and of professional managers. From 1984 to 2000, Cisco had three chief executives – Sandy Bosack, John Morgridge, and John Chambers. Sandy Learner Bosack was an entrepreneur focused upon innovation, new product development, customer sales, and satisfaction. Morgridge was a professional manager focused upon rationalizing and keeping large organizations competitive.

The difference between the concepts of entrepreneurship and management goes deep into management theory. There is “entrepreneurship” for starting and growing businesses as entrepreneurship, and there is “professional management” for growing and running a large business. Different management styles are appropriate in strategy implementation during the different stages of a company’s life – entrepreneurship during the creation of a new company and professional management for its growth into large company.

About entrepreneurship, the business literature has focused upon three themes:
1. There is an emotional theme. The entrepreneur is a kind of business hero/heroine; and like all such, they have qualities to be admired – initiative, daring, courage, commitment. These virtues are especially admired in turbulent business conditions, when initiative is required for origin of a business or drastic change for survival.

2. In many of the stories of successful entrepreneurs, problems of change of leadership occur, particularly after the organization has grown large and requires rationalization. Then a professional manager is sought to take over after the entrepreneur.

3. Within an organization, some entrepreneurship should always be encouraged, supported, and rewarded if the organization is to continue to be innovative. Yet balancing rewards for entrepreneurship against rewards for professional management in a large organization is a difficult problem.

For example, Howard Stevenson and David Gumpert compared managerial styles along two dimensions: (1) desire for future change, and (2) perceived ability to create change. They noted that entrepreneurs ask questions, such as: Where is the opportunity? How do I capitalize on it? What resources do I need? How do I gain control over them? What structure is best? In contrast, professional managers more concerned with stability than change adopt a bureaucratic style of strategy which asks different kinds of questions. What resources do I control? What structure determines our organization’s relationship to its market? How can I minimize the impact of others on my ability to perform? What opportunity is appropriate? (Stevenson & Gumpert, 1985).

Since entrepreneurial vision and risk is a distinctive managerial style, many have studied the psychology of entrepreneurs, hoping to learn why some people are more likely than others to become successful entrepreneurs. Researchers have listed several attitudes and values they found typical of the entrepreneur, such as a desire to dominate and surpass, a need for achievement, a desire to take personal responsibility for decisions, a preference for decisions with some risk, an interest in concrete results from decisions, a tendency to think ahead, and a desire to be their own boss (Vesper, 1989).

In attempting to describe entrepreneurial style, others have used a “sociological perspective.” For example, James Quinn viewed the entrepreneur style as a kind of role encouraged by an “individual entrepreneurial system” – which is to say a capitalistic system that encourages and supports individual initiative. Quinn identified several characteristics of an entrepreneurial system that encourages technological innovation: (1) Fanaticism and commitment, (2) Chaos acceptance, (3) Low early costs, (4) No detailed controls, (5) Incentives and risks, (6) Long time
Quinn saw the single-minded dedication of the entrepreneur as a kind of fanaticism, and an economic or organizational system must tolerate the kind of ruthless, dedicated purpose required of an entrepreneur. The context of such single-mindedness will appear chaotic and disorganized, because the entrepreneur is fixed on the goal and will use whatever means or expediency which proceeds toward that goal. The economic and organizational system should tolerate this kind of apparent chaos, which includes little detailed control in the early phase of a new venture. The originators of new ventures operate in an opportunistic, cost-cutting, short-cutting way to a single-minded, clear-cut goal.

Quinn also argued that the economic or organizational system wishing to foster entrepreneurship should provide appropriate rewards for the risks taken in entrepreneurship. Moreover, these rewards must be structured for long-term horizons, since it takes time for anything really new to become a success. At some point when a new thing takes off, observers often think how quickly and rapidly the successful innovation grew, not appreciating the long, painful starts, false starts, and buildup to the take-off stage.

Because of the experimentation and learning that goes into new venture action, it is also important for the system to provide flexibility in financing from many sources and for multiple and competing approaches. In the early days of any radical innovation, new ways are being tried out and only down the line will an optimal configuration emerge for a standard design of a new technology. Customer needs should always be the focus of entrepreneurship. Systems that encourage the fulfillment of needs of a marketplace stimulate innovation which lasts and is economically important. Thus for entrepreneurship, the psychological attitudes and the economic and organizational environment are all important. The values of the entrepreneur are risk-taking, vision, and ambition. The values of a system that encourages entrepreneurship should allow commitment, risk-taking, and provide a long-term, need-oriented environment.

One of the things a professional manager does is to ensure a growing organization has management depth to handle the growing number of people in the organization and number of customers and the number of competitors. In 1988 as the new CEO of Cisco, Morgridge’s first strategy implementation was to instill a culture of tight control capable of building through a period of rapid growth. His earlier experience at Honeywell had taught him that grand schemes were seldom attained, and it was the yearly planning that
made things attainable for tight control. Accordingly, he introduced planning into Cisco but didn’t use a long-term basis, such as a “five year plan.” Bunnell quoted Morgridge. He said: “At Cisco, we build a one-year plan with 80 to 90 percent assurance we’ll meet or exceed our goals, so it’s not a stretch. Then we modify the plan, because we’re conservative” (Bunnell, 2000).

Morgridge continued to build on Cisco’s culture of working closely with customers, primarily large businesses. His sales people were technically competent and could fix customer problems. Morgridge keep expenditures in control, providing modest salaries to employees with stock options. In 1991, Morgridge hired John Chambers as senior vice president of worldwide operations. Morgridge and Chambers and Ed Kozel (chief technology officer) together re-examined the issues of Cisco culture. They studied lessons from General Electric (GE), IBM, and Hewlett-Packard. From GE, they would use Jack Welch’s management philosophy for each market to be dominant as number one or two or not to compete. From IBM, they would use the business approach to provide complete application solutions to customers but would avoid IBM’s rigidity to adaptation of new product lines. From Hewlett-Packard’s history, they saw the need to periodically reinvent the organization with new products as new technologies emerged. Cisco leadership then formulated a strategy. Bunnell wrote: “… (The strategic plan) consisted of four areas of focus for future development. Provide a complete solution for businesses, make acquisitions a structured process, define the industry-wide networking software protocols, and form the right strategic alliances” (Bunnell, 2000).

The strategic challenge that Cisco leadership saw was the need to continue to ride the wave of Internet expansion as a fast-moving player. To do this, they needed to continue to add new technologies and network products; and they decided to do this through business acquisitions (externally acquired technology). And they needed to participate in defining the software protocols so that their products continued to fit into the emerging Internet system.

In 1995, Morgridge moved up to Chairman of the Board of Directors and made John Chambers the next CEO of Cisco. Chambers’ history was that he had a law degree from West Virginia University and an MBA from Indiana University. After graduation, he took his first job in sales at IBM back in 1977. He was to see IBM’s decade of strategic errors of the decade of the 1980s. IBM failed then to fully exploit the rise of the PC and computer networking to successfully reinvent IBM’s computer businesses.

From his IBM days, Chambers learned lessons both of “what-to-do” and “what-not-to-do.” A “to-do lesson” was IBM’s efforts to make customers satisfied. Another good lesson was a sales person’s need to sell information
technology at all the multiple levels of the customer organization. A third good lesson was how important software was to IBM’s successful mainframe hardware business. In the information technology business, often it is the software and not the hardware that can provide the proprietary advantage.

But Chambers also learned some lessons of what-not-to-do, some of the bad practices at IBM. One bad practice was IBM’s relative neglect of small businesses. From this, Chambers saw the importance of selling not only to big businesses but also to small businesses. Also Chambers learned to avoid the overly restrictive command-and-control structure of IBM, which made it difficult for IBM to make timely and appropriate decisions – and also stifled initiative and entrepreneurship within IBM.

During those years of trouble at IBM (and before going to Cisco), Chambers had decided to move to another company, which unfortunately was to get even deeper trouble than IBM. In 1983, Chambers joined Wang Laboratories Inc., which had pioneered word-processing work stations. However, these were soon made obsolete by word-processing software on the newly emerging PC. In 1986, the founder of the business, An Wang retired, just as the company was trying to find new markets using minicomputer technologies. In 1990, An Wang came back from retirement to try to save the troubled company. He asked Chambers to become the senior vice president of U.S. sales and field service operations. Unfortunately, An Wang died soon after. Then Chambers had to try to control the company’s continuing decline. He presided over five layoffs of 4,000 people, as sales fell from $3 billion a year to $42 million. Chambers’ stock options in Wang became worthless. From both the IBM and Wang experiences, the most important lesson Chambers learned was to adapt to the flow of technology advances in information technology – never to resist them – but to get ahead of, ride on, and exploit progress in new information technologies. Chambers quit Wang in 1991 and joined Cisco as senior vice president.

When Chambers was made CEO of Cisco, he rationalized a way of keeping Cisco advancing in information technology. Joseph Nocera wrote: “When Cisco’s technology started to become dated in the early 1990s, the company saw it coming and adapted … Routers were still a hot ticket, but there were at least two new networking technologies … One was called switching – primarily a box which some small companies were already starting to manufacture. The other was something called asynchronous transfer mode or ATM” (Nocera, 1995).

Chambers formalized the acquisition of new companies as a strategy to continue to get new technologies and new product lines into Cisco. Then the information technology challenge was in tying LAN into WAN. Although in 1995, the fast Ethernet technology was still the preferred LAN technology,
for WAN networking, asynchronous transfer mode (ATM) switches were becoming preferred by customers. ATM was a hardware-based switching technology that transmitted data faster than routers and could be used to connect a finite number of LANs together, with resulting high speed communication between LANs. Moreover, ATM allowed digital emulations of traditional switch-based phone networks and could bridge between data communications and telephone communications. Thus Ethernet technology was hooking up computers into LANs, ATM technology hooking together LANs into WANs, and routers were hooking all into Internet.

Earlier Chambers had learned the need for Cisco to move rapidly in technology. Just before his promotion to CEO, he had visited one of Cisco’s largest customers, Boeing. Joseph Nocera wrote: “… One day Chambers … was visiting a long-time Cisco customer and discovered to his horror that Cisco was about to lose a $10 million order to a competitor that was manufacturing switches. ‘What do I have to do to get that order?’ Chambers remembers asking the man. ‘Start making switches,’ the man replied. So Cisco did. It bought a startup called Crescendo Communications” (Nocera, 1995).

After Chambers became CEO, he launched a program of technology progress through the acquisition of new-technology businesses to keep Cisco’s products up to date. Because the stock market grew throughout the 1990s and Cisco’s stock soared with very high price/earnings ratios, Chambers’ could use Cisco’s highly valued stock to acquire other companies. It had been in September 1993, when Cisco had acquired its first company, Crescendo Communications. Over the next two decades from 1993 to 2013, Cisco acquired 149 companies. Some of the companies had technologies in switching, some in Internet phoning, and other improvements in Internet technologies.

When the second decade of the twenty-first century began, Cisco was still acquiring new technologies as the Internet continued to evolve. Then “big-data” and “cloud computing” were new Internet technologies. In 2014, Cisco acquired new businesses for “cloud computing.” Quentin Hardy wrote: “Even for the world of globe-spanning computer systems, Cisco is going big. On Monday Cisco Systems announced it would spend $1 billion on creation of an ‘Intercloud,’ which promises to bridge multiple cloud-computing systems open to the public – like those offered by Amazon Web Services and Google Compute Engine – the private clouds of big companies and specialty cloud services for business. Cisco, the networking giant, is building out its own data centers for the system and says it will offer Intercloud clients a high level of security and reliability. It also hopes to enlist a dozen or so large telecommunications companies and services consulting companies as partners. Other money will go toward new technology and a specialized sales organization” (Hardy, 2014).
In 2014, cloud computing had become the next big Internet idea, in part to address the problem about security on the world’s Internet. Hardy wrote: “Nick Earle, senior vice president for cloud sales at Cisco (said) one reason for the move (to the cloud) was the revelations of how much the National Security Agency (NSA) was spying on just about everyone.” Companies have said that the “NSA news” is changing policies around the movement of data over external networks. “Thanks to the NSA, there are lots of countries that won’t let their data out,” he said. “… Another reason was the realization that companies like Amazon and Google were essentially running their own systems, while there was room for more interoperability and open standards. Cisco is building its Intercloud on OpenStack software, an open-source, and cloud-computing.”

Also on the Internet, a new kind of connectivity was occurring, called the Internet of Things. Kim Young-won reported: “John Chambers, the chairman of Cisco, the world’s leading networking company, said manufacturing powerhouses in the IT sector, including Samsung Electronics, should constantly seek change in order to survive in the Internet of Things era. At a press meeting of the Internet of Things World Forum, Chambers said: ‘Every company, including Cisco, if we don’t change we will get left behind.’ Vowing to maintain solid business ties with Korean companies including Samsung and LG, Chambers praised South Korean President Park Geun-hye’s deep understanding of the importance of the IT and the government’s efforts to embrace the technology as part of its creative economy policy” (Kim, 2014). In the world of information technology, technological change continued. Chamber’s strategic management focused upon keeping Cisco on the cutting edge of Internet technologies, through the acquisition of new high businesses with new technologies for Internet communications.

Professional Management

The idea of a manager as a “professional” had been emphasized by Peter Drucker (Drucker, 2003). A professional manager is trained in management skills and performs for the good of both an organization and for society. Drucker wrote: “The fact is, that in modern society there is no other leadership group but managers. If the managers of our major institutions, and especially of business, do not take responsibility for the common good, no one else can or will” (Drucker, 1973).

The idea of a manager as a professional, rationalizer of organizational practices, goes back in sociological literature to Max Weber. Weber, introduced the idea of a bureaucratic manager as a kind of rational, efficient, honest administrator (Weber, 1947). Weber had studied the new government agencies which had been emerging in Germany in the late 1800s. He called these organizations “bureaucracies” and formulated the idea of
“bureaucratic rationality” as a kind of organizational effectiveness and operational efficiency. The manager of such rationality was a “bureaucrat.”

Weber called an earlier form of office as a “prebendal” office, maintained by “feudal” holders of authority. A feudal office holder exercised authority in the name of a sovereign ruler in order to perform some governmental function (such as tax collecting, public order, etc.). The nature of the office and the personal property and interests of the feudal office holder were not separated. The first characteristic that Weber noted about a modern bureaucratized office is that the public property and authority of the office should be separated from the private property of the office holder. For example, in the U.S. government, there are federal laws which forbid office holders from accepting gifts that would create conflict of interest in exercising the responsibilities of the office. As another example in the United States in the private sector, there are federal laws against “insider trading” in stock held by top-level officials of public corporations.

The second characteristic that Weber noted about a modern bureaucratized organization is that the decision criteria by which decisions are made should be explicitly written down and the procedures by which activities are conducted should be formalized. This explicitness of decisions and formalization of procedures introduced a kind of formal order, “rationality,” into the operations of a bureaucracy. Moreover, this rational order should be governed by the goal of attaining efficiency and effectiveness in operations. Modern management rationalizes rules for judging corporate performance, such as profits, profit margins, return-on-investment, economic-value-added, earnings per employee, and so on.

As an example of bureaucratic rationality in government, the U.S. federal government agency of the NSF uses formal “peer review” procedures for judging which scientific research proposals to fund. It is bureaucratic policy of the agency to require all NSF science administrators (science bureaucrats) to use “peer review” procedures in evaluating proposals for research grants. Science administrators send proposals out of the agency to external scientists who are “peers” of the research proposers. Their peer-review evaluation is seen as providing an objective scientific review of the scientific merit of the proposal. Science administrators are then allowed to fund only the proposals that are rated of highest quality by peer review. This rule of “peer-review” is NSF’s rational process for selecting science projects for funding. Peer review by knowledge experts in a research field is held by NSF and its clientele of the scientific community as being the most rational and effective procedure for selecting science-discipline-focused research proposals for grants. The peer-review policy is a rational procedure for ensuring scientific quality and objectivity in project selection and funding by the agency.

Influenced by Weber’s studies, the idea of rules and rationality in large organizations got to be called by the name of “bureaucracy.” And in Weber’s view, the concept of bureaucratic management indicated a positive view of the administration of large organizations – “bureaucrats” were some of the good people in society. However, later students of bureaucracy uncovered a “dark side” to this idea. Robert Merton began to study the inefficiencies of large organizations. He pointed out that when procedures
became formalized to be rational, they also became rigid and inflexible – and therefore somewhat irrational. While formality of procedures promotes efficiency, at the same time formalization promotes rigidity and inflexibility. So Merton (and others that followed him) gave the idea of “bureaucracy” a bad name. This view became popular – so in the second half of the twentieth century, calling a manager a “bureaucrat” came to be popularly viewed as an insult.

So who was right? Was Weber or Merton right? Are professional managers rational or inflexible? Are bureaucracies inherently efficient or inefficient? The answer is that both were right. The formalization of decision-making and procedures in a large organization is essential to providing rationality and efficiency in operating repetitive activities. Yet at the same time, organizational formalization does create rigidity and inflexibility in policies and decision-making.

Like the many inherent contradictions of real life in business (such as optimizing both profit and value-added-to-the-customer or minimizing inventory and maximizing sales), there is an inherent contradiction in the style of professional management in large organizations – between formalization of processes for rational efficiency and rigidity of processes for irrational inflexibility of operations. All large organizations, business or governmental, do operate as bureaucracies. All large organizations require formalization of decision-making and procedures. All large organizations must become, to some degree, bureaucratized. The concept of “Weberian rationality” in organizations is the idea of the “benefits” of bureaucracy; while the concept of “Mertonian irrationality” in organizations is the idea of the “inflexibility” in organizations.

In summary, the entrepreneur is a business-starter, high risk-taker, an opportunist, and a do-it-all-yourselfer. In contrast, a professional manager is an organization builder, a risk-minimizer, a planner, a delegator, and a developer of organizational growth. In strategy, the style of strategic management is important: (1) entrepreneurs are essential in starting businesses and (2) professional managers are essential to growing businesses toward competitive dominance.

**Leadership and Decision Strategy**

A professional, with honorable ethics, can guide organizations toward private and public goods in the future. This can be illustrated in decision theory, with both business values and customer values, as shown in Figure 3.1 as seen in the case of Cisco.
Figure 3.1: Strategic Decision and Stakeholders in Cisco.

From the perspective of the Cisco business firm, their long-term values were for profits, as continuing profitability over the years. The effectiveness of attaining goals with profitable values lay in their continuing sales. To make continuous sales, Cisco had to efficiently keep up in technology, advance in technical capability. For these, Cisco’s tactics, year after year, was to acquire new companies innovating new technology. From the complementary perspective of Cisco’s customers, Corporate and Governmental organizations, their values centered on continually obtaining good service from Cisco’s products. Their goals attained were measured in the effectiveness of their applications of information technology. So advances in their capability in information technology were their tactics, measured by the success of improving the efficiency of performance of their information systems.

For strategic decisions in any business, there are always two perspectives which should be considered in strategy – the complementary perspectives of the business and of the customer. This sounds obvious – a truism. All businesses need customers to survive – satisfied customers who will return again and again to purchase the business’s products/services. Strategic thinking for a new business venture thus illustrates the need and importance of both strategic direction and tactical planning, satisfying the profit value of the company and the product value of its customers.

**Strategy and Tactics for New Ventures and Growth**

We next look at the kinds of goals, which new venture and its growth must temporally meet, as tactical goals (milestones) in the direction of a successful competitive strategy. We next review the tactical goals, milestone challenges a successful new venture must meet. As we see illustrated in the Cisco case (Figure 3.2), there are several critical goals that any new business venture must pass through along the way to commercial success: (1) Acquisition of Start-up Capital, (2) Development of New Product and/or Service, (3)
Establishment of Production/Delivery Capabilities, and (4) Initial Sales and Sales Growth. *These are the tactical goals of entrepreneurial management.*

Figure 3.2: Cisco’s New Venture “Action” as a Sequence of Means and Ends over Time.

**Goal 1. Acquisition of Start-up Capital**

Capital is the resource necessary to begin and operate a productive organization with potential profitability until revenues can sustain the operation and provide profits. Start-up capital is required for establishing a new organization and hiring initial staff, developing and designing the product/service, funding production capability and early production inventory, funding initial sales efforts and early operations. Start-up capital can be in the form of: (1) the founder’s personal wealth, borrowing, sweat equity (e.g., The Bosack’s home mortgage, credit cards, and Sandy Learner’s job at Schulberger), or (2) venture capital investments from individuals (called investment “angels” or from venture capital firms, e.g., Sequoia Capital).

Start-up capital is seldom sufficient for rapid growth, and therefore further capital requirements are usually necessary for commercial success. This is why the Bosacks’ approached Sequoia Capital. And often, as was the Bosacks’ case, this is how the founders’ lose control of a new business to the venture capitalist.

**Goal 2. Product/Service Development**

A new firm is high-tech when its initial competitive advantage is in offering the technology advantage of new functionality, improved performance, or new features over existing products/services. Sometimes new high-tech firms can be started with alternate high-tech production processes for existing types of products or services. But usually a new high-tech product or service provides better competitive advantages with which to start new high-tech firms. The next event is developing and designing the new product or service. This requires capital and will be a major cost on the start-up venture capital. Ordinarily development and design should be far along before start-up capital can be
attracted. However, development problems or design bugs that delay the introduction of a new high-tech product or service make serious problems in starting a firm, because such delay also eats into initial capital. Moreover, if the delay is too long that competitors enter the market with a similar new high-tech product/service, then the first entry into the market advantage is lost. In the case of Cisco, the Bosacks’ major development work was done at Stanford University. When they went into business, they already had a product prototype developed and ready for final engineering design to produce and sell the new routers. This is why Cisco was a quick financial success, founded in 1985 and profitable by 1986.

Goal 3. Production/Delivery Capabilities

The third event is to establish the capability to produce the new product/service. In the case of a physical product, parts/materials may be purchased or produced and the product assembled. The decision to purchase parts/materials or produce them depends upon whether others can produce them and whether or not there is a competitive advantage to in-house production. Establishing in-house production capability of parts/materials will require more initial capital than purchase but is necessary when the part/material is the innovative technology in the product. Moreover, the establishment of any new production capability will also create production problems, problems of quality and scheduling and on-time delivery. Capital will also be required to “debug” any new production process. In the case of Cisco, the early design and production of the routers were financed by the Bosacks’ personal savings and by advance payments from customers for their unique and urgently needed product. Later the perceived need for more capital for expansion during rapid growth motivated the Bosacks to find and have Valentine invest in their company.

Goal 4. Initial Sales and Sales Growth

Initial sales and growth are the next critical event. The larger the initial sales and faster sales growth, the less room there is for competitors to enter. An important factor influencing initial market size and growth is the application of the new product/service and it’s pricing. Another marketing problem is to establish a distribution system to reach customers. Distributions systems vary by type, accessibility, and cost to enter. Planning the appropriate distribution system for a new product/service, the investments to utilize such, and its cost influence on product/service pricing is important for the success of new ventures.

Generally, reaching industrial customers costs less than to reach general markets of consumers. This is one of the reasons why large fractions of successful new high-tech ventures are those in which industrial customers provide the initial market. These are usually industrial equipment suppliers or original equipment manufacturers selling to large manufacturing firms. This allows a new firm to get off to a fast start but eventually limits the size of the firm and makes the firm vulnerable as only a “part supplier” to a commercial customer (who later may choose to integrate vertically downward by producing its own parts). Moreover, a small firm with only a few industrial customers is
sensitive to cancellation of orders from any one of them, which immediately can imperil survival.

In the business and consumer markets, a distribution system infrastructure will usually consist of wholesale and retail networks. In these access to the customer will depend on wholesaler and retailer willingness to handle the brand offered by a new firm. Establishing brand identity and customer recognition of the brand is then an important problem and a major barrier for a small new firm to overcome. Moreover, in some retailing systems, under-the-counter-practices (such as buying shelf space and/or generous holiday gifts to purchasing agents) may also be barriers to overcome. E-retail businesses may take less capital to start, particularly if collection can be outsourced (such as by PayPal) and distribution can be outsourced (such as by Amazon). As a market grows, the long-term success of a new high-tech venture becomes increasingly dependent on gaining access to and maintaining access to national and international distribution systems.

In the case of Cisco, the Bosacks sold to other university customers like their former employer Stanford University. Research connections between universities and early adapters of the new network connection technology sent Cisco corporate customers by word-of-mouth. Then when the U.S. Congress made the ARPAnet/NSFnet public, the rapid growth of the market was envisioned by the Bosacks.

But there are more tactical goals which the growing company must continue to meet over time toward a strategic success (Figure 3.3):

(5) Developing Capital Liquidity,
(6) Production and Distribution Expansion,
(7) Organizational and Management Development,
(8) Meeting Competitive Challenges and Product Diversification,
(9) Acquiring New Technology.

Figure 3.3: Cisco’s New Venture “Action” as a Sequence of Means and Ends over Time.
These are the tactical goals requiring “professional management.”

Goal 5. Capital Liquidity
The first two rounds of funding in a new high-tech business venture requires capital for getting started (usually founders investment) and first round capital funding (usually a venture angel) and a second round for production expansion (usually venture capital) and then going public as an IPO. The IPO provides capital liquidity so that the founders and venture capitalists can cash in stock for gaining wealth from the new venture. In the case of Cisco, the IPO of Cisco in 1990 was successful and provided the founders with a personal fortune, even though they lost control of the company. The venture capital firm, Sequoia Capital, leveraged its modest $2.5 million investment into billions of dollars by the late 1990s.

Goal 6. Production and Distribution Expansion
As the new market grows and sales are successful, then production expansion must be planned and implemented in a timely manner or sales will be lost to competitors because of delivery delays. Production expansion will usually require a second round of capital raising, for the initial capital seldom provides enough for expansion.

The exception is when production can be outsourced. The rapid growth of the market and high margin of Cisco’s unique products allowed Cisco to finance production expansion from cash flow. Cisco’s hardware products were standard kinds of commodity-type minicomputers, all of whose parts could be outsourced. Cisco used outside vendors to produce their physical product. All of Cisco’s proprietary advantage lay in its software and not in its hardware. This meant that Cisco did not need much capital for hard-good production facilities.

Goal 7. Organizational and Management Development
As an organization grows in size to handle the growth in sales and production, it is important for the firm to develop organizational structures and culture and to train new management. This is an important transition, as the early entrepreneurial style of organization and openness and novelty of culture needs to mature toward a stable but aggressive large organization. In a small firm, coordination is informal and planning casual. In a large firm, both coordination and planning needs formalization. In the Cisco case, the transition from the management and organizational styles of the founders to the traditional control of experienced strategic managers occurred abruptly (and rather violently) when the venture capitalist took control of Cisco and installed professional and seasoned managers.

Goal 8. Meeting Competitive Challenges
In a very few areas and rare cases, a patent on a new product or process is basic and
inclusive enough to lock out all competitors for the duration of the patent. This is true in the drug industry and occasionally elsewhere. However, most new high-tech ventures are launched with only partial protection from competition by patents, and competitors soon enter with a me-too products. The me-too products/services are likely to be introduced with improved performance or features and/or at lower price. The entrance of competitors into the new market is the critical time for new ventures. They must at that time meet the competitive challenges or go into bankruptcy. Thus a new firm must upgrade its first-generation products with new products to keep ahead of competition in product performance and features. It also must continually lower its cost of production to meet price challenges by competitors. And it must diversify its product into lines to decrease the risk that a single product problem will kill the firm. The round of capital raised for production expansion needs also to provide for product and production improvement. In the case of Cisco, the Bosacks sought venture capital both to expand production and to continue to improve their product to meet competitive challenges.

Goal 9. Acquiring New Technology

In a high-tech industry, technological progress continues, and a first mover firm must continue to develop or acquire new technology. This can be done through establishing a corporate research and development (R&D) laboratory and by acquiring smaller new firms with innovative technology. In Cisco, Chambers’ strategy was primarily to acquire new technology by acquiring new firms with innovative technology.

We can see illustrated in this case three of the important lessons of the life stages of new high-tech business ventures.

Firstly, different managerial styles are important to beginning and growing a new venture. The Bosacks displayed the appropriate entrepreneurial styles of being visionary, committing to and working hard to get a new high-tech business started. Later, the professional management experiences and styles of Morgridge and Chambers successfully grew the new business into a large, competitive firm.

Secondly, the initial success and rapid growth of the market for Cisco’s routers came from a new basic innovation of the Internet which was providing a new economic functional capability to the United States and the world. High-tech new ventures can only be launched in the opportunities of innovation of new functional capabilities.

Thirdly, the professional managers, Morgridge and Chamber, successfully paid attention to all the aspects required to make a new venture into a large, dominant firm in a new industry. They simultaneously managed for: (1) developing capital liquidity through an IPO, (2) developing large-scale production capacity, (3) developing a national distribution capability, (4) developing the management talent to grow the new firm, and continuing to advance the new technologies (through acquisitions).

Summary
For starting new businesses and growing businesses, strategic thinking is kind of like what any biological organism must achieve to stay alive – survive and grow. For example, Lowell Steele of GE wrote: “To survive over the long term, a company must have two strategic capabilities – the capability to prosper and the capability to change” (Steele, 1989). The long-term problem for any company is survival – requiring two adaptive capabilities of prospering and changing.

The failure to prosper imperils corporate survival because – when expenses exceed income over a long enough period, any company will fail in bankruptcy. Profitability is necessary for any long term. Also prosperity may require not just profitability but also growth. Modern stock markets often value asset-growth over short-term dividends. In corporate takeovers, continual corporate growth in earnings and sales is necessary for management to retain control. This combination of continuing profitability and continual growth presents a tough strategic problem – because all markets eventually mature and growth in a company’s business is limited by growth of its markets. The need for continual corporate growth has (1) created the driving force for corporate diversification but also (2) the root cause of the dissolution of large companies. Successful management of a portfolio of different businesses in the same company is a big challenge.

And to maintain corporate prosperity over time, periodic change in business strategy is necessary. Any firm must adapt to changing times. The CEO of GE in the last two decades of the twentieth century, Jack Welch, had been quoted as emphasizing: “Control your own destiny, or someone else will” (Teitleman, 2001). The failure to control destiny – as the failure to perform appropriate change at the right time – imperils future survival. Business exists in competition; and to survive, it must always be competitive. When its products/services become obsolete, it cannot compete. Change requires an ability to anticipate the external dynamics of the environments in which a company operates – markets, competition, innovation, government regulation, economic conditions, globalization, etc. Change also requires an ability to alter a company’s directions – for example, in products, production, marketing, organization, personnel, businesses, etc.

Lowell Steele emphasized that “change” should be the focus of strategic thinking: “Strategy is concerned overwhelmingly with questions of change. How much must the enterprise change in order to survive and to continue to prosper? How much change can it finance and manage? How fast can it change? These are profoundly difficult questions” (Steele, 1989).

Strategy in organizations should provide a long-term direction for organizational activity. Tactical thinking is about the short-term future, as what actions now need to be performed to go in the direction of a long-term strategy. Tactics occur over time, and are integrated together in a plan; and a strategic plan is a clear laying out of the actions to be performed now and coordinated over time to reach the goals of the strategy.

**Theoretical Principles**
1. While entrepreneurial management is necessary to starting a new business, professional management is necessary to grow the business competitively.

2. Tactical milestones are steps in achieving a long-term strategy.
Strategy Theory

Introduction

In any practice, theory is important, particularly in professional practices, such as management, medicine, engineering. Theory generalizes practice, from one situation to another, from one case to another. In management practice, theory has often been called “management principles,” with these providing the generalization that appropriate lessons in successful practice can be transmitted from one commercial context to another.

For example, David Besanko, David Dranove, and Mark Shanley nicely expressed the importance of theoretical principles in management: “There is a keen interest among serious observers of business to understand the reason for profitability and market success … . However, observers of business often uncritically leap to the conclusion that the keys to success can be identified by watching and imitating the behaviors of successful firms. And this is often called ‘benchmarking’ or ‘best practices’…. . However, uncritically using currently successful firms as a standard for action assumes that the successful outcomes are associated with identifiable key success factors, and by imitating these factors, other firms can achieve similar successful results” (Besanko et al., 2000).

For example, in the early business school practice of the case studies, pioneered by the Harvard Business School, the conclusion of such a case often ended only in “best practice” – and not in an analysis of theory. A case study of “best practices” is not methodologically complete until the case is analyzed against theory – either validating theory or extending theory or invalidating theory.

The important methodological concept is that one needs a critical analysis of the key success factors in any strategy; which is precisely the purpose of “theory.” Uncritical imitation of a prior success by a different company may not prove to be useful for success in a new situation. In any action, no two situations nor two actors are ever absolutely identical. Action is always a particular set of factors and activities – all of which together explain a particular success (or failure). Teasing out of a “benchmarking” case what is really general and transferable is what critical analysis is intended to accomplish – business theory. Theoretical principles can be constructed from a critical analysis over a range of “benchmarked” cases – in order to abstract and generalize the key factors for successful practice.

Usually, the presentation of theory proceeds with the exposition of techniques of the theory; however, in the case of strategy theory, this has not been easy. Historically, strategy theory had not synthesized but simply divided piecemeal into “strategy schools.” Henry Mintzberg and Joseph Lampel expressed this historical problem: “We are the blind people and strategy formation is our elephant. Each of us, in trying to cope with the
mysteries of the beast, grabs hold of some part or other …. Consultants have been like big
game hunters embarking on their safaris for tusks and trophies, while academics have
preferred photo safaris — keeping a safe distance from the animals they pretend to
observe. Managers take one narrow perspective or another — the glories of planning or
the wonders of learning, the demands of external competitive analyses or the imperatives
of an internal ‘resource-based’ view. Much of this writing and advising has been decidedly
dysfunctional, simply because managers have no choice but to cope with the entire beast”
(Mintzberg & Lampel, 1999).

Back in 1999, Mintzberg and Lampel had summarized the history of strategy theory as
dividing into 10 different schools about strategy:

School 1 – Design School

This school focused upon the formulation of strategy – as matching external
conditions to internal opportunities of the organization – achieving clear, simple
strategies that can be implemented by all in the organization. (This school dates from
Selznick through Chandler and Andrews.)

School 2 – Planning School

This school emphasized strategy formulation as formal and decomposable into steps –
characterized by checklists and supported by formal techniques. (This school dates
from Ansoff’s writings in 1965.)

School 3 – Positioning School

This school emphasized strategy as general positions selected from analyzes of
industrial situations. (This school dates from Porter’s writings in 1980.) The role of
analysis in specifying the industrial situations uses techniques such as value chain
analysis, game theoretical structuring, etc.

School 4 – Entrepreneurial School

This school focused primarily upon the role of the chief executive in strategy and saw
strategy formulation primarily depend upon the cognitive function of intuition in the
executive. This school shifts the focus of strategy theory from “planning” to “vision.”

School 5 – Cognitive School

This school focused upon the cognitive base of strategy, adding to the analytical
concepts of the planning school an emphasis on intuition. It emphasized the role of
information and knowledge structures in formulating strategy – and included a
constructivist view of the strategy process that sees strategies as creative constructs of
what reality could become.

School 6 – Learning School

This school viewed strategy as a kind of learning process in which formulation and
implementation interact for the organization to learn from past planning and
experience. (This school dates from the writings of Lindblom, Quinn, Bower, and
School 7 – Power School

This school focused on the power relationships in the situations in which strategy is formulated. They saw strategy formulation as involving processes of bargaining, persuasion, and confrontation among the actors in an organization. Also externally, an organization can use strategy as one of its tools of power to negotiate strategic partnerships.

School 8 – Cultural School

This school emphasized the role of culture (as opposed to power) in the formulation and implementation of strategy. (This school dates from writings by Rhenman and Normann and from Hedberg and Jonsson.)

School 9 – Environmental School

This school focused upon the environments of organizations – seeing organizations as principally reacting to and responding to threats and opportunities in their environment it includes approaches such as “contingency theory” that classifies responses expected of organizations facing particular environmental conditions.

School 10 – Configuration School

This school focused upon the nature of organizational structure as influential upon strategy. For example, it saw formal planning as prevailing in organizations with “machine-type” structure in conditions of relative stability; and it sees entrepreneurship as prevailing in organization in situations of start-up or turn around. It emphasized that the conditions of “stasis” or “transformation” impacting the forms of strategy processes within the organization.

Scanning these brief summaries, we can see that all these schools can be grouped into those which emphasize the component ideas in any strategy and those which emphasized in the process of strategy formulation:

(1) Component Ideas in Strategy

– Herein lie the schools which emphasized the “ideas” and “cognitive activities” in formulating strategy: the Design School, Planning School, Positioning School, Entrepreneurial School, and Cognitive School.

(2) Strategic Processes of Strategy Formulation

– Herein lie the schools which emphasized the “processes” for strategy formulation: the Learning School, Power School, Cultural School, Environmental School, and Configuration School.

Lowell Steele is one strategic theorist who had identified the two kinds of emphases on strategy – “strategy” as the ideational content of strategy and “strategic planning” as the process of formulating strategy: “Strategy is the array of options and priorities with
which one elects to compete (offer superior value to the customer) and to survive (sustaining a level of financial performance that will continue to attract capital and to retain the autonomy of a business) …. Strategic planning addresses the continued viability of strategy; it probes the need for change …” (Steele, 1989).

Ideas within a strategy, “strategic issues” provide the “content” of a strategic plan – what factors of change should be anticipated and how addressed? Strategic planning is the way these content ideas are formulated and arrived at – “strategic processes” are the procedures for formulating plans within an organization.

Thus from Mintzberg and Lampel and Steele’s writings, one can conclude that a theory of strategy needs to cover both (1) the component ideas in a strategy and (2) the process of strategy formulation.

Furthermore, in addition to the distinction between strategy content and process, Lowell Steele had also emphasized it was important to see the implementation of a plan as another part of strategy practice: “Strategic management is the implementation of modifications in the fundamentals of how one competes and survives … (controlling) actions and behavior required to implement change” (Steele, 1989).

Accordingly to characterize the whole of strategy theory, one needs to cover the key ideas (principles) of “strategic plan,” “strategy process,” and “strategy implementation.”

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**CASE STUDY**

*Steve Jobs’ First Exercise in Strategy – Apple Computer*

To illustrate strategy theory, we will examine the career of Steve Jobs (1955–2011). He is unique as an entrepreneur and professional manager as strategically managing three successful ventures: (1) the founding of Apple, (2) the growth of Pixar into a major movie studio, and (3) the rescue of Apple with the innovative products of the iPad and iPhone.

Jobs used new technology and strategy to succeed not once but thrice – an unusual strategic record. By the time of his death, he had been widely recognized as an outstanding business leader and strategic innovator.

Very early, Jobs displayed strategic vision when as a young man, he and a friend, Steve Wozniak, started a historically important company in the then new PC industry. In 1976, Wozniak had visited an industrial trade show for consumer electronics (called WESCON) and purchased one of the first “computers-on-a-chip,” the MOS 6502 microprocessor.

As technical background to this purchase of a central processing unit (CPU) semiconducting IC chip, an electrical engineer at MOS Technology, Chuck Peddle, had designed an IC chip, the 6502, which could perform all the information processes of a computer, but on one small chip. This was
technology progress, when the previous many transistors of a computer, could now be inscribed into one single IC chip. Then, along with another early chip, the Zilog Z80, these new CPU chips would “power” the emergence of the PC industry, so that any person (not just a big organization) could own a fully-operational computer. And Jobs and Wozniak’s product, the Apple PC, was one of the first products in this new computer industrial segment – PCs.

Wozniak had been an electronics engineer, working at Hewlett-Packard in Palo Alto, California. For his own engineering interest and at home, he had designed and constructed a PC. He talked about it to his bosses at Hewlett-Packard, but they showed no interest because they could not imagine a large new market for PCs. Then no large company envisioned it. It was left to individual entrepreneurs, such as Wozniak and Jobs, to launch the PC industry. In the spring of 1976, Wozniak attended meetings of a local amateur computer club, called the Homebrew Computer Club. What Wozniak showed was only a partly complete computer – no keyboard, no case, no power supply, no external memory, no printer, no software, etc. Yet two of his friends in the club were impressed, Steve Jobs and Paul Terrell. Jobs formed a company with Wozniak to produce the computer, and Terrell ordered the first 50 units to sell in his Byte Shop (Ahl, 1984). This is when and where Jobs got his first important lesson, what we can call a “strategic business vision.” The concept of “strategic vision” denotes the ability to imagine where a future could go from only partial and meager evidence in the present.

To grow their new business venture in 1977, Jobs and Wozniak obtained $40,000 dollars of venture capital from A. C. Mike Markkula. Markkula was an electrical engineer who had become wealthy in another early start-up in the electronics industry of the 1960s–1970s, Intel. Markkula also offered management assistance (and actually dominated the Apple Board until the late 1990s).

Apple used a product strategy of having an “open architecture policy.” This allowed other companies to write software or make peripheral equipment for the Apple. This “open architecture” policy is an example of a “technology strategy.”

We see in this case of Jobs’ early business experience an important “business principle” (theory) that strategic vision begins in “experience” but projects beyond present experience into a possible (and desirable) future. A vision and experiential excitement about PCs as a new artifact was shared by Steve Jobs, Steve Wozniak, and other amateur computer enthusiasts of the time. As group, these enthusiasts had experience with computation with the mainframe computer and minicomputer. Their visions were to have their own “personal” computers to use and play with. This required a new kind of
computer of low cost, made possible by advances in applied knowledge in the form of the “microprocessor” chip.

With such strategic vision, many of the “amateurs” became entrepreneurs and started new companies that were to form the beginnings of a new industry, the PC industrial sector of the computer industry. In the case of Apple, Jobs and Wozniak started this company, helped financially and managerially by Mike Markkula. Since the PC was of little value to the market without software applications, Apple’s strategy to open their operating architecture to software developers facilitated the growth of the software suppliers or Apple.

At first, Jobs’ new company “Apple” did well, gaining a 27% share of the very new PC market in 1981. But in 1982, IBM entered the market and immediately gained a 27% share of the PC market, matching Apple’s share. IBM had entered with a technically superior product using a 16-bit word-length microprocessor, allowing memory address to 640 K (compared to Apple’s 8-bit microprocessor which limited memory address to 64 K). But meanwhile as the IBM PC was priced higher than Apple, Apples continued to sell. This gave the company time to respond to the IBM’s technical challenge.

Strategic as Component and Process

Some of the schools on strategy emphasized the component ideas in strategy (the “ideas” and “cognitive activities” in formulating strategy), and these were the Design School, Planning School, Positioning School, Entrepreneurial School, and Cognitive School. Other schools on strategy had emphasized the process for strategy formulation, and these were the Learning School, Power School, Cultural School, Environmental School, and Configuration School.

Lowell Steele identified that there were these two kinds of emphases on strategy – “strategy” as the ideational content of strategy and “strategic planning” as the process of formulating strategy. Steele wrote: “Strategy is the array of options and priorities with which one elects to compete (offer superior value to the customer) and to survive (sustaining a level of financial performance that will continue to attract capital and to retain the autonomy of a business) .... Strategic planning addresses the continued viability of strategy; it probes the need for change …” (Steele, 1989).

The ideas within a strategy, “strategic issues” provide the “content” of a strategic plan – what factors of change should be anticipated and how addressed? Strategic planning is the way these content ideas are formulated. Strategic processes are the procedures for formulating plans within an organization. From Mintzberg’s and Lampel’s analysis and from Steele’s analysis, we may conclude that a theory of strategy needs to cover both (1)
the component ideas in a strategy and (2) the process of strategy formulation.

**Strategy Process as Top-Down and as Bottom-Up Perspectives**

In terms of process, there is an important dimension to the process (top and bottom – strategic views from the top of the organization and strategic views from the bottom). As illustrated in Figure 4.1, these different perspectives create different views and even different kinds of logics in strategic thinking:

![Figure 4.1: Two Perspectives on Strategic Logic.](Image)

- a “big picture” view with a logic of proceeding from the general to the specific changes of the future,
- an “operational reality” view with a logic of proceeding from the specific to the general changes of the future.

In the logic of strategic thinking, one can always look toward the future by describing the “big picture of everything” and then deducing how changes there can impact upon the particular situation of one’s own future action. For example, in this way one can see one’s self as a member of a general economic class, cultural class, generation, and ask how one’s particular life is impacted by trends and changes happening to these general categories of people and life. This is the “deductive” approach to strategy – going from the general trends to the particular descriptions of future life.
Also and conversely in the same logic of strategic thinking, one can always look at changes in the particular situation of one’s future and then generalize that similar changes are happening to others like one’s self. For example, in this way one can generalize changes in one’s own life as an exemplar of the kinds of general categories of other people and lives. This is the “inductive” approach to strategy – going from the particular examples to the general descriptions of future life.

At the top of an organization, information to see the “big picture” is more readily available there than at the bottom of an organization. Conversely, at the bottom of an organization, information to see the “reality of operations” is more readily available there than at the top of the organization.

A famous and bitter example of these differences in information between the big-picture-of-the-world and the reality-of-operations was the difference in perspective between the generals and the soldiers in the tragic First World War in Europe in the early twentieth century. From 1914 to 1918, the war stagnated into “trench” warfare, with the generals on both sides planning one more great battle to win the war. Each battle resulted in thousands of death with no substantial gain in territory or weakening of the ability of the either army to fight. The view from the general’s perspective was the massing of artillery and soldiers for an attack. But the view from the soldier’s perspective was that the combination of the new machine gun and artillery made every attack impossible to win – resulting only in the slaughter of the attackers. From the big picture, the view of the war was simply the massing of the attack forces. But from the reality of the trenches, the view of the war was simply devastation and destruction – under sustained and withering fire of the machine guns which would finally halt all attacks. After four years of this trench war, both the German/Austrian armies and the British/French armies were too exhausted to win, and a new fresh army of Americans was brought into battle to finally finish the war. But all during that war, the perspective of the generals in all armies was that the failure of their massed attacks was due to lack of “spirit” in their soldiers.

Not only is the experiential base of the two perspectives of top-down and bottom-up different, so too are the logics appropriate to top-down and bottom-up strategy. The top-down perspective of strategy uses a deductive logic that begins with the great and goes down toward the small. In formulating strategy, top leadership should look around at the environments of the firm and its businesses to:

1. Scan the environments of a firm to identify major future trends and changes in government, the economy, territorial markets and competitors, and in the scientific and technological culture;

2. Interpret the changes as threats and opportunities to the businesses of the firm;
3. Analyze the present firm’s activities in terms of strengths and weaknesses to face such threats or seize such opportunities;

4. Redefine the missions of the firm’s businesses to match the future operations to future threats and opportunities;

5. Set goals and targets for businesses to meet in a proper time horizon.

In contrast, at the operating levels of businesses in a firm, managers should look to the strategic immediacy of the business’s markets, competitors, operations, and knowledge:

1. Examine the trends in sales in the markets of the businesses of the firm and identify innovations which can alter these markets.

2. Benchmark a firm’s products and processes against competitors’ products and processes and identify changes needed to maintain or surpass any competitor’s current advantages.

3. Investigate progress in information technology and in the knowledge bases of the business’s product and production processes.

4. Re-examine current operations and control, and identify innovations in operations and control of operations needed to adapt to changes in market, competition, and new information and knowledge capabilities.

5. Formulate a business plan, with targets for market share and profits along with required investments and resources needed to achieve the plan.

These different perspectives of the “big picture” and “trench-reality” are both vital to a good strategy process, and therefore what is critical to good strategy formulation is the interaction of these perspectives. Now although the top-down and bottom-up perspectives in strategic thinking are extremely important to formulating good strategy, yet because of the hierarchy of authority, coordinating them is extremely difficult to achieve in a large organization.

In large organizations, these perspectives become quite different because of the hierarchical nature of authority. For example in a diversified firm, there are usually at least four levels of management hierarchy:

1. Firm Level
   – Board, CEO, and Firm Executive Team

2. Business Level
   – President and Business Executive Team

3. Department Level
The hierarchical levels of authority in a firm usually begin at the top of the firm level with a board of directors and a CEO. The CEO and his/her executive team are responsible for the strategy of the whole firm. This strategy includes what businesses are and should be within the firm, and the overall financial performance of the firm. The planning scenario needed at this level should include anticipation of change in all the industries of the firm’s businesses. The bottom-up input to the firm’s strategy should be provided by the participation of the business’s presidents to the CEO in the strategy process.

At the next organizational level, below that of the firm, is the business unit, and its president is responsible for strategy for the business as a whole. Part of the business’s planning scenario is the industrial context of the firm (economy and government) as well as the territories and cultures in the markets to which the business sells. Another part of its planning scenario is goals and targets specified for it by the firm-level strategy, the strategic firm model. The outcome of strategic planning for the business will be a strategic business model specifying changes for its future policies.

The final two levels within a company, department and office, are levels in which managers should provide bottom-up information to the business level in formulating the strategic business model. Policies of this model then provide the guidance for planning and improving operations and activities of the departments and offices.

Since it is organizationally natural for the bottom of the organization to listen more closely to the top than for the top to listen to the bottom, two kinds of misunderstanding are common in strategic thinking in large organizations:

- The managers of operating units frequently do not think that the top executives understand the strategic problems and challenges in operations.
- The top executives frequently do not believe the operating units are trying hard enough to implement the strategic plans they formulate.

This is the first challenge of strategic thinking in large organizations, to encourage real and accurate communication of strategic perspectives between the top and the bottom.

Therefore, in a rational strategy process, one needs to formalize these two perspectives as two views of a firm’s totalities, those of the environments of the firm and those of the operations of the firm. The top-to-down-looking
perspective looks at the “big picture” and formulates strategic policies for long-term direction. The bottom-to-top looking perspective looks at the specific “nuts and bolts” of the company’s operations to try to carry out the desirable long-term direction. *The critical problem in the strategy process of any organization is to facilitate a positive, constructive, and creative interaction between the two perspectives in strategic thinking.*

Moreover, this problem is exacerbated by the periodic and non-continuous requirements of strategic thinking. The actual process of formulating strategy is recurrent, exploratory, and interactive with the different experiential bases of the top management and of lower management levels. While the results of strategic planning may look as if created by a linear process (either linear in a top-down deductive logic or linear in a bottom-up inductive logic), the strategic process is non-linear and recursive and interactive with different experiential bases of the company top and bottom.

For example, Arthur A. Thompson and A. J. Strickland nicely summarized the recurrent nature of the strategy process:

The march of external and internal events guarantees that a company’s vision, objectives, strategy, and implementation approaches will have to be revisited, reconsidered and eventually revised. This is why the task of evaluating performance and initiating corrective adjustments is both the end and the beginning of the strategic management *cycle.*

– Thompson and Strickland (1998)

Since the strategic management process is interactive and cyclic, the information flow must be recurrently both bottom-up and top-down between the views of the environment and the business. The cyclic nature of strategic planning is also coupled into the budget cyclic of any business, going from yearly planning to yearly planning.

In a multi-business firm, there are two kinds of the top-down and bottom-up perspectives:

– firm to business perspectives
– businesses to business divisions perspectives.

This makes the top-down and bottom-up communications in a multi-business firm even more challenging than in a single business firm.

Using an interactive approach to the strategy process is important in the practice of strategic management – because the principle cause of failure in the strategy of large organizations has been often due to a lack of proper internal interaction between the two strategic perspectives – particularly during “competitive discontinuities” (which we will discuss later):

– *inadequate top-down perspective of innovative changes in environments,*
– inadequate bottom-up perspectives of the need for new business models for innovative change,

– inadequate communication between executive levels and operational levels about needed strategic change.

How can leadership in a large organization avoid these common kinds of mistakes in strategy processes? Good interactions between the strategic perspectives from the top and from the bottom are necessary to create a potentially profitable vision of the future – a strategic vision of the challenges, opportunities, and direction of the future business and how operations need to change to succeed in that future.

The planning process in a large organization can use two kinds of strategic techniques to assist this:

1. A strategic technique for effectively summarizing the changes in the environment’s future (i.e., the “big picture”) is called a “planning scenario.”

2. A strategic technique for effectively summarizing the desirable changes in operations for such a future environment is called a “strategic business model.”

**Apple Computer (Continued)**

In terms of the strategy schools, we can note that School 6, Learning School, viewed strategy as a kind of learning process in which formulation and implementation interact for the organization to learn from past planning and experience. In the case of Jobs, he and Wozniak learned how to build a computer and a computer company from their experience in so doing. This is a kind of “bottom-up” approach to a strategy process, learning from below, from experience of the activity of operations.

Also in the School 9, the Environmental School had focused upon the environments of organizations – seeing organizations as principally reacting to and responding to threats and opportunities in their environment it includes approaches such as “contingency theory” that classifies responses expected of organizations facing particular environmental conditions. This applied to Jobs and Wozniak’s looking to the new technology of computing and to Wozniak’s attending the consumer electronics trade show and purchasing one of the first “computers-on-a-chip,” the MOS 6502 microprocessor. Wozniak was obtaining information from the larger environment of technology, formulating strategy “top-down” from the big picture of what was happening in the world.

For example, in the case of Apple, strategic information came to Wozniak and Jobs from outside their group (top-down information) and from inside
their group (bottom-up information). There are two such sources of information in any strategy process, from the environment and from the business. We can diagram this concept – that component ideas in strategy come both from experience (bottom-up) and from the big picture of the environment (top-down) – as two strategic perspectives, Figure 4.2. The Apple company was begun a strategic vision as a PC called Apple 2. This PC vision was created by the bottom-up strategy of Jobs and Wozniak about the current state of computer technology in which they could purchase CPU as an IC chip. Also to obtain capital to operate and grow Apple, Jobs approached Mark Markkula, and they together formulated a top-down strategy to build a company, Apple Computer. Markkula provided venture capital.

![Figure 4.2](image)

Figure 4.2: (a) Bottom-up Strategic Vision of Jobs and Wozniak; (b) Top-down and Bottom-up Strategic Vision after Markkula Provides Venture Capital.

We see how the bottom-up strategy focused upon the technology and product; while the top-down strategy focused upon the company and finances. In terms of strategy theory, the ideas of “technology,” “product,” “company,” “finances” are component ideas of strategy. The top-down and bottom-up perspectives are process directions in the formulation of strategy.

Jobs and Wozniak were certainly entrepreneurs in the spirit of the “Entrepreneurial School” which focused upon the role of the chief executive
(Jobs) in strategy and saw strategy formulation primarily depend upon the
cognitive function of intuition in the executive (to make PCs). This focus of
strategy theory on “vision” certainly describes Jobs’ visionary ability to see
the products of new technologies.

The capability of both Jobs and Wozniak to see their strategy as matching
external conditions to internal opportunities of the organization does fit a
description of strategy, as emphasized by the “Design School.” We recall
that in 1976, Wozniak had visited an industrial trade show for consumer
electronics (called WESCON) and purchased one of the first “computers-on-
a-chip,” the MOS 6502 microprocessor. And from this, he designed his first
PC, which became the Apple 1.

Markkula recruited Mike Scott to serve as CEO for Apple, and Mike Scott
had been at National Semiconductor. In the face of the new competitive
challenge of the IBM PC, Apple needed to introduce a next-generation PC,
based upon a 16-bit word-length central processor, as IBM had used.
Wozniak took up the task of upgrading the Apple II to keep it marketable.
Scott began the development of a business product model for business
customers, the Apple III with a 16-bit microprocessor to compete with
IBM’s PC. But Scott’s product development leadership was poor. The Apple
III was slow to market and full of bugs and without any superiority to the
IBM PC.

Next Steve Jobs asserted strategic leadership, knowing that Apple needed
new technology. But since Apple did not perform research, Jobs had to look
outside. Jobs heard of outstanding research being done in computer science
by the then giant Xerox in its PARC laboratory. Jobs visited it and saw a
technological vision of the future PC – PARC’s “Altos” distributed computer
system. The Altos research project in PARC had developed the world’s next-
generation PC system – with a graphic interface, mouse, LAN, computer
connection to a laser printer, object-oriented software operating system –
nearly everything a PC was to become in the 1990s had been invented back
then in the late 1970s. Lawrence Tesler was a researcher at PARC who
helped develop the world’s first object-oriented programming language,
Smalltalk in order to program Altos’s operating system. Bro Uttal wrote that
Tesler later commented on the visit of the Apple team to PARC: “Their eyes
bugged out” (Uttal, 1983).

To innovate Xerox’s research strategy into a product strategy, Jobs hired
Tesler seven months later. They began the product development effort that
was to finally result in Apple’s successful Macintosh PC. Kathy Rebello,
Peter Burrows, and Ira Sager wrote: “The Apple II office computer was a
bug-infested flop. And Lisa, precursor to the Mac, was an expensive dud.
Job’s masterpiece, however, the 1984 Mac, was a stunner … It was also
severely underpowered and limited in expendability. The market balked, and
in May, 1985, Jobs was pushed out of daily operations” (Rebello et al., 1996).

Jobs’ visionary ability continued as “information technology” strategy. He saw the future of the PC in the Xerox Altos system. And at Apple, Jobs implemented the features of the Altos computer technology in designing the Apple Macintosh PC. At first, the Macintosh had slow sales, but a new software vendor introduced a new functionality to use the Mac’s features and launched desktop publishing. This was the business vision Jobs’ had not foreseen, but he got lucky. This application saved the Mac by bringing in corporate customers. In the information industry, a commercially successful new business application is often called a “killer application.”

In the information technology of that time in the 1980s, computer applications in graphics were then the cutting edge of strategic vision (complementing the earlier progress in computer applications in computation and text). With the desktop publishing application, Mac was finally succeeding. In 1987, Apple was saved and had a market niche in corporate computing – the desktop publishing niche. It was not a market, Steve Jobs had envisioned. Apple then was using what is called a “technology-leader” business strategy; and Jobs strategic strength then was in this kind of strategy. However, any business operated in a technology-leader strategy must stay ahead of competition or its competitive strength will erode. And this is what historically later happened to Apple.

In the case of Apple, the president of the company, Scott had been selected by Markkula, the venture capitalist. But Scott had not put a good strategy process in place in Apple, because his plan to counter IBM new PC was not innovative. Then Jobs, as founder, used bottom-up strategy to search for new technology and visited Xerox’s PARC. There in the Alto computer system, Jobs saw the technological strategy for all future PCs. Jobs went back to Apple and launched the Macintosh product as a product to incorporate PARC’s new technology (Figure 4.3).
Figure 4.3: Strategy Process – from Vision to Plan.

Vision and planning provide ways to integrate the formulation of a strategy. We see an aspect of the planning process was that Apple planned new products. The “Environmental School” had focused upon the environments of organizations; and in the Apple case, its strategy focus had changed to the competitive entry of IBM into the PC market – and environment of competitors. Also in the “Cognitive School” which focused upon the cognitive base of strategy, they emphasized the role of information and knowledge structures in formulating strategy; and this certainly describes Jobs strategic need to find new technology as a competitive factor. Jobs found this in Xerox’s PARC research for the Alto computer. Also the “Planning School” emphasized strategy formulation as formal process, which certainly began in Apple, after IBM presented its competitive challenge.

Historically, one can ask a question about Xerox’s strategy at the time. Why did Xerox not produce its own product as the Altos PC system? Why did Xerox show the new technology to Apple? It is clear in retrospect that Xerox executives did not understand the potential of the PC market. At the time, Xerox was only focused upon protecting its copier market from Japanese competitors. Xerox executives made a big strategic mistake! In the 1980s, Xerox began its decline from a dominant company into a niche company – all because Xerox executives could not envision the strategic importance of
PARC’s PC innovations. Xerox executives at the time failed in strategic vision – even though their research lab gave them the right, complete, and amazing vision for the PC.

Yet even for Apple, Jobs “strategic plan” was incomplete. Then Jobs still had not fully understood the competitive advantage of “application software” for the PC. He had not fully grasped that to the customer, the PC was only a “platform” – a software delivery system. What really counted for a PC customer was the software application. Then for the “Mac,” the only distinctive software application at the time was the desktop publishing market.

As Apple’s Macintosh computer was pioneering the market niche of desktop publishing, the major part of the PC industry was following an IBM-PC brand strategy. In this “brand strategy,” firms were using a “technology-follower” strategy; but this was working because of the major cost of software in information technology. It was turning out that continuity and availability of software, as opposed to the hardware part of the PC system, was really behind customer demand. And in the brand-name technology-follower competitive strategy, two companies were reaping the lion’s share of IBM’s brand-name recognition – Microsoft and Intel.

Here is an important lesson about business strategy and information-technology strategy. In 1987, the Microsoft software was technologically far behind the Mac software. Yet because of the marketing clout of IBM and its clones, the Microsoft MS-DOS operating system continued to dominate PC market share. The CEO of Microsoft, Bill Gates, was successfully executing a business strategy – using IBM’s market reputation to build the MS-DOS world. It would not be until Microsoft’s operating system release of Windows 95 in 1995, when MS-DOS information technology would finally begin catching-up with the Xerox/PARC/Apple/Macintosh information technology.

In 1987, after the Macintosh was beginning to succeed in the desktop application market niche, Jobs became chairman of the board of Apple and looked for a new president to succeed him. He picked John Sculley, who had many years of marketing experience at Pepsi Co. Yet within a year, there were policy clashes in Apple’s team. Markkula backed Sculley, and Jobs resigned from Apple.

Sculley’s leadership of Apple provided Apple with both a poor information strategy and a poor business strategy. Kathy Rebello, Peter Burrows, and Ira Sager wrote: “But Apple (under Sculley) entered the 1990s with an overpriced product line and a bloated, over-perked executive staff. Microsoft Windows was gaining ground and Apple’s rate of innovation was slowing …. Determined to catch the next technology wave, Sculley put himself in charge of research and development – and came up with the
Newton personal digital assistant, a marketing and technical fiasco” (Rebello et al., 1996).

We note that Sculley’s product idea did later succeed in another connected product, called the Palm Pilot. In June of 1993, the Board of Apple fired Sculley. Markkula next chose Michael Spindler, who then headed the successful European division of Apple to become CEO. Rebello, Burrows, and Sager wrote: “Michael Spindler started off with a 2,500 employee layoff, the first move toward a new, low-margin business model” (Rebello, Burrows, & Sager, 1996).

He produced inexpensive Macs for the home market and introduced a new higher power mac line with a new chip, the PowerPC chip, jointly developed with IBM. But in 1995, Apple stumbled dramatically, when Spindler’s large inventory of lower priced and lower powered Mac’s were ignored for their PowerPC line, and yet there were not enough produced for the Christmas season sale. Rebello, Burrows, and Sager wrote: “The (1995) Christmas quarter was a disaster … January 1996 brought news of a last quarter loss of $69 million. Laying off 1,300 workers is just the first step in an overhaul that could include Spindler’s ouster and/or even a sale of Apple” (Rebello et al., 1996).

Markkula called an emergency meeting for January 31, 1996, at the St. Regis Hotel in New York City. Spindler was surprised at the request for his resignation and argued for more time. Armstrong and Elstrom wrote: “The board was firm: Spindler had contributed much over his 16 years at Apple, but directors had been surprised by plunging gross margins, throwing into question management’s credibility” (Armstrong & Elstrom, 1996, p. 29).

The Apple Board next selected Gil Amelio from National Semiconductor to replace Spindler. Amelio had transformed national Semiconductor from its worst loss in 1991 of $151 million to a best year profit in 1995 of $262 million. Amelio finally began shopping for a new operating software system. Steve Lohr: “Apple was known to be casting about for a new operating program, the software that serves as the computer’s master-control panel. Apple’s in-house development effort, code-named Copland, had collapsed. For Apple, shopping for an operating system was a humiliation akin to General Motor’s having to buy engines from another company” (Lohr, 1997, p. 16).

Yet when Microsoft caught up, Apple was failing, declining in market share and losing money. How did Apple come to lose its competitive edge as a technology leader? Why had it simply “thrown away” a 10-year lead in information technology? The answer was leadership vision (or, in this case, failure of leadership vision). In contrast to Jobs’ early visionary leadership in Apple, all the subsequent CEOs of Apple failed in vision about information technology strategy.
Planning Scenarios and Strategic Business Models

The strategy process seemed to have never improved in Apple after Jobs left Apple. Figure 4.4 generalizes how strategic vision connects to a strategic plan – by means of two other strategic concepts of: “planning scenarios” and “strategic business models.”

Planning Scenarios

Strategic thinking needs to grasp the “big picture” of changes in the environments of a company. A planning scenario is a format for describing the future environment of a business. For example in 2000, the magazine “Worth” had interviewed two CEOs, Raymond Gilmartin CEO of Merck and Koichi Nishimura CEO of Solectron, about strategy, and they commented:

Gilmartin – Part of leadership is saying in touch with what’s going on outside your company …. You need to gather information to see the patterns, to tell if you’re on the wrong track, to take risks and make decisions that go against the grain.

Nishimura – Getting it right comes from pattern recognition. You integrate information and you go “humm.”

–Worth (2000, p. 183)

Gathering information and constructing patterns of trends and changes in the environments of business is the purpose of scenario planning in the strategy process. To systematically gather information and create insightful “humm”
patterns, the *strategy technique of scenario narrative* is useful.

All strategy is based upon assumptions about the future and its business opportunities and challenges. A modern technique for exploring and expressing these “pictures of the future” is called a scenario, and when used for planning, a planning scenario. Scenario planning uses scenario narratives and societal models. Scenario narratives provide a method for describing and thinking about the possible impacts of the future upon a current business. A future scenario consists of anticipations and/or surprises and plans for the future, as can be thought about in the present.

**Strategic Business Model**

Strategic thinking also needs to think about what kind of business model can meet the challenges and exploit the future opportunities in the environments of the company. So the second “strategic totality” to be considered in the planning process is the future of the business (or businesses) of the corporation. The strategic technique effective for this is a “model” of how one’s company now operates but should change to operate in the future is important in strategic thinking, a “strategic business model.” Strategic models of the business of a corporate summarize the future policies of the company which will prepare it to perform in the future.

The strategic importance of the concept of a “business model” was nicely expressed by Geoffrey Colvin, commenting on the troubles Xerox was having in 2000: “The quote of the year for 2000 comes from Xerox CEO Paul Allaire … He gets the Distinguished Service Cross for extraordinary executive heroism because he told analysts in a conference call, ‘We have an unsustainable business model.’ In the past CEOs of big, established companies didn’t say things like that. They didn’t tell the people who rate their stock that the way they make money doesn’t work anymore … The largest fact of life in business today is that virtually every company … has to change its business model to make it sustainable in the Internet worked, infotech-based world” (Colvin, 2001, p. 54).

A business model is an abstraction of a business, identifying how that business makes money. Business models are abstracted about how inputs to an organization are transformed to value-adding outputs. A *strategic business model abstracts the basic value-adding transformation that describes how a business makes its money.*

**Apple’s Strategy Process after Jobs’ Departure**

If we diagram Apple’s failure in strategy after the exit of Steve Jobs, one can see that it lay in never grasping onto the new technology change of the Internet (Figure 4.5).
After Jobs left Apple, none of the CEOs were innovative about new product possibilities provided by the new Internet technology. They did not build a strong R&D capability in Apple to create new technology and products. As a consequence, Apple failed to beat Microsoft, which finally in 1995 caught up with Apple in PARC’s PC technology. As a consequence the Apple share of the PC market continued to decline through the decade of the 1990s.

When Steve Jobs had been ousted from Apple, Jobs set up a new company, “Next,” to develop a next-generation PC. But the hardware, which “Next” produced, was not a commercial success. Only its operating system was advanced. It was an example of an object-oriented-program operating system, which Jobs had earlier seen back in 1980 at Xerox’s PARC. But then he had not innovated this in the Macintosh. He finally innovated it in his new PC, the “Next.” Jobs was still displaying excellent vision in information technology strategy but not yet as good a visionary ability in business strategy. “Next” developed good software but sold few hardware platforms. Jobs scaled back strategy for “Next,” to focus upon building Internet sites. Then Jobs turned his entrepreneurial skills elsewhere – toward new technology in the movie industry. He bought a new high-tech business called “Pixar,” innovating new computerized animation technology.

**Jobs’ Strategy in Pixar**
Going back to the animation technology early in the twentieth century, the new movie industry had begun when cinema cameras were invented (a kind of information technology). Hand drawn animation was innovated, and Walt Disney pioneered in the early cartoon films. Sound was added in the early 1930s. In the 1970s, video was added to cinematic information technologies. Then in the 1980s, computer-aided graphics began to be added to the cinematic tools.

In the late 1970s, a film director, George Lucas had made a commercial success in his science fiction film for youth, Star Wars. He had used extensive animation in the film. Meanwhile, computer-aided graphics technologies were being developed by government agencies, using minicomputer platforms. By the middle of the 1980s for graphics applications, researchers were using “parallel-processing computers” – small computers that used not one CPU but several CPUs within the same computer. This technology greatly sped up the ability to computer process pictures by computers.

Lucas had such a parallel-processing minicomputer built for this studio, “Industrial Light and Magic.” This was the first of this new kind of computer in a movie studio. It was the first parallel-processing computer commercially devoted to graphics and animation. With it, Lucas changed his studio to an animation company, called “Pixar.” It performed services for producing animation sequences using the new information technology of computerized animation. However, Pixar was losing money, and in 1986, Lucas sold it to Steve Jobs, for $10 million. But Pixar continued to lose money, also for Jobs. Over the next five years, Jobs invested an additional $50 million in Pixar, which at the time was about 25% of his total wealth.

Yet information technology for animation was still rapidly progressing at Pixar; and in Pixar, Jobs had acquired a very good information-technology team. For example, he had a key engineer in Ed Catmull. As a kid, Catmull had loved animated films but had little drawing talent. He had technical skills, and he studied computers. In 1975, he was employed at a vocational school (New York Institute of Technology in Old Westbury, New York), where he teamed with artists to try computer-assisted animation. But at the time, computers drew very slowly. In the 1980s, this team left New York and went to work for Lucas at his Industrial Light and Magic Studio in San Rafael, California.

In 1991, Disney gave Pixar a three film contract. This was Pixar’s first venture from contract animation to producing full-length animated films. The first film it was to produce was called “Toy Story.”

Jobs’ business strategy for Pixar would transform it from an “animation contractor” into a major movie studio. For this new business vision, Jobs next raised additional capital for Pixar, from investors such as Seagram’s
CEO, Edgar M. Bronfman, investment banker Herbert A. Allen, Disney’s CFO Robert Moore, and movie agent Michael Ovitz.

The “Toy Story” film which Pixar was producing and Disney was to distribute, would give Pixar only a small percentage of the profits. Then “Toy Story” became a big children’s film hit in 1995. Jobs then took Pixar public, at the height of “Toy Story’s” success. The initial price of $22 quickly went to $33. It was reported that then Jobs called one of his best friends, Lawrence J. Ellison who was CEO of the high-tech database company, Oracle, to tell him he had company in the billionaires’ club (Burrows & Grover, 1998).

In 1998 with “Toy Story’s” success, Jobs was able to cut a better deal with Disney. For the next five years, Pixar would get an equal share of the profits with Disney (after a 12.5% distribution fee), and also Pixar had the assistance of Disney’s powerful marketing and distribution capabilities. Profits in the children’s movie industry come not only from film sales but also from merchandising deals. In 1999, Pixar had made about $53.8 million from Toy Story; but was anticipating more than $200 million in merchandising royalties, video sales, and box-office receipts from a successful new movie called “A Bug’s Life.” For that film, many companies had cut merchandising deals with Disney (such as Mattel Inc. and McDonald’s Corp).

To produce full-length feature children’s films, such as “Toy Story” and “A Bug’s Life,” Pixar developed both the production capabilities of a full studio and also focused upon the technology of computerized animation. First, a storyline and a script were developed by Pixar’s team, and next approved by Pixar and by Disney. Pixar’s landscape artists painted lush backgrounds for the scenes in the film and animators drew the characters. Character-sculptors created 3-D computerized models of characters for the film.

For example, a cartoon character, Flik (from “A Bug’s Life”) was first sketched by an artist and then the sketch computerized as a “wireframe” model (upon which the computer can next develop a solid-surface representation, using computerized polygon mathematical equations). Then the character was rendered with texture, and appropriate lighting in each scene. Within the computerized-graphic technology, modeled characters are placed in landscapes and animated through the motions required by the script. Human voice-overs are finally added.

What the technology of computer-animation provided was (1) much cheaper and faster film production with many fewer animators and (2) flexibility to alter and hone the story. Such films cost one-third less than traditionally hand-animated films, using one-third the staff.

Moreover since everything is digitally stored, it is easily digitally altered. For example, the Pixar film “A Bug’s Life” was completely changed after
more than a year’s work on it was expended. The story had begun about a troupe of circus bugs that tries to rescue a colony of ants from grasshoppers. Peter Burrows and Ronald Grover wrote: “But because of a flaw in the story – why would the circus bugs risk their lives to save strange ants? – co-director Andrew Stanton recast the story to be about Flik, the heroic ant who recruits Flea’s troupe to fight the grasshoppers. ‘You have to rework and rework it,’ says Lasseter. Indeed, one scene was rewritten 30 times” (Burrows & Grover, 1998).

One of Pixar’s business strengths – and its value to the giant Disney – was the ability to develop and apply computerized animation technology. For example, in one scene in “A Bug’s Life,” the director Lasseter was dissatisfied with the crowds of ants in the movie’s scenes, who all had “look-alike” faces. Pixar’s engineer, William Reeves, developed new software that randomly applied different physical and emotional characteristics to each ant in a scene. As another example, the writers of the script brought a model that had been created of one of the butterflies (called Gypsy) to show the Pixar’s researchers and asked them to write software to make the animated butterfly show hairs pressing down and popping back up when the butterfly rubs her antennas. They did that.

It was the original vision of Pixar (which Lucas founded and Jobs developed) that the technology strategy and the production strategy would continue to make possible cheaper animation with higher quality – attention to the visual details of animated films. This made the integrated technology and business strategy of Pixar a valuable studio, then ahead of other competing animation studios in animation technology. Burrows and Grover wrote: “(Pixar) has turned out ever more lifelike short films, including 1998’s Oscar-winning Geri’s Game, which used a technology called subdivision surfaces.” This makes realistic simulation of human skin and clothing possible. “They’re absolute geniuses,” gushes Jules Roman, co-founder and CEO of rival Tippett Studio. “They’re the people who created computer animation really” (Burrows & Grover, 1998).

Part of the business strategy of Pixar was to continue to develop its creative and talented staff. Each new employee first spent 10 weeks in training at what they called “Pixar University,” which included courses in live improvisation, drawing, and cinematography.

But movie production is art and story-telling. The person in charge of “story-telling” in Pixar was John Lasseter. He was born in Whittier California and loved cartoons since childhood. He decided to become an animator as a freshman in high school, after reading a book on the making of Disney’s famous children’s film, Snow White. After graduating from the California Institute of the Arts, Lasseter was at first employed by Disney. In 1984, he joined Pixar. Lasseter was credited with helping Pixar make the transition
from short-subject films to full-length films. In the partnership between Pixar and Disney, Disney insisted that Pixar sign Lasseter to a seven-year contract and paid half his salary.

Jobs’ vision for Pixar in 1999 was that it should grow into a major movie studio, rivaling Disney. Burrows and Grover wrote: “Jobs says, ‘I think Pixar has the opportunity to be the next Disney – not replace Disney – but be the next Disney.’ So how will Jobs achieve his dream? Not surprisingly, he’s tapping into his Silicon Valley roots and using computers to forge a unique style of movie making” (Burrows & Grover, 1998).

Yet over time, competitors always acquire new technology for their own survival. In 1999, even Disney was improving its own technical staff in computerized animation technology. About one hundred of their employees were working on Disney’s first completely computer-animated film, “Dinosaurs.” Pixar would be in direct competition with its strategic partner, Disney.

“Basics” of a Business

The ideational components of a strategy can provide a systematic way to pose the strategic questions about “basics” of a business – thereby establishing the basis for a strategic business model. A strategic business model is how a firm will make money, not only in the present, but in the future. Strategy is about what changes need to be made in the current business operations, in the current business model, to be profitable in the future. Lowell Steele has listed some of the basic questions about the model of any business (Steele, 1989). The basics of any business consists of answers to the following strategic questions:

(1) *What is the “totality” of the enterprise?*

What businesses are and should be those of the firm?

(2) *What is the “vision” of a business?*

Who are its customers? How should a business profitably add value in its products/services to its customers?

(3) *What is the competitive “environment” of the business?*

How should the business compete against competitors for the customers sales?

(4) *What “changes” will or should occur, which can affect the current businesses of the enterprise?*

All strategic thinking is based upon a concept of the enterprise, but that concept may not always be clear nor adequately articulated. It is the completeness of considering all the basic strategic issues which can assist in
the construction of an effective and successful business model. Figure 4.6 summarizes Jobs’ business model for Pixar, which he evolved over time:

(1) The strategic “totality” of the Pixar’s business enterprise should expand from a contract animation house to a full movie studio;

(2) The strategic “vision” of Pixar’s new products of full movies should focus on the animated children’s film market;

(3) The strategic “environment” of Pixar focused upon the market dominance of Disney;

(4) The strategic “changes” in the practices of Pixar would require the scripting capability for a full movie, budget control, and distribution capability;

(5) The strategic “control” over production and distribution of full-length feature films and merchandising would be accomplished in a business partnership with Disney;

(6) The “information strategy” required Pixar to continue as an information technology leader for a competitive edge.
We can see in this case of Pixar that Jobs’ business model focused around knowledge and markets – the knowledge of computers and story-telling applied to the market of children movies. The business model used competition, Disney, to distribute its full-length movies produced by Pixar’s computerized animation operations.

Jobs’ “big picture” was always to seek new technology to apply to business products – first in the Apple PC, then in the Macintosh PC, and then in Pixar parallel-processed graphics.

The planning scenario for the “big picture” and the strategy for the business model had become central to Jobs’ growing skill in strategic thinking – which he was developing with in Pixar. One can see in this part of the case that Jobs’ grew in ability for leadership vision beyond clever technology strategy toward increasingly clever business strategy.

In Pixar, Jobs effectively integrated technology and business strategy, which was something that was never well done at Apple. This integration required him to reformulate Pixar’s business mission and to create a strategic business alliance with Disney to implement it. When Jobs had purchased Pixar he still was operating with a strategy predominantly on information technology. Pixar was at the cutting edge of computational graphics (an advanced area then of information technology), but not making money. Lucas had been losing money at Pixar; and after Jobs paid $10 million for it, Pixar continued to lose money – requiring Jobs to invest another $50 million. It was this experience of continuing to lose money (and yet having an exciting information-technology strategy) which stimulated Jobs to come up with a new business vision for Pixar to become a major movie studio.

**CASE STUDY**

*Steve Jobs’ Third Exercise in Strategy – Apple’s iPod and Smart Phones*

It was back in July 10, 1997, when Apple’s then CEO, Gilbert Amelio resigned, after only 18 months on the job, then the Apple Board of Directors asked Steve Jobs to come back to run Apple. Jobs learned that Apple was shopping for a new operating system, he proposed Next’s system to them. He met with executives of Apple on December 2, 1996 in Cupertino, California, and explained that adopting Next’s operating system would be Apple’s best choice of a new system. Steve Lohr wrote: “On Dec. 20, 1996, Apple’s C.E.O. and chairman, Gilbert F. Amelio, announced that the company would buy Next Software Inc. For $400 million. For that price, Apple (gets an advanced operation system software and) also gets Steven P. Jobs … So Jobs becomes the computer era’s prodigal son: his return to Apple after more than a decade in exile is an extraordinary act of corporate
reconciliation, a move laden with triumph, vindication and opportunity” (Lohr, 1997).

Back in control at Apple, Jobs began developing a new product model for Apple computers: Jobs then cut Apple’s product lines down to four – a laptop and desktop for consumers and a laptop and desktop for professional users. He ordered Apple’s design team to redesign the case to look exciting. He also replaced about three quarters of Apple’s management team. The new Macintosh, labeled iMac, eventually added digital video publishing as an application, which included video editing software. Still after the company turned profitable in 1999 and Jobs became permanent CEO again of Apple, the market share of Apple in the PC market remained small. Michael Krantz wrote: “Will it be enough? Apple’s 12% home-computer market share is a big improvement over 6%, but it still leaves the Max on the margins …” (Krantz, 1999).

In 2000 with Jobs back in charge of Apple, Jobs again turned to new technology, this time the Internet. Jobs next developed the new products and services of Apple’s iPod product and iTunes music service. This combination revived Apple’s fortunes from the decline of Apple; and in January 2007, Apple reported quarterly revenue of $7.1 billion dollars, with the iPod providing 48% of the revenue. Yet Apple had not invented either of the technologies for the good or the service. The two earlier inventions were that of the MP3 digital audio player and of the Internet music-swapping software by Napster. Jobs’ commercially successful innovation was their integration as a product and service.

The MP3 player was a portable music player to play digitally recorded music. Previously, portable music players, such as Sony’s Walkman players, used electronic analogue signals to record music. The first patents on digital audio players were filed by Briton Kramer, expiring in 1988. Early in 1998, SaeHan Information Systems in South Korea produced the first mass-produced digital player as its “MPMan”; and Eiger Labs distributed them to the North American market. A few months later in September 1998, Diamond Multimedia produced their Rio PMP300 player.

On this early history of the MP3 player, Eliot Van Buskirk wrote: “Ask even seasoned MP3 buffs about the first MP3 player, and they’re almost certain to name the Diamond Multimedia Rio PMP300. If they really know their stuff, they’ll even tell you that it came out in late 1998. They’re wrong either way, although you shouldn’t be too harsh on them – their mistake is understandable. The Diamond Rio’s false status as the first MP3 player is practically cemented in technology lore …. Most tech-savvy types wrongly think Diamond’s device was first because, like nearly every other major development in digital music, the Rio brought with it a spectacular flurry of legal wrangling and the attendant media exposure. Back in those days, you
were nobody in the digital-music business unless the labels sued you” (Buskirk, 2005).

In 1998, that the Recording Industry Association of America (RIAA) filed a lawsuit against Diamond Multimedia, alleging that the Rio MP3 player encouraged copying music illegally. But a federal court in California ruled that the player did not infringe any music copyrights (Clampet, 1999). Also in the same year an MP3 player with a hard drive to store music was innovated by Compaq’s System Research Center: “Here comes the irony. In 1998, Compaq’s engineers made the first hard-drive-based MP3 player and licensed it to a Korean company (Hango) that didn’t do much with it. In 2001, the first iPod came out” (Buskird, 2005).

The delivery of music over the Internet was the next technology, widely pioneered by a program called “Napster” developed by Shawn Fanning. He was a college student, studying computer science at Northeastern University in Boston in the fall of 1998. Earlier he had worked summers for his uncle, John Fanning, whose company, Netgames, was developing online games. Shawn was bored by college and spent his time at his uncle’s office. He had an idea for a search engine to find and share music files over the Internet. He began programming Napster software. He and his uncle saw a commercial potential in the idea. Shawn dropped out of college and completed a test version of the software. His uncle incorporated a new company. Steven Bruell, Dennis Berman, and Mike France wrote: “Napster was an instant success. On June 1 of last year (1999), to test the beta version of the software, Shawn gave it to some 30 friends he met through online chat rooms …. In just a few days, Napster was downloaded by 3,000 to 4,000 people” (Bruell et al., 2000).

With this evidence, John Fanning began to raise capital in August 1999. The demand for Napster soared and Napster hired its first CEO in Eileen Richardson, who was a venture capitalist in Boston. Bruell, Berman, and France wrote: “… Napster raged across the college circuit like a forest fire. College students were discovering Napster, and they couldn’t get enough of it. At Oregon State University, Napster was taking up 10% of the school’s Internet bandwidth by October, 1999 …. That fall, it became clear that Napster had a whale by the tail” (Bruell et al., 2000).

It became clear to others that the vast trading of music for free on the Internet had serious business implications. One of these was the RIAA, which had earlier sued Diamond Multimedia Systems, Inc., the manufacture of MP3 music players. Bruell, Berman, and France wrote: “From late summer, 1999, up to when the RIAA sued Napster on Dec 7, 1999, the two sides were engaged in discussions about the service. People familiar with the situation describe the talks, which involved executives from Napster and various record companies as a clash of cultures and monster ego …. 
(Eventually) Napster’s relationship with the RIAA had deteriorated to the point of warfare” (Bruell et al., 2000).

Also it became clear to others that the vast trading of music for free on the Internet had serious business implications. On December 7, 1999, RIAA sued Napster. Months later on July 26, 2000, a Federal judge of the U.S. District Court in San Francisco ruled against Napster for copyright violation. Bruell, Berman, and France wrote: “The hearing lasted about two hours. By the time it was over, Napster had been legally eviscerated. Judge Patel dismissed virtually every Napster argument, granting the injunction (against Napster) …. The sweep and strength of her ruling stunned the Napster team …. Napster’s worst nightmare had come true …” (Bruell et al., 2000). That suit against Napster was just one example of what would be a major strategic issue about the Internet – protection of copyrighted material.

Thus Steve Jobs knew a service providing copyright-protected music for payment could flourish over the Internet. He had his hardware engineering chief, Jon Rubinstein, assemble a team of engineers to design the iPod. In the team were Tony Fadell and Michael Dhuey and Johahan Ive. The iPod was to be an MP3 digital audio player with a hard drive for storage. The team developed the product in a year, and the iPod was displayed in October 2001, with a 5 GB hard drive that could store at least a thousand songs. Apple adapted software from Portal Player’s. The brand name iPod was suggested by Vinnie Chieco, a freelance copywriter, who was consulted by Apple about a name. But it turned out that this name had already been trademarked by Josephy Grasso, who then assigned it to Apple in 2005.

Apple also established an Internet service, iTunes Store, to sell music for the iPod. Songs are downloaded for a price from the Internet by a computer (e.g., Mac Laptop) and loaded onto the iPod. Earlier, Steve Jobs had learned the different hardware, software, and service businesses. He innovated their integration – as a means to revitalize the company he founded three decades earlier.

And Jobs’ understanding of services as a business model for the Internet continued. New products as hardware platforms for Internet services followed. In 2005, Apple entered the cellular phone market with a “smart” phone – the iPhone. And in 2010, Apple introduced an iPod Touch. These new products were expected to generate over 50% of Apple’s profits by 2011.

The success of the iPhone was due to applications software downloaded onto the phone. Apple provided a “store” in which application software could be approved for downloading. For example, Jenny Wortham reported: “Apple is tightening its already firm grip on what software can run on the iPhone and its other mobile devices, as shown by its recent changes to the rules that outside programmers must follow. The company is locked in a battle with
other cell phone makers, particularly those using Google’s Android operating system, for the latest and best applications that add functions to a phone” (Wortham, 2010).

Apple’s new hardware products were designed to provide platforms upon which to download and run software applications – a service platform. The technology of the Internet provided Jobs with new opportunities of new products and services, as shown in Figure 4.7.

![Figure 4.7: Strategy Process in New Apple.](image)

**Summary**

Strategy theory focuses upon both the process and content in formulating strategy. The process involves two strategic perspectives, top-down and bottom-up. The top-down strategic perspective focuses upon the financial aspect of operations. The bottom-up strategic perspective focuses upon the experiential basis of operations.

In the top-down perspective, the content ideas are expressed as a big picture of an organization’s environment, as a “planning scenario.” Within a planning scenario, key component ideas of the environment include government policies, technological progress,
economic developments, and cultural changes.

In the bottom-up perspective, the content ideas are expressed as organizational experience in competition, a strategic business model. Within a business model, key component ideas include operations (products and services), competition, market, and knowledge.

Theoretical Principles

1. Strategic change is periodically necessary to survive and prosper.
2. Strategy divides into content (strategic issues) and into process (strategic planning).
3. Strategic perspective divides into top-down perspective (executive perspective) and bottom-up perspective (operational perspective).
4. The strategy process requires formulation of the ‘big picture’ as a strategic scenario and the ‘operations picture’ as a strategic business model.
Strategic Business Model

Introduction

The idea of how a business makes money presently is called a “business model.” How it will continue to make money in the future is its “strategic business model.” The bottom-up strategic perspective is principally informed by experience from operations.

Historical Event: Ford’s Innovation of the Model T

All organizations are goal directed, innovating productive transformations to reach these goals. All businesses make profits by adding value to purchased resources, transforming them into goods or services. The production system of the firm is the coordinated set of activities (system) which directly adds value. For a business, this “goal-seeking” has been called the “concept of the enterprise,” and its “productive transformations” constitute the “enterprise system.” A business model is how an organization’s enterprise system earns profits in a market against competitors. We review the history of “enterprise systems” (business models) which occurred in the U.S. automobile industry in the first half of the twentieth century.

In the late 1800s, a new auto industry was created by putting an engine onto the bicycle technology. The bicycle had been invented in the middle of the 1800s by taking advantage of the new high-strength, lightweight, and low-cost steels then produced by the steel industry, using Bessemer’s invention. The gasoline engine was invented in the late 1800s, and then some bicycle manufacturers added engines onto a four-wheeled bicycle frame. William Abernathy wrote: “Alan Nevins observes that the (automobile) industry was born from the consumer’s desire for a light personal transportation vehicle, a desire stimulated by the bicycle boom of the 1890s …. Men with experience in the bicycle industry were the first to see the possibilities of the automobile as a means of personal transportation. Their technological orientation led them to improve the automobile’s performance through lightweight designs, high-strength materials, and low-friction ball bearings rather than increased motor power” (Abernathy, 1978).

The year 1896 marked the beginning of the U.S. automobile industry because then more than one auto was produced from the same plan, when J. Frank Duryea made and sold 13 identical cars in Springfield, Massachusetts. During the next few years, many new automobile firms were founded and a variety of auto configurations were offered (Abernathy, 1978). Races were held between the three principle configurations of automobiles in steam, electric, or gasoline power. In 1902, a gasoline-powered car
defeated electric and steam cars at a racetrack in Chicago, establishing the dominance of the gasoline engine. Thereafter, this engine was to become the core technology for the automobile. Also in 1902, the Olds Motor Works constructed and sold 2,500 small two cylinder gasoline cars priced at $650. The next six years in the United States saw the growth of many small automobile firms selling different versions of the gasoline engine auto.

Other choices about configuration were made. In 1903, Buick relocated the engine from the rear to the front of the car. The bicycle-like drive chain was replaced by a direct drive shaft, connecting the front-placed engine to rear wheels. In 1904, Packard patented the four-position transmission with positions in the shape of an H, which subsequently became the standard for manual transmissions. Ford redesigned the earlier one-piece designed block-and-head engines in two separate pieces for ease of casting and machining. By 1907, the automobile system began to look more like modern designs than like the early carriage/bicycles with rear-mounted engine.

The next key event in the history of the U.S. auto industry was Henry Ford’s introduction of the now famous Model T. While Henry Ford was producing automobiles, he was racing his cars to establish a reputation for performance. His cars were expensive, as were all other cars, principally for the well-to-do. But Ford had in mind a large untapped market – a car for people living on farms. Around 1900, half of Americans still lived on the farm. Ford wanted to build a practical, high quality automobile priced at $450 dollars. His commercial strategy was price, and his technical strategy was durability. The rural application required an inexpensive, reliable and durable car, which also had a high clearance for dirt roads and also easy maintainability by mechanically-minded farmers. The key to his technical innovation would be in the weight and strength of the chassis of the automobile structure.

Material costs in the early automobile were a very large part of its cost. If Ford could reduce the weight of the model T by at least one-half of competing designs, that technology would produce an enormous competitive advantage for his grand strategy of a “car for the people.” Ford’s innovation for decreasing the weight of the automobile would be to use high-strength steel for the chassis, made of the element vanadium as an alloy. Henry Ford learned of this new steel when attending an automobile race.

In one of the unfortunate accidents that day, a racing car imported from France was wrecked. Allen Nevins and Frank Hill described this: “In 1905 (Ford) saw a French automobile wrecked in a smash-up. Looking over the wreck, he picked up a valve stem, very light and tough … it proved to be a French steel with vanadium alloy. Ford found that none (in the U.S.) could duplicate the metal. (Ford) found a small steel company in Canton, Ohio (and) offered to guarantee them against loss. The first heat was a failure … the second time the steel came through. Until then (he) had been forced to be satisfied with steel running between 60,000 and 70,000 pounds tensile strength. With vanadium steel, the strength went to 170,000 pounds” (Nevins & Hill, 1953).

Making the chassis of this steel meant that he could reduce the weight of the chassis by nearly a half and get the same strength. It was a technological breakthrough that
allowed Ford to imagine an innovative new product design. Charles Sorensen, who helped Ford design the Model T, later wrote that Ford had told him: “Charlie, this means entirely new design requirements and we can get a better, lighter and cheaper car as a result of it” (Sorensen, 2006).

Ford used the new vanadium steel to fabricate the chassis of the automobile, which reduced the overall weight of the model T to about half that of existing automobiles. In addition, Ford also innovated in the design by mounting the motor to this chassis with a three-point suspension. The prior practice had been to bolt the engine directly to the frame, and often cylinder blocks of those engines were twisted by the enormous strain that occurred when the automobile bounced over a hole or rut.

Ford also designed the Model T to be a “best of breed.” He used the other best ideas in other contemporary automobiles. For example, he replaced the then traditional dry-cell batteries for starting the car with a magnet-powered ignition (one cranked the Model T to start it). The Model T became a “design standard” for automobile technology. Abernathy wrote: “For eighteen years the design of the Model T chassis was not significantly changed. During this period the industry’s production of passenger cars increased nearly sixty fold, from 64,500 cars annually to 3,700,000 … Ford maintained about a 50 percent market share through 1924” (Abernathy, 1978).

As shown in Figure 5.1, Ford’s Model T was the right product at the right time for the right market at the right price. Performance, timing, market, price – these are the four factors for commercial success in innovation.

Figure 5.1: Henry Ford’s Enterprise. Sources:
http://loc.gov/picture/resource/cph.3c11278;
http://content.lib.utah.edu/cdm4/item_viewer.php?
CISOROOT=/USHS_Shipler&CISOPTR=2629&CISOBOX=1&REC=2;
Henry Ford (1863–1947) was born in Michigan, U.S. In 1879 at age 16, he became an apprentice machinist in Detroit. In 1891 at age 28, Ford was hired as an engineer with the Edison Illuminating Company. He began experimenting with gasoline engine in 1893, building his first car in 1896 at age 33. Receiving backing from a wealthy individual, Ford resigned from the Edison Company and founded the Detroit Automobile Company in 1899 (which lasted until 1901). Next Ford built a successful racing car and started a new company in 1901. Ford introduced the Model T in 1908.

Business Models

Organizations are established to perform a repetitive activity of adding value to resources in order to produce products, thus transforming purchased resources into solid products. This value-adding transformation creates profits. Business processes are designed within the organization to order these repetitive activities as business operations controlled by business procedures. The design (or redesign) of the types and sequence of activities and the procedures to control these activities form the “operational processes” of an organization. One way to picture this value-adding operation was imagined by Michael Porter (Porter, 1985) as seeing a business as an “enterprise arrow,” as shown in Figure 5.2.

![Business Models Diagram](http://toolkit.archives.gov/exhibits/twww/).
The production or delivery system of the firm is the coordinated set of activities (system) which directly adds value. For a business, this goal-seeking has been called the “concept of the enterprise,” and its productive transformations constitute the “enterprise system.” The figure also compares Porter’s arrow as being the same as an open-system model of a business. Resources as inputs are transformed into outputs production. But Porter’s arrow-picture adds overhead functions to the direct production (transformation) center of the open-system model. This is a fundamental way to look at any business. A model of a business’s “enterprise system” can be constructed as (1) overhead activities above a (2) transforming open-system; and the open-system portion acquires material, capital, and personnel resources from the economy, transforms these into goods and/or services, and sells the goods/services into the markets of the economy.

For example, the production line which Ford established for the manufacture of the Model T consisted of a series of processes, as depicted in Figure 5.3.

![Figure 5.3: Automobile Manufacturing Production System Flow.](image)

These connected production processes together performed a value-adding transformation of manufacturing the Model T (in Porter’s enterprise arrow). Ford purchased both manufactured components and materials for their own manufacturing processes from various supplying vendors.

Ford purchased components such as electrical parts, bearings, glass, radiators, batteries, and so on. From other suppliers, Ford also purchased processed materials, such as steel sheets and rolled steel, nonferrous metal products, oils, paint, and so on. Purchased components and materials were subjected to acceptance inspection.

Next materials went through various production processes to be formed into parts (such as forging, casting, machining, stamping, plastic molding). In addition, some of the
purchased components also went through further processing to be finished as components (such as heat treatment or additional machining).

Materials, components, and parts eventually were all used for three subassembly systems in fabricating the automobile:

(1) power subsystems — engine, axles, transmission, steering assembly, etc.
(2) chassis subsystems — frame, suspension, brakes, etc.
(3) body subsystem — body, seating, windows, doors, etc.

Various plating and painting processes prepared the power and chassis subsystems for final assembly, and the body was painted for final assembly. Then finally the three major fabrication subsystems were attached together as an automobile. After adjustments and inspection, the product emerged as a completed automobile.

All these manufacturing operations connected together describe the actual transformation in Porter’s symbolic “value-adding arrow”.

CASE STUDY

General Motors and Ford Strategic Rivalry

The business model of an enterprise cannot be a static and unchanging, because of competition. As competitors alter products/services, a strategic enterprise must stay ahead of competition – envisioning a future and implementing a strategic plan to improve operations/services in the future before competitors do. Historically, Ford Motor, after dominating the U.S. automobile market with its then innovative Model T car, lost market dominance to General Motors (GM). Good or bad strategic leadership is the reason behind competitive advantage in the long run.

We next look at business competition between Ford Motors and GM, in the United States in the twentieth century. During the 80 years from the 1927 to 2007, GM gained market dominance over Ford. But then GM lost domestic market dominance to foreign car makers in the 1970s, even going bankrupt in 2007. How? After good strategic leadership under Sloan, his successors then provided bad strategic leadership, ending in bankruptcy.

While Henry Ford innovated the Model T and built an efficient mass production line, which made Ford the largest automobile manufacturer in the world. But another automotive entrepreneur, William Durant, was putting together a second big automobile company. He assembled GM by acquiring many smaller auto companies and auto parts companies. As Durant did not have Ford’s innovative vision, Durant’s business strategy was to assemble as
many different makes as possible to cover the market – since he saw the auto market as fickle. In 1908, William C. Durant managed the Buick Motor Company and then was trading his successful stock in it to acquire additional auto firms. Yet in 1910, a group of bankers took control away from Durant, criticizing his expansion as too rapid.

Durant then founded another successful company, Chevrolet, and he used its stock to regain control of GM. But in only four years, GM was again in trouble and needed rescuing a second time. GM’s auto inventories were high and cash ran short. GM needed to borrow $83 million in October 1920 to pay salaries and supplies. The du Pont family would rescue GM, investing the necessary money, but only if Durant resigned. Durant resigned, and Pierre D. DuPont was elected president. The du Pont family then held the controlling interest in GM.

Pierre S. du Pont had led the growing U.S. chemical firm of DuPont and had retired. But as the chemical firm was producing great profits for the DuPont family, and it had invested in Durant’s GM. The retired Pierre du Pont soon appointed Alfred P. Sloan to succeed him, stating: “I greatly admire Mr. Sloan and his business methods and look upon him as one of the most able partners in the management of General Motors Corporation” (Forbes, 1924, p. 760).

Sloan had been trained as an electrical engineer at the MIT and afterwards built and operated Hyatt Roller Bearing Company. He sold bearings to both Ford Motor and Cadillac. In 1916, he sold Hyatt to Durant, continuing as president of Hyatt which operated as a GM subsidiary. When DuPont replaced Durant, Sloan was promoted to president of GM. Sloan’s challenge was to revamp GM to make it into a profitable competitor and overtake Ford Motors. Although Henry Ford had been a genius in the development of auto design and production, he had an autocratic management style and neglected to groom management talent to succeed him. Sloan had experience in managing production and running a business and, it would turn out, genius in building an efficient and effective large organization.

William Durant (1861–1947) was born in Boston, Massachusetts in the U.S. In 1885, he started a cart company with a partner. By 1890, his Durant-Dort Carriage Company was an established manufacturer of carriages. In 1904, as the carriage market was being replaced by the new “horseless-carriage” of the automobile, Durant was hired by the new Buick Automobile Company as its general manager. The company was in financial trouble and Durant reorganized it, obtaining control. Durant then formed General Motors to contain Buick and purchased more companies, starting with suppliers and then other automobile companies, acquiring Olds and Cadillac.

Pierre S. du Pont (1870–1954) was born at “Nemours,” the Du Pont family estate in Wilmington, Delaware, and named after his great-great-grandfather
– who immigrated from France to America in 1870 and founded the Du Pont gun powder company. He began management by working a steel firm partly owned by his family. In 1902, Pierre and two cousins purchased the E. I. du Pont de Nemours and Company, to keep it in family control. He served as company president until 1919, implementing more modern business practices.

Alfred Sloan (1875–1966) was born in New Haven, Connecticut, U.S.A. He attended Massachusetts Institute of Technology, graduating as an electrical engineer in 1895. He became president and owner of Hyatt Roller Bearings; and in 1916 Durant purchased the company, retaining Sloan as manager. Pierre du Pont then appointed Sloan as president of GM.

Sloan had taken over a confused and cumbersome organization from Durant’s previous management. Since Sloan was a part of Durant’s earlier team, he knew how much GM needed better management. Sloan set out to emphatically improve the organization. Also Sloan had the assistance of another talented manager, Donaldson Brown, whom Pierre du Pont had brought into GM from du Pont. Brown served as GM’s vice president of finance. Together, Sloan and Brown began to redesign GM, starting with its system of financial control.

Donaldson Brown (1885–1965) was born in Baltimore, Maryland. In 1902, he graduated from Polytechnic Institute, with a Bachelor of Science degree. In 1903, he took at postgraduate course in electrical engineering at Cornell University. Next he sold electrical machinery for General Electric. In 1909, he became a sales person of explosives for E. I. du Pont de Nemours & Company for four years. In 1912, he was promoted as an analyst to the du Pont office in Wilmington and then in 1918 became assistant treasurer. In 1921, he was appointed vice president of finance in General Motors and to the Board of Directors.

In Sloan’s extensive redesigning of GM’s business practices, he would change several areas of GM’s policies about: information, product, innovation, marketing, production, organization, finance, and diversification. Altogether, this new set of policies would transform GM’s previous model of a business under Durant as a conglomerate into a tightly coordinated enterprise system for automobile production and market dominance.

Information Policy

The first business policy that Sloan and Brown implemented in GM was systematic, detailed, and uniform performance-reporting, across all the divisions of the firm. Durant had been primarily concerned for the stock price of the firm, since a high stock price had enabled him to acquire companies for assembling GM. However, the du Pont’s were long-term investors and not stock speculators, so they were primarily concerned with dividends.
Sloan also held significant holdings from his sale of Hyatt to GM, and he thought: “Naturally, I like to see General Motors stock register a good price on the market, but that is just a matter of pride … What has counted with me is the true value of the property as a business return on investment” (Sloan, 1941, p. 103).

And this view of the value of a business as the return-on-the-investment is one of the great eternal strategic truths of business – applicable as it was then in that “old economy” of hard-good production of the twentieth century, such as automobiles, and later even to twenty-first’s century of “new economy” of information services. From du Pont, Donaldson Brown had brought with him a financial model he had developed there for measuring return of investment: \[ R = T \times P. \]

This reads that the way to calculate the (R) rate-of-return-on-invested-capital is as the multiplication of the rate-of-turnover-of-invested-capital (T) times the percent-of-profit-on-sales (P). This formula emphasizes that management should monitor how quickly capital was returned from investments in the production of cars and how large was the percentage of profit being made on sales of cars.

Brown measured the capital turnover variable \( T \) in terms of fixed-capital variables such as plant and equipment and working-capital items such as cash balances, in-process, and finished inventory and accounts receivable. These were reported in terms of a ratio to sales, whose inverse-ratio expressed the rate of turnover \( T \). This analysis allowed management to see, as Brown wrote: “… a specific disclosure of causes and effects for the return on investment ….Effective control, or lack of it, for any item on either side of the equation (T or P) could be identified, thus making possible efforts to improve conditions” (Brown, 1957, p. 27).

These two quantities, of production-investments-return and production profit-margins, became Sloan’s measures of internal performance on GM’s production operations – Sloan/Brown’s management ideas.

Sloan’s information policy required that all divisions in GM adopt and report information in this standardized analysis. Such information was used not only to control but also to plan operations. Sloan wrote: “By means of our accounting system, we can look forward … and can alter our procedures or policies to the end that a better operation may result. In one case we are in principle, looking backward – in the other case, forward. We are able to forecast our operations four months ahead with a certainty that would hardly seem possible” (Sloan, 1929, pp. 92–96).

Sloan’s information policy was aimed at control and planning of operations proved its value in the onset of the depression in 1930. In the late spring and summer of 1929, GM had been charting the decline in car sales, responding with reduced production to keep inventories low. Brown wrote: “… dependable forecasting and planning were of outstanding importance during those difficult years. Production by all divisions was held
in reasonable bounds” (Brown, 1957, p. 71).

In the decades from 1900 to 1930, more than a hundred auto companies were begun but less than a dozen survived the great depression of the 1930s. Sloan’s information strategy had been aimed at creating a firm, responsive to change and to market needs and conditions. About GM’s survival of the great depression of the 1930s, Sloan wrote: “We had simply learned how to react quickly. This was perhaps the greatest payoff of our system of financial and operating controls” (Sloan, 1964).

Product Policy
Sloan also needed to rationalize the products of GM. Durant had acquired a variety of automobile companies assembled to minimize sales risk. Durant expressed his strategy: “The business of an individual manufacturer was hazardous because the model on which he staked his chances of sales might prove to have some mechanical defect or the body design might fail to strike the fancy of the buying public .... I was for getting every kind of thing in sight, playing safe all along the line” (Crow, 1945; Epstein, 1928).

However, Durant’s diversification strategy had not yielded financial safety. The automobiles overlapped in features and price:

<table>
<thead>
<tr>
<th>Company</th>
<th>Type</th>
<th>Price Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chevrolet</td>
<td>4 cylinder</td>
<td>$775–$2,075</td>
</tr>
<tr>
<td>Sheridan</td>
<td>4 cylinder</td>
<td>$1,685</td>
</tr>
<tr>
<td>Olds</td>
<td>4 cylinder</td>
<td>$1,445–$2,145</td>
</tr>
<tr>
<td>Olds</td>
<td>6 cylinder</td>
<td>$1,395–$2,065</td>
</tr>
<tr>
<td>Oakland</td>
<td>6 cylinder</td>
<td>$1,395–$2,065</td>
</tr>
<tr>
<td>Scripps-Booth</td>
<td>6 cylinder</td>
<td>$1,545–$2,245</td>
</tr>
<tr>
<td>Buick</td>
<td>6 cylinder</td>
<td>$1,795–$3,295</td>
</tr>
<tr>
<td>Cadillac</td>
<td>8 cylinder</td>
<td>$3,790–$5,690</td>
</tr>
</tbody>
</table>

Durant’s GM products had been competing as much between themselves as with other competitors. In 1924, Sloan reorganized the products into complementary price lines:

<table>
<thead>
<tr>
<th>Company</th>
<th>Type</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chevrolet</td>
<td>4 cylinder</td>
<td>$510</td>
</tr>
<tr>
<td>Olds</td>
<td>6 cylinder</td>
<td>$750</td>
</tr>
<tr>
<td>Oakland</td>
<td>6 cylinder</td>
<td>$945</td>
</tr>
<tr>
<td>Buick</td>
<td>6 cylinder</td>
<td>$1,295</td>
</tr>
<tr>
<td>Cadillac</td>
<td>8 cylinder</td>
<td>$2,985</td>
</tr>
</tbody>
</table>
Innovation Policy

Another policy of Sloan’s was to add new features and performance improvements to improve product quality. Ford’s Model T had an open body and wooden frame on top of a steel chassis. Sloan had all GM autos constructed as closed bodies entirely metal. Other improvements were added, such as brakes on all four wheels. With this strategy of innovating product improvements, Sloan could price the GM autos at the top of their price brackets as quality products. He then reduced price down toward that of the Model T as soon as production volumes lowered unit-costs-of-production.

Sloan established a research laboratory, directed by Charles F. Kettering, to invent and develop improvements. Sloan wrote: “We are searching for the facts that we may … add value to the performance and effectiveness of our products …” (Sloan, 1927). At the time of foundning the laboratory, GM was being innovative. Leslie wrote: “Compared to competitors, like Ford, whose engineering departments were dominated by self-taught mechanics, GM’s research unit was quite progressive” (Leslie, 1983).

In addition to innovation of product improvements, Sloan added a policy for design-styling. In 1927, Sloan had Cadillac introduce a lower priced car between the Cadillac and the Buick, which was called the La Salle. The La Salle had a body styled by Harley Earl, a Los Angeles custom-body designer hired by Fisher Body; and as Sloan wrote: “The car made a sensational debut in March 1927 … The first stylists’ car to achieve success in mass production” (Sloan, 1964).

Earl’s intention in styling was to lengthen and lower the American automobile in appearance. Also a variety of colors could be painted on cars in 1927, thanks to advances in paint technology that decreased the drying time of colored paints. The combination of price bracketing of automobiles, product improvements, styling, and colors devastated Ford’s share of the market.

Marketing Policy

GM’s strategy was to sell automobiles through independent but franchised dealers. The GM Finance Committee (established by du Pont and continued by Sloan) decided not to establish company-owned dealerships. The amount of capital needed for 20,000 retail outlets would have been astronomical; and the number of employees in the outlets would have been too large to manage. Franchising dealerships avoided the large capital and management problems of retailing the automobiles to customers.

Still some control over retailing by GM could still be established though the financing agreement. There were still market challenges in financing both the auto inventory and the purchase of automobiles. Banks were reluctant to extend loans to dealers for inventory and to customers for automobile purchase. John J. Raskob, then chairman of GM’s finance committee suggested to start a finance company, limited to financing the paper of those who dealt with GM cars, and this was established as the General Motors Acceptance Corporation (GMAC).
Production Policy
Sloan’s mission was to optimize return-on-investment to shareholders. Therefore, a policy about production was necessary to make money from the product variety for the auto market. Sloan’ policy for lowering production costs was to standardize as much as possible parts and production across all operating divisions. It was from Sloan’s prior experience with mass-production in running Hyatt that his production policy was to strive for the largest possible production runs with lowest product costs. This would provide the largest margins.

Because GM bought parts from outside firms, the strategy for part standards required GM to foster standardization across parts industry. For example, Sloan created GM’s General purchasing Committee which published a Book of Standard Parts. Baird wrote: “It contained 196 pages descriptive of standard parts, 100 pages on materials, and about 50 pages of miscellaneous information” (Baird). The internal production of standardized parts and external purchase of standardized parts lowered GM’s production costs by fostering a competitive market in its suppliers.

Organization Policy
Sloan’s organizational policy was to have a decentralized product and production capability while yet tightly coordinated these from a central financial authority. Kuhn wrote: “Sloan started this trend toward centralization simply because he had inherited from his predecessor … a group of division managers almost totally ignorant of financial matters. Durant’s ‘automobile men’ … often accumulated dangerously excessive inventories through inattention, poor forecasting, or even inflationary speculation. The Sloan-Brown team imposed strict financial controls over divisional operations” (Kuhn, 1986).

This organizational policy began when Pierre DuPont took control of GM. He and Sloan spent many of their early days at GM visiting and evaluating the different divisions, which Durant had assembled into GM. After Sloan became president, he continued his inspection trips and visited dealerships to gain first-hand impressions of operations.

Then Sloan and Brown institutionalized yearly and monthly formalized performance reviews of divisional operations. The central control over divisions used the detailed performance information from divisions to review past performance and to compare current performance against planned performance.

Sloan reorganized GM’s Executive Committee to exclude most of the division managers in order to carry out this centralized oversight of distributed divisional operations. Sloan then established an Operations Committee to which all general managers of the divisions belonged along with all the general officers on the Executive Committee. The purpose of the Operations Committee was to coordinate implementation of centralized policies of the Executive Committee.
Financial Policy

The Finance Committee, established by DuPont, focused investment upon operations which promoted the highest return. From this committee came several strategic investment decisions, which focused GM investment principally upon production assembly and some parts production. Auto assembly was the highest value-adding operation and created the largest profit margin. Parts production was not as profitable but critical; and so an investment decision was to finance limited part production capability and purchase remaining requirements from outside suppliers.

Diversification Policy

GM’s diversification policy under Sloan remained focused upon the production of transportation products and their parts. GM produced autos, trucks, and tractors. The first acquisition Sloan made was to acquire its principle body supplier, Fisher Body Corporation. Sloan secured control of Fisher by purchasing 60% of the stock and thereafter purchased the remaining 40%. Sloan moved several of the Fisher brothers into corporate and divisional positions.

For the basic commodity industries that provided materials for the parts producers, a deliberate decision was made by the Finance Committee to not invest in these basic commodities (such as steel and chemicals). The financial investment in basic commodities would be high and the margins lower than from the automobile business and the several competitive suppliers already kept commodity prices low.

Competitive Policy

Sloan’s competitive strategy proved successful because the automobile market was changing in America, and Sloan’s new strategies adapted GM to exploit these changes. The market changes that Sloan saw and exploited in his new strategies included market factors such as installment selling, used-car trade-ins, closed body auto models, improved roads, increasing urbanization, rising prosperity, and changing fashions. Sloan’s business model was to adjust GM’s operations and control to better match the product to the changing demands of the market.

Strategic Policy Matrix

All businesses consist of a transformative activity and control of that activity. Accordingly, business policies must be formulated for controlling the activity. Figure 5.4 summarizes the list of policies that are required to manage a business enterprise (a managed organizational system).
Figure 5.4: Strategic Business Policies.

The four basic activities of any business are product, production, marketing, and organization.

- All businesses must design a product and produce it. (The product can be a hard-good, software, or service.)
- All products must be produced in volume. (The production can be manufacturing, production, or service delivery.)
- All products must be marketed and sold for the business to obtain revenue.
- All business must construct an organization to carry out the activities of product design, production, and marketing.

These four modes of control activities must be controlled by management of the organization; and the four modes of control are finance, diversification, information, and innovation.

- All businesses control activities through finance, buying resources and selling products and measuring performance as profits.
- All businesses control the nature of the business activity through diversification, defining the set of businesses carried on by the firm.
- All businesses control operations through information, structuring the planning, scheduling, coordination, and access to activities.
- All businesses control change in operations through innovation, introducing new means to perform activities through improved processes and technologies.
- All businesses control quality and cost of production.

Good business leadership formulates policies that meet opportunities and demands of a market. Sloan’s strategy for GM to overtake Ford’s market leadership required Sloan to
formulate policies in several different areas of the complex management problem of running a large firm. These policies together altered how GM did business, reformulating the business model from Durant’s aggregation of companies to Sloan’s streamlined, rationalized, and controlled business model of an integrated set of automobile divisions. Sloan’s business model was an enormous success for a very long period of time. GM’s overwhelmed the U.S. automobile market from 1926 to 1976, a competitive dominance lasting 50 years. In 1976, GM produced 55% of all passenger cars sold in North America.

The interaction between strategic policies (for the different activities and control) can provide a competitive advantage. Accordingly, the set of strategies (strategic policies) within a business model should be examined as to their interactions. A formal technique for doing this is to construct matrices of strategy interactions. Figure 5.5 shows a two-interaction matrix model of strategic policies – strategic policies taken in pairs.

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Figure 5.5: Strategic Policies Matrix.

Each strategy category is listed both vertically and horizontally in the matrix. The way to read strategic matrix is to think of the item on the vertical list as a kind of strategic force and the item on the horizontal list as a kind of strategic effect. For example, Sloan’s strategy for facilitating credit would be an entry along the finance row of the strategy matrix impacting the diversification column, so that the entry in the box of (finance-row and diversification-column) would be GMAC, the strategic move of establishing the General Motors Assurance Corporation. The strategic policies matrix provides a technique for systematically identifying and formulating the interactions of all strategies in operating and control business activities – and to understand these policy interactions.

**Types of Strategic Business Models**

For a conglomerate holding company, Porter’s one value-added output (sales) does not work. A conglomerate company has two value-added outputs (profits and capital). Thus, one needs to make business models as enterprises with two value-added outputs and with
This need for a two-input and two-output business model became empirically evident in the success of some of the dot.com businesses begun in the 1990s, such as America Online (AOL), Amazon, Google, etc. For example, Mutaz M. Al-Debei, Ramzi El-Haddadeh, and David Avison wrote: “The Business Model (BM) concept has become one of the most important domains in the field of Information Systems (IS), thanks to recent rapid advances in Information and Communication Technologies (ICTs) … the emerging world of digital business is complex, dynamic and enjoys high levels of uncertainty and competition. For instance, designing a business model for a Cellular Network and Telecommunication Operator (CNTO), as a part of a value network, is a complex undertaking and requires multiple actors to balance the varied and often conflicting requirements. Moreover, rules that governed the traditional world of business are questioned in this emerging world of digital business. For example, a huge investment was needed to establish a traditional business. Traditionally, this investment was considered a strategic barrier to entry. However, Internet and mobile technologies have offered new ways of doing business, such as e-commerce, which do not have such a high barrier to entry … Traditional business managers are more experienced in translating the business strategy directly into business processes. In the more complex and sometimes unique digital business, the business model needs to be explicit and a BM which offers a new layer of appropriate information and knowledge to support digital business managers has become a necessity” (Al-Debei, E-Haddadeh, & Avison, 2008).

We next review how to generalize the types of strategic business models available to strategic thinking in the Internet world. Michael Porter had used only one input of “resources” and one output of “sales” to construct his business model. One can construct value-added business models with two inputs and two outputs, using four operational issues of any enterprise (as inputs or outputs):

- Resources
- Sales
- Profits
- Capital.

Resources and sales provide the issues for the direct production transformations of a business operation. For example, in manufacturing operations, material resources are manufactured into physical products for sale. In service operations, requests for services are transacted into service sales. Profits and capital measure the value of the business operations. Profits is a measure of business efficiency, the difference between prices and costs of sold products/services. Capital is a measure of the asset value of the business.

How many different types of “business models” can one use to construct strategic business models in formulating strategy? One can list all the logically possible types by
taking all possible combinations of the four categories (resources, sales, profits, and capital) two-at-a-time as inputs and as outputs (Figure 5.6).

Figure 5.6: Two Inputs and Two Outputs Value-Added Business Models of an Enterprise System.

With this approach, one can construct six different models for to describe a business as illustrated in Figure 5.7.

Figure 5.7: Types of Strategic Business Models.
The strategic business, strategic enterprise, strategic market, or strategic learning models are appropriate for looking at a company consisting of a single business. The strategic firm model is appropriate for looking at a company consisting of several different businesses. The strategic innovation model may be used only over the very short term of a company but never over the long term because it fails to focus upon optimizing financial performance. These types are useful in providing different models of a business for future operations – depending upon what kind of performance one wants to optimize in business strategy.

Strategic Finance Model

In the case of Sloan’s strategic restructuring of GM, we saw that Sloan’s strategic emphasis was upon maximizing profits and optimizing capital worth – accordingly a strategic finance model characterizes how Sloan strategically viewed GM.

From Sloan’s corporate perspective, the strategic policies were aimed at controlling the impact of all the independent manufacturing divisions of GM upon GM Corporation as a strategic whole – in a rational (i.e., bureaucratic) set of uniform policies – that all together the operations of the GM manufacturing divisions would optimize GM corporate profits and capital appreciation. Sloan continued his strategic perspective on GM with further policies that emphasized “styling” and annual model change to continue to use “sales” as an input to GM’s overall competitive position.

Of course, this strategic perspective of Sloan for the whole of GM would not have been an appropriate business model for each of GM’s divisional managers. Strategic management of the GM divisions required a different strategic model for effective strategic focus of a division – and this would be a strategic enterprise model (which we will next describe).

A type of strategic model useful for viewing a corporation with an intention to maximize both profits and capital can be called a strategic finance model. A strategic finance model provides a perspective for optimizing both short-term profits and long-term capital appreciation – by rationalizing sales and resource utilization. In this perspective, the totality of the corporation is focused upon optimizing profits and capital, financial strategy dominates in the strategic policies set. A strategic finance model of a company is a useful perspective to use in viewing the totality of a firm when financial strategy is to be the dominant strategic policy.

Strategic Enterprise Model

The production function of a business needs to view its business in a model that can show how to optimize production efficiency. A strategic enterprise model is useful, because it treats sales and profits as outputs and capital and resources as inputs. A strategic enterprise model provides a perspective for optimizing both short-term sales and long-term profits – by rationalizing capital and resource utilization.
Because this perspective on the totality of the corporation is focused upon optimizing sales and profits, product and production strategies dominate in the strategic policies set. A strategic enterprise model of a company is a useful perspective to use in viewing the totality of a firm when product/production strategies are to be the dominant strategic policies.

This kind of model is useful to think strategically about how to change and improve production operations of a business, since the heart of the model’s description of transformation processes is as production. The model is strategically important to use for manufacturing operations and hard-good production. It is also important for hard-good logistics – such as in retail or physical services.

An illustration of the use of an enterprise model to focus upon strategic issues of operations was in a case of a manufacturing problem that occurred in the 1980s between two strategically allied auto companies, Ford and Mazda. Taguchi and Clausing wrote: “Consider the case of Ford vs. Mazda … which unfolded just a few years ago. Ford owns about 25% of Mazda and asked the Japanese company to build transmission for a car it was selling in the United States. Both Ford and Mazda were supposed to build to identical specifications. Ford adopted Zero Defects as its standard. Yet after the cars had been on the road for a while, it became clear that Ford’s transmissions were generating far higher warranty costs and many more customer complaints about noise” (Taguchi & Clausing, 1990).

The difference in warranty costs was traced back to a problem of “tolerance stack-up” in manufacturing assembly of the transmissions. Every physical part in a hard-good product is produced within a specified tolerance of the geometrical dimensions of the part design. This tolerance provides a target mean value for a physical dimension so that some parts will end with specs near the mean and others with specs near the tolerance limit. The tolerance is necessary because no physical manufacturing process ever makes a physical part exactly identical to another part – because of uncontrollable variations in the production process (e.g., variation in process speed, temperature, vibration, masking, tool wear, etc.). Now these uncontrollable geometric variations will be random in dimensional variation. Therefore, the part features will all vary a tiny bit, within the tolerances specified for and controlled for in the physical formation of the part.

At the time, Ford manufacturing was using a strategic manufacturing policy called a “Zero Defects” quality standard, which meant that all parts would be within tolerance limits. Yet this policy did not take into account an effect that sometimes occurred when assembling parts into a product – called “tolerance stack-up” – when all parts in a particular assembly were all near the tolerance limit. Ford was using this policy to control for having all parts for an automobile transmission produced within tolerances. Ford would not use a defective part that would be out of tolerance limits, and therefore Ford assumed all its transmissions would have no defects due to defective parts. Using this policy left Ford engineers very puzzled why Ford’s transmissions were having more warranty costs and complaints than Mazda’s transmission.

Both transmissions were identically designed – in a strategic partnership between Ford
and Mazda. With identical product designs, why were products differing in quality in use? Ford engineers disassembled and measured all the parts in samples of transmissions made by both companies. What they found was that the parts in transmissions made by Fords were all within specifications. But the parts in the Mazda gearboxes were all on the mean targets of the specification! This meant that the differences in the accuracy of the production processes at Ford and at Mazda was their reason that Mazda’s identically designed transmissions worked better over time than did Ford’s transmissions. Moreover, in producing these transmissions with more accurately machined gears, Mazda transmissions were also being produced with less production warranty costs.

Although the Ford gearbox components were all within tolerances, many were near the outer limits of the specified tolerances. These many small deviations tended to accumulate, “stack-up.” For example, in the Ford transmission a slightly larger diameter (from its target diameter) of one gear might come up against another gear also with a slightly larger diameter from its target, and then when the two gears pressed together in operation, they were pressed slightly harder than designed (and harder than the equivalent two gears in Mazda’s transmissions). The Ford-made transmissions were wearing out earlier than were the Mazda-made transmissions; because the former’s transmissions with more out-of-target-but-within-spec gears were wearing out faster than the latter’s transmissions. When strategic operations policies matter, an enterprise model encourages the strategic attention to operations policies.

Strategic Response Model

A strategic perspective appropriate to entering an established market dominated by a large competitor may require utilization of resources and non-optimization of profits in order to optimize short-term sales to acquire a significant share of a market. Over time, establishing one as a dominant player in a market will then optimize long-term capital value.

For example, market share began to dominate strategic thinking in manufacturing competition of the 1980s, – because hard-good manufacturing in things like automobiles had entered a mature-market industrial life stage, and in that stage competitors were being weeded out. The only strategic way to survive over the long term was to establish and maintain a significant market share (usually at least 20–30% of a market). Thus, the strategic emphasis on time in responding to market changes as a competitive factor then became possible because of progress in information technology in the productive capabilities of hard-good manufacturers. Through computer-aided design and computer-controlled flexible manufacturing, manufacturing firms could move faster in product development.

To emphasize the goals of optimizing market share in mature markets, it is useful to see the totality of a company from the perspective of a strategic market model. A strategic response model provides a perspective for optimizing short-term sales and long-term capital appreciation – by rationalizing profits and resource utilization. This perspective
focuses upon optimizing sales and profits, and marketing strategy dominates in the strategic policies set. A strategic response model of a company is a useful perspective to use in viewing the totality of a single-business firm when market strategy is to be the dominant strategic policy.

In the late 1980s, many observers of the new impact of information technologies in competing in markets through new products emphasized the importance of the “response time” capabilities in a company to aggressively create market share. An illustration of this at the time was the responsive operations of Toyota. Bower and Hout described Toyota: “… let’s look at Toyota, a classic fast-cycle company …. (The) heart of the auto business consists of four interrelated cycles: product development, ordering, plant scheduling, and production. Over the years, Toyota has designed its organization to speed information, decisions, and materials through each of these critical operating cycles, individually and as parts of the whole. The result is better organizational performance on the dimensions that matter to customers – cost, quality, responsiveness, innovation” (Bower & Hout, 1988).

For Toyota’s product development, self-organizing and multifunctional teams focused upon a particular model series. They accepted full responsibility for the whole cycle of product development – making the style, performance, and cost decisions and establishing schedules and reviews. In addition, the product-development teams selected and managed the supplier input, bringing suppliers early into the design process. As a result in 1988 Toyota was then capable of a three-year product development cycle. In comparison, the average car development cycle of U.S. automobile manufacturers at that time was five years.

A fast response time was used not only for product development but also for production control in Toyota. Toyota dealers in Japan were connected online to Toyota’s factory scheduling system. As soon as an order was taken, the information on the selected model and options were entered immediately into the scheduling information. Toyota’s purpose of integrating in real-time sales information with production scheduling was to minimize sharp fluctuations in the daily volume of production, while also minimizing inventories. Toyota could produce on each production line a full mix of models in the same assembly system, utilizing flexible manufacturing cells.

Bower and Hout saw that Toyota’s attention to responsiveness pervaded its organization: “Much of Toyota’s competitive success is directly attributable to fast-cycle capability it has built into its product development, ordering scheduling, and production processes. By coming up with new products faster than competitors do, it puts other manufacturers on the marketing defensive … . By continuously bringing out a variety of fresh products and observing what consumers buy or don’t buy, it stays current with their changing needs and gives product development an edge market research cannot match” (Bower & Hout, 1988, p. 112).

Time could be strategically used as a sustainable competitive advantage, and in the 1980s such policies were called “fast-cycle companies.” Speeding up the response time of companies to changes in customer needs and the economic environment required more than simply working faster. It required working differently – thinking about why it takes
time to respond, whether responses are correct and how to respond more quickly and correctly. The sustainable competitive advantage from attending to “time” was through better and more quickly satisfying customers. Fast-cycle companies developed new products sooner than competitors, processed customer orders into deliveries faster than competitors, were more sensitive to customer needs than competitors and made decisions faster than competitors on how to add value in their products/services to the customer. A strategic response model is useful to strategically think about the policies that facilitate business responsiveness. The competitive importance of a strategic response model lies in a firm’s ability to respond to market changes faster than competitors: correcting product mistakes, refining product successes, emulating competitors’ product successes.

Strategic Learning Model

This form of a business model, that emphasized resource growth and profits as a business outputs, has been called a “learning organization model.” The learning model emphasizes the optimization of resource strategy for increasing market-share in new markets.

The primary resource of an organization is the knowledge and skills of its employees to satisfy customers and build market share. As the same time as increasing resources for successful market growth, it views profits as another measure of success in satisfying markets. Strategically, it views as an input the valuable knowledge gained in the organization of the sales information in meeting customers’ needs and desires for products and services. It also strategically views capital as an input to improve the company’s ability to be responsive to market changes. A strategic learning model provides a perspective for optimizing both short-term resources and long-term profit potential – by rationalizing sales growth and capital utilization.

Because this perspective on the totality of the corporation is focused upon optimizing resource and profit capabilities, information strategy dominates in the strategic policies set. A strategic learning model of a company is a useful perspective to use in viewing the totality of a single-business firm when information strategy is to be the dominant strategic policy.

In 2000, AOL merged with Time Warner. The founder of AOL, Case, had a strategy to build audience for AOL, understanding that this would be AOL’s most important resource. He would later turn to profits. At the time AOL’s stock climbed to a high of $115 a share, over 100 times earnings. Case wanted AOL to be a first mover in the new Internet business of connection services. A first mover in a new industry was the first to strategically make four kinds of moves: (1) continue to advance the new technologies, (2) develop large-scale production capacity, (3) develop a national distribution capability, and (4) develop the management talent to grow the new firm.

Case focused upon (1) and (3), developing AOL’s user interfaces and developing a national market. In 1996, Cases’ next challenges were in (2) and (4), production capacity and management talent. In 1996, membership soared when AOL replaced is $2.95-per-hour usage charge with a flat rate of $19.95 per month. Then AOL’s capacity could not
handle the suddenly larger traffic, and AOL had to respond by expanding capacity.

As the AOL organization and operations grew, Case needed to build an efficient organization and control costs, and to do this he hired a good professional manager, Bob Pittman. Pittman had quit college to work in radio and had become a star programmer at NBC in his twenties. He then co-founded MTV, which he left in 1986.

Pittman attacked costs, reducing personnel in parts of AOL that were losing money. Pittman used AOL’s size to bargain connect time for AOL with Internet backbone providers from 95 cents per hour to 50 cents per hour. He spent less on marketing. But he also knew that cost cutting alone never creates substantial profits but also needs increased revenues. He found a new way from working with another business person, Dan Borislow, who was building a long-distance telephone company called Tel-Save. Borislow’s competitors were bundling services on the same customer bill – services for local, long-distance, cellular telephoning, and Internet access. Borislow’s idea for approaching AOL was to add the billing itself into the same bundled services. This would allow Tel-Save to sign up new customers, bill them, and charge their credit cards – all online. Borislow could see that this could cut his costs dramatically. Then it cost one dollar to send out a bill and thirty-five cents to cash a check. Borislow found that he saved 50% by doing business through AOL’s online services and could underprice his competition.

Borislow paid $100 million to AOL for exclusive access for three years for phone services sold on AOL to customers. Also Borislow obtained a share in future profits from the long-distance business. And AOL than began a flurry of business deals, for using AOL as access to customers. For example, Preview Travel paid $32 million to become AOL’s travel agent service, N2K paid $18 million to become the sole AOL music retailer.

We see in this example of the early growth of AOL, a strategic business model that first focused strategy upon building a large market of customers as an asset, a corporate resource, and then next focused upon transforming this asset into profits through deals with businesses that used AOL for access to customers.

The early growth of AOL in the 1990s illustrated a strategic model of business that optimizes both profits and resource growth as outputs. Later AOL’s high market value was used by its CEO, Steve Case, to acquire Time Warner in 2000, thus increasing AOL’s resources by adding to its capabilities the media content giant and its cable assets. Case fostered AOL’s enormous stock value by growing the largest audience then reachable by the new Internet from a single site. AOL had about 11 million paying subscribers in 1998, reaching about as many homes as did the cable businesses of Time Warner. Case’s strategy had been to build audience, understanding from the beginning that this would be AOL’s most important resource and then it could be turned into profits. At the time AOL’s stock climbed to a high of $115 a share, over 100 times earnings. This strategic business model first focused strategy upon building a large market of customers as an asset and then focused upon transforming this asset into profits through deals with businesses that used AOL for access to customers.

Strategic Innovation Model
One can temporarily use a “strategic innovation model” to build early growth of a new business – but not for too long. This model uses capital to finance early market growth. A strategic innovation model provides a perspective for optimizing both short-term resources and long-term sales – by rationalizing the use of profits and capital to implement innovation.

Because this perspective on the totality of the corporation is focused upon optimizing resources and sales, innovation strategy dominates in the strategic policies set. A strategic innovation model of a company is a useful perspective to use in viewing the totality of a single-business firm (or a new division of a firm) when innovation strategy is to be temporarily the dominant strategic policy.

For a viable strategic corporate model over the long term, either profit or capital must be one of the outputs of the model to be optimized – or the enterprise will eventually run out of working capital. Therefore, the strategic innovation model cannot provide a viable long-term strategic model.

An example of using this strategic model for a time occurred in the middle 1990s, when Jeff Bezos built early market dominance by Amazon. Jeff Bezos, was a pioneer of retail electronic businesses, establishing Amazon as the first dot.com business to sell books over the Internet. The excitement of that kind of idea and the rapid growth of Internet new marketing intrigued investors in the last years of the 1990s; and large sums of capital were invested in start-up electronic businesses. Amazon’s early strategy was to grow without regard to profitability and, of course, such strategy was bound eventually to end. On June 24, 2000, Morgenson wrote: “Shares of Amazon.com, the Internet industry’s bellwether stock, plummeted 19 percent in heavy trading yesterday as investors grew nervous about the company’s financial health and its prospects for profitability” (Morgenson, 2000).

Amazon went public in May 1997 and in 1998, its stock began a sharp climb from the teens to over $100 a share in 1999. In 2000, it declined to $34, after the market began to discount its earlier highly inflated prices of the new dot.com companies started in the last three years of the twentieth century. Amazon’s stock performed on the basis of rapid growth of customers, so that by 2000 it had over a 20 million base of customers who had purchased books from Amazon. Amazon’s strategy had been to use profits and capital as inputs to optimize sales and resources – growing its market share of electronic book sales.

In June of 2000, a credit analyst at Lehman Brothers, Ravi Suria, wrote a report on Amazon’s $2 billion in bonds issued during the last few years, after he had scrutinized Amazon’s first quarter results of 2000. Suria said: “What we think truly pushed a weak credit off the cliff was the inept working capital management during the last holiday season. Because the company does not generate positive cash flow on each piece of merchandise that it sells, Amazon has had to rely on obliging investors to finance its operations. But as Internet companies have begun to fail, the market has become a lot more selective” (Morgenson, 2000, p. B1).

What was really evident was that over the long-term any company has to be profitable. Morgenson wrote that an analyst, Suria said: “For Amazon to be a successful business, it
must be able to generate the cash operating profile of a successful retailer. It is essentially this yardstick that we use to analyze the company and as the rest of this report shows, we find it woefully lacking” (Morgenson, 2000).

The general perception that e-commerce businesses had to make money eventually had created the sharp decline in e-commerce stocks, with Amazon’s share price declining by 45%. On the day Suria issued his report, Amazon’s bonds values fell another 10%. In July of that same year Amazon posted continuing losses in its operations. Hansell wrote: “Amazon.com said yesterday (July 26) that it had lost $317 million in the second quarter of the year .... The company, the largest online retailer, posted sales of $578 million, up 84 percent from a year earlier” (Hansell, 2000).

In 2000, Amazon’s combined book, music, and video business in the United States had $385 million sales in that last quarter, with a modest profit of $10 million on those sales (but with the company still losing $317 million overall for that quarter). Amazon’s continuing losses was still from its rapid businesses’ expansions. Its German and British units lost $25 million on sales of $73 million. New businesses in selling toys and electronics had lost $40 million on sales of $31 million. Amazon’s total losses for the year 2000 were $1.4 billion dollars, compared to losses in 1999 of $0.7 billion and in 1998 of $0.1 billion (Norris, 2001).

Thus Bezos’ early strategy for Amazon to rapidly build a market had succeeded in part. Amazon had business with a total of 22.5 million customers, perhaps about 8% of U.S. households – in the three years from 1997 to 2000. Still in the long run all companies, even dot.com businesses, had to pay attention to the fundamentals of any business – profits. Amazon had lost money because it had focused upon strategies of building market share without focusing upon strategies for building efficient operations and profits. It had not used a complete kind of strategy set (as, e.g., Sloan had done in building GM). For this reason, Amazon needed to change its strategic focus from market share to return-on-investment. Amazon then needed to change its strategic business model from its early “strategic innovation model” to a “strategic finance model.”

**Strategic Firm Model**

A diversified firm can use profits from sales by its businesses to grow capital and provide corporate level resources. The diversified firm has responsibility for seeing that its businesses are well managed for profits from their businesses to continue to fuel corporate prosperity. A strategic firm model provides a perspective for optimizing both short-term resources and long-term capital appreciation – by rationalizing sales and profit utilization.

Because this perspective on the totality of the corporation is focused upon optimizing resources and capital, diversification strategy dominates in the strategic policies set. A strategic firm model of a company is a useful perspective to use in viewing the totality of a multi-business firm when diversification strategy is to be the dominant strategic policy.

The earlier strategic business, enterprise, learning, and innovation models are
appropriate only for describing a single-business company. If a company has more than one business, then a firm-level strategic model is necessary to capture a firm’s totality, as opposed to the totalities of each of its businesses. A strategic firm model needs to conceive of a firm as a strategic unity, even though the firm may be composed of a portfolio of businesses. And a strategic firm model must emphasize the optimization of financial valuation strategy in order to increase the stock-market valuation of the firm and return-on-investment of shareholders.

An example of a successful use of a strategic firm model in the 1980s was in the Japanese firm NEC. C. K. Prahalad and Gary Hamel compared NEC in 1990 to a similar U.S. firm of the time, GTE: “Consider the last ten years of GTE and NEC. In the early 1980s, GTE was well positioned to become a major player in the evolving information technology industry … . In 1980, GTE’s sales were $9.98 billion … . NEC, in contrast, was much smaller, at $3.8 billion … Yet look at the positions of GTE and NEC in 1988. GTE’s 1988 sales were $16.46 billion, and NEC’s sales were considerable higher at $21.89 billion” (Prahalad and Hamel, 1990).

But it was more than the relative levels of their sales that changed. NEC had emerged as a world leader in the information technologies, whereas GTE had not: “GTE has, in effect, become a telephone operating company with a position in defense and lighting products … . NEC has emerged as the world leader in semiconductors and as a first-tier player in telecommunications products and computers. It has consolidated its position in mainframe computers … . NEC is the only company in the world to be in the top five in revenue in telecommunications, semiconductors, and mainframes. Why did these two companies, starting with comparable business portfolios, perform so differently? Largely because NEC conceived of itself in terms of ‘core competencies’ and GTE did not” (Prahalad & Hamel, 1990).

Prahalad and Hamel viewed the differences as arising from NEC’s superior strategic capability. NEC created a corporate level committee to plan core corporate technical competencies and to oversee the development of core products for the businesses of the firm. This committee established groups across the individual businesses to coordinate the research and development efforts for core products. This committee, which NEC called the C&C Committee (Computers & Communications) identified three directions of technologies in computers, components, and communications: “Top management determined that computing would evolve from large mainframes to distributed processing, components from simple ICs to VLSI, and communications from mechanical cross-bar exchange to … digital systems” (Prahalad & Hamel, 1990).

The strategic vision of the C&C Committee foresaw the convergence of technologies in computing, communications, and components businesses. They judged that there would be great opportunities for any company to serve all three markets. They were anticipating that the two previously different industries, of computing and communications, were going to come together into a single and more complex industry. The components for the two businesses were to become increasingly more complex, common to the two and interrelated. With this technological vision, NEC positioned itself for a “restructuring” of
the industries; and GTE did not. In this restructuring, NEC saw that the competitive factors lay not only in the systems-integrator sectors but also in the major-devices sectors and in the components-and-parts sectors. So NEC strategically positioned itself in all three sectors.

In contrast, GTE had been managed only as a conglomerate, a diversified set of businesses without core corporate competencies: “No such clarity of strategic intent and strategic architecture (as at NEC) appeared to exist at GTE. Although senior executives discussed the implications of the evolving information technology industry, no commonly accepted view of which competencies would be required to compete in that industry were communicated widely. While significant staff work was done to identify key technologies, senior line managers continued to act as if they were managing independent business units. Decentralization made it difficult to focus on core competencies. Instead, individual businesses became increasingly dependent on outsiders for critical skills” (Prahalad & Hamel, 1990, p. 81).

Senior management of GTE had failed to develop the corporate strategic insight to fully exploit the evolving market and competitive opportunities in information technology. They failed to develop strategic technical competencies common to its several independently run businesses.

A strategic firm model views sales and profits of its business portfolio as inputs to the firm. As strategic outputs, it provides centralized resources (such uniform management practices, executive education, performance measures, corporate research, etc.) to each and all of its businesses of the firm. It also provides investment capital to its businesses for improving operations and for acquiring new businesses or launching new business ventures.

Summary

The first decision in modeling the totality of the future of a company is to choose which dominant value is to be optimized for strategic survival and prosperity. The choices of a strategic model of a company provide different ways to think about optimizing a company, according to what kind of performance one strategically desires.

Accordingly, different types of strategic business models can be used to help select dominant strategic values for a strategic plan and to examine the interaction of strategic policies of a total company within the plan.

Theoretical Principles

1. The four factors of product success are: performance, innovation, market focus, competitive pricing.
2. Six kinds of strategic business models can be constructed from the combination of the factors of capital, profit, sales, resources.
3. Strategic business models are implemented by the technique of a strategic policy matrix.
Diversification Strategy

Introduction

We will use the different strategic business models to explain the different strategies used by a conglomerate (a holding company) and its portfolio businesses. We focus upon the challenge of strategy in a multi-business company — diversification strategy. A conglomerate firm has a strategic perspective in which the businesses owned by the corporation can be conceived of as a kind of “business portfolio” of the corporation. In the last part of the twentieth century, this term “portfolio” became popular as a way to view the strategic management of a diversified firm. Lowell Steele wrote: “Multi-business strategy focuses first and foremost on portfolio optimization — what mix of sources of revenue is desired and what allocation of resources will best bring about this preferred mix. (Yet) multi-business strategy must include other components, such as corporate organization and culture, management style, the conventions that guide behavior, and the acquisition or development of new resources that will be required to support a different business portfolio” (Steele, 1989). Previously, we have been examining the issues for formulating strategy in a single business firm. All these kinds of issues apply to each and every business within a multi-business firm. But how does strategy look like at the top of a multi-business firm, a diversified firm?

For a single-business company, its competitive situation is principally in the customer marketplace, wherein it provides value directly to customers, against competing products and services. In contrast, the competitive situation for a multiple-business company is principally in the capital market, wherein it provides value directly to investors. The strategic model of a conglomerate firm and of its individual businesses differs.

CASE HISTORY

Decline of GM

In the 1970s, GM’s dominant market share of the U.S. auto market of over 50% was challenged. Then a significant share of the U.S. market began being earned by foreign auto producers. During that decade, gasoline prices jumped due to the formation of a global oil cartel. American producers did not meet the demand for fuel-efficient cars. In 1980, U.S. auto producers faced a desperate time with obsolete models, high production costs, and low production quality. During the 1980s, the foreign share of the U.S. market climbed to one third, and there were three remaining U.S. based auto firms: GM, Ford, and Chrysler. In 1998, Chrysler was bought by the German firm
of Daimler-Benz. By the year 2000, foreign-based automobile firms (i.e., Japanese and European) had captured over a third of the U.S. market, because of GM’s lower quality. **This was the major cause of GM’s loss of dominance — poor quality in auto design and manufacturing.** How did GM leaders allow this?

In 2008 after a global meltdown in the world’s financial markets, GM entered bankruptcy. It had taken three decades of several CEOs in GM (from the 1969 through 2009) to bankrupt the company. GM’s CEOs had maximized short-term profits and neglected to develop the fuel-efficient cars and trucks that would have saved the company. In 2008, Bill Vlasic wrote: “Just two months after celebrating its 100th birthday (in 2008), General Motors is facing the grim prognosis that it may not survive to see another year unless it is rescued by a bailout from the federal government. Shares in GM sank to their lowest point in 65 years, to $2.92, on Tuesday, the day after the company revealed in a federal filing that its ‘ability to continue as a going concern’ is in substantial doubt because it may run out of money by the end of the year. GM said it might be unable to pay its suppliers, meet its loan covenants or cover health care obligations in its labor contracts. The extent of GM’s financial crisis, revealed in greater detail in its filing than it acknowledged before, is proving to be far worse than investors and analysts expected just last week. Only an emergency federal bailout seemingly stands between GM and a bankruptcy filing, according to industry analysts” (Vlasic, 2008).

Antony Currie, Rob Cox, and Martin Hutchinson wrote: “What drove General Motors into bankruptcy? It’s tempting to blame the broader financial crisis, which torpedoed the United States economy, dragged down car sales and shut carmakers out of the capital markets. That overriding factor certainly precipitated the demise of America’s largest carmaker, but it was not the ultimate cause. Insolvency has, in fact, been looming over G.M. for several years. In April 2005, for example, while markets were worrying about rating agencies downgrading the carmaker’s debt, GM’s onerous unfunded health care and pension liabilities looked to have punched a multibillion-dollar hole in its balance sheet. Even then, some suggested that a filing for Chapter 11 protection might be the only way to get GM back on track” (Currie, Cox, & Hutchinson, 2009).

For the 20 years from 1985 to 2005, GM had been profitable — paying its executives large bonuses each year, while not fulfilling its legal and moral obligations to its workers (in not fully funding their health and pension benefits, as the executives had agreed to do in their labor contracts). Nor had the U.S. government enforced regulation to ensure that large U.S. corporations fully funded their pension obligations. **When profitable, GM did not meet its labor obligations; and when unprofitable, GM blamed labor for its financial difficulties.**
Also GM executives had not shown any political will to encourage the U.S. government to “fix” the pension or health care systems — with adequate and properly funded national plans. *GM had encouraged a U.S. system of private company pension plans and private company health insurance plans — even while GM executives saw such plans as unworkable for GM over the long term.* About their obligation to GM workers, GM leadership had no “integrity.” Currie, Cox, and Hutchinson wrote: “That’s not to say G.M.’s executives sat back and did nothing. In the last four years they have halved the union work force in the United States; laid off white-collar employees in droves; renegotiated labor contracts and health care expenses; and sold businesses like Allison Transmission and GMAC, the financial services arm, to raise cash” (Currie, Cox, & Hutchinson, 2009). GM’s executives had not fulfilled their obligations to labor when profitable, and when unprofitable, they fired labor — halving their work force and increasing unemployment in the United States.

Only cutting labor while maintaining executive bonuses was not really a solution to GM’s basic problem. Currie, Cox, and Hutchinson wrote: “But none of that was enough. G.M. was losing market share faster than it could shrink its operations, even before the precipitous declines of the more recent credit crisis” (Currie, Cox, & Hutchinson, 2009).

In 2008, Roger Lowenstein wrote: “Who shot General Motors? The company’s stock is at its lowest level in 50 years. The automaker is weighing yet another round of layoffs — and maybe even a fire sale of venerable brands like Buick and Pontiac. Once General Motors manufactured half the cars on the American road, but now it sells barely 2 in 10 … The immediate cause of GM’s distress, of course, is the surging price of oil, which has put a chill on the sale of gas-guzzling sport utility vehicles and trucks. The company’s failure to invest early enough in hybrids is another culprit. Years of poor car design is another” (Lowenstein, 2008). GM had failed to develop and sell fuel-efficient cars.

Finally in 2008, the U.S. government had to “bailout” GM. David E. Sanger, Jeff Zeleny, and Bill Vlasic wrote: “President Obama will push General Motors into bankruptcy protection on Monday, making a risky bet that by temporarily nationalizing the onetime icon of American capitalism, he can save at least a diminished automaker that is competitive. The bankruptcy is a moment of reckoning for an industry that was once at the heart of the American economy … GM’s bankruptcy petition culminates a remarkable four months of confrontation between Washington and Detroit that is expected to result in a drastic downsizing of the company. It also places the government in uncharted territory as a business owner, as it takes a 60 percent ownership stake in the company during its restructuring” (Sanger, Zeleny, & Vlasic, 2009).
But despite the government help, GM’s executives were not contrite. Micheline Maynard wrote: “General Motors did not apologize for anything in its first trip to Congress more than two weeks ago to plead for a federal rescue. The company’s only problem, it insisted, was the current financial crisis. ‘What exposes us to failure now is not our product lineup, or our business plan, or our long-term strategy,’ Rick Wagoner, GM’s chief executive, said in his testimony” (Maynard, 2009).

The U.S. Congress called the GM executives back. Maynard wrote: “On its return visit to a skeptical Congress this week, however, General Motors bowed its head. ‘GM has made mistakes in the past,’ Mr. Wagoner told Congress and named three mistakes: agreeing to expensive union contracts, not investing enough in smaller cars and failing to convert its plants so they could build more than one type of vehicle. It was an unusual concession from a company that has rarely felt the need to apologize for anything, given its bragging rights as the world’s largest automaker with operations in 35 countries, and as a company that has built 445 million vehicles and sat atop corporate America for much of its 100-year history. But the mistakes Mr. Wagoner acknowledged do not begin to explain why General Motors finds itself on the brink of insolvency, begging Congress for financial help” (Maynard, 2009).

Rick Wagoner was CEO of GM at the time of its bankruptcy and humiliation before Congress. About Wagoner’s strategic leadership, Maynard wrote: “In recent years, despite many challenges to his leadership of General Motors, Rick Wagoner had managed to keep a firm grip on his job, like hands wrapped tight around a steering wheel. During his tenure as chief executive, beginning in 2000, the company’s stock has fallen from $70 a share to less than $4 now, and its market share has fallen roughly 10 percentage points. There have been many challenges to his authority, most notably from the investor Kirk Kerkorian in 2006 and from angry members of Congress during hearings last fall. Throughout the attacks, he had managed to retain the unwavering support of his board. For a time, it seemed he might become the rare chief executive who gets another chance, this time to try to fix many of the problems that occurred on his watch. But he appears to have met his match in President Obama, whose calls for sacrifices from all sides apparently included a call for Mr. Wagoner to step down. In a statement early Monday, Mr. Wagoner said he had been urged to ‘step aside’ by administration officials, ‘and so I have’ ” (Maynard, 2009).

In 1977, Wagoner had graduated from Harvard Business School and joined GM’s financial division. In 1992, the CEO of GM, Robert Stempel, was forced to resign during a financial crisis then at GM. Wagoner became GM’s chief financial officer. Two years later at the age of 40, Wagoner became president of GM’s North American operations. John Smith, then chief executive of GM, was Wagoner’s mentor and appointed Wagoner chief
executive, as he, Smith, resigned in 1998.

Maynard wrote about Wagoner’s principle focus on finance: “Like Mr. Smith, Mr. Wagoner aggressively expanded GM’s operations outside the United States. The company now sells 65 percent of its vehicles overseas, thanks to Mr. Wagoner’s push into markets like China, Russia and Latin America. However, GM’s sales slump at home led to it losing its longtime title last year as the world’s largest auto company, replaced by Toyota. ‘It’s a pretty unceremonious ending,’ said John Casesa, an industry analyst and managing partner of the Casesa Shapiro Group. ‘G.M. lost its way in the’70s, but the company didn’t know it until 20 years late. The hole was much deeper than he (Wagoner) realized when he became C.E.O.’ And, Mr. Casesa said that Mr. Wagoner’s finance background might have been a poor fit: ‘The most successful auto companies are run by people who came out of the revenue-generating functions — manufacturing, design, marketing — making cars and selling cars. Mr. Wagoner … skipped the whole apprenticeship that most auto C.E.O.’s experience’ ” (Maynard, 2009).

But why did Mr. Wagoner’s financial skills not enable him to foresee GM’s financial future? From 1998 to 2008 in Wagoner’s decade as a leader, GM’s stock had fallen that decade by $50 dollars a share. GM’s market share of the U.S car market also fell from 33% in 1994 down to 19% in 2008. A decline in market share should have been a clear indication of a problem in a company’s product lines. But it wasn’t until six years had passed after Wagoner took charge of GM North American operations that finally he realized GM’s products were a problem. In 2002, then he hired Robert A. Lutz to plan new product models. Foresight and strategy are two major requirements for good leadership, but neither appeared to have been GM’s executives’ strengths.

Bill Vlasic summarized: “When GM collapsed last year (2008) and turned to the government for an emergency bailout, its century-old way of conducting business was laid bare, with all its flaws in plain sight … For all its financial troubles and shortcomings as an automaker, no aspect of GM has confounded its critics as much as its hidebound, command-and-control corporate culture …In the old GM, any changes to a product program would be reviewed by as many as 70 executives, often taking two months for a decision to wind its way through regional forums, then to a global committee, and finally to the all-powerful automotive products board … In the past, GM rarely held back a product to add the extra touches that would improve its chances in a fiercely competitive market … Even as it labors to change its culture, GM must convince consumers that it is building better cars …” (Vlasic, 2009).

Sloan had used a complete set of new strategies to alter the way GM did business in order to overtake and supplant Ford as the leader in the U.S.
automobile market. This set of strategies taken together provided a new model for the way GM operated and controlled its businesses — a new business model. However, strategy requires periodic readjustment to meet new challenges, competition, and marketplace changes. The GM CEO successors to Sloan failed to bring GM strategies up to date in a proper way as the world changed. Competition requires both proper strategies and proper balance between strategies in the different areas of a company’s operations. The failure of GM’s leaders after Sloan was due to unbalanced strategy, in which financial strategy was over emphasized at the expense of product strategy as quality and market strategy as focus.

Rick Wagoner announced his resignation in March 2009. GM filed for bankruptcy. U.S. President Obama announced that the U.S. government would guarantee warranties on GM cars during a bankruptcy. In May 2009, the U.S. Treasury advanced a loan of $360 million to GM for operations during bankruptcy. In June 2009, GM filed for bankruptcy, reporting $82.3 billion in assets and 172.8 billion in debt.

Later in 2013, the U.S. government sold the last of its GM shares it received in part for its “bailout” of the company. James Healey wrote: “U.S. taxpayers no longer own any of automaker General Motors. The Treasury sold the last of its remaining 31.1 million GM shares today. It started with 500 million shares in 2010. The taxpayer loss on the GM bailout is $10.5 billion. The Treasury department said it recovered $39 billion from selling its GM stake, and had put $49.5 billion of taxpayer money directly into the GM bailout. The total bailout rises to $51 billion, including another $1.5 billion that Treasury put into programs to keep GM suppliers afloat and to make sure owners’ warranties were honored (plus some into the old GMAC finance company that’s now known as Ally — separate from a much larger Ally bailout) … The GM bailout saved 1.2 million jobs, $39.4 billion tax revenue” (Healey, 2013).

**Strategic Business Model for a Diversified Firm**

But what is the business model for a diversified firm? Since financial markets are the principle strategic focus for a multi-business firm (as opposed to strategic focus on customers for a single-business firm), their strategic business models fundamentally differ. We can now use two business models to understand the strategic relationships between a diversified firm and its portfolio businesses, as shown in Figure 6.1. At the diversified firm level, a strategic finance model shows its emphasis on the market value of the firm. In contrast, strategic enterprise models for each of its businesses shows their emphasis on sales to customers. A diversified firm can use profits from sales by its businesses to grow capital and provide corporate level resources. The diversified firm has responsibility for seeing that its businesses are well managed for profits from their businesses to continue to
fuel corporate prosperity.

Figure 6.1: Strategic Business Models in a Diversified Firm. An Appropriate Strategic Model for a Diversified Firm Level is a “Strategic Firm Model.” For a Business in its Portfolio, an Appropriate Model is a “Strategic Enterprise Model.”

Because this perspective on the totality of the corporation is focused upon optimizing resources and capital, diversification strategy dominates in the strategic policies set. A strategic firm model of a company is a useful perspective to use in viewing the totality of a multi-business firm when diversification strategy is to be the dominant strategic policy. A strategic firm model provides a perspective for optimizing both short-term resources and long-term capital appreciation — by rationalizing sales and profit utilization.

If a company has more than one business, then a firm-level strategic model is necessary to capture a firm’s totality, as opposed to the totalities of each of its businesses. A strategic firm model needs to conceive of a firm as a strategic unity, even though the firm may be composed of a portfolio of businesses. And a strategic firm model must emphasize the optimization of financial valuation strategy in order to increase the stock-market valuation of the firm and return-on-investment of shareholders.

Diversified Firm-Level Strategy Interactions

At the firm level, a corporate planning scenario summarizes the anticipated changes in the future for both the firm as a whole and all of its portfolio businesses. As indicated by the connecting lines, the formulation of the planning scenario influences the formulation of the strategic business models — strategic firm model and strategic enterprise models of each portfolio business. As indicated by the connected line, the projected revenues from each of the strategic enterprise business models feed the revenue input of the strategic firm model. In turn, the resource output of the strategic firm model provides capital inputs to
the strategic enterprise models of the portfolio businesses.

Still looking at the firm level and as indicated by the connected arrows, the corporate planning scenario stimulates changes in the strategic firm model; and from this the corporate strategic plan is formulated. Financial projections for the firm’s future are then derived from the corporate strategic plan, which then are used to inform the stock market and influence the share price of the firm.

When executives of a diversified firm have substantial stock bonuses, then the corporate strategic plan will likely be strongly influenced by desires to see rising share prices in the short term. This is one of the important complexities in strategic planning. How executives are rewarded will influence the corporate strategic plan in terms of goals and time frames of the plan.

In formulating the planning scenario, inputs are required from Corporate Research and from the Business Research Labs of each portfolio business. It is the responsibility of research labs at both the corporate and business levels to be anticipating and preparing new technologies for the futures of the businesses of the firm. If a firm does not have a strong corporate research laboratory and also strong research laboratories for each portfolio business, the firm as a whole cannot derive a competitive advantage from innovation and portfolio businesses can be “blind-sided” by changes in obsolescing technologies.

Business-Level Strategy Interactions

In the business-unit level of strategic planning, each portfolio business will formulate a strategic enterprise model of its business in each particular industrial context. As indicated by the connecting arrows, both the business models and the industrial context will influence the formulation of the corporate planning scenario.

After the formulation of each strategic enterprise model, then each portfolio business will create a long-term strategic plan and a short-term operational plan for its business future. At the diversified firm level, a short-term operational plan is not needed since all business operations are performed not at the firm level but at the portfolio business levels. What is needed at the firm level is the strategic plan to review and approve of the investment needs of the portfolio businesses as these needs arise in the future.

Also at the business level, the rewards for the portfolio business executives and managers may differ from the rewards for firm-level executives in that stock options in the firm may or may not be substantial portions of the business managers’ remuneration. To the extent that business managers are rewarded principally with salaries and bonuses, they will likely have a balanced interest in both the short-term and long-term futures of the business. But since they cannot control the ownership feature of the businesses’ long-term futures, they endure uncertainty about how long their job tenure may last — particularly if and when the business may be sold by the firm. This is one of the sources of conflict in interests and perspectives between firm-level executives and business-level executives.

Thus a strategic problem of a diversified corporation is that firm-level executives are
removed by at least one level from direct experience in any of its acquired businesses. Firm-level executives must depend upon the operating executives the portfolio businesses to know a business is doing the right job and doing it right. Successful strategic management of a diversified firm lies (1) directly in the skills and dedication of the operating executives of the firm’s businesses and (2) indirectly in the strategic policies and investments of the firm-level executives. **Cooperation and mutual trust between the two levels of executives are essential; and yet there may be inherent conflicts in the long-term and short-term interests of the two sets of executives.**

In summary, strategic planning in a conglomerate firm is complex not only because of the many conceptual units in the process but also due to the differing interests and perspectives between the firm and portfolio business executives.

**Opportunity Costs of Staying in a Business**

An area of major strategic decisions in diversified firms is whether or not to make investments in improving the existing businesses in the firm. Over time, all businesses require periodic investment in order to continue being competitive. Investments need to be made in improving products and services, improving production and delivery, improving communications and control. Accordingly, the diversified firm must yearly make decisions about investments in its existing businesses. These investments are kinds of “opportunity costs” of continuing to keep a given business competitive.

One standard way of judging opportunity costs is to use a discounted cash-flow approach. A discounted cash-flow calculation judges the value in the present of a future return. It does this by comparing an expected future return of a particular investment to one alternatively invested in a financial market with a known rate-of-return (such as a savings account). For example, suppose one invests $1,000 dollars in a business improvement expected to return 10% in one year (1,000 + 0.1 × 1,000 = 1,000 + 100 = 1,100). One can compare this to the alternative of depositing instead that same $1,000 dollars into a bank’s savings account for one year at 5% (1,000 + 0.05 × 1,000 = 1,000 + 50 = 1,050). The discounted cash value of the investment in the business improvement is the difference of the return from the investment compared to the return from the alternate “safe” market investment, which in this example would be $1,100 – $1,050 = $50. The actual formula for calculating a discounted cash value is: \[ \text{DPV} = \frac{\text{FV}}{(1+r)^n} \]. This reads: Discounted Present Value (DPV) equals Future Value (FV) divided by compounded interest of \( r \) as \((1+r)^n\).

Now this way of looking at the DPV of an investment can be valid as long as one does not care which business produces the return-on-the-investment. This is a purely “financial” perspective, a perspective entirely appropriate to being in a banking business (since banks care not in what business they invest, only the risk and return of the investment). However, in any particular business, a decision not to invest in improving this business may in the future eventually result in the loss of the entire business.
Accordingly, one should not evaluate a proposed investment in improving an existing business only on the basis of a discounted cash-flow calculation. One also should look at the potential impact of the business improvement investment (or lack of it) upon the business survivability. What will the investment contribute to keeping the business competitive in the future?

In the concept of the industrial life cycle, that as an industry matures technologically, its market saturates, becoming a replacement market and a market growing only through demographics of the market. As this is happening, the companies in the industry consolidate (or fail) until only a handful of companies survive in the industry. The “magic rule” (which is to say a rule-of-thumb through experience) is that only about five companies will ultimately survive in any mature industry. This rule suggests that the minimum market share a business needs to keep going for long-term survival is about 20%.

Thus a Discounted-Present-Value strategy used by conglomerated firm as applied to a business in its portfolio could actually allow the portfolio business to go “out of business” — due to a lack of investments to maintain productivity, even as its rivals fight the five surviving business positions in the mature industry.

For example, we saw that the U.S. automobile manufacturers declined in number during the twentieth century, until in the 1990s only three major U.S. automakers had survived — GM, Ford, and Chrysler. Beginning from about 1970 through 1990, GM lost its once dominant 50% of the market of the U.S. Auto market down to 34% by the end of the century (as foreign auto markets in the last quarter of the twentieth century acquired about a third of the U.S. Auto market). During that same period, Ford hung onto nearly 20% of the U.S. market; while Chrysler struggled around the 9–10% level.

According to the “market-share-survival” rule of thumb over the long run, only GM and Ford would remain independent, while Chrysler was at risk. And it did happen that in the 1998, Daimler-Benz acquired Chrysler. In 2007, Daimler-Benz sold Chrysler to Cerberus Capital Management. After the U.S. banking crisis of 2008, Chrysler filed for bankruptcy on April 10, 2009. On June 10, 2009, Chrysler emerged from the bankruptcy under the United Auto Workers pension fund, Fiat, and the U.S. and Canadian governments as principal owners. In May 2014, Chrysler was wholly acquired by Fiat S.p.A.

In evaluating financial investments for improvements in the businesses of a diversified firm, management should strategically look at the opportunity costs of the investments in a way which evaluates impact of the investment upon the business’s ability to maintain a survivable 20% market share in the industry. There are three kinds of opportunity costs — (1) costs to grow market share above 20%, (2) costs to maintain market share at a survivable 20%, and (3) costs of allowing the business to decline into the long-term non-survivable range of 10%. A decision to allow a decline such as (3), the opportunity costs of market-share decline, is a really strategic decision to begin exiting from that business.
Strategic Management in a Diversified Firm

In a previous chapter, we reviewed the early history of GM and how Sloan’s strategic management enabled GM to become dominant in the U.S. auto industry. But, as we reviewed, afterwards due to the strategic mis-management of GM by Sloan’s successors, GM declined into bankruptcy.

The principle reason for GM’s decline was one trend in Sloan’s strategy that had been overly emphasized by his successors — the financial perspective. Arthur Kuhn wrote: “Sloan had kept GM’s management narrowly focused on stockholders’ interest at the expense of labor, consumers, and the general public … Sloan’s emphasis on rate-or-return performance would eventually thrust too many financially oriented executives into GM’s top corporate decision-making positions, men without knowledge of automobile design, production and marketing” (Kuhn, 1986).

Later GM leaders’ preoccupation with financial strategy had exacerbated a lack of attention to other business policies, such as labor relations, safety, and product quality. GM leaders’ antagonistic attitude toward labor fostered continuing labor troubles for GM (that greatly contributed to the deterioration of GM’s capability for efficient, high-quality, and low-cost production). GM leaders resisted providing leadership in automobile safety and environment (eventually fostering U.S. government intervention to mandate safety and environmental standards for the auto industry). GM’s different automobile brands lost distinctiveness, quality, competitiveness, and performance — particularly compared to imported foreign-produced automobiles. By the 1970s, GM had failed to compete effectively in the low-end automobile market. It also lost quality leadership in the middle and high end. German automobile makers dominated high-end sector quality; whereas Japanese automobile makers dominated lower and middle sector quality. The holding company strategy as a focus on finance had not encouraged the portfolio companies to maintain quality and brand distinctiveness.

As we saw in the GM decline and bankruptcy, the leadership of a diversified firm needs to attend to providing adequate resources to its portfolio businesses to keep them competitive. Otherwise market share of its portfolio firms decline. Profits decline, and eventually the whole firm can go bankrupt.

The decision to maintain a portfolio business or to buy or sell a business are strategic decisions by a CEO of a diversified firm — which have major impacts upon the presidents of the businesses in the firm’s business portfolio. There are six critical factors for successful strategic management that need to be recognized:

(1) The need for relationships of trust between levels of management;
(2) The impact of unequal power relationships between a holding company and the businesses of its portfolio;
(3) The effect of long-term and short-term differences of control over finances between the firm and its portfolio businesses;
The possible results of *differing incentives and rewards* for levels of management;

The *inherent conflicts of interest* of different levels of management;

The influence of *external forces on business valuation*.

Relationships of Trust

In a diversified firm, firm-level executive must depend upon the business-level executives reporting upon them. They must depend upon them for both their commitment to success and integrity in operations.

*In a diversified firm, a constructive and positive interdependence of reasonability and commitment-to-success between the firm-level executives and business-operating executives is critical to long-term corporate success.*

Unequal Power Relationships

This kind of “truism” should be obvious and therefore practiced by all management. Why is this not always practiced? Because there are unequal power relationships between the top-level of the firm and its operating levels of portfolio businesses:

1. A firm can buy or sell any of its portfolio businesses.
2. But a portfolio business cannot buy or sell its owner firm.
3. But the long-term success of a firm is dependent upon the successes of its portfolio businesses.

And as in any unequal power relationship, trust can be abused. It is important for the leadership of a diversified firm not to abuse the trust of its operating business managers in the short term, because the success of the firm in the long term depends upon the continuing short-term successes of the portfolio businesses.

*The leadership of a diversified firm has both the responsibility and necessity for being a good caretaker of the businesses which a firm has the privilege of owning — both for the short-term good of each of its businesses and for the long-term good of the firm.*

Long-Term and Short-Term Differences of Control

This statement may at first appear to look suspiciously like a goody-goody kind of “ethical” imperative. But it isn’t. It is really only a very practical and basic imperative for running any diversified firm. It emphasizes the basic difference of perspective and capability in any diversified firm.

*In a diversified firm, short-term financial control is always in the operations its portfolio businesses and long-term financial control is in the strategic plan of the firm.*
Top leadership of all diversified firms have limited control of their short-term future and more control of their long-term future; while in contrast, the portfolio businesses have limited abilities to control their long-term futures but more control over their short-term futures.

Differing Incentives and Rewards
In the late 1980s in the United States, practices of executive pay began to turn from large executive salaries and perks and bonuses to substantial salaries and perks and very large stock options.

It was estimated that in 1987, only 2% of the total value of the U.S. stock market was held as employee-owned stock or stock options; but by 1994, this portion had grown to 5% and by 1999 to 9% (Rosenberg, 2000, p. C1). This was nearly a five-fold increase to almost one-tenth of the total stock market value being owned by employees. This way to reward executives of publicly-owned businesses provided a major change in the incentive to the executives of firms on the short-term versus long-term perspective on business performance. It increased the importance of growing and maintaining the share value of a firm in the short term.

Incentives and rewards can differ for different levels of management in a diversified firm. The executives at the firm level may be rewarded with stock options that motivate short-term share-price value; while the operating managers of the businesses of the firms may be rewarded by salaries and bonuses for the operating profits of the firms, which can be structured to motivate for both short- and long-term perspectives.

Inherent Conflicts of Interest
Such differences in rewards for the firm-level executives and the business-level managers can create inherent conflicts of interest in that the firm is trying to optimize short-term capital value, whereas the business-level managers try to optimize longer-term competitiveness and profitability. Extreme conflict can occur when the firm does not provide proper investment capital back into its businesses to help maintain their long-term competitiveness.

External Forces on Business Valuation
Stocks create a value of a return from investment either (1) through dividends paid out annually by the company or (2) by any increase in the price of the stock. Accordingly, earnings of a corporation can be used for paying out dividends, investments for improving businesses, or acquisitions. Earnings used for dividends provide an immediate return to the shareholder, while earnings used for improvement or acquisitions may provide future capital accumulation to raise share value. There is an important trade-off in optimizing shareholder value of a company, between how earnings are used for (1) immediate return-on-investment or (2) future return-on-investment. Economically, this trade-off should be
made to balance appropriately short-and long-term shareholder value and short- and long-term competitiveness of the company. However, external forces can make an important influence on this balancing, particularly when a government’s tax policies unwittingly bias this balance. And in the U.S. Corporate world of the twentieth century, Federal government tax policy had biased corporate strategy strongly against returning investments in stocks via dividends.

Government policies can often make an important impact upon the environments of a business. In the United States at the close of the twentieth century, Federal government income tax policy had a major external impact upon business policies. The Federal government taxed returns-on-investment from stocks very unequally as dividends or stock appreciation. Wealthy individuals who owned stock would have any dividends from their stocks taxed at a top income tax rate of 36% in the year 2000. In contrast, any gains on sales of their stocks held at least one year would be taxed at a lower capital gains tax rate of 28%. This tax rate difference of $36 - 28 = 8\%$ had in effect created a 22% tax penalty on received stock returns by dividends rather that appreciation. One can see how government policy of the United States in the last part of the twentieth century encouraged corporations to pursue strategies which aimed at continually increasing stock prices, as opposed to traditional business practice of sharing earnings with investors through dividends. Thus earnings were often used to buy growth through acquisitions, even when a company could not properly manage acquired businesses.

The tax policies of the United States biased twentieth-century corporate strategy away from traditional dividend strategies toward quick capital-gain strategies — making it difficult to properly run companies in mature industries with little growth but steady earnings — as all successful companies eventually become. When the twentieth century began, the corporate situation in the United States was one where the U.S. Federal government unwittingly biased the economic playing field through tax policy wherein:

1. only companies in new and growing industries (such as Cisco) could be properly run and rewarded with high price/earnings ($P/E$) ratios by the financial structure, and
2. companies in mature industries (such as Sunbeam) could not be properly run and at the same time rewarded by reasonable $P/E$ ratios by the financial structure.

**Reasons for Corporate Diversification**

In the second half of the twentieth century in the United States, corporate diversification was a major emphasis in strategic thinking. The reasons for thinking about corporate diversification were about growth and survival. There were four motivations to diversity.

1. *Growth by Innovation*

   Launching new product lines and new businesses, financed by cash flows from
existing businesses.

2. Growth by Acquisitions

Growth by buying businesses with lower $P/E$ ratios, as encouraged high valuation by financial markets of growing firms.

3. Surviving Economic Cycles

Economic recessions affected different industries differently, and businesses in different industries can soften the losses.

4. Improving Coverage of Markets

Extending coverage of niches in a market might improve overall market share.

We next examine each of these diversification motives.

1. Growth by Innovation

Historically, one firm that used innovation to strategically diversify was the Ethyl Corporation. Originally, Ethyl began as joint-venture firm between GM and Exxon to produce the lead antiknock gasoline additive (which had been invented at GM for high-compression gasoline engines but which GM did not wish itself to produce). Ethyl first sold antiknock gasoline in 1923, and for nearly 40 years it was a one-product company. In 1962, Ethyl was acquired by the Albemarle Paper Manufacturing Co, under pressure to diversify for survival.

At the time of the merger of Ethyl with Albemarle Paper, Floyd D. Gottwald, Jr. was elected Executive Vice President of the newly merged Ethyl Corporation. He had originally joined Albemarle Paper Manufacturing Company in 1943 as a chemist, and advanced to president of Albemarle. Later he commented on the merger that set Ethyl to diversifying: “When Albemarle purchased Ethyl in 1962, Ethyl was clearly a one-product company with a wealth of pent up talent restless to exert itself. Under the previous joint owners, GM and Exxon, there had been virtually no opportunity for commercialization of the many possibilities that had emerged from 40 years of research on improving or finding a better antiknock. For good reasons of their own, the previous owners had preferred to keep Ethyl a one-product company. Our change of perspective in 1962, as we sought to diversify, could not have been more dramatic …” (Gottwald, 1987).

What businesses to acquire? Ethyl chose to diversify toward areas in which they had a strong underlying research base. The Ethyl research program had grown out of their original focus on lead antiknock compounds (whose original rights they had acquired from GM). Ethyl developed chemical skills and innovations by branching out from their original chemistry of lead antiknock compounds. It also had done research on aluminum alkyls chemicals. This kind of research branching focused their original business acquisitions. And those acquisitions stimulated further innovation through research branching.
As Ethyl began acquiring businesses, they were originally focused by their existing research base in chemicals and paper. In 1963 for plastics, they acquired Visqueen film. In 1967 for paper, they acquired Oxford paper and in 1968 IMCO Container.

They had a research program in aluminum, which eventually didn’t work out. But this had motivated them to acquire the William L. Bonnel Company in 1966 and the Capital Product Corporation in 1970. And after those initial acquisitions of the 1960s, Ethyl continued acquiring businesses in the 1970s. Floyd Gottwald wrote: “As we reached the mid-1970s and Ethyl’s success seemed assured, our acquisition program entered phase two — broadening the base. In 1975, we acquired the Edwin Cooper Division of Burmah Oil to give added strength to our existing lube additive lines. Harwicke Chemical, purchased in 1978, expanded our insecticide business to include synthetic pyrethroids. In 1980, we acquired Saytech, Inc. to extend Ethyl’s basic bromine position into flame retardants” (Gottwald, 1987).

The result of this diversification program over 20 years dramatically altered the structure of Ethyl’s businesses. The diversification program at Ethyl had also looked at many other businesses which it chose not to acquire. In these cases, the businesses had no relation to Ethyl’s research strengths. An important factor in Ethyl’s acquisition program was not only did they have a financial strategy but also a plan for innovation, based upon science they understood. Moreover, the diversification was fortunate in timing, since later in the 1970s the U.S. government legislated the removal of lead additives out of gasoline, as a health hazard, which would have destroyed Ethyl if undiversified.

2. Growth by Acquisitions

Another early reason for corporate diversification was to enable a firm to escape from the confines of a low-growth or low-return industry. For example, the first U.S. conglomerate, Textron, was created by Royal Little for this reason. In 1923, Little founded a company called Special Yarns Corp. in Boston, Massachusetts. The 1930s depression was hard, and the company struggled to stay alive. After the war, the textile business turned out to be highly cyclic, with a low return on capital. One of the reasons for this was that the industry expanded production capacity by reinvesting profits, reluctant to pay out high dividends or taxes (Little, 1984). On June 30, 1952, Roy Little held a special stockholders’ meeting to change the articles of association to buy businesses outside of textiles. His first acquisition was the Burkart Manufacturing Co. (which had begun by making horse blankets in St. Louis and then turned to making auto seat stuffing). Little then bought two more companies in 1954, Dalmo Victor and MB Manufacturing. In 1955, Little bought Homelite Corp. Textron was one of the first conglomerates in the United States.

High stock valuations facilitate financing “growth” by corporate acquisitions.
For example, in the United States, a decade of widespread corporate conglomerate occurred in the late 1950s and early 1960s when the robust stock market provided growing companies with high P/E ratio valuations — that enabled such companies to buy other companies with no growth and much lower P/E stock valuations.

For example in 1954, Litton Industries began from a company called Electro-Dynamics Corp (which was taken over by Roy Ash and Tex Thornton). Ash and Thornton changed the name to Litton Industries and acquired at least 20 different businesses, using high P/E ratios (as high as 47 at one time). Then in the early 1960s, they acquired two companies with problems, Ingalls Shipbuilding and Royal McBee. In 1968, Litton’s quarterly earnings declined for the first time. For a longtime thereafter, the shares were down, and finally the company returned to being a strong performer.

3. Surviving Economic Cycles

Another reason for diversification was to counter the financial impacts of common business cycles. Different businesses are affected differently in a recession. One example of a merger put together specifically to counter the effect of business cycles was the formation of the Martin-Marietta Company in the 1950s. Martin was then an aircraft firm and Marietta a construction materials firm, selling cement and crushed concrete. The merger followed an assumption that defense and domestic economies are often on opposite business cycles. In the 1970s when defense was booming and construction was down, a hostile raid was made on Martin-Marietta. To avoid being bought up, the company bought out its own stock and compiled an enormous debt. Then later to reduce that debt, Marietta was sold off. After the end of the cold war in the late 1980s, the U.S. defense industry began strategic changes, and Martin merged with Lockheed to form Lockheed Martin.

4. Improved Coverage of Markets

Another reason for diversification was to cover a market or acquire new technologies to preserve market share. Examples we have seen of this were the earlier cases of Durant’s assemblage in the early 1920s of many different auto model business into GM. Another example was Cisco’s acquisitions of networking component companies in the 1990s.

Stock Market Valuation of Businesses

The difference between a single-business firm and a multi-business firm is that (1) strategy for a single-business firms focuses primarily upon its customers, while (2)
strategy for a multi-business firms focuses primarily upon the financial markets. Since for a diversified firm, the financial market provides its immediate performance context, it is useful to review the criteria for market valuation of stocks.

The traditional criteria for valuing share price are called its price-to-earnings ratio (P/E). The meaning of this lies in its inverse ratio E/P. This is a measure of the present return-on-an-investment in a stock at a price P as the fraction of annual earnings E at that price (E/P). For example, consider a company with a P/E ratio of 10. Suppose the company’s share price is $P = $200 dollars and the company earned $E = $20 dollars that year. The stock valuation would be $P/E = 10$. This can be interpreted as the present return-of-the-investment is a 10% return — based upon inverting the P/E ratio as $E/P = 10/100 = 10\%$ return. The inverse of the P/E ratio calculates the present rate-of-return of the company’s performance.

This measure is fine for a constant rate of earnings in a company; but it undervalues a company if its earnings are continually growing. One needs to value the company not at a present rate-of-return but at a future rate-of-return. Accordingly, a growing company is valued at a higher P/E ratio than a constant rate sales company. Just what P/E ratio for a growing company is reasonable depends upon the rate of growth. For example, a P/E ratio of 20 means that the present rate-of-return of a company’s share is $E/P = 1/20 = 5\%$. So the company must double present earnings in the future to gain a future 10% return. A P/E ratio of 40 would mean that the present rate-of-return of a company’s share was $E/P = 1/40 = 2.5\%$. So the company must quadruple present earnings in the future to gain a future 10% return.

Figure 6.2 illustrates this general criterion of growth as a factor in stock valuation by influencing P/E ratios for four general patterns in businesses — growing businesses, steady businesses, cyclic businesses, and declining businesses.
Figure 6.2: Growth as a General Factor in Market Valuation of Business.

**Area 1 — Businesses Growing in Both Sales and Profits**

– Shares are valued with high P/E ratios.

(Depending upon the state of the market, high P/E ratios of growing firms have varied in the range from 20 to 200 in the U.S. market in the second half of the twentieth century.)

**Area 2 — Businesses Constant in Sales and Profits**

– Shares are valued with modest P/E ratios.

(Depending upon the state of the market, modest P/E ratios of growing firms have varied in the range from 7 to 17 in the U.S. market in the second half of the twentieth century.)

**Area 3 — Businesses with Cyclic Sales in Economic Cycles**

– Shares are cyclically valued with modest P/E ratios.

(Depending upon the state of the market and the economy and the dividend policies of a business, modest P/E ratios of cyclic firms have varied in the range from 7 to 17 in the U.S. market in the second half of...
Area 4 — Businesses with Declining Sales
– Shares steadily decline in price.

(End games of declining businesses have frequently ended with acquisition by another company or in bankruptcy.)

In summary, the critical variable for the valuation of a company’s share price has been the P/E ratio assigned by the market in a given state of the market. And this P/E ratio has had a great range of variation, particularly for newly growing businesses during times of a stock market boom. This is one reason why growth became the single most important strategic performance variable for diversifying firms in the late twentieth century.

When a diversified firm acquires a new business, it also is entering the industry in which the business operates. The competitive conditions and life stages of the particular industry of a business will constrain the opportunities and profitability of the business. An industrial life cycle is the pattern shown by all new industries which originate upon innovation of a new core technology. Markets of the new industry grow and then mature as the rates of innovation in industry slowdown. In a new industry, the rapid business growth is possible. In a mature industry, market size is stable, and growth for a business in a mature market must come from the market share of a competitor. Moreover, in a mature industry with excess capacity for market demand, profit margins will be limited by strong price competition.

To properly analyze business portfolios, one needs to add a kind of industrial-context analysis to the previous technique of analyzing a business portfolio in terms of market position. We can do this by embedding the market-position analysis within a larger space of industrial-context analysis, as depicted in Figure 6.3:
The larger space of industrial context can be characterized by the two dimensions of “stage-in-industrial-life-cycle” and “size-of-industry.”

Any business may be located in context (1) as to whether or not its industrial context is in a new industry or in a mature industry and (2) as to whether or not that industry is small or large.

Multiple-space analysis of a business portfolio allows businesses in a company’s diversification portfolio to be compared not only along dimensions of market position but also along dimensions of industrial context. What industries does a firm strategically wish to enter? What businesses in this industry should the firm acquire? What are the risks?

**Area 1 — Businesses in Large Mature Industries**

Consider Area 1, in which a business exists in a mature industry of large market size. Therein no business can experience large market growth except at the expense of competitors. Accordingly, most businesses surviving in a large, mature industry will either have large market share and be a **dominant player** or have small market share and be at risk. A dominant player will necessarily be a low-cost and high-quality leader in its industry, in order to maintain or gain market share. For example, we recall that in the last part of the twentieth century, General Motors was no longer a low-cost or high-quality leader in automobile manufacturing and lost market share from above 50% to 29%. The Japanese automobile leaders in cost and quality were Toyota and Honda, who gained market share at the cost of GM and became dominant players.
Other firms with small market shares in large, mature industries are continually at risk and are eventually bought up or go bankrupt. For example, the Chrysler automobile firm’s market share declined to less 10% of the U.S. auto market in the 1960s, nearly went bankrupt in 1981 and was acquired by the German auto firm Daimler in 1998.

Strategically, it makes good sense for a large diversified firm to maintain businesses in their portfolio who are dominant players in large industries — because the cash flow and return-on-assets can be very large for these. For example, Jack Welch at General Electric in the last decades of the twentieth century managed the diversified GE through the strategic policies of owning only businesses in large markets and having their managers be “number one or number two” in the industry. Upon becoming CEO, Welch sold off businesses of GE that were (1) in small, mature industry or (2) were not a dominant number one or two player in a large, mature industry.

**Area 2 — Businesses in Small Mature Industries**

Consider Area 2, in which a business exists in a mature industry of small market size. Businesses in mature industries of relatively small size still face competition for occupying positions in the niche. For long term survival in a niche, a business also must be a low-cost, high-quality leader. Businesses with small market share even in a small market are at risk for bankruptcy.

However, it can make good strategic sense for a smaller firm to own a portfolio of niche leaders in mature industries of small markets. These can provide substantial cash flow and return-on-assets investments. It does not make good strategic sense for a very large firm to own a portfolio of niche leaders — because the contribution to revenue of even a niche leader cannot match the attention required to monitor or invest in the business. It is a truism that running a business in a niche industry requires just as much attention as running a business in a large industry. Management attention demands in any business, small or medium or large, are equally great.

**Area 3 — New Businesses in New Industries**

Consider Area 3, in which a business exists in a new industry of small market size. New business ventures are of two kinds, high-tech new businesses and low-tech new businesses. High-tech new businesses occur in new industries founded upon basic innovations and initially have only small market size (and later the market grows larger). (Examples in the late twentieth century were information technology businesses and biotechnology businesses.) Low-tech new businesses occur in existing industries, and often are regionally localized kinds of businesses. (Examples in the late twentieth century were regional service businesses and franchised service businesses, such as fast food or auto service businesses.)

In a new industry, all new high-tech ventures when they begin are at risk
unless their market share rapidly grows to early make them profitable. (For example, there were many business failures of new e-commerce retail businesses when profitability was not established early.) Early sales and early establishment of a significant market share is important to the survival of a new high-tech venture. For a diversified firm to enter a new high-tech industry, it can make strategic sense to acquire a newly established business. But two strategic criteria should guide such acquisitions:

(1) the new high-tech venture should be an innovative technology leader,

(2) the management of the new high-tech venture should have shown managerial capabilities to make significant sales and to establish profitability.

The acquisition of a new high-tech venture by an existing large firm should pay strategic attention not only to acquiring a new technology but also a management team capable of successfully commercializing the new technology.

Area 4 — New Businesses in New Large Industries

Consider Area 4, in which a business exists in a new industry of large and growing market size. In an industrial life cycle of a new industry enters its rapid market growth phase, many competitors enter and later die. The “first mover” in a new industry is the business which first makes appropriate investments in:

(1) continuing to advance the new technologies,

(2) developing large-scale production capacity,

(3) developing a national distribution capability, and

(4) developing the management talent to grow the new firm.

Acquisition of a first mover in a new industry for an existing large business is usually difficult because of the high stock evaluation such companies usually obtain in the stock market. Usually, such firms go on to become very big firms in their own right or acquire older large businesses. For example, the earlier case of Cisco Systems was an example of a first mover in the computer network equipment business that grew to a large firm, acquiring many other new high-tech ventures along the way.

Summary

For a diversified firm, financial markets are the principle strategic focus for a multi-business firm, while the single-business firms focus strategically on customers. One needs to use two business models to understand the strategic relationships between a diversified firm and its portfolio businesses. At the diversified firm level, a strategic finance model shows its emphasis on the market value of the firm. In contrast, strategic enterprise models
for each of its businesses shows their emphasis on sales to customers. A diversified firm can use profits from sales by its businesses to grow capital and provide corporate level resources. The diversified firm has responsibility for seeing that its businesses are well managed for profits from their businesses to continue to fuel corporate prosperity.

**Theoretical Principles**

1. There are ‘opportunity costs’ to keep any business competitive, even businesses in the portfolio of diversified firms.
2. Integrity and trust between a holding company and its portfolio of businesses is essential to the strategic survival of the holding company.
Strategy Scenarios

Introduction

Now we examine how to formulate a “big picture” for top-down strategic perspective — a strategic scenario. Strategic scenarios systematically and intuitively explore and summarize the picture of the future environments in which a company expects to operate and within which a strategic business model is formulated. Also we recall that the top-down strategic perspective has a logic that begins with the general and moves to the specific, such as:

(1) Scanning the environments of a firm to identify major future trends and changes;
(2) Interpreting the changes as threats and opportunities to the businesses of the firm;
(3) Analyzing the present firm’s activities in terms of strengths and weaknesses to face such threats or seize such opportunities;
(4) Redefining the missions of the firm’s businesses to match the future operations to future threats and opportunities;
(5) Setting goals and targets for businesses to meet in a time horizon.

CASE

3M’s Strategic Stories

In 1998, Gordon Shaw (then executive director of planning at 3M in St Paul, Minnesota) and his colleagues, Robert Brown and Phillip Bromely, reported on an approach to strategic planning that emphasized the importance of telling “stories” to communicate, so that the stories get at the structures of future events: “At 3M, we tell … stories about how we failed with our first abrasive products and stories about how we invented masking tape and Wet-or-dry sandpaper …. We train our sales representatives to paint stories through word pictures so that customers will see how using a 3M product can help them succeed …. Stories are a habit of mind at 3M, and it’s through them — through the way they make us see ourselves and our business operations in complex, multidimensional forms — that we’re able to discover opportunities for strategic change. Stories give us ways to form ideas about winning” (Shaw et al., 1998).

They concluded “stories” would be a better way to think out and present strategy: “Over the course of several years overseeing strategic planning at
3M, Gordon Shaw became uncomfortably aware that 3M’s business plans failed to reflect deep thought or to inspire commitment. They were usually just lists of ‘good things to do’ that made 3M functionally stronger but failed to explain the logic or rationale of winning in the marketplace. He began to suspect that the familiar, bullet-list format of the plans was a big part of the problem” (Shaw et al., 1998).

Many companies have used the format of lists of bullets in writing and presenting planning information. Bullet lists help reduce the complexity of business situations to a few points and help to focus discussion. Shaw, Brown, and Bromely thought that strategy presented in the apparent simplicity of a list of bullets also lost many of the subtle issues of strategy, as issues neither presented nor discussed. The form of the language in the presentation of a planning report expresses the depth of thinking underlying the plan. A bullet format does not show whether the strategic thinking going into the plan was shallow or profound, because the bullets themselves do not tell the whole story of the strategy underlying the plan. They wrote: “Bullets allow us to skip the thinking step, genially tricking ourselves into supposing that we have planned when, in fact, we’ve only listed some good things to do” (Shaw et al., 1998).

They thought that it was the format of the strategic plan summarized as a list of bullet-sized points that in itself encourages intellectual laziness in strategy. First, they judged that a strategy expressed as a list of bullets only results in presenting the strategy as issues that are too generic, only summarizing a list of good-things-to-do that would apply to any business. A bullet-list format could result in a plan that really failed to focus on specifics, specifics of how the business could win in its selected markets.

Shaw et al. gave an example of a selection from a planning document submitted by a 3M business unit, in which planners had proposed major strategies, listed in bullets as to both reduce costs and increase customer choice:

– Reduce high delivered costs,
– Reduce international parent head count by three,
– Explore sales cost reductions,
– Determine vision for traditional products and appropriate staff,
– Continue to reduce factory costs,
– Refine unit cost management system,
– Reduce process and product costs,
– Accelerate development and introduction of new products,
What would have been important, in presenting this plan, would be the *specifics* of how these strategic directions were to be accomplished. The bullets were so generic as to be applicable to any manufacturing business. The managers presenting in this format failed to discuss the important issues of planning — which are specifically how to accomplish things.

Moreover, in addition to facilitating a too generic-level of strategic thinking, Shaw et al. judged that a bullet-list strategy encouraged a kind of one-dimensional thinking — one dimensional in terms of the real complexity of strategic relationships. Since a list can only logically present the membership, sequence, or priority of a set of things, a list will fail to present (1) the interactions between the factors of the list and (2) the structure of the business activities underlying the list. *A bullet list fails to examine the interrelationships of factors in a business.*

To illustrate this lack of sophistication about strategic interrelationships, they offered an example of typical kinds of major objectives in a standard five-year strategic plan:

- Increase market share by *x* percent.
- Increase profits by *y* percent.
- Increase new-product introductions to a larger number *z* per year.

Shaw et al. pointed out that the trouble with this strategy list is that it neglects to discuss how these objectives *tie together.* For example, is it the case that improved marketing by itself can increase market share (from which improved profits will follow and from which funds for increasing new-product introductions will be available). This is one of the possible sequential causal assumptions implicit in this list. Or alternatively, will it take both increased new-product introductions and increased market share together to increase profits? A bullet list does not make explicit the relationships between points of the list.

Shaw, Brown, and Bromely’s criticism of the bullet-list format for presenting strategic plans is that it can create an illusion. *It may create that strategy has been thought out, when in reality it hasn’t.* A plan expressed only as a list of bullets will leave unstated the critical assumptions about how the business does or should work. Consequently, a bullet plan can give an illusion of clarity, when in fact the future remains obscure. They emphasized that thinking one is clear about the future, when the future is still obscure can be a very expensive illusion in business.

Instead, they suggested telling a “scenario story” in three stages: (1) setting...
the stage, (2) introducing the dramatic conflict, and (3) providing resolution. They argued that the format of a strategic scenario needed to first set the strategy stage, defining the current situation in an insightful and coherent way. This setting of the stage should include analyzing an industry’s dynamics, the forces that drive change, and the factors providing competitive success in the industry. Next in the planning scenario story, a strategic planner should introduce the dramatic conflict, as to what challenges a company must face in that situation? What will be the obstacles to success and threats of failure? Then the story should conclude by proposing a resolution of the challenges in a convincing way. The planning scenario should indicate the directions of how the company can overcome obstacles and win.

This case illustrates how the planning format itself, in the presentation of strategic planning, can either impede or facilitate thinking about strategy. The technique for thinking about and capturing the uncertainty and ambiguity about the future impacts upon business is what Shaw et al. called the concept of the strategic story, a strategy scenario.

**Case House of Mitsui**

We illustrate the concept of a narrative “planning scenario” by reviewing a famous case in business history, that of the long-lived firm of Mitsui in Japan. It shows the complexity of issues involved in long-term business survival. This is particularly complex when a society in which the firm exists undergoes great change. Mitsui is one of the world’s oldest and continuously operational modern firm. But its form has changed over time and in pace with the changing history of modern Japan — transforming from a feudal society into an industrial nation. All countries, or territories, of the modern world have made (or are still making) this important societal transition from feudal/tribal societies to industrialized societies. In Japan, this change occurred quickly and successfully and dramatically in only 100 years — from the second half of the nineteenth century through the first half of the twentieth century. During this time, one particular merchant clan, the House of Mitsui, became a giant, global, commercially powerful modern corporation, Mitsui Gumi Inc.

We will summarize this case as a narrative story, a scenario (but one looking backward rather than forward — a historical scenario). This narrative provides a very dramatic illustration of long-term changes over time in a business’s environment that a business must face. Changing environments create business opportunities and challenges and threats to success and survival. The historian John Roberts has nicely summarized the scenario drama for Mitsui in the middle of the twentieth century: “At the end of World War II in 1945, Japan was a shambles … (and yet) no time was lost on self-pity, regret over the mistake of waging a hopeless war, or hatred of
the conquerors. With resilience, determination, and accommodation, the nation quickly lifted itself from the ashes of defeat … she became the world’s third great industrial power …” (Roberts, 1989).

The firm of Mitsui traced its history back to a founding samurai family in 1600s, then surviving as a family-controlled enterprise through the eighteenth, nineteenth, and twentieth centuries. Its history mirrored the history of the economic and social system of modern Japan. During the societal change, Mitsui emerged as a major corporate entity in Japan, one of the powerful combines, zaibatsu, as an economic form for industrializing Japan. The zaibatsu, with government encouragement, also served as instruments of national policy in the building of a modern, industrialized Japan.

In 1616, the founder of the house of Mitsui, Sokubei, gave up his status as a samurai to become a merchant, a chonin. He began a small brewery to make sake and soy sauce.

Then his wife and children added a small draper’s shop and money exchange. From this, the following generations continued to build, creating in the early 1900s, a giant zaibatsu, a huge conglomerate running most types of commerce and industry, including banking, insurance, shipping, foreign trade, retail merchandising, construction, engineering, mining, brewing, textiles, chemicals, paper, glass, electronics, optics, and real estate.

Sokubei’s action of changing from samurai to chonin was due to his perception that the times were changing — after the ascendency of Tokugawa Ieyasu as shogun in 1616 and after a century of civil war. Military stability in feudal times promoted commerce and economic prosperity. During the previous century, there had been continual wars between the feudal lords of Japan. But gradually, some local warlords increased their areas of control and feudal unity was strengthened, which also fostered the growth of internal commerce. The amounts and quality of exchanged goods and services increased. With this the traditional bartering rice for handicrafts and other commodities was increasingly supplanted by the use of money. The feudal lords, daimyo, had also to borrow money to meet the expenses of warfare. Lending the money to the daimyo was a group of commoners prosperous from trade. These formed a new merchant class, chonin, who grew in numbers and was given official status in the feudal society of Tokugawa.

By 1568, Oda Nobunaga, a warlord, had subdued most of Japan. Upon his death, his two best generals, Toyotomi Hideyoshi and Tokugawa Ieyasu, faced off as rivals. In 1600, a final battle at Skeigharaa, establishing Tokugawa’s superiority. The opposing armies of Toyotomi and Tokugawa had marshaled 60,000 samurai into the battle. Tokugawa’s army won, taking 40,000 heads as trophy.
Tokugawa Ieyasu (in Figure 7.1) was the undisputed warlord, shogun, over all Japan; and he established a government that was to last until 1863, the Tokugawa Shogunate.

![Tokugawa Ieyasu](http://budostudies.com/philosophy/ - Public domain image)

When Tokugawa retired from his rule as shogunate, he left a testament to guide his successors:

Life is like walking along a long road shouldering a heavy load; there is no need to hurry.  
One who treats difficulties as the normal state of affairs will never be discontented.  
Patience is the source of eternal peace; treat anger as an enemy.  
Harm will befall one who knows only success and has never experienced failure.  
Blame yourself rather than others.  
It is better not to reach than to go too far.

Sokubei had been a lower ranking samurai, who could not partake in the
success and rewards in the new regime. There was no powerful lord, daimyo, to whom the Mitsui family owed allegiance and from whom, conversely, fortune would come to guarantee the family’s continuing existence as samurai. Sokubei had to think about his family’s future without proper feudal ties to the new regime. He traveled to Edo, the capital of Tokugawa’s new government (Figure 7.2).

![Figure 7.2: Nihonbashi in Edo (by Hiroshige) — This Bridge was at the Center of Edo’s Commerce. Source: http://www.sessakai.com/skmpepe50.htm — Public domain image.](image)

In Edo, he saw prosperity in the merchant class and decided to become a merchant. Since his wife was from a wealthy merchant family, merchants were familiar to him. Upon his return, he gathered his household together — his wife Shuho, his children, his retainers, and servants. He told them he was giving up the family’s traditional status as samurai. Orland Russell quoted Sokubei as saying: “A great peace is at hand. The shogun rules firmly and with justice at Edo. No more shall we have to live by the sword. I have seen that great profit can be made honorably. I shall brew sake and soy sauce, and we shall prosper” (Russell, 1971).

Sokubei’s family house of Mitsui began brewing sake; and people called his shop, “Lord Echigo’s sake shop,” because Sokubei’s father had been called Lord Echigo. It was unusual to them that a former samurai had become a shopkeeper, a chonin. At first, business was slow. Sokubei was not a good shopkeeper, displaying the aloofness and disdain proper to a samurai. But his wife Shuho, the daughter of a successful merchant, was friendly and clever. She grew the business. Without the feudal pretensions of aristocratic
class, Shuho conversed with her peasant customers. She gained the favor of servants, as customers, by offering tea or tobacco when they came on errands. Sometimes, customers spent more than they had cash. Shuho would loan money, accepting some valuable as a security. In this way, Shuho began the first expansion of the family business, from sake and soy sauce to pawn brokering. Soon interest on the loans became more profitable than brewing. Sokubei died in 1633, and Shuho continued to run the family business.

Shuho sent her eldest son to Edo with capital to open a draper’s shop, called Echigoya, which prospered. (Even today, it’s descendent in Tokyo, Mitsukoshi Department Store, still stands near that original location in the central Nihonbashi district.)

The youngest and the third son, Hachirobei, was sent to Edo to help the eldest son. After training, he opened a second shop in Edo. Then Hachirobei took over managing the draper shops, while the eldest son began a cloth purchasing system. (The middle son had returned home to help his mother.) Thus the second generation of the house of Mitsui was established, with a growing cloth merchant business in the capital of Japan.

The customers for cloth were the aristocracy, and Hachirobei had his oldest son serve the Tokugawa government (called the bakufu). In 1689, Mitsui was assigned to be purveyors of apparel to the shogun of the time, Tsunayohi. However, the business of selling to the aristocracy required capital, since aristocracy paid when they pleased. Earlier in 1683, Hachirobei had established a money exchange, ryogaeya, and expanded to locations not only in Edo but also in Kyoto. Thus the second and third generations of Sokubei — beginning with Hachirobei and his sons — established a trading and financial house, with ties to the government. This trade and finance was to be the basic foundation of the future firm of Mitsui.

Hachirobei had inherited his mother’s business ability and began building a clan business. Hachirobei kept the houses of his sons in this larger clan establishment, forming the Mitsui clan into one economic unit. All sons continued their businesses as a part of the house of Mitsui, but obedient to one head, their father. This clan business was evolving into a corporate body, which would be called “Mitsui-gumi.” As a clan group of businesses, it was structurally a partnership wherein all Mitsui shops and exchange houses were managed independently — but the capital of all was pooled and under centralized authority.

Hachirobei’s eldest son, Takahiri, also proved to be a good leader and established a great main headquarters, Omotokata, to guide the Mitsui-gumi. He imposed good business practices on all Mitsui businesses, including a double-entry bookkeeping system. A central financial reserve was established to help the house survive periodic vicissitudes and financial crises in the government. It was important because the relatively new money
system that was evolving was unstable with frequent re-coinages by feudal lords. By pooling the family resources, the pool was big enough for the family to survive such changes.

The chonin principles of Hachirobei’s mother, Shuho, passed down through the generational lines of the clan of Mitsui. A centenary after Hachirobei’s birth, a grandson, Toakahaira redrafted his father’s will and prepared a house constitution, with such business principles as:

Thrift is the basis of prosperity, but luxury ruins a man.

Be diligent and watchful, or your business will be taken away by others.

Farsightedness is essential; do not miss great opportunities by pursuing trivial ones close at hand.

Avoid speculation of all kinds, and do not touch upon unfamiliar lines of business.

– Russell (1971)

While Japan had been firmly ruled by the Tokugawa shoguns, it was isolated from the rest of the world. The third shogun, Iemitsu (1623–1651) closed the country to all foreign trade and forbade Japanese to leave the country. He required all daimyo to spend several months of each year in Edo, leaving their families there as hostages. This was expensive and increased the demand for money-lending.

Mitsui businesses prospered during the Tokugawa peace until the 1860s, when violent change was to impact the stable, peaceful, isolated kingdom. European navies were beginning to dominate Asia, forcing uneven trade and European colonialism on the region. Japan’s isolation was coming to a forced end in 1853, with the arrival into Edo Bay of U.S. warships under Commodore Perry (Figure 7.3).
Perry encountered a feudal society, with samurai wearing armor made of silk, leather, and thin plates of metal. Swords and lances and the bow and arrow were still the main weapons. While guns also were being used, the guns were antiquated flintlocks and muskets which had seen service in past European wars. The feudal lords of Japan, daimyo, were divided about the Americans. If they refused contact, the West would force it upon them by conquest with superior military arms. If they engaged in trade, their stable world would end. On March 31, 1854, the government signed the first diplomatic treaty with a Western nation, the Treaty of Kanagawa, giving American ships access to two ports and the reception of a U.S. consul (Figure 7.4).
The door was opened, and the daimyo began visiting Western countries to see the new world. A U.S. steamship with side wheel transported eighty samurai to San Francisco, where they were shown western science, technology, government, and military weapons. Yet in Japan, national feelings were mostly for continued isolation and hatred of the foreigners. Patriots blamed the shogun for admitting the foreigners; and political turmoil continued into the 1860s, finally resulting in major governmental change. Two major families, the Satsuma Han and Choshu Han, reached agreement that the ruling house of the Tokugawa must be overthrown (Figure 7.5).
This alliance was made between four leaders of these houses, Okubo, Saigo, Komatus, and Kido Koin. They were the persons who were to establish the new government which would be called the Meiji Restoration. (But it could more accurately be called the Meiji “revolution” — a revolution of Japanese society that was to be imposed from the top by the Sat-Cho oligarchy.) In July of 1877, these leaders of this Sat-Cho alliance met and signed a pact to carry out a coup d’état. They proceeded to overthrow the old Tokugawa shogunate and establish the ancient imperial family as symbolic rulers of Japan, with the Sat-Cho group running this new imperial government (Figure 7.6).
They overthrew the old Tokugawa shogunate and established the ancient imperial family as symbolic rulers of Japan, with the Sat-Chō group running this new imperial government. After the successful coup, a new imperial government was established (Figure 7.7).

The first need of the new government was for money. Since the Mitsui had long-standing business relationships with the Satsuma and Choshu clans, the house of Mitsui was immediately called upon for contributions. A samurai
messenger from the coup was sent to Mitsui and told them of the need for finance. Late into the night, Mitsui men counted out money, filling chests with a treasure of two thousand ryo. In the morning, the samurai soldiers carried this off to the new Imperial government.

**Scenarios, Forecasts, and Extrapolation**

Strategic scenarios use forecasts of trends within strategic “stories” to envision “adventures” of the business in the future. The future will be an adventure because it will be a time in which no one has yet experienced. Experience is always of the present, with memories and stories of the past. The future consists of anticipations and/or surprises and plans for the future conceived in the present. All existence is always in the present. It is in intelligence that the past and future exist. *Scenario planning is about planning a future adventure, an exploration into the future.*

Scenarios depict the trends that provide opportunities for success and threats to survival. The plot of any good adventure is the depiction of a fortune or success to be won by a hero or heroine and the challenges and opposition to their course of pursuing the fortune, with an eventual successful conclusion though courage, skill, and luck. For any business, the facing of an uncertain future is a kind of adventure. In the short-term time horizon, there is usually a greater certainty about the nature of the market, efforts of competitors, success of products and services, profitability, and balance of finances. It is in the long-term time horizon, where much change is possible and uncertainty can be about everything. Thus short-term planning, operational planning, can be detailed as a recurrence of current operations — a projection of the present. But long-term planning, strategic planning, cannot be so detailed for it may not be a recurrence of current conditions — but change, major change — an adventure into the future.

Scenarios provide a strategic technique for anticipating changes in the environment of a business or firm. All businesses operate in a complex set of environments, including the environments of industrial and commercial structures, markets, government regulation, financial and economic systems, international competition, and environmental systems. What strategy needs to do is recognize trends and anticipate patterns of changes in these environments, for they can influence both the kinds of businesses that maintain future viability and the kinds of conditions such businesses will encounter in the future.

Forecasts and trends start with the patterns of the present and project these into the future. All forecasts and trends are therefore an extrapolation of the present. And all extrapolations depend upon the “structures” underlying the trends and forecasts.

The rawest sort of extrapolation consists of simply fitting near-term event data to recent event data, when the underlying form of the curve, the generic pattern of the class of events, is unknown. This can be done by arbitrarily fitting straight lines to series which appear to be monotonically increasing or decreasing. If the series appears to be periodic, one can arbitrarily fit sinusoidal curves. If the series appears to have no underlying
pattern, one can take the extrapolate using the average of the last three points. One can use even more sophisticated running average methods, such as the Box-Jenkins methods. However, no matter how clever one is in fitting curves or averaging points, one is still left with the basic weakness in forecasting about the structures underlying the extrapolated patterns. The underlying structural features dominate major changes in forecasts — changes in the underlying structures of societal activities. Forecasts which presume a fixed underlying structure for events (e.g., econometric models) or forecasts which use no underlying structure or form (e.g., time-series methods) are about equally accurate and equally inaccurate in the realm of economics, when the underlying economic structures do not change.

In an extrapolation (trend or forecast) of economic activities, such as the accuracy of extrapolation depends upon the underlying forms or structures of the events one is extrapolating. Any forecast (whatever the extrapolation technique) will be much more improved by understanding the underlying forms and structures of the extrapolation. Four general classes of structural features underpin events:

(1) Structures of current technological capabilities,
(2) Structures of economic activities and markets,
(3) Structures of nature and natural potential,
(4) Structures of demographics and cultures.

Whenever underlying structures alter, forecasts based principally upon extrapolation will be in error. Forecasts extrapolate present trends but should be used with the identification of critical structural variables, that if changed would invalidate the forecasts extrapolation.

Since trends are only identifiable patterns of change and forecasts are only attempts to quantitatively anticipate the direction of change in the trend, what is important to understand in strategic scenario planning is that any forecasting attempt to anticipate the future can proceed with different levels of sophistication:

(1) extrapolation,
(2) generic patterns,
(3) structural factors,
(4) planning agenda.

When a forecaster has almost no knowledge about the events except historical data on past occurrence, then the forecaster can do little more than extrapolate the direction of future events from past events. Extrapolation forecasting consists of fitting a trend line to historical data.

When a forecaster has some knowledge about the general pattern of a class of events but little knowledge about the specific exemplar of that class at hand, then the forecaster
can use the generic pattern to fit the extrapolation of the specific exemplar case. Fitting generic pattern to an extrapolation has more knowledge than mere extrapolation because one knows beforehand the form of the curve to be extrapolated.

In addition to knowing the generic pattern of an event, knowing something about the kinds of factors that influence the directions and pace of the events provides the basis for even better anticipation. Extrapolations from past data always assume that the structure of the future events is similar to the structure of the past events. Changes in structural factors will render extrapolation meaningless and create the most fundamental errors of forecasting.

The deepest level of forecasting requires understanding not only the generic pattern of the class of events to be anticipated and also understanding the structure of the events and then proceeds to intervene in the future by planning to bring about a desired future event. A research agenda provides an anticipatory document required to bring about a technological future.

Accordingly, experts should know about the underlying structures in forecasts and sensitive to factors which alter structures. But experts do not necessarily have quantitative models of structures. Consequently, some experts will be accurate sometimes and sometimes not. The trouble with using only experts to forecast is that there is no way in anticipation of an event to calibrate the reliability and accuracy of any given experts. The accuracy of experts in forecasting can only be judged in hindsight, and even past accurate performance is no guarantee of accurate future performance.

**Summary**

Strategy scenarios should be presented in narrative format to help thinking by capturing the issues of strategy in their specificity, complexity, and interrelationships. Planning scenarios are business stories, but particular kinds of stories, stories of future strategy:

– stories of the business environments of the future;
– stories of the market opportunities and perils of competition in the unknown adventure of the future;
– stories of change and survival in the future time toward where business has yet gone.

Strategic stories provide a view into the future, relevant to planning. This view encompasses the changes likely to occur in the business environments of the firm, in the competitors to the firm’s businesses, in the markets of the firm’s businesses, and in the technologies the firm uses. A common form of describing future change is called a “forecast.” Forecasts are extrapolations of past and current trends into the future. Forecasts are based upon “structures” of activities, whose pattern is being extrapolated. Thus in the strategic story what one is looking for in a scenario about the future are the trends, forces,
patterns of change, opportunities, and threats of the future. The future has not yet occurred, and therefore one cannot predict what has not yet occurred when human intervention can alter the future.

**Theoretical Principles**

1. Scenarios depict the trends for opportunities or threats.
2. The accuracy of forecasts depends upon the stability of underlying structure.
Change in Societies

Introduction

We will continue the case of the house of Mitsui in its strategic change from a clan business into a modern corporate conglomerate of the form of a “keiretsu.” But now we need to understand the nature of society as a set of interacting systems. The Meiji Restoration by samurai clans set in motion policies to completely change Japanese society. It was in this transformation of a whole society that the Mitsui Gumi changed itself and assisted in the modernization of Japanese society. In continuing the story, we will see how societies change in their systems of social interactions, and these systems underlie the scenarios of societal evolution.

Case

The Meiji Restoration

As Japanese society changed for Sokubei and Shuho in 1616, so too for their progeny, Japanese society again changed in 1868, by the “Meiji Restoration.” Then the national problem facing the Meiji reformers was to jump the social conditions of Japan from a feudal structure directly into a modern industrial structure. Their competitors in Europe needed six centuries (from the 1300s to the 1900s) to create this transition, moving from feudalism through mercantilism into laissez-faire enterprise to industrial capitalism.

The political agenda of the Meiji government was to modernize Japan, rapidly catching up with the Western nations in military and economic might. The new government understood that they could not redress the unfair treaties that had been forced upon them by militarily superior foreign governments, until Japan caught up to the new industrial “civilization.” Japan had to adjust to European and American standards; and the Meiji government began the task of “westernizing” the country, economically, politically, and culturally.

The first social reforms of the Meiji government were to establish universal education for literate society, to abolish the caste structure of the samurai status, create modern governmental structures and a modern military organization, and foster international trade and industrialization through the import and improvement of foreign technologies. At the center of power
of the new imperial government was this Sat-Cho oligarchy (Figure 8.1).

Figure 8.1: The Meiji Oligarchy was the Group of Leaders Ruling the Change in Japanese Society during the Period of the Meiji Restoration. Ōkubo Toshimichi (1832–1878) was the Son of a Satsuma Samurai Saigō Takamori (1827–1877), who had Joined Forces with Chōshū, Tosa, and Hizen to Overthrow the Tokugawa Shogunate. Sources: http://www.britannica.com/biography/okubo-toshimichi/images-videos/okubo-thoshimichi/101108; http://historyofjapan.files.wordpress.com/2013/10/takamori_saigo.png; http://www.ndl.go.jp/portrait/e/datas/23.html?c=0; http://www.jref.com/history/okuma-shigenobu — Images in public domain.

An important leader in the Meiji Restoration was Inoue Kaoru from the Choshu Han. Inoue had been born to a low-ranked samurai family in Yuda. As a young man, Inoue was a leader of the antiforeign movement in this native area. In 1863, Inoue was one of five young men from Choshu sent to England for education, at the University College in London. On returning, he joined the alliance fighting the Tokugawa government. Afterwards in 1871, Inoue served as Vice Minister of Finance, reorganizing the financial system of government in Japan. He reformed the land tax system and ended government stipends to ex-samurai. He took a strong interest in Mitsui and encouraged them to start a bank (Figure 8.2).
Inoue Kaoru appointed Mitsui as agents for the government mint, to exchange new coins for old money. Thus Mitsui’s old money-exchange business now positioned them as agents in the new government’s financial structure.

Meanwhile, Mitsui needed to restructure. Fortunately, at that time (over 200 years after the founding of Mitsui-gumi by Sokubei, Shuho, and their son Hachirobei), Mitsui continued to find competent leaders, promoting on merit, not just on kinship. A very important merit appointment for Mitsui was Rizaemon Minomura. Minomura had not been born a Mitsui. He was born in Edo in 1821, and his father had been a ronin, a samurai without a master. At the age of 19, he became an apprentice to a merchant in Edo. Eventually, he went to work for Mitsui. There he was recognized by the clan for his exceptional merit and promoted. Finally, he was promoted to run Mitsui-gumi.

When Minomura took control of Mitsui, the first thing he did was to separate the textile branches from the money exchanges. He anticipated a new law (the National Bank Act), and formed one of the first banks in Japan, as a
partnership between Mitsui and another house, Ono. This new bank was called the Dai-Ichi Kokuritsu Ginko (First National Bank). The financial exchange traditions of the feudal house of Mitsui evolved into a new form of financial services, a modern bank.

Also Inoue Kaoru continued to be a friend of the House of Mitusui and took active interest in Minomura’s transformation of Mitsui. Inoue also saw Mitsui as a conglomeration of semi-independent operations; Inoue and Minomura, together revised the Mitsui’s charter toward a form that would evolve toward a modern corporate form.

Inoue’s interest in Mitsui was a part of the general pattern of the Meiji government policies which encouraged the development of Japan’s trade and industry — to provide the economic basis of a modern state with a modern military. Inoue encouraged Mitsui to expand its trading capabilities. The government organized a Tokyo Commerce and Trade Company to facilitate foreign trade as a joint enterprise between the government and Mitsui. Mitsui aggressively expanded its retail shops and banking operations. Minomura consolidated trading activities in a new company of Mitsui, called Mitsui-gumi Kokusan-kata (National Products Company).

At first, Mitsusui’s National Product Company supplied silk and grain to foreign traders and imported blankets for the army. In 1876 as trade grew, it was reorganized as the Mitsui Bussan Kaisha (known abroad as Mitsui and Company). Then its main exports were coal from a state-owned colliery at Miike in Kyushu and surplus rice, and next the government sold the colliery to Bussan. In this way, Mitsui’s Bussan began expanding into production as well as trade. As the twentieth century approached, the House of Mitsui was being organized into the structure of a modern corporation, with operations of banking, retail, trade, and production. It was becoming the foremost zaibatsu in Japan.

After Minomura’s retirement from heading Mitsui, Masuda Takashi was appointed the new head of Mitsui. Masuda Takashi (1848–1938) continued transforming Mitsui into a zaibatsu (a corporate conglomerate with a bank at the center). Takashi added production capabilities in mining. The Meiji government had inherited the mineral deposits from the shogunate, and the mines continued to be state-owned until the 1880s. Then the Meiji government began a policy of privatization of industry. They sold mining properties at nominal prices to financial houses. The political connections between government officials and financial houses influenced the sales. In a tight political game, the houses of Mitsubishi and Mitsui bid for the Miike mines, and Mitsui won.

Dan Takuma, a young manager in Mitsui, improved production techniques in the Miike mines to make them immensely profitable. Mitsui next acquired the Kamioda mines (which were literally mountains of lead and zinc ore laced
with silver, cadmium, and copper and showing even an occasional glint of gold). Other coal mines and iron deposits in the country came to be owned by Mitsui. Minerals production provided the revenue base for the subsequent growth of the powerful Mitsui zaibatsu. Mine resources provided a strong cash flow in times of peace and in times of war.

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The partnership between Mitsui and the government, particularly through Inoue’s interest in Mitsui, had helped Mitsui grow and prosper. At the time, the growth of all financial houses in the modernizing Japan was helped with political connections. The Meiji government saw the financial houses as tools of national policy to build the new industrial Japan. Later heads of Mitsui continued reforms in the organization and management of Mitsui, such as improving salaries to offset the inflating cost of living, introducing a promotional system based upon merit, beginning twice-yearly bonuses as an incentive, and establishing a pension fund.

Systems Analysis of the Transformation of Meiji Japan

Before we continue the story, we need to review the theory of a society as a set of societal systems. In a society, its social structures and processes can be modeled as four kinds of systems. A topological systems model of a society is constructed, using two sociological dichotomies from Max Weber (Weber, 1947). Weber had written that in any and all social interactions in a society, participants can hold four kinds of expectations about that interaction: (1) utility or identity and (2) reciprocity or authority:

(1) *Utility in a relationship* — as a useful value for a participant in the interaction (such as buying or selling goods);

(2) *Identity in the relationship* — as an identification of one party with the other party as belonging to some same group and sharing the values of the group (such as belonging to the same family or same political party).

(1) *Reciprocity in the relationship* — as a mutual and equal advantage for each party in the relationship;

(2) *Authority in the relationship* — as one of the parties in the relationship can make decisions about the relationship (such one being a judge and the other a plaintiff or one being a mayor of a city and the other a citizen).

As shown in Figure 8.3, the two dichotomies can define taxonomy of societal
interactions (Betz, 2000).

Figure 8.3: Taxonomy of Societal Interactions.

**Economic Interactions** are the social interactions which anticipate benefits of both utility and reciprocity. Two participants each expect from their interaction both usefulness (utility) and that utility should be fair (reciprocal) in mutual benefit. For example, in an economic system, two participants in a market, as buyer and seller, expect (1) both to benefit from the sale (product for the buyer and price to the seller) and (2) that the sale should be fair (a competitive price for a quality product).

**Cultural Interactions** are the social interactions which anticipate benefits of both identity and reciprocity. Therein two participants each expect to share a mutual identity in their interaction and also expect actions that are reciprocal in mutual benefit (fairness). For example, two participants in a church as priest and congregant both expect each to believe in the same religious faith (as members of the same church or synagogue or mosque) and share religious practice.

**Political Interactions** are the social interactions that anticipate benefits of both identity and authority. Therein two participants expect to share a mutual identity in their interaction but also expect actions to be decided by the one participant superior in societal authority and performed by the inferior participant. The participant-superior-in-authority is said to hold political power over the other participant. For example, a political office holder such as a judge in a court of law can sentence another participant in a trial (having been brought into court as an arrested offender) to a sacrifice of life or freedom or property. The judge has legal power over the defendant in a trial.

**Technological Interactions** are the social interactions that anticipate benefits of both utility and authority. Therein two participants expect from their interaction usefulness (utility) and also that utility is based upon an action (technical process) which can effectively create the utility — a methodological authority which guarantees the technical effectiveness of the useful action. For example, as business person might hire an engineer to design a factory to produce the business person’s product. (One example is that of a chemical engineer hired to design chemical processes for producing chemicals.) In this interaction, the engineer’s useful action in designing a
factory is based upon his methodological authority of engineering knowledge.

Next, this taxonomy can be expressed as a topological graph, which each sub-system depicted as one plane stacked upon another (Figure 8.4).

![Topological Graph of Societal Systems](image)

We apply the societal systems analysis to the stasis of Japanese society at the time of the Meiji Restoration. Earlier under the Tokugawa shogunate, the government, bakufu, created the conditions for peace; and in peace, economic prosperity often grows. However, the isolation of the country from the world also caused the country to fall seriously behind in the advance in technology in the Western nations from the 1600s through the 1800s. This left Japan in a militarily weak state, subject to the dictates of militarily superior countries. The reforms by the new government under the former clan houses of the Sho and the Chu began the transformation of Japan into a modern industrial and military power (Figure 8.6).
Figure 8.5: Topological Graph of Societal Systems: Political, Economic, Cultural, and Technological Sub-systems.

Figure 8.6: Japanese Societal Systems at the Time of the Meiji Restoration.
Technological System

Modern science had begun in Europe in the seventeenth century. Though out the 1700s and 1800s, Europe advanced in scientific research and in technological innovation, so as to leave the rest of the world far behind. When the U.S. naval force arrived in Edo in 1854, the samurai warrior caste in Japan was shocked at how far behind they were militarily, and that the Japanese government, the Bakufu, had allowed the Japanese nation to lag behind the Europeans and Americans. Some young samurai, such as Inoue Karou, went to Europe for education. After the Meiji Restoration government took power, they established universal primary education for the population. They founded universities for higher education and research. Students were sent to Europe for doctoral degrees in science, to staff the universities. European and American companies were invited into Japan to build industries and government infrastructure. The new industrial Japanese houses, such as Mitsui, acquired and copied Western technologies.

Political System

After the evident failure of the Tokugawa shogunate to modernize the military, two clans, Sat and Cho, formed a new national party. They led the insurrection, establishing a new national government called the “Meiji Restoration.” Merchants provided a major source of funding for the new national government, in the form of taxes and loans; and the government encouraged the merchants to expand and commercially flourish, adopting western industrial technologies. A national military of an army and a navy was established; the old Samurai warrior force abolished. In 1873, universal military conscription was introduced, which indoctrinated a new generation in the military patriotic values of the new Japan, with loyalty pledged to the Emperor (Figure 8.7).
Cultural System

Culture consists of the ways people identify with each other, bonding into groups. The Meiji government abolished the feudal castes, eliminating the Samurai with special privileges. The Shinto religion was encouraged as a national religion, emphasizing loyalty to the emperor. Universal primary education spread literacy to all populations of Japan, enabling employment in the new industrial factories emerging in the nation.

Economic System

Preindustrial Japan had a typical feudal economy of an agricultural base cultivated by a peasantry caste, with taxes in the form of rice products collected by the ruling samurai caste. Peasants also grew silk worms and wove silk for garments, and mined and refined iron for weaponry. The peasants who migrated to the merchant caste of chonin supplied products to the aristocratic caste. Under the new Meiji government, chonin merchant families were encouraged to become capitalists. They led the industrialization of Japan, establishing trading and production companies and banks. The chonin families, who succeeded in the industrialization, established the zaibatsu houses, such as Mitsui and Mitsubishi. National resources, such as mines, were privatized, with Mitsui acquiring important mines.
The principle strategic focus of the new Japanese government of the Meiji Restoration was to gain military potency in the international world. Joseph Pittau quoted Foreign Minster Okuma Shigenobu comments in 1897: “If we enquire what points are practically most important in the foreign policy of the Meiji Era, we find that to attain an equal footing with other Powers, as declared in the Imperial Edict at the Restoration, has been the impulse underlying all the national changes that have taken place” (Pittau, 1967).

By 1900, progress in Japan’s new military powers became evident to the international community at the time of the Boxer Rebellion in China. China’s rulers had chosen a strategy of isolation and thus fallen prey to exploitation of China by Western countries, partitioning China in “spheres of influence.” The British forcibly opened China, to trade of opium (grown in the British colony of India) for tea (grown in China and sold by British traders at a high profit in England). The French, Germans, Russians, and Americans joined in the “open China policy.” Then Chinese rebels (backed by the Empress in the “Boxer Rebellion”) tried to eject the Western invaders; and Western powers sent in troops to suppress the rebellion.

In contrast to China, Japan had embraced Western technology, aspiring to equal military might. And the Meiji Restoration government pursued not only the buildup of military power but also the “colonialism” characteristic of the Western nations, as an economic basis upon which to build “industrialization.” (Then the global scenario of the world was military-backed economic colonialism.)

During the Boxer rebellion, the Russians moved forces into Manchuria. Russia completed their Trans-Siberian Railway and seized Port Arthur. A Japanese secret society, the Black Ocean Society, murdered the Korean queen; and the Korean king took refuge in the Russian legation. The Japanese government sought an alliance with the British government, against Russian expansion. This alliance was signed in January 1902, with Britain acknowledging Japan’s “special interests” in Korea and asserting Britain’s “special interest” in China. This alliance was the first time in modern history that an Asian country was accepted as a full military ally by a European power. From the Japanese perspective, it should legitimate, in European eyes, Japan’s claim to parts of the Asian continent.

This was important because Southeast Asia had been subjugated by the British, French, and Dutch. Now Japan joined them, as they all were contending (along with Germany and Russia) in control over China. Russia wanted control of Manchuria, as did Japan. Japan and Russia next tried
negotiating for control of both Manchuria and Korea. But the negotiations failed, and on February 6, 1904, they broke diplomatic relations. Russian troops crossed the Yalu River from China into Korea. At Port Arthur near the northern border of Korea, Japanese boats launched a torpedo attack at Russian ships in the harbor. On February 10, Russia and Japan declared war.

For five months, the Japanese army besieged the Russian garrison at Port Arthur, and the Russians withdrew. Losses were great, with the Japanese losing 60,000 soldiers. Fighting in Manchuria was also intense. At the Battle of Mukden, a total of 750,000 soldiers engaged, with the Japanese losing 40,000 soldiers, but again victorious. Mitsui’s Bussan was the principal supplier for the Japanese army and was also developing the shipping capability to supply the army over the seas. The final battle between Russian and Japan occurred at sea, in the Tsushima Straits between Korea and Japan (Figure 8.8).

Russia’s Baltic Fleet had been sent out the North Sea, through the Atlantic, around Africa into the Indian Ocean into the South China Sea, appearing off the coast of Indochina in May 1905. Observed by intelligence officers of the Japanese Navy, information was sent to the Japanese fleet that the Russian fleet was likely to pass the narrow passage between the island of Tsushima and the Korean coast. Japanese ships lay in wait there. The Russian admiral ignored warnings of a possible trap, did not even make any reconnaissance, and sailed the Russian fleet into the ambush. Early on the morning of May 27, 1905, the battleships of the new Japanese navy, commanded by Admiral Togo, appeared on the horizon and immediately opened fire upon the Russian Baltic Fleet. In two days, the Japanese warships devastated the Russian fleet, destroying many ships and 18,000 Russian sailors. The Japanese fleet lost only three torpedo boats and 116 sailors killed.

Russia had lost the war. Japan now began to get the military and political respect of the world and also was firmly committed to a military path of national development. On September 5, 1905, the Portsmouth Treaty between Russia and Japan (1) recognized Japan’s “paramount interest” in Korea, (2) yielded control of the southern section of the Manchurian Railway, and (3) provided a lease on the strategic Liotung Peninsula. This opened the way to the Japanese colonialization of Korea and its later penetration into Manchuria, which placed Japan on the edge of China. Japanese military expansionist plans for the twentieth century were thus laid out by the treaty. Although Russia had yielded some of its power in Asia, other Western nations (e.g., England, France, Germany, and the United States) had not yielded power. In this way, the first step was taken down the path that would eventually lead Japan into the Second World War of the twentieth century.

This territorial conquest stimulated an economic boom in Japan. For example, ship building to carry goods across the sea expanded rapidly. Commercial ship building also developed military production capabilities. In 1910, the world’s largest warship at the time was finished in a shipyard in Yokosuka. Thus Japanese industrialization was creating the military power for external aggressive expansion; and the addition of new territories was providing economic opportunities for continued growth. As a historical pattern, this industrialization of Japan was following exactly the same path as the industrialization of Europe during the previous century. Japan was developing military technology to acquire new colonial territories for economic expansion.

During this time, the firm of Mitsui was evolving into a large commercial and industrial combine, a zaibatsu. A zaibatsu was a financial clique of companies, controlled by a Japanese banking family. In 1909, Mitsui
formally transformed itself into a holding company, a zaibatsu of the name “Mitsui Gomei Kaisha.” It was capitalized at 50 million yen and contained 15 companies in banking, mining, and commerce. Moreover, as Japan still remained behind Europe in the progress of technology, zaibatsu, such as Mitsui, made strategic alliances with foreign firms to acquire and use new technology. The relationship of zaibatsu to the government was strong. For example, Inoue Kaoru of the Meiji government had continued to see Mitsui as not only a private family holding company but also as an instrument of national policy. Kaoru asked Mitsui to enter the munitions industry to make weapons for the Japanese military. Mitsui established Nippon Seiko, Japan Steel Works, in a joint venture with Britain’s two largest makers of arms, Vickers and Armstrong.

One can see how similar, at the time, were the societal patterns between Europe and Japan. It was this desire for colonies (as the way to economic expansion) which led to the First World War in Europe. Germany, Austria-Hungary, and Turkey were allied against England, France, and Russia. The conflict began generally in colonial ambitions between Germany and England, particularly over the continent of Africa. After that war, Europe was in turmoil, particularly with a communist revolution in Russia and a destabilizing inflation in Germany. Meanwhile, Japan had further progressed to new strength and prosperity. By the late 1920s, Mitsui had become the dominant zaibatsu controlling capital of over 500 million yen and 130 companies.

After the First World War and later in November 1921, next occurred a key political event for the Japanese military. This was an international armament conference about battleships, see Figure 8.9.
Agreements between the United States, Britain, and France set naval ship tonnage ratios for the respective navies, which left Japanese navy restricted to half the total tonnage of the U.S. and British navies. This infuriated the Japanese military and government. Then adding racial insult to injury, the United States government passed an immigration law in 1924 that excluded further Japanese immigration. These incidents strengthened political positions of the military clique for further expansionist policy.

Mitsui personnel supported expansionist views. For example in 1926, Yamamoto Jotaro was the obanto (head) of the Mitsui Bussan empire in Manchuria; and he was given a high post in the Tanaka cabinet in Japan. In 1927, Yamamoto was appointed president of the South Manchurian Railway and began to build five new railway lines. In 1928, he was invited to the Imperial Palace to present his “new economic plan,” which included the construction of improved railway and harbor works in Korea, a major plant...
for making fuel oil from coal in Manchuria, and expansion of agriculture and forestry and industry in Manchuria. Japanese national prosperity was deeply tied to the colonial expansionism in Manchuria and Korea. Mitsui was prospering in the expansionism. In 1931, the Japanese Army took all of Manchuria. Japan’s empire now included Korea and Manchuko (Figure 8.10).

![Figure 8.10: The Japanese Empire in 1939. Source: http://en.academic.ru/dic.n5f/enwiki/201051 — Image in public domain.]

As the U.S. depression deepened in 1933, depression became a worldwide phenomenon. One impact of the earlier inflation and subsequent depression in Germany was to bring the Nazis into power in Germany, which laid the path to the Second World War. Also the world depression severely hit the Japanese economy, which depended upon exports to finance the needed imports of new technology products and know-how. The depression further concentrated economic control in Japan in the few zaibatsu families. In 1931 to fight the effect of the depression, the government passed the Important Industries Control Law, which organized large producers into cartels. By the mid-1930s, the eight zaibatsu groups would control 50% of Japan’s financial capital. Government policies became focused upon national “preparedness,” which meant getting ready for war.

The Japanese government was fostering a culture of an extreme form of “nationalism” and finally eliminated any vestiges of democracy in the pre-Second World War period. The zaibatsu supported the military expansionist
policy. They cooperated with the government in activities that restricted their economic power, such as helping to suppress labor movements. The government established a police state, similar to the dictatorial governments of Hitler in Germany and Mussolini in Italy. Security and thought-control police, the Kepeitia, expanded in scope and activities. School children were indoctrinated in “moral education,” which consisted of Shinto mythology (the state religion), worship of the emperor, and racist superiority. Newspapers were controlled and enlisted to promote militarism. Dissenters were warned; and if they persisted dissenting, they were arrested and tortured and imprisoned and even executed. About 60,000 people were arrested for “dangerous thoughts” between 1928 and 1937.

The reformation of Japanese society into Western industrialization that began in the 1860s grew by the 1930s into a military-oriented, industrial state. A modernized military-ruled Japan, replacing the earlier feudal military rule; but the country was still under a military rule.

Control over the government by the military was finalized in 1936–1937, beginning with the appointment of Hirota Koki as prime minister, who did the Army’s bidding. Government policy aimed toward a “total defense” economy with a domination of Asia under Japanese hegemony (as a Great East Asia Association). Thus Japanese government policy had become one of international expansionism, after the earlier model of the Western nations and in a similar pattern to the fascist governments of Germany and Italy of the 1930s.

By 1937 both in the West and in the East, fascism as a form of government and military expansionism in the form of colonization were the patterns leading to conflict with democracies in the Second World War. In Europe, the German Nazi government under Hitler began a series of aggressive moves into the Rhineland, then Czechoslovakia, and then Poland. The invasion of Poland resulted in a declaration of war by Great Britain on Germany. And the Second World War began a little over 30 years after the First World War. In 1937, the Japanese Army began a series of aggressive moves in Asia, first invading China that would lead to the Second World War in the Pacific.

Laisse-Faire Theory — Industrialization and Democracy

“Laissez-Faire Theory” has sometimes been offered as an economic prescription for democracy. The assumption is that a free-market economy will automatically lead to a democracy. But one can see in the history of Japan that this did not occur.

Over the 300 years from 1700 to 2000, the world changed from thinking about a nation as an international empire (e.g., the British Empire or the Japanese Empire) to a nation of global corporations (e.g., Korean chaebols or Japanese keiretsu or U.S. and
British global corporations). This “national” concept evolved in the 1800s and 1900s, but in problematic ways. What is the social basis of a “nation?” How does an “industrial economy” work? What is a “people” which constitute the nation? What are the rights of the “state” versus those of the “individual?” The societal struggles for answers have been the principle themes in modern political theory. As the social sciences emerged, the disciplines of economics, sociology, political science, and anthropology have studied these same ideas. Not only did society change in the industrial revolution, but the thinking-about-society changed — now focused toward the basic concepts of nation, industrialization, democracy, capitalism, and global civilization.

Ideas about a nation, about of society, about the state — all had been central reasons in the violent wars of the twentieth century. The First World War was triggered by “Serbian” nationalists assassinating a future emperor of the Austro-Hungarian Empire. Germans, French, British, Russian, Italian peoples went to war for their nations. The Second World War was waged by nations as an axis of fascist dictatorships versus allies of democracies (with the exception of the communist Soviet Union). And the allied victory over fascism then devolved into a “Cold War” between capitalist democracy and communist dictatorships. This chilling episode of a cold war never erupted into a “hot” war, fortunately. The atomic bomb was invented in the Second World War, and any hot war thereafter portended the destruction of everything in a nuclear Armageddon. Thus the history of the modernization of Japan was a first episode in Asia of the continuing industrialization of the world. This is the “big picture” of the modern world — scenarios of nationalism, industrialization, democracy-versus-dictatorship, war, and military technology.

**CASE STUDY CONTINUED**

*House of Mitsui*

The immediate political interests for the beginning of the Japanese/Chinese war in 1937 arose from economic competition between two cliques of military/economic groups — the Manchurian clique involving a new zaibatsu of Nissan and the older zaibatsu (including Mitsui) with economic interests in China. The new Nissan zaibatsu was officially named Nippon Sangyo and consisted of Hitachi Ltd., Nippon Mining, Nippon Marine Products, Nissan Motors, Nissan Chemical Industries, and hundreds of subsidiaries. The Japanese Army in Manchuria was headed by General Tojo Hideki and formed an alliance with Nissan, whose managers controlled the Manchurian Heavy Industries. The economic power of the new Nissan zaibatsu in Manchuria led the older zaibatsu to cooperate in exploiting the trade and resources in China. In turn, this extension of the old zaibatsu into China alarmed the new Nissan zaibatsu-centered military clique, and they decided to invade China.

The military clique fabricated a shooting incident between Japanese and
Chinese troops at the Marco Polo Bridge on the outskirts of Peking. On this pretext, Japan declared war upon China. The Japanese army quickly overran China along the coast and into the interior. From 1937 to 1940, the war continued in China at low gear and benefitted the Japanese economy. The cost of Japan’s occupation was borne by the subjugated Chinese. Japan obtained an inflow of raw materials from China at a low cost that were exchanged for a relatively higher-priced Japanese manufactured goods.

This kind of exchange of the raw materials and agricultural products from an occupied non-industrialized country for manufactured products of an occupying industrialized country was the heart of “colonialism.” The European nations had used this form of colonial exchange to drive the industrialization of Europe, and it had led to the European First World War. Firms in industrializing countries benefitted from victorious wars, producing military products for their governments. This was also true for the firm of Mitsui, who prospered in producing munitions and weapons for the Japanese military.

However, Japan’s resource needs could not be completely met by its colonial occupation of Manchuria, Korea, and northern China. It still lacked sufficient petroleum, with only 8% of the nation’s needs produced domestically. This led the military-dominated government to next launch an invasion of northern Indochina (then a French colony) in September 1940. The United States responded with an embargo on the sale of scrap iron and aviation fuel to Japan. In response, the war minister of Japan, General Tojo, then proceeded to plan a total war, and in the summer of 1941, Japanese army expanded their occupation into southern Indochina. This area had supplied raw materials to Western nations such as rubber, tungsten, tin, copra, silk, jute, and shellac.

The United States continued its embargo upon strategic fuels and raw materials, ending its trade with Japan, and Japan then had to give up its new colonies or go to war with Britain and the United States. Japan, the former land of the samurai, chose war. Its military forces bombed the U.S. Naval base in Hawaii and, in a series of successful invasions, conquered the British colonies of Singapore and Hong Kong and the American dependency of the Philippines. Thus began the Second World War of the twentieth century in the Pacific, between Japan (allied with Germany) and the United States (allied with Great Britain).

After the initial Japanese military successes of 1941, the fortunes of war turned upon the Japanese military. By the end of 1942 and beginning of 1943, the Japanese forces were on defense. The United States forces were beginning to move inexorably, step by step, across the Pacific toward Japan. The war had to be fought with the military technology of the airplane. The range of fighter aircraft was limited, and so islands held by Japanese forces
in the Pacific had to be taken, one-by-one — for the Allied forces to eventually extend the range of their air-might across the Pacific to Japan. Figure 8.11 shows the major battles in the Pacific.

By 1945, the United States had captured islands close enough to Japan to extensively bomb Japanese cities. For example, on May 25, 1946, 500 American B-29 long-distance bombers dropped incendiary bombs, destroying most of central Tokyo and adjacent residential areas. Finally on August 1945, the United States bombers dropped a terrible new weapon, the atomic bomb, first upon Hiroshima and next on Nagasaki. These 15 kilotons of explosions (in light and air-pressure waves) instantly obliterated a central mile circle of each city, killing more than a 100,000 civilians and making thousands more sick with nuclear radiation, a new deadly peril in the world (Figure 8.12).
The news of this final turn of the terrible war spread shockingly and in puzzling confusion throughout the Japanese nation. In Mitsui, communications between Tokyo headquarters and branches in Hiroshima were suddenly cut off on August 6, and headquarters was then aware that some kind of catastrophe had happened. Two days later news came from Manchuria that the Soviet Army had invaded. On August 8, there was news of another great cataclysmic explosion at Nagasaki.

The Emperor and government also were struggling with this news, and the Emperor decided upon a surrender. Still, some army personnel were committed to national suicide, and after an aborted army coup on August 15, the emperor was able to broadcast to his people that the war was ended. The Emperor announced that he had accepted the Allied Joint declaration for unconditional surrender. He explained to his people: “We declared war on America and Britain out of our sincere desire to ensure Japan’s self-preservation and the stabilization of Southeast Asia … But now the war has tasted nearly four years. Despite the best that has been done by everyone — the gallant fighting of military and naval forces … The war situation has developed not necessarily to Japan’s advantage” (Roberts, 1989).
Strategic Decisions and Societal Change

Looking back historically at Japanese society, one can see four strategic decisions by leaders, which impacted the course of society — big pictures, planning scenarios.

A first strategic decision by the Tokugawa shogunate was to isolate Japan during the 1600s and 1700s. But it was during these centuries that Europe was making huge leaps in science, technology, and industrialization. By the time, the American ships arrived in 1855, Japan was totally behind in industrial strength and military might. The Americans were in a position of power to force the opening of Japan to the Western nations. In retrospect, “national isolation” was a bad strategic decision — leading over time to national weakness.

A second strategic decision by the Sho and Chu clans was to overthrow the Bakufu government. They set up a new Meiji government to reform Japanese society — eliminating feudal castes, introducing universal education, establishing universities, importing Western technologies and science, encouraging the entrepreneurial growth of private financial and trading houses (zaibatsu). In retrospect, “national reform” was a good strategic decision — leading over time to national strength.

A third strategic decision by the zaibatsu in Japan was to follow the military strategy for empire. This at first produced wealth but led to the elimination of democracy in Japan. The industrial leaders had surrendered national leadership entirely to the military. In retrospect, “military government” was a bad strategic decision — leading over time to a series of wars, with increasingly more powerful rival nations.

A fourth strategic decision by the military government to engage in war with developed and industrialized Western nations, led to Japan’s participation in the Second World War against the Allied nations and to the total defeat of Japan. In retrospect, “national wars” was a bad strategic decision — leading over time to national catastrophe.

Of course, summarizing a history of national policy decisions in this way over simplifies the situations of a society at the different times. However, in terms of “strategic decisions and planning scenarios,” it illustrated the point that — how leaders think about a “big picture” of their society can have a major impact upon history. Strategic decisions by leaders can alter the direction of a society’s history; and such decisions depended upon the understanding, at the time, of the “big picture” of their nation.

CASE

Study Continued House of Mitsui

Returning to the historical scenario of the case of Mitsui, we pick up the narrative after the Second World War. The United States President Truman ordered American forces under General MacArthur to occupy the country
and begin democratizing the Japanese economy, including dissolving the zaibatsu: “To this end, it shall be the policy of the Supreme Commander … To favor a program for the dissolution of the large industrial and banking combinations which have exercised control of a great part of Japan’s trade and industry” (President’s Directive on September 6, 1945 —http://ibiblio.org/hyperwar/Dip/AxisInDefeat/index.html).

This news shocked the commercial leaders of Japan, as it would completely alter the country’s economic structure. The officials in the zaibatsu had simply assumed that they would lead the reconstruction of the nation’s war-ravaged economy. But General MacArthur immediately issued orders to the four largest zaibatsu — Mitsui, Mitsubishi, Sumitomo, and Yasua — to plan the dismantling of their holding companies. In 1945, the 10 largest zaibatsu held 35% of the nation’s paid-up capital, 55% of bank assets, 71% of loans, and 67% of trust bank deposits. Mitsui then was probably the world’s largest private business organization, with the 11 branches of the controlling Mitsui family having a wealth of about 600 million yen and owning about 336 companies.

The American Supreme Commander for the Allied Powers (SCAP) moved into action. On October 8, 1946, U.S. Army trucks with U.S. Military police arrived at Mitsui headquarters to seize Mitsui financial valuables. They loaded 42 wooden cases that contained Mitsui-owned stocks and bonds of a value of 1.2 billion yen. At other Mitsui locations, they also seized another 260 million yen worth of certificates. These impounded certificates made their owners powerless in the board rooms of their own companies. SCAP ordered a purge of the leaders from government and industry in Japan. More than 220,000 leaders of the military, bureaucratic, political, and economic cliques who had been running Japan were banished from their positions. SCAP drafted a new constitution for Japan, vesting state power in the “will of the people” and providing a bill of rights making all equal under the law and enfranchising women. The new Diet in 1946 created a steeply graduated tax on personal assets (https://history.state.gov/milestones/1945-1952/japan-reconstruction).

The Mitsui clan was hard hit by these changes. SCAP began carving up zaibatsu groups. The Mitsui Bussan was divided into 170 companies and the Mitsubishi Shoji into 120 companies. But disagreement within Washington politics over the concentration of economic power in Japan quickly altered policies, and the zaibatsu bands were not made subject to de-concentration. Eventually, 42 holding companies were dissolved. Yet the largest banks were still intact, such as Fuji, Mitsubishi, Sumitomo, Snawa, and Dai-Ichi. These provided nuclei to replace the old holding companies, the zaibatsu, to reconstruct financial and industrial groupings in the postwar economy. But these new economic groupings of companies around the banks turned out to have similar membership and size as the prewar zaibatsu.
Effectively, the institutional framework and financial system, centered on the zaibatsu, survived the American occupation. Moreover after the Korean War began (with the North Korean communist army invasion of South Korea), this old/new structure of zaibatsu was encouraged by the Americans to rebuild. The United States army intervened with United Nations allies to save South Korea and used Japan as a base for pursuing Korean War. This helped revive the Japanese industry and economy.

SCAP was then told to reorganize Japan for strength rather than “peace and democracy.” In 1951, more than 2,500 former imperial army and navy officers were moved back into positions of leadership. Also former high-echelon zaibatsu managers were let back into running companies. Despite the disaster of the war, Japan’s infrastructure was back in place. Economic progress in postwar Japan restored the nation to one of the mighty industrial nations of the world. When the Allied occupation of Japan ended in 1952, economic opportunity was booming. Older companies regrew, and new companies started. Entrepreneurship and opportunity in Japan flourished again in a new generation.

In the case of Mitsui, the organizations that had been controlled by Mitsui Honsha drew back together to promote a new Mitsui Group. Promoting this cohesiveness were former Mitsui financial institutions and mining and chemical production companies and real estate. For example, one special Mitsui manager was Tashiro Shigeki, who headed Toyo Rayon. He knew that Japan needed to produce the new synthetic fabrics invented in the United States, such as Nylon. He traveled to DuPont and negotiated for a license to produce Du Pont’s Nylon. Tashiro also bought licenses to polyester fiber innovations from Britain’s Imperial Chemical Industries. He began to build Toray into a company that would become the world’s third-largest producer of synthetic fibers.

This example illustrates the pattern of economic reconstruction of Japan. Entrepreneurial managers reached out to the global world for advanced technology, brought it home, implemented it, and improved it and became world-class manufacturing and financial institutions. Even the name of Mitsui Bussan was eventually restored. On August 5, 1958, members of a 15 Mitsui companies met and witnessed a business agreement among the companies that restored Mitsui Bussan Kaisha (Mitsui & Company, Ltd.). Once again Mitsui was Japan’s largest trading firm. For example, in 1985, the Mitsui Group comprised 69 companies, with 400,000 thousand employees and transactions of 42 trillion yen. The House of Mitsui from the 1600s had spawned a long-lasting firm.

Scenario Relevancy Matrix
How can one use scenarios in the context of business planning? We recall that planning scenarios are stories told in the present of the future. While the case of Mitsui, we have just summarized, is a story of the past told in the present. This is a big difference — the difference of a planning perspective on the future and the historical perspective on the past. Stories of the past and the future are both kinds of stories, scenario stories, but one of a “creating” the times (the future) and one of “recreating” the times (the past).

The case of Mitsui has been told as an historical story — a scenario story of the past — with characters, plot, action, and drama. But it was a narrative looking backward, from a historian’s perspective. What did the participants of the time see of their history? It was certainly not this “neat” historical study, seeing the past backwards from the future. The participants at the time see only a present, a present of confusion and uncertainty. How then could they have told the story of Mitsui as it unfolded? We have clues to this perspective of the participants from the writings, or stories, they told of their time.

The participants living in times of great societal change cannot see the present and future of times of trends, challenges, and opportunities. All they can be certain of in their time was that the “times were changing.” But this lesson is true of all times of change. All the participants in any historical period can see of change are the directions of change (trends), the needs to change (challenges), or the freedom to change (opportunities). Uncertainty about the future is the nature of living in a time of change. One may use the model of societal change to envision the interactions of systems of a society in the future. The strategic technique is to first construct a “scenario model” of the structures of society that show trends of changing and within which will be found the challenges and opportunities of the future (Figure 8.13).
### POLITICAL SYSTEM

<table>
<thead>
<tr>
<th>GOVERNMENT: CHANGES IN POLICIES</th>
<th>MILITARY: THREATS TO NATIONAL SECURITY</th>
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<tr>
<td>PARTY: LIKELY OUTCOMES OF ELECTIONS</td>
<td>TAXED: POSSIBLE CHANGES IN TAX POLICY</td>
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### CULTURAL SYSTEM

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<th>KINSHIP: CHANGES IN POLICIES ABOUT DIVERSITY AND GENDER</th>
<th>RELIGION: IMPACTS OF RELIGION ON INTERNATIONAL POLITICS</th>
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</thead>
<tbody>
<tr>
<td>EMPLOYMENT: PROJECTIONS OF EMPLOYMENT AND PENSIONS</td>
<td>MEDIA: IMPACTS OF MEDIA ON BUSINESS AND CULTURE</td>
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### ECONOMIC SYSTEM

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<th>FINANCES: STABILITY OF FINANCIAL SYSTEMS &amp; POSSIBLE FINANCIAL BUBBLES</th>
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<tr>
<td>RESOURCES: PROJECTION OF MATERIALS AND ENERGY PRICES</td>
<td>MARKET: PROJECTION OF NATIONAL AND INTERNATIONAL MARKETS</td>
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### TECHNOLOGICAL SYSTEM

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<th>SCIENCE: FRONTIERS OF SCIENCE</th>
<th>RESEARCH: RESEARCH CENTERS AND PROGRAMS</th>
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<tr>
<td>EDUCATION: ADVANCES AND NEEDS IN NATIONAL EDUCATION</td>
<td>INNOVATION: NEW TECHNOLOGIES AND NEW HIGH-TECH VENTURES</td>
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Figure 8.13: Strategic Scenario Model.

All this historical scenario about the House of Mitsui, the Tokugawa shogunate, the Meiji Restoration, the industrialization and militarization of Japan, the postwar recovery, and the growth of Japan into a mighty, modern industrial giant provided the “big picture” of the changing society in which Mitsui found economic opportunities.

If one could go back to 1722 knowing all that was to unfold, one could have witnessed a significant celebration of the House of Mitsui on the first hundredth anniversary of Hachirobei Takatoshi’s birth. We recall that Hachirobei was the youngest son of Sokubei and Shuho and had begun the building of house of Mitsui. Hachirobei was sent to Edo by his mother Shuho, to assist his elder brother in the first Mitsui draper’s shop in Edo. Then Hachirobei opened a second shop in Edo and went on to lay the foundation of the clan’s business empire. A 100 years later the House of Mitsui celebrated his birth by publishing his “will” as a code of conduct for Mitsui managers. It was called *Code of Regulations* for the House of Mitsui, and in part read:

The (following) articles are the instructions which I leave as my will. These instructions are to be obeyed strictly and without fail. In the seventh year of Kyohoe, the Year of Water and the Tiger, the eleventh month, first day.

– The members of the House shall promote the common welfare with one accord.
– Unless a merchant is diligent and attentive, his business will be taken over by others.
– Farsightedness is essential to the career of a merchant.
– All kinds of speculation … shall be strictly forbidden.
– Do not forget you are a merchant. You must regard dealings with the government always a sideline of your business.
– The essential role of the managers is to guard the business of the House.
– In order to select worthy managers, keep an eye on the young … and train promising candidates … .

We can see in this case, of the very long evolution of the House of Mitsui, how a business needed to change to adapt from the old world of a feudal society to the new world of industrialized society. The clan business of the House of Mitsui evolved into the corporate firm of a holding combine, under the name of Mitsui Gumi. This is the theoretical point about strategic change. In the great transition from a feudal society to a modern industrialized society, many strategic changes were needed for the business to survive over time.

**Summary**

The “big picture,” strategic scenario, in the strategy of any organization, is the society in which it is embedded and the societies of the world which interact. A projection of the present into the future requires looking at trends and possible changes in all the systems of a society — economic, political, cultural, and technological.

Technological change has driven societal changes over the last 300 years and continues to do so in the future. Even in terms of decades (and not over a 100 years), modern societies change and the business and economic environments of corporations change. Missing the “big picture” (strategic scenario) is a serious strategic flaw. And a strategic scenario which actually occurs will become history.

Mitsui began as a family-/clan-oriented house of business in a time of stable political organization and peace. To prosper, it diversified into both retail of value-added goods (silk cloth) and finance. When outside political forces with superior military technology drove a whole transition of the society in the Meiji Restoration, Mitsui needed to become a modern corporate organization. In becoming a holding company (a zaibatsu), Mitsui Gumi diversified into banking, retail, trade, and production. Always the political forms and ideology of the changing society involved the leadership of Mitsui in participation in the political and commercial life of the country. As the Japanese government aggressively expanded territorial conquests, Mitsui exploited commercial advantages to the firm of the colonialism policies and military adventures of the government.

After the end of the Second World War and the occupation by foreign forces, Japan’s
commercial and governmental structures of the country were rebuilt, with forced guidance by U.S. government agencies. As an occupation force, the United States can be credited with contributing to the democratization of Japanese government institutions and the stimulus of Japanese industrial redevelopment, rather than merely punishing a former enemy. In the rebuilding of the country, some parts of the former Mitsui companies were resurrected, transformed, and recombined to a reconstituted Mitsui. The postwar model of reconstruction was again the active seeking out by Japanese firms of new technology from global sources and implementing and improving these into new businesses and selling goods abroad. This model of acquiring and innovating new technology-based products and aggressively competitive trade and marketing produced a rapid economic recovery and created in the second half of the twentieth century an industrial giant of Japan among the countries of the world. Although the change in Japan from feudal to industrial society was dramatic, all human societies on Earth have had to transform from tribal and feudal societal forms to industrialized forms from the 1700s through the 2000s.

One can see how, over time, the societal contexts of all businesses change and all business firms must adapt to new societal environments or perish. Over the long term, all modern societies change, and all industrial firms must adapt to changes. This is the importance of scenarios in strategic planning.

The worldwide trends of industrialization and colonialization had swept all nations into the world scenario. From about 1765 to about 1865, the principal industrialization occurred in the European nations of England, France, and Germany. From 1865 to about 1965 (the second 100 years) other European nations began industrializing; but the principal industrialization shifted to North America. By the middle of the twentieth century in the 1940s, the U.S. industrial capacity was alone as large and innovative as to be a determining factor in the conclusion of the Second World War of that century.

For the second half of the twentieth century, U.S. industrial prowess continued to grow, and European nations rebuilt their industrial capabilities that had been destroyed by the war. But for the pattern of industrializations, significant events occurred in Asia. From 1950 until the end of the twentieth century, several Asian countries began emerging as globally competitive industrial nations: Japan, Taiwan, South Korea, and Singapore. Other Asian countries, including the Philippines, India, China, and Indonesia were also moving toward globally competitive capabilities.

Asian industrialization actually began in Japan in 1865 with the Meiji Restoration. But it was diverted principally to a military-dominated society and production. It was only after the Second World War in the reindustrialization of Japan that democracy, free-markets, and world-class industrialization actually occurred. So it was that the major growth of world economies and industrialization for the second half of the twentieth century and into the twenty-first was principally focused in Asia.

Theoretical Principles
1. Structure and function in a society can be partitioned into four societal systems: economic systems, political systems, cultural systems, and technology systems.

2. Changes in the structure and functioning of any of the systems will impact the functioning of the other systems.

3. The ‘big picture’ of change in a society can be depicted as changes in the four systems of a society.
Strategic Dishonor

Introduction

Historically in business, not all strategic decisions have been good decisions, resulting in productivity, competitiveness, prosperity, and survival. In fact, there have been many bad strategic decisions, resulting instead in business decline and bankruptcy. As we reviewed in decision theory, values are the connection between the goals of a decision and the future experience of the outcome attained by action. And we saw that the different groups of stakeholders in a decision can value the decision differently. In business decisions, there are always two groups affected by action — members of the business firm and customers of the business firm. A good strategic decision needs to include both values of the two groups.

One would think that all CEOs and Directors have in mind good value for their customers, at all times. Unfortunately, this has not always been the case. One kind of a bad strategic decision occurs when a leader focuses upon only one perspective, the values of the CEO and owners. When this happens, companies can get “flipped.”

CASE

Perils of Sunbeam

One famous case of bad decisions happened in the 1980–1990s to Sunbeam, a U.S. company. John Byrne wrote: “Sunbeam was the company that grew up with modern America. Its ingenious inventors devised the first automatic coffee-maker, the first pop-up electric toaster, and the first ‘mix-master’…” (Byrne, 1999). Yet in the 1980s and 1990s, the once great Sunbeam was harmed not just once but twice by poor top executive management. In 1987, it was forced into bankruptcy and again in 1998.

The story of Sunbeam goes back over a 100 years to the turn of the twentieth century. In 1897, the Chicago Flexible Shaft Company was founded by John Stewart and Thomas Clark and made agricultural tools with flexible shafts (such as sheep-shearing machines). In the early 1900s, they introduced the brand name of “Sunbeam” for their new lines of electrical appliances for the home (such as toasters, irons, and mixers). Later in 1946, the Chicago company officially changed its name to “Sunbeam.”

Another source of Sunbeam’s main appliance product lines was its electric blankets, and this innovation traced back to the 1920s to an inventor named Pop Russell. He had the idea of creating electrical heating pads to replace
hot water bottles that were extensively used around 1900 to warm cold beds (when no one then had central heating in their homes). He started a business called Northern Electric Co and sold the innovative heating pads in drug stores. Then a customer who ran a tuberculosis sanitarium in New York State asked him if he could make a heating pad as large as a blanket. The customer had patients who slept outside in the cold (as sleeping in the cold was then thought helpful in tuberculosis treatment). In the 1930s, Russell invented an electric blanket, consisting of stiff wires coated in asbestos. A more flexible heating wire was developed during the Second World War to heat flying suits of pilots for flight at high, cold altitudes.

In the 1950s, Oster Company bought Northern Electric; and in 1980, Sunbeam bought Oster. Sunbeam engineers invented new electric wires for electric blankets that adjusted heat levels by sensing body temperature and eliminated the lumpy thermostats previously used in electric blankets. With this innovation of a new generation of electric blankets, Sunbeam captured the market, wiping out competition. Thus Sunbeam was a healthy company with excellent home products. But in 1982, a terrible thing happened to Sunbeam. It was purchased by a corporate conglomerate, Allegheny International.

Allegheny International (AI) had been recently put together in 1982 by an experienced but inept business person named Robert Buckley, who soon managed AI into bankruptcy. William Symonds wrote: “To understand AI, you must first know its boss. The company is undeniably the creation of the ambitious 62-year-old Buckley. He grew up in New York, earned a law degree at Cornell University and gained his first extensive business experience at General Electric Co (GE). In nine years he rose to manager of union relations of the Schenectady (N.Y.) plant” (Symonds, 1986).

From there, Buckley moved to running Standard Steel and then to president of Ingersoll Milling Machine Co. In 1972 he moved to Allegheny Ludlum Industries, which then was a specialty steel producer located in Pittsburgh, Pennsylvania. In 1975, Buckley decided to sell off the steel business and bought Sunbeam Corp and Wilkinson Sword Group. In 1982, he changed the name of Allegheny Ludlum Industries to Allegheny International, with sales of $2.6 billion dollars. It was the purchases of Sunbeam and Wilkinson that tripled AI’s revenue over the earlier steel business, but also added substantial debt.

Instead of learning how to manage AI’s new acquisitions, Buckley went on expanding his business portfolio by investing in real estate and in energy. He set up a new realty unit and bought the Dover Hotel in midtown Manhattan in New York City and an office building in Houston (called the Phoenix Tower). He built an elaborate corporate headquarters in Pittsburgh. He invested in energy, but ended up drilling a dry well in Texas. Added to the
recent Sunbeam and Wilkinson acquisitions, these other real estate and energy investments created substantial debt for AI and yet, in contrast to Sunbeam, generated no profits.

Meanwhile, Buckley had greatly increased the corporate overhead of AI, by providing extensive and expensive executive perks to himself and his corporate team. AI bought a Tudor home in Pittsburgh for Buckley’s use and also a condominium in Ligonier, Pennsylvania (that backed onto a most exclusive golf course). AI also purchased a controlling interest in a condominium project in Florida (in which Buckley himself bought three units). Buckley and his executives flew around the country and the world in a fleet of five business jets. AI was generous to its corporate executives by providing $30 million in personal loans to them at a below market interest rate of 2%. Symonds wrote: “Even while AI’s executive were sowing the seeds of their financial problems, their level of compensation was stirring discussion in Pittsburgh corporate circles. In 1984 when it earned a paltry $14.9 million, AI paid Buckley over $1 million in cash, more than the chiefs of the two larger Pittsburgh companies” (Symonds, 1986).

In 1981, AI’s net income had been $80 million but declined to $45 million in 1982, $30 million in 1983, and $15 million in 1984. AI’s executives were living well but were not properly “taking care of business.” Buckley’s bad investments in real estate and gas created substantial losses. In 1985, AI’s realty unit lost $63 million, and the energy unit lost $30 million. In the year of 1985, AI went from the previous year’s modest profit of $15 million down to a very steep loss of $110 million. AI’s stock had dropped from $54 a share to $17.

As this occurred, why were AI’s board of directors not paying attention? Symonds wrote: “Where was the AI board while all this was happening? One possible explanation for its passivity and relative generosity is that a number of outside directors have financial ties to the company” (Symonds, 1986). One example of an apparent conflict of interest was that one of the director’s upon joining AI’s board in 1983 received a consulting arrangement from Buckley worth $50,000 dollars (for services not to exceed five days a year). Another example was a director whose consulting firms received $163,000 for work done in 1985.

While AI’s board was not properly watching over the company’s performance, there was bad impact on poor Sunbeam. Byrne wrote: “Under the portly Buckley, the appliance company with some of America’s beloved brand names became a victim of neglect and abuse. Sunbeam was compelled to return nearly all of its profits to Allegheny’s corporate center in Pittsburgh, and was starved of capital to update its factories and refresh its product lines” (Byrne, 1999).

In 1986, Buckley was fired. In 1987, Allegheny filed for bankruptcy. For the
next two years, Sunbeam management had to struggle on under the cloud of a bankrupt corporation — with the uncertainty of ownership, starved for resources, and not even knowing whether there was a long-term future for the company. Would there be a happy ending to the story of Sunbeam? Unfortunately, not the next time.

**Business Model and Organizational Structure**

We can analyze how the business model of Buckley’s AI ran the company as a holding firm with portfolio businesses, such as Sunbeam. In Chapter 6, we had diagramed the business model of a diversified firm; and this is shown again for AI and Sunbeam in *Figure 9.1*.

![Figure 9.1: Strategic Business Models in a Diversified Firm. An Appropriate Strategic Model for a Diversified Firm Level (AI) is a “Strategic Firm Model.” For a Business in its Portfolio (Sunbeam), an Appropriate Model is a “Strategic Enterprise Model.”](image)

Buckley was focused upon growing AI to increase its stock value and thereby justify larger salaries and perks for him and his executives. Sunbeam suffered from yielding its profits to AI, without any return investment into Sunbeam to maintain its competitiveness in consumer markets. While Buckley’s AI focused upon financial markets, in order to justify increased executive pay and perks, Sunbeam’s focus on customers was ignored by Buckley. Buckley’s business model of AI, as a holding firm, had the leaders of the portfolio companies (e.g., Sunbeam) with responsibility to customers but without the power (in resources) to continue to serve customers better than competition. Under AI, Sunbeam began its decline as a competitive company.

**Authority Structure of an Organization**
The business model of a diversified firm places the presidents of portfolio businesses under the authority of the CEO of the holding firm. In a diversified firm, there are usually at least four levels of management hierarchy: (1) Corporate Level — Board, CEO, and Firm Executive Team, (2) Business Level — President and Business Executive Team, (3) Division Level — Division Director and Administrative Staff, and (4) Office Level — Office/Project Manager and Technical Staff. This is shown in Figure 9.2.

Figure 9.2: Levels of Authority in AI.

First, we have drawn the line of organizational authority *upwards* from CEO to the Board of Directors (rather than normally downward). This is because Buckley had coopted his board, selecting them to be under his influence (authority) — rather than him being under their authority. This lasted until the financial crisis, when finally the Board took back their authority in 1986 and fired Buckley for the massive losses in AI. But it was too late, and AI filed for bankruptcy the next year in 1987.

The organizational term “coop” means “to take over authority of a larger or related group”; and it aptly describes how some CEOs can actually “take-over” and unduly “influence” their corporate boards. This is possible by carefully selecting and having them elected by shareholders. The ability of a CEO to select board members, through control of proxy votes, places the CEO in power over board members — unless a crisis occurs, such as bankruptcy. Under the power of the CEO, selected board members may not perform honorably, but according to the will of the CEO.
The corporate reality in the United States is that most shareholders of publically held corporations don’t bother to vote. A CEO can solicit and vote their shares by proxy, since only the corporation has and maintains the list of their shareholders. By proxy voting, many large corporations in the United States are effectively under the control of their CEO and not by their Board (unless and until a hostile investor buys a significant portion of shares, usually at least 10%). The reality of power in AI was the CEO controlled the Board.

Buckley’s strategy was to use the revenue and equity of AI to borrow money for more investments to increase revenue. We recall that Buckley bought Sunbeam and Wilkinson and then invested in real estate in New York City, Houston, and Pittsburgh. He invested in a dry well in Texas. All the acquisitions and investments added enormous debt to AI and generated few profits. Why was Buckley pursuing such rapid expansion of AI’s investments? He wanted more salary and perks. Buckley’s strategic focus was on greed and not on the survival of AI, as shown in Figure 9.3.

![Figure 9.3: Strategic Greed in Buckley’s AI.](image)

Buckley had focused only on the perspective of his self-interest and executives for perks and higher salary. He thought he could achieve this by new acquisitions and investments. But he paid no attention to efficiency of his acquisitions and was ineffectual in his investments — only increasing corporate debt, until the corporate outcome was bankruptcy. The strategic perspective of customers never entered Buckley’s mind; it was not part of his strategic thinking. Buckley’s strategic thinking turned out to be neither powerful nor honorable. He did not know how to competitively run a large diversified firm.

In 1989 after AI’s bankruptcy, two investment fund managers, Michael Price and Michael Steinhardt, saw a good business deal in the unfortunate
situation of Sunbeam. They bought up AI’s debt cheaply and took control of the bankrupt company. With the assistance of investment bankers, Paul Kazarian and Michael Lederman, they restructured the company as “Sunbeam-Oster.”

Paul Kazarian then managed the company of Sunbeam-Oster and returned it profitability. He consolidated the eleven divisions of the company into four. He coordinated the selling of the all the company’s products to major retailers and coordinated purchasing operations. Under Kazarian’s first year of leadership, Sunbeam’s operating earnings became $96 million, turned around from the previous year’s loss of $95 million (Byrne, 1999).

In August 1992, Kazarian took the company public again, raising $250 million by selling 24% of its common stock. Price and Steinhardt had essentially acquired Allegheny for $1.50 a share, and the public offering went at $12.50 a share. Their initial investment of $130 million was then worth $1.1 billion, but they still had 76% of the stock to sell to realize it all. They wanted Sunbeam to be built up for an even larger sale — and quickly — but this would take time. Kazarian had a bitter falling out with Price and Steinhardt over how long it might take, and Kazarian left Sunbeam.

Next Price and Steinhardt hired Roger Schipke, from GE, to run Sunbeam. Earlier in this career, Roger Schipke had managed GE’s appliance business. In the late 1970s, Schipke strategically reengineered GE’s refrigerator line to lower costs and improve quality. He did this with new technology, in order to meet competition coming in from Asian countries entering the U.S. home appliance market. Schipke had spent 29 years at GE, running the large appliance division and had grown it from $2.5 billion to $5.6 billion during the eight years he led it. Price offered Schipke a base salary of $1 million and stock options to run Sunbeam.

When Schipke arrived at Sunbeam in 1993, he found things still in trouble. He saw Sunbeam had outdated manufacturing processes, poor financial controls, no marketing, and aging product lines. No investments were being made in Sunbeam’s future, and it was being run as if it were a leveraged buyout, focused only with paying down debt. Schipke thought it would take time to rebuild Sunbeam. He saw the need to improve the company’s operations, planning to build a new $80 million manufacturing facility. Sunbeam needed to improve production and develop new products.

**Operations Structure of an Organization**

How can one model the operations structure of an organization? We recall there are two organizational structures — authority and operations. The authority structure is posted by a corporation/business as an “organization chart.” But the operations structure depicts the process flow of operations (as we saw earlier in automobile manufacturing). To model the operations
structure, one can start with the value transformations of Porter’s model and add over and below the production, two other planes for overhead and control operations, as shown in Figure 9.4.

![Figure 9.4: Operations Structure of a Business.](image)

Figure 9.4 displays an operations structure for a manufacturing business, such as Sunbeam.

![Figure 9.5: Operations Structure of Sunbeam in 1993.](image)

The dotted boxes in the overhead plane indicated which operational activities in Sunbeam had been starved of resources, under the leadership of
Buckley and of Kazarian from 1982 to 1993. There had been no significant investments in the support functions of Plane 1 in Sunbeam. For a decade, Sunbeam had been starved for new products, production improvement, new technology, and market development. Competitors had entered that decade with products, low prices, and improved quality, taking market share away from Sunbeam. Operations had not been improved in Sunbeam through new information technologies, nor had personnel been improved in skills and by training. The financial development of the future of Sunbeam had been put “on hold” as profits had been siphoned off by AI, without returning any to Sunbeam for investment in its future.

Buckley had failed to see any of this, because his strategic perspective was only centered upon his perks from the growth of the holding company AI. But Kazarian had recognized this and argued with Price and Steinhardt that it would take time and money to prepare Sunbeam for a competitive future. Kazarian left Sunbeam when his partners would not agree to investing in Sunbeam. Price and Steinhardt were only interested in return-on-investment, and not in providing service to Sunbeam’s customers.

Schipke was a competent manager, unlike Buckley and like Kazarian. He told “unwelcome news” to Sunbeams’ owners. Schipke also learned that the major shareholders, Price and Steinhardt, were reluctant to invest in Sunbeam’s long-term future. Price and Steinhardt wanted to entirely sell out of Sunbeam. But it was difficult to sell more of the company.

In 1995 neither sales nor profits were substantially up at Sunbeam, as the Schipke turnaround was taking time. Sunbeam’s market shares were still declining (e.g., blender sales fell from 41% market share in 1993 to 38% in 1995, food mixers from 25% to 19%, toasters from 4% to 3%, gas grills from 49% to 44%, folding outdoor furniture from 58% to 44%). The long-term problems at Sunbeam (from its long days with AI and in bankruptcy) were continuing in its decline — the problem of not improving Sunbeam’s operations for over a decade. Price and Steinhardt became impatient with Schipke; and within two years of his arrival, they decided to replace him. Schipke resigned.

In mid-1996, Price and Steinhardt hired Al Dunlap, not to run Sunbeam but to prepare it for sale. Price and Steinhardt wanted no long-term strategy for Sunbeam. They were investors, not managers. They wanted to finish selling their shares in Sunbeam, by selling it to another company. They wanted a CEO who could quickly “flip” the company, that is, improve its “business appearance” (e.g., profit growth). It was like selling a used car, when one
could merely wash and polish the car and detail the interior, without really checking the mechanics of the car.

Sort of like a “used-car sales person,” Al Dunlap had the reputation of a “used-company” dealer. This was Al Dunlap’s reputation — an executive who could get companies ready for sale. His most recent position was as head of Scott Paper Co. In 18 months he had been CEO of Scott, he had driven its stock price up by 225%. To do this, he cut costs. He fired 11,000 employees. He cut investments in production improvement and in research. He then sold Scott to its rival Kimberly-Clark.

But Kimberly-Clark was surprised by what it had bought. Going into the merger, in 1995 Dunlap’s financial figures for Scott had projected a fourth quarter income of $100 million. Yet Kimberly-Clark found Scott really was to lose $60 million on that quarter (a difference of $160 million from the projection). In the first three months, Kimberly-Clark needed to spend $30 million on immediate and necessary plant and equipment maintenance, which earlier Dunlap had canceled. Also the market share of Scott products began declining. The short-term changes Dunlap had made in Scott to boost its share price was having bad longer term consequences on Scott’s competitiveness and profitability.

But this was the kind of short-term thing a “used-business” dealer can do to sell companies — pretty-up the “bottom-line” by short-term cost cutting before the sale. Dunlap appeared to be good at selling “previously-owned businesses.” He had begun fixing up companies for sale at Lily-Tulip, from which he personally gained $8 million. Next he worked for Sir James Goldsmith, a financier, for three years, also earning more millions. In Australia, he left another investor, Kerry Packer, several million dollars richer. Then briefly as CEO of Scott Paper, its sale earned him personally $100 million. Dunlap had a track record of getting companies sold. He was rich. He did not have to continue “flipping” businesses. But he thought he was good at it and grew wealthy doing it.

So Price and Steinhardt thought that Dunlap was just the kind of CEO they wanted! They were enthused and offered him incentives. Price offered Dunlap an annual salary of 1 million, $2.5 million in stock options, and 12 million of restricted stock. On July 19, 1996, when Dunlap’s appointment as CEO of Sunbeam was announced, its stock which had been at $12.50 a share jumped to $18.63 a share — so powerful was Dunlap’s reputation with the Wall Street crowd as a “turn-around artist.”

Dunlap then set about “fixing up” Sunbeam for sale. To fix up a company, the first thing one can do is cut costs by firing employees. This is an easy “fix,” as employees can always be fired. On November 12, Dunlap announced to Sunbeam’s board that he would eliminate half of Sunbeam’s employees, cutting 6,000 jobs. He would reduce manufacturing facilities
from 53 to 39. But he also reduced sales by selling some lines of Sunbeam’s businesses (including Sunbeam’s outdoor furniture products, clocks, scales, and decorative bedding). By these cuts, he claimed he would save $225 million annually.

But cutting costs alone would not prepare Sunbeam for sale. It is a much harder fix, to increase sales. How did Dunlap plan to increase sales? He promised the board to introduce at least 30 new products a year and double the company’s revenue from $1 to $2 billion a year.

But four days later after Dunlap announced to the Board his intention to increase sales, yet the person Dunlap had just hired to do this quit. On November 16, 1996, P. Newton White, who was the executive Dunlap had just brought in to run Sunbeam for him, abruptly resigned. Later, observers saw White’s abrupt departure should have been seen as a clear signal of the enormous difficulties to fix Sunbeam.

Any CEO must implement strategy through a team of operating executives, who report to the CEO. As in war, the general in command can strategize battles, but his generals lead the troops to implement a battle plan. Battles fail not just in strategy but also in implementation. The lack of a good operating executive, like Newton White, would turn out to be a major reason for Dunlap’s eventual failure at Sunbeam. Dunlap could not keep capable executives working for him, nor would he allow the people, who stayed to work for him, operate effectively. Within a month of becoming CEO, Dunlap lost or fired three of the operating executives at Sunbeam, who had been responsible for 90% of its sales. This is the first thing dishonorable leadership accomplishes — to lose competent executives.

Later Newton White commented on why he had quit after only two months at Sunbeam. He saw that it would take two to three years to begin fixing up Sunbeam and enormous amount of change to turn the company around and he didn’t want to stay that long.

Dunlap cut jobs, closed plants, and lost competent executives. Those managers who did stay on with Dunlap were under tremendous pressure to increase sales. Dunlap couldn’t sell the company merely by dramatically cutting costs; he also had to dramatically increase revenue. But Dunlap’s plan was unrealistic. In order to double revenue, Sunbeam would have had to perform five times better than it had and better than its industrial competitors. In one year, Sunbeam would have had to increase its existing operating margins to 20%, compared to its margins of only $2.5%.

Leadership Integrity and Realistic Targets

We recall the two different perspectives in strategic thinking — from the values of the CEO and from the values of the customer — “top-down” and
“bottom-up” views. We apply this view on strategic perspectives to Sunbeam in Figure 9.6.

Figure 9.6: Strategy Perspectives in Dunlap’s Leadership of Sunbeam.

The setting of any “targets” is an easy thing to do for leadership. Choose numbers and tell the troops to meet them. But setting “reasonable targets” is more difficult because it requires leadership to really understand some of the bottom-up perspective — what realistically can an organization do — what targets are realistic and possible.

What happens when the CEO demands the impossible from subordinates? Subordinates must do the impossible or they lose their jobs. What can they do? They quit or cheat.

In the case of Sunbeam, the new manager of sales, Newton White, chose to quit. Those who stayed under Dunlap, cheated. To meet Dunlap’s unreasonable demand for impossible sales numbers, managers began resorting to devious schemes. Their jobs depended upon meeting Dunlap’s impossible numbers. They couldn’t tell Dunlap about problems. John Byrne wrote: “In a meeting with Al, you are not there to tell him anything,” said Bill Kirkpatrick, who worked with him at both Scott and Sunbeam. You are there to listen. “If you didn’t hit your numbers, he would tear all over you” (Byrne, 1999).

Dunlap’s remaining subordinates created a sales fiction to boost apparent sales, by using an unusual accounting technique called “bill-and-hold sales.”
In November 1996, the gas grills division asked its major retailers to purchase merchandise, which they would not need for six months. The deal Sunbeam’s managers offered was a major discount to the retailer along with the nice conditions that the retailers neither had to pay for nor receive merchandise for six months after the billing. Sunbeam’s managers rented warehouse spaces and stored the merchandise there at Sunbeam’s expense. So they billed the sale in November and shipped the merchandise; but not to the customer nor did the customer have to pay until the next year. As Byrne quoted, a Sunbeam executive later admitted: “More and more it became impossible to make the kinds of numbers that Al (Dunlap) thought should be made. Al was so concerned about revenue that we sacrificed margin” (Byrne, 1999).

Also in this way, they sacrificed future sales. There could be no more sales to that retailer that spring, because their “bill-and-hold” merchandise was already languishing in a rented warehouse. Dunlap’s pressure-for-the-impossible encouraged tactics by his executives effectively sacrificed the future of Sunbeam — no future sales the next year.

*When a CEO’s idealism in strategy cannot be met by the realism in operations, politics in the executive level can encourage fraud. And in business records, such unreasonable CEO strategic pressure has occurred, not just at Sunbeam, but elsewhere — as for example in Enron (Betz, 2000) and in Libor (Betz, 2014).*

At the top of Sunbeam, the CEO Dunlap had no interest in its long-term future, with only a short-term goal of “flipping” the company, selling it to another company. First, Dunlap cut costs by firing employees and closing factories. This decreased Sunbeam’s capability to produce more products for increasing sales; but Dunlap set sales targets for big increases. He told his Board that sales were projected to increase dramatically. But he had no real intention to do so — for he was going to sell the company before then. All he had to do, so he thought, was “project” sales increases, tell everybody he was going to increase sales. Dunlap knew that much publicity was about “appearances.” How was he going to increase sales, if he had cut production capacity? Dunlap ordered Sunbeam employees to develop many new products. Which employees were going to do this, since Dunlap had already fired half of them?

At the top, Dunlap thought his strategy only had to look good — cut costs, increase sales, innovate new products, increase revenues, and increase sales. It sounded good. It sounded so good, that Sunbeams’ share price rose immediately. Wall Street viewed Dunlap as a “turn-around” artist of the best sort!

But what was happening down in the trenches, where sales personnel had to “go over the top” — go to the customers to make more sales — facing the
reality of customers? In contrast, Dunlap was only facing the reality of financial markets, Wall Street. This is the contrast of a top-down view versus bottom-up view. From the bottom perspective, Sunbeam’s sales managers knew exactly how many sales they had been making to their customers and that their customers would not buy many more in the short term. How then to make Dunlap’s sales targets? How to dramatically increase sales that year?

Dunlap’s targets could only be met by faking new sales. Dunlap may not have known about the sell-and-hold scam. He might have found out, if he had asked his subordinates. But Dunlap didn’t ask subordinates, he only gave orders. And subordinates did not volunteer bad news up to the boss. No one below Dunlap could tell him anything. Communication in Dunlap’s leadership style went only one way, down and never up.

Why would Sunbeam’s sales managers do this scam? They were not normally dishonest people, but in this situation, they might at least keep their jobs for one more year. It was not exactly illegal, just dishonest. Dunlap had promised to sell the company soon anyway. Who knew whether they would have jobs after the company was sold? For employees below the CEO in any large U.S. company, survival goes year by year. Only top executives have any company guarantees about survival, with multi-year contracts and golden parachutes on exit.

**Information Flows in Authority Structures**

The reality of power in a firm creates problems about the proper communication of strategy in the firm, particularly bottom to top. A large corporation requires coordination of strategy and tactics between the top with the bottom levels of management. But coordination is difficult because the top level of executives has much more political power over the middle and bottom levels of management, and over all other employees. This difference of power can make it difficult for bottom-level operational personnel to tell “bad news” to top-level executives — such as why their “targets” can’t be met because they are unrealistic. The common form of exercise of executive power is often, as in the case of Dunlap and Sunbeam, “meet-my-targets or you’re fired.”

*For successful strategy, the idealism of a top-level strategic goal (target) needs to be implementable in the reality of bottom-level operations. For this, strategic communication in a firm must be two-way, both top-down and bottom-up. Bottom-up communication may be hindered by the authority structure in an organization, wherein power flows downward.*
At the time, the stock market was very impressed with Dunlap’s reputation. When it heard that Dunlap was cutting costs and increasing sales, the market believed him. Sunbeam’s stock climbed into the $30 range. Dunlap had succeeded with the stock market, but too well. That price was too high to sell the company to another company. Desperately, Dunlap began looking for another company to buy as an alternative way to boost Sunbeam’s sales and revenues. He focused on the Coleman Company.

Earlier, Coleman had been acquired by conglomerate builder, Ronald Perelman, who owned a large number of companies, such as Revlon Inc. and Marvel Entertainment Group. When Coleman’s management had attempted to take Coleman private through a leveraged buyout in 1989, Perelman stepped in and bought Coleman. Perelman owned 82% of the stock, and he was willing to sell Coleman to Sunbeam, but not cheaply. Coleman’s stock was then selling at a low $16 a share. Coleman had lost $42 million in 1996 and was likely to have a loss of $2.5 million in 1997. Perelman had installed Jerry W. Levin, a former Revlon chairman to turn around Coleman.

When Dunlap approached Perelman to sell Coleman, Perelman asked for $30 a share. Dunlap at first was angry and then desperate. He agreed to the price. In March 1997, Perelman then sold Coleman for a 14% stake in Sunbeam, which then translated into $1.6 billion value (because of Sunbeam’s then highly valued stock of $45 a share). Also, Dunlap had Sunbeam make cash offers for Signature Brands and First Alert. To pay for all these acquisitions, Sunbeam’s board authorized the sale of $500 million convertible bonds by Sunbeam.

Next public perception of Sunbeam began to see reality, penetrate past Dunlap’s reputation. A team of Morgan Stanley officials needed to perform a “due diligence” analysis of Sunbeam, in preparation for selling Sunbeam bonds. Due diligence is an analysis of a Company’s accounts to see if the accounting is real and accurate. The Morgan Stanley team spoke with Sunbeam’s managers, retailer customers, and auditors. They found Sunbeam’s sales were below projections. They learned that sales had slowed because Sunbeam’s major customers, Wal-Mart and K-Mart, already had large inventories on hand from Sunbeam’s previous fall’s “bill-and-hold” sales routine. They learned that Sunbeam could not sell any more products to them for at least another year. This information would have to be made public to prospective buyers of the bonds.

After the Morgan Stanley team discussed this with Sunbeam’s executives, one of them phoned Dunlap and told him that Sunbeam would have to issue a disclosure of the lower projected sales. John Byrne wrote: “Dunlap kept screaming into the phone. He knew the announcement would tank Sunbeam stock and could even jeopardize the success of the debenture offering. It also wouldn’t help his reputation as a turnaround master” (Byrne, 1999).
An ambiguous press release was drafted, merely indicating that sales the next quarter would be lower than earlier estimates of about $290 million. But the next morning, even this news caused the stock of Sunbeam to decline by 9% to $45 a share. Worse yet for Dunlap, stock analysts began asking questions about Sunbeam. The whole story began to unfold.

Matthew Schifrin, a reporter for *Forbes* magazine, obtained Sunbeam’s 10K statement, filed March 6 with the Securities & Exchange Commission. On May 4, 1998, Schifrin reported the first revealing story about Sunbeam’s peril: “Seven months ago, ‘Chainsaw Al’ Dunlap declared victory in turning around … Sunbeam Corp … . But since the middle of March its stock has fallen nearly 50% from $52 to a recent $28. This turnaround hasn’t turned and isn’t likely to” (Schifrin, 1998).

Schifrin had summarized the story. After Dunlap was hired in July 1996, he had fired 6,000 of Sunbeam’s employees (half of the then 12,000). Dunlap cut back on Sunbeam’s product offerings, focusing only on Sunbeam’s grills, humidifiers, and kitchen appliances. Dunlap had Sunbeam take a massive write-off in 1996 of $338 million (including $100 million of Sunbeam’s inventory). Schifrin wrote: “Wall Street sat back and waited for a miracle. In 1997 Dunlap announced one. Sunbeam reported record results, with sales up 22% and earnings per share of $1.41 — up from a $2.37 loss in 1996. As is there wont in these heady days, the analysts didn’t look beyond the reported figures. If they had, they might have seen that Sunbeam was coming apart” (Schifrin, 1998).

Schifrin also found that Sunbeam had boosted the sales figures for the last quarter of 1997 by selling grills at a discount and as “bill and hold.” He learned that the discounts and bill-and-hold sales had accounted for most of Sunbeam’s apparent revenue gains. But these reduced margin and prevented future sales. They were the reason for the very poor first quarter of 1998. Sunbeam’s customers had simply stopped ordering new grills. Schifrin’s article began the denouement of Sunbeam story — the tale of its last peril.

Michael Price, Sunbeam’s major shareholder (who had hired Dunlap) read Schifrin’s article. He phoned Schifrin and said: “If you’re right, it looks like fraud” (Byrne, 1999).

On June 4, 1998, Sunbeam’s executives gathered to review the second quarter prospects of 1998. They saw that the company would fail to meet their second quarter objectives. Then on June 6, a second article about Sunbeam appeared in Barron’s financial weekly newspaper by Jonathan Laing. Laing pointed out that Wall Street was shocked by Sunbeam’s sudden reporting of a loss of $44.6 million with a sales decline of 3.6% for the first quarter of 1998 and wrote: “In a trice, the Sunbeam cost-cutting story was dead, along with ‘Chainsaw Al’ Dunlap’s image as the supreme maximizer of shareholder value” (Laing, 1998).
Sunbeam’s stock had fallen 50% from its recent peak. Laing further detailed the results of Dunlap’s brutal management style at Sunbeam: “Many of the new products have bombed in the marketplace or run into serious quality problems. Moreover, Sunbeam has run into all manner of production, quality and delivery problems …. Dozens of key executives, members of what Dunlap just months ago called his Dream Team, are bailing out” (Laing, 1998).

About earlier the reported earnings for 1997, Laing wrote: “Sad to say, the earnings from Sunbeam’s supposed breakthrough year appear to be largely manufactured …. Sunbeam jammed as many sales as it could into 1997 to pump both the top and bottom lines …. The company also pumped millions of dollars of goods into several national small-appliance distributors on such easy payment terms as to call into question whether a sale ever took place” (Laing, 1998).

After Laing’s article about Sunbeam appeared, Sunbeam’s Board of Directors met early the next week. Finally, they began asking questions about the real problems at Sunbeam. Dunlap assured them that there was no truth to the article and that bill-and-hold as an accounting technique was a standard industry practice. Next the board asked about the second quarter results for Sunbeam, but instead of telling them the dismal truth about the major losses for the present quarter, Dunlap began to complain about attacks upon him and offered to quit. This surprised the board, and Dunlap abruptly left the meeting. John Byrne wrote: “When Dunlap stormed out of the board meeting, the four outside directors sat incredulous and quiet … Howard Kristol broke the silence. Of all of them, he had known Dunlap the longest … ‘That is complete bullshit,’ he blurted out …” (Byrne, 1999).

The four directors knew that something was really wrong, and they themselves, as directors, had a big problem. They decided to talk again later in the week. On Saturday, they met again but without Al Dunlap. Instead, they invited David Fanin, who worked as Sunbeam’s attorney, to brief them. Fanin had loyally worked for Dunlap for the last two years; but he had to tell the Board the truth. He told them that operations at the company had seriously deteriorated, and sales were far below projected targets. He added that Dunlap was not in real contact with the business and talked to no one.

The directors decided that Dunlap needed to be replaced. At 2:20 p.m., the outside directors met again in New York, and placed a conference call to the inside directors of Sunbeam. Dunlap was in Florida. Fanin began the board meeting, with Dunlap on the phone. Peter Langerman, one of the outside directors of the board, spoke first, as Byrne reported: “Al, the outside directors have considered the options you presented to us last Tuesday and have decided that your departure from the company is necessary” (Byrne, 1999). Next another outside board member, Elson, moved to adopt a
resolution to remove Dunlap from all positions with the company, and the motion was adopted with all votes in the room affirming the motion. Dunlap was fired.

Ronald Perelman, who had acquired a large share of Sunbeam through its acquisition of Coleman, then appointed Jerry W. Levin as CEO to run Sunbeam. Sunbeam lost $1.2 billion dollars between 1998 and 2000. Total debt was $2.4 billion, and Sunbeam’s stock dropped to $1.75 in the year 2000. Reporting to Perelman, Levin tried hard to keep the company going, repairing damage. But the debt load of Dunlap’s improvident acquisitions proved too heavy, and on February 6, 2001, Riva Atlas and Jane Tanner reported: “The Sunbeam Corporation filed … for Chapter 11 bankruptcy protection, the latest step in a nearly three-year effort to recover from an accounting scandal and a series of acquisitions that left it with $2.6 billion debt” (Atlas & Tanner, 2001).

The case of Sunbeam illustrates the kinds of conflicts that can occur sometimes between the short-term financial CEOs and owners of a diversified firm and the long-term survival and competitiveness of the firm’s businesses and products. Sunbeam’s perils resulted from successive mismanagement by two CEOs. First its acquisition by Allegheny placed it in peril when Allegheny went into bankruptcy through profligate executive spending and foolish investments. Later rescued from bankruptcy by three investors, Sunbeam was returned temporarily to modest health and was successfully taken public. But the impatience of the investors to sell the rest of their shares in Sunbeam led them to finally hire a CEO with similar short-term interests. He was expected to quickly boost the company’s apparent profits and sales in order to sell the company. But his drastic cuts, unreasonable demands, and over-priced acquisitions finally resulted in a second bankruptcy of the once proud and prosperous company.

Summary

With power and honor, leadership should engage in ethical ventures for the good of the people, the shareholders, the employees, the executives, the customers, and the society. Leadership that does not create ethical ventures and only depends upon coercion or fraud contributes to corruption in social structures and to evil organizations and societies.

Only the leader has the authority and power to implement change; and subordinates should obey their superiors. Competence and integrity inspire followers to make their best efforts to implement a leader’s strategy. Within a social structure, loyalty arises from enthusiasm or coercion. Loyalty from “enthusiasm” arises in the perception of followers that the leader not only has power but also exercises power for the public good. Loyalty from “coercion” arises in the perception of followers that the leader has power and
exercises power only for the private interest of the leader.

For an honorable and competent strategy, top-down and bottom-up perspectives need to be communicated in an organization and agreement between leaders and followers needs to be reached. This balances a top-down idealism of financial goals to a bottom-up realism of customer service. Firm leadership and firm customers — these two groups and their perspectives need to be included in the logic of the decision. Businesses need both to make profits and provide services to customers. A strategic decision is often bad, when it only focuses upon the interests (values) of only one group’s perspective, firm’s owners and executives — and ignores the customers’ legitimate perspective for good products/services.

**Theoretical Principles**

1. The strategic business model of a holding company focuses upon the financial markets; whereas the strategic business model of a portfolio company focuses upon customer markets.
2. Short-term executive greed can doom the long-term future of a company, when executives lack integrity.
Strategic Planning

Introduction

We review the strategic topic of “planning,” how a plan can implement a strategy. We begin by examining the case of the founding of Pohang Iron and Steel Company (Posco). It is a historical case in the 1960–1970s, and nicely illustrates a successful plan that was needed to build an export-oriented steel industry in developing nation of South Korea. This case was first published by the author and Park Won Koo in the proceedings of the 2012 Pacific International Conference on the Management of Engineering and Technology (Betz & Park, 2012).

CASE

History of Posco

The situation of the planning for Posco went back in history to 1945. At the end of the Second World War, the country of Korea was liberated but divided into two nations, North and South Korea. Russian troops had occupied the Korean territory north of the 38th parallel, and American troops occupied south of the parallel. Rhee Syngman was elected president of the democratic republic in South Korea; while Kim Il Sung was selected by the Soviet dictator, Joseph Stalin, to head the communist country of North Korea. North Korean troops invaded South Korea in 1950, initially overrunning the country down to Pusan (now called Busan). But next American troops invaded Incheon (just outside the capital of South Korea) and cut off the North Korean troops in the middle of their line to the south (Figure 10.1).

The North Korean army collapsed, and U.S. troops headed north to the border between China and Korea, the Yalu River. Then the Chinese troops invaded Korea and pushed the American troops back to the 38th parallel. The Korean War continued from 1951 to 1953, with the two armies of China and America stalemated around the 38th parallel. Finally an armistice between North Korea and China and South Korea and America was signed. Korea remained divided between a North Korea dictatorship under Kim Il Sung and a South Korean democracy under Rhee Syngman.

After liberation from 40 years of Japanese rule in 1946 and after repelling an invasion by North Korea, in 1961 the Republic of South Korea was an undeveloped country — with no industrial base, only half the Korean population, and still technically at war with North Korea. Rhee Syngman led a corrupt, ineffectual government, going into his fourth term in office as president. Student protest demonstrations forced him to resign. Then a coup by the South Korean army, led by General Park Chung Hee, seized the government. Under pressure from the United States, Park restored the presidential system and ran for the office in 1963, winning by a narrow margin (Figure 10.2).
To develop an export-oriented economy for South Korea, President Park proposed a five-year economic development plan; and his slogan was “Development First, Unification Later.” O Won Chol wrote: “During the era of the export-first principle, 1964–1970, President Park set an annual 40% growth in export as the standard … During the era of the export-orientated-industrialization, 1973–1980, President Park set the 10 billion dollar mark and the achievement of 40% annual growth in exports as the goals to be achieved” (O Won Chol, 2009).

Central to the industrialization plan was the national production of steel. Steel is widely used industrially — in machinery, building construction, bridge construction, and many other products. The first industrial revolution began in England in the late 1700s and developed on the basis of three new technologies: coke-fueled steel production, steam engine, and textile factory. Inexpensive steel continued to drive the industrializations around the world through railroads, steam ships, automobiles, skyscrapers, etc. Korea’s industrialization would need domestic steel, as imported steel would require earning foreign money to buy the steel. Park envisioned that Korea would have to produce its own steel in order to build an export economy — in ships, automobiles, tools, etc.

But could a new Korean steel company successfully compete in the world economy of steel? Joseph Innace and Abby Dress wrote: “During the 1960s, steel was a growing commodity the world over. From 1960 to 1970, Japan’s annual steel production surged from 22 million tons to 93 million as the country’s economy expanded …. U.S. steelmaking sector added nearly 50
million tons of capacity. Expansion plans were taking shape in the European Community, and several developing countries outlined ambitions programs …. The lack of a steel industry, however, was a thorn in the side of the growing nation (of Korea). From 1961 to 1966, steel demand doubled, and in 1966, alone, Korea imported 350,000 tons compared to 212,000 of domestic production” (Innace & Dress, 1992).

Korea was importing over half of its steel needs. In 1965, President Park visited the United States. Innace and Dress wrote: “President Park went to Pittsburgh … meeting senior executives of the American steel industry and was treated to a first-hand tour of an integrated steel mill. He liked what he saw” (Innace & Dress, 1992, p. 33). Park next tried to arrange international financing for construction of an integrated steel mill in Korea. By the fall 1967, he obtained a preliminary agreement with foreign banks and steel companies to provide $95.7 million in capital to build a steel company, along with $35 million from Korean capital. In 1968, President Park Chung Hee gave the assignment to build a new steel plant to his younger colleague, Park Tae Joon, who would build the Pohang Iron and Steel Company (which would be renamed Posco).

Park Tae Joon was born in 1927 in Kyungsang Province in Korea and moved to Japan, when six years old, where his father was working. In 1945, he enrolled in Waseda University’s College of Science and Engineering. But the war ended in 1946, and Park Tae Joon returned to Korea and joined the military, graduating in 1948 from the Korea Military Academy. When the Korea War began in 1950, Park Tae Joon was promoted to the rank of Major. In 1953, he was promoted to Chief of Staff of the Fifth Division of the Korean Army: “Although Park demonstrated many talents as he moved up the ladder in the military organization, he was recognized and rewarded for one particular skill — an uncanny ability to manage and motivate people. On February 7, 1960, he was appointed Staff Officer of Army of Personnel Affairs” (Innace & Dress, 1992).

Park Tae Joon had not participated in General Park’s military coup on May 16, 1961; but their relationship remained close. Innace and Dress wrote: “… there was a very close and special bond between Park Tae Joon and Park Chung Hee …. The relationship began … when they were in the Military Academy. Park Tae Joon was a cadet and Park Chung Hee was a company commander … the elder Park took a special interest in his prized pupil. The commander singled out Park Tae Joon for unusual duties even after he had graduated in July 1948. And in 1961 when General Park became the nation’s leader, he counted on Park Tae Joon for special assignments. ‘There are many things that I learned from him’, said President Park, ‘particularly his knowledge of economics’ ” (Innace & Dress, 1992).

In 1963, Park Tae Joon retired from the military; and in 1964, President Park
sent Park Tae Joon to Japan to observe the Japanese steel industry. On his return, Park Tae Joon was appointed president of the Korea Tungsten Mining Company, then on the verge of bankruptcy. He turned the company around to profitability. In November 1967, President Park established a government committee for constructing the steel company and appointed Park Tae Joon as chair of the committee. The committee was to formulate a business plan and to have construction blueprints designed for an integrated steel company. President Park Chung Hee then appointed Chairman Park Tae Joon to be the manager of the new steel company, government sponsored but privately run.

Park Tae Joon decided to accept the management appointment but only under conditions. Innace and Dress wrote: “Chairman Park Tae Joon jotted down three conditions he believed were absolutely vital for the steel mill’s success. If these terms were granted, he would accept the job … Nervous, but firm in his convictions and armed with his note, Chairman Park made his way to the Blue House (home of the president of South Korea). It was winter in late 1967, but the chill running down his spine was not from the cold alone. His pending meeting with the President filled him with apprehension … he entered the room where President Park waited for him. He presented his three conditions … The President read them over slowly, President Park looked up at Park Tae Joon and smiled … he jotted his initials. The deal was done. The project would proceed according to Chairman Park’s terms” (Innace & Dress, 1992).

These were the three conditions. First, that Posco as a private company (although initially financed by government) would have absolute control over procurement of equipment, goods, and services. No government agency would procure anything for the company. Second, Posco would have absolute control over staffing. No government agencies would assign personnel to the company. Third, Posco would not make any donations to political parties for their campaigns. Political parties would not be allowed to “squeeze” the company for campaign expenses.

As quoted in (Innace & Dress, 1992) Krauk Jeung (one of the other founders of Posco) later wrote: “This was a contributing criterion to his (Park Tae Joon) subsequent success with the founding of Posco. He demanded a high level of integrity and honesty from his people. He did not brook outside interference or tolerate ‘backdoor’ promotions … And by the time Posco was founded, he got those assurances in writing from President Park for a corruption-free system for Posco so that there would be no outside influences.” Integrity and honesty — a corruption-free system — these were the managerial values upon which Park Tae Joon would build Posco.

**Plan Format**
A plan documents the results of strategic thinking in an organization, using the following component ideas in strategy:

Mission
Stakeholders
Scenario and Knowledge
Strategy
Competition
Objectives
Metrics
Tactics
Organization
Budget

“Mission” is the description in a plan of an organization of its long-term ends — of the common purpose of its successive goals. In a business, a mission statement is a statement of what kind of business is the company engaged. The “Stakeholders” state who will benefit from the plan. A “Scenario” imagines the unfolding of the future, with or without a plan. “Strategy” is the description in a plan of an organization of its long-time means — the “commonality” in a succession of tactics. Strategy is the direction of the successive tactics of action that ties these actions together in a coherent direction to achieve the mission of the organization.

For stakeholders in the real world, action will always be opposed by competitors. Mission and strategy need to be formulated to overcome the expected opposition of competitors. “Competition” is a description in a plan of the competitors and their strategy — those who will oppose and compete against the actor/decision-maker's mission and strategy. Since in an organization, the mission statement of a plan is always very general in order to encompass the different purposes of the stakeholders, it is usually necessary to make the mission more concrete by expressing the commonality of successive goals as objectives and metrics of the plan. “Objectives” are general aspects of future outcomes, goals, which realize the mission of the plan; and “metrics” are measures of the degrees of attainment of the objectives.

Tactics specify the sequence of actions necessary to reach objectives not all at once but over time. The organization of responsibilities in carrying out the plan and the resources required needed to be thought out and described. “Organization” in a plan assigns authority and responsibilities in carrying
out a plan. “Budget” in a plan estimates the resources and budgets required for performance of a plan.

A plan is a prescription for future action, oriented by a long-term mission by implementing shorter-term goals and tactics for accomplishing the mission.

Planning Posco

In developing the plan for a major steel producer in the Korean economy, President Park assigned the responsibility for the plan to Park Tae Joon. The mission was to create a national steel production capability; and the stakeholders were the government and economy of South Korea. Posco would be a private company, free from interference or control by government or political interests.

So far in this case, we can observe three management criteria concerning the entry of Korea into the international commodity business of steel. First, a national need and a government commitment to establish the steel industry were both vital to the industrial development of the nation. Second, there was need for the government to provide initial financing for the construction of the manufacturing plant (because of the enormous investment required to enter the international steel industry in the 1960s). Third, the company (although government sponsored) would operate from the start as a private company — managed as corruption-free with integrity and honesty. These were planning criteria for the mission, stakeholders, and scenario upon which Park Chung Hee’s strategy was based.

Chairman Park Tae Joon’s first task in building the steel plant was to get people trained in steel technology. From November 1968 to April 1969, two teams were sent to Fuji Steel of Japan to learn about making steel. When they returned, they were put in charge of training programs in Posco to train more employees in the technology and processes of steelmaking. Also the area of Pohang was chosen as the site for the new plant.

But in 1968, the international steel community changed its mind about helping to finance Korea’s steel company. Innace and Dress wrote: “In November, a report issued by the World Bank … urged the Korean government to give its priority to the machinery sector, instead of steel. Korea had no knowledge of integrated steelmaking. Since Korea was not in a stable enough position to repay loans in the long-term, the machinery industry was a much safer bet for the economy, and, of course, or its potential financial backers” (Innace & Dress, 1992). Following this report, a final meeting was held in February 1969 in Pittsburgh by the international group; and they told Chairman Park that group had changed its mind and
would not help with finance: “… a Koppers executive notified the Korean delegation, that the West German and British governments were doubtful about the need for, the priority of, and the feasibility of the steel mill project …” (Innace & Dress, 1992).

Discouraged by this change, Chairman Park Tae Joon headed home. But before returning directly to Korea with the bad news, he decided to pause for a couple of days in Hawaii and think. There he had an idea. Innace and Dress wrote: “Park Tae Joon knew that Japan was obligated to pay reparations compensation to Korea because of its colonization of the country for 35 years … Park wondered how he could divert some of that Japanese compensation to the steel mill project” (Innace & Dress, 1992). This might be a solution!

Chairman Park returned to Korea and presented his idea to President Park — to divert some of the reparation monies to the project. President Park agreed with the proposal, provided the Japanese government would agree. Chairman Park flew to Japan to gain their approval. Innace and Dress wrote: “Upon arriving in Tokyo, Park Tae Joon called upon the Confucian scholar Sei Toku Yasuoka, as well as the President of the Japan-Korea Cultural Association, Nobuo Yagi. In particular, Yagi had considerable power within Japanese government and business circles … Both Yasuoka and Yagi agreed to help Park. They offered to introduce him to the President of the Japanese Iron and Steel Federation Yasuhiro Inayama, who was also President of Yawata Steel. Park gladly accepted, and a meeting was quickly arranged” (Innace & Dress, 1992).

In Korea, President Park persuaded the legislature to approve of a partial use of the reparation funds for steel production. President Park’s government then guaranteed the financial backing of loans for the steel project. The Japanese government agreed. The Japanese government would provide $30.8 million from the reparation fund and $42.9 million as a government loan. The Export-Import Bank of Japan would provide an additional loan of $50 million. The total financing from Japan to South Korea to build the steel company of Posco totaled $123.7 million. Park Tae Joon had the capital to begin the construction of Posco’s steel plant.

Planning Posco (Continued)

In developing the plan for a major steel producer in the Korean economy, President Park had assigned the responsibility for the plan to Park Tae Joon. The steel-production plan was:

Mission and Stakeholders

The mission was to create a national steel production capability and the
stakeholders were the government and economy of South Korea. Posco would be a private company, free from interference or control by government or political interests.

**Scenarios and Knowledge**

Compete in international steel markets and acquire technology and equipment from Japanese industry.

**Strategy**

Build a private steel company, with public assistance in initial financing, but without political interference in management. Posco would be a private company, free from interference or control by government or political parties.

**Competition**

International steel companies dominated national and international steel markets; and Posco would need to gain international market share from a national market (Korean market) base.

**Objectives and Metrics**

Competitive steel priced at international rates.

**Goals**

Finance construction with Japanese aid and build steel production facility in Pusan and build steel production capability in two stages of first steel processing and next blast-furnace production.

**Organization and Resources**

Park Tae Joon was to organize a new company, Posco, and initially finance it with.

**Budget**

Initial budget of $123.7 million, with government subsidy of $30.8 million and Japanese loans of 92.9 million.

Capital is a significant barrier for new entry into an international commodity industry. The Korean government could not afford to finance the new Korean steel industry without foreign loans. The European and American steel companies did not want to see another major steel competitor enter the international market. In contrast, the Japanese government agreed to help finance the Korean steel project to improve the international relationship between Japan and Korea (after that last half-century of occupation of Korea).

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The planning job of a leader is to: (1) formulate an executable plan, (2) acquire capital, (3) acquire technology, and (4) assemble a team of
personnel. With the financing accomplished, the project could begin. Park had arranged to acquire technology and equipment from Japanese equipment manufacturers and steel makers. He had engineering plans designed and checked for the construction of a large integrated steel plant. Now he had arranged for financing. The next tasks were to assemble and train personnel, prepare a site, and construct the plant.

Organizations are led by a chief executive (president), but the personnel under the leader actually do the work. To be capable of doing the work, personnel must be trained (as earlier noted). Park assembled 40 initial members of his team and sent them for training. Innace and Dress wrote: “He told each of the members leaving for training in Japan that they should leave no stones unturned. He instructed the overseas training teams to acquire every bit and piece of the host nation’s technology …. Upon their return, the trainee-delegates were immediately put in charge of internal training programs” (Innace & Dress, 1992).

The site of Pohang was chosen because it could have good harbor facilities. The first part of the construction was to improve the harbor for large ships, eventually as large as 250,000-ton capacity ships — to bring in iron ore and take out steel products. The second part was to level land for the construction of the huge steel works.

The construction of the steelmaking capacity was planned in stages, with the first stage to produce 600,000 tons of steel products annually. A steel processing plant was first constructed to produce finished steel products for sale. Steel slabs for the first year was purchased from other steel makers and then pressed and rolled into products which would be sold to industry. This gave Posco products to sell to obtain revenue and profits after the first year of construction of the plant. Chairman Park had planned to achieve sales, revenue, and profitability quickly. This emphasis on “speed” (speed-of-construction and speed-to-market) was a distinguishing characteristic of Park’s management style. In addition to technology-plan-capital-personnel, one can see that also the ideas of “resources” and “market” were essential criteria in Park Tae Joon’s leadership.

Since South Korea did not have iron ore deposits, Posco had to import iron ore from Australia. Innace and Dress wrote: “Australians asked for a higher price per ton than the Japanese were paying … When questioned about the price they argued that Japan was already producing 100 million tons of steel, while Korea was planning only one million tons …. Park did not like that at all … (It) would put Posco in an unfair competitive position … He decided not to sign a contract … and began to explore other material supply options, in the United States, India, and some other countries … The Australian raw material suppliers were getting anxious … And soon afterwards, they agreed to supply Posco at the same price per ton …” (Innace & Dress, 1992).
As a private company, Chairman Park kept a focus on controlling costs to be competitive. Park’s strategic thinking consisted of several ideas, including those of technology-plan-capital-personnel-resources-market.

Also Park thought strategically in the ideas of “speed” and “revenue” and “competition” and “profits” and “cost-control.” The demand in Korea for steel was large enough for Posco to profitably sell products against competitors when priced competitively. The strategic thinking in Park’s leadership in starting Posco included the management ideas of: *integrity-technology-plan-capital-personnel-resources-market-speed-revenue-competition-profit-costs*. These were some of the “component ideas” in Park’s strategy.

After the ground and harbor for the facility were ready, then construction began on the first facility of the integrated steel criterion. Innace and Dress wrote: “The foundation work for the hot strip mill was started in April 1971, but sometime in July, it began falling behind schedule … (By August) construction was running more than three months late …. That was when Park stepped in. He returned immediately to Korea, and by August 18, he was in Pohang inspecting the site … On August 20, the Chairman declared a state of emergency. He mobilized all the construction squads to focus their efforts on the hot strip mill foundation …. All managers at the level of assistant director were ordered to take turns serving as the chief supervisor of the day. ‘We were required to lay 700 cubic meters of concrete each day, come hell or high water …’” (Innace & Dress, 1992).

Steel equipment is gigantic and very heavy and so requires enormously large foundations upon which to rest. Without a good foundation, the steel production equipment is not secure. Chairman Park insisted on sticking to schedule. When the schedule was not being met, Park declared a state of emergency and had all Posco executives down on the construction site personally supervising work. Everyone was involved to fix the situation. Park’s strategic management style focused on keeping schedule and making executives personally deliver. Strategic thinking in Park’s leadership style includes the strategic planning ideas of: *integrity-technology-plan-capital-personnel-resources-market-speed-revenue-competition-profit-costs-schedule-supervision*.

Another problem occurred. Innace and Dress wrote: “With the foundation poured, erection of the steel frame for the mill’s steelmaking plant was begun in the summer of 1972 … One morning, on one of his regular inspection tours, Park decided to go to the top of the steel-framed structure … From that perch, he spotted that many of the heads of the bolts remained on the steel frame. This meant the fastening of the structural steel was loose in some spots and, as such, the building would not be able to support the equipment and machinery inside the mill …. Park called in a
team of his white-collar managers to assist with the troubleshooting … There were hundreds (of bolts) that need to be fixed. Had it not been for the Chairman’s sharp eyes, a serious accident could have stricken the mill shortly after it was up and running” (Innace & Dress, 1992). To the criteria in Park’s strategic thinking, one can add problem-detection-and-solving, or “solutions”: integrity-technology-plan-capital-personnel-resources-market-speed-revenue-competition-profit-costs-schedule-supervision-solutions.

The first stage of Park’s construction of plants was completed on July 4, 1972. The plant could finish steel slabs into sellable products; and Posco purchased semi-finished slabs from other steel producers to make steel plate. It posted a profit in its first year of operations. Next, the second stage of Park’s plan was begun, the construction of steelmaking furnaces (making steel from iron ore). But additional financing for this stage was needed, and further financing solely by the Japanese was not likely. Innace and Dress wrote: “… Chairman Park wanted to demonstrate that Posco could expand without the Japanese, and then the Europeans … and many others wanted a piece of the action … (Then also) Japanese companies (wanted to) be included in the negotiations for second stage …. Proceeding in this fashion, many of the facilities for the second stage were obtained at rock bottom prices” (Innace & Dress, 1992).

Park used the latest technologies, and computerized process control of production of steel was installed. On November 30, 1978, construction of the blast-furnace plant was completed (Figure 10.3). Innace and Dress wrote: “A steelworks operates around the clock, 24 hours per day. Churning out its molten metal on one end and solid (steel) products on the other, in a constant process flow … Raw material conveyors rumble from the dockside yards, making their way to the steep incline … to the tops of the blast furnaces … On the furnace decks, workers watch the steady flow of red-hot pig iron” (Innace & Dress, 1992).
A third and fourth stage of expansion of production capacity occurred through 1979. During its first decade, Posco had expanded production and was earning large profits. It had paid off the loans received from Japan to start the company. But on October 26, 1979, President Park Chung Hee was assassinated by his head of the Korean Central Intelligence Agency. General Chun Doo-Hwan arrested and executed the assassins; and he assumed the presidency. However, Chairman Park Tae Joon continued in the management of Posco and expanded its capacity. By 1991, Posco was the third largest steel company in the world, with a capacity of producing 17.5 million tons of steel annually. Later Park Tae Joon also founded Postech University (Figure 10.4).
The combination of strategic thinking and strategic management in using advanced technology and in satisfying a national economic need and in building a corporate culture of integrity, competence, and speed — all had enabled Chairman Park to succeed. Park treated the mission and stakeholders and organization in an Asian culture of family and responsibility. Innace and Dress wrote: “The strength of Posco’s corporate culture is rooted in a commitment early on to its concept of one family — a community spirit … Posco has demonstrated a caring concern for the well-being of all its people since the very beginning” (Innace & Dress, 1992). To the criteria in Park’s strategic leadership style, one can add “culture”: integrity-technology-plan-capital-personnel-resources-market-speed-revenue-competition-profit-costs-schedule-supervision-solutions-culture.

Strategic Leadership

Strategic planning is a basic function of leadership, and not only the plan must be formulated but also implemented. In strategic leadership, six major criteria need to be focused upon and attended to: Technology, Capital, Market, Competition, Plan, and Integrity. In Figure 10.5, we summarize these important strategic criteria in planning and strategic leadership.
In the strategic criterion of Technology, an industrial competitive-entry must use the most-advanced technologies available to the industry — as new products must perform equally well as any products in the industry and with highest quality. Second-rate quality will not buy competitive entry. Performance and quality establish brand reputation of the new competitor. But to acquire and install the most-advanced technology, many technical problems will occur and must be solved by the personnel. While advanced technology equipment can be purchased, knowledge of how to use the technology for high quality cannot be bought. It must be learned quickly by the personnel of the prime-moving company. Also resources to be processed to make a product must be the accessible to the new company; otherwise products cannot be made in quantity. For strategic leadership, technology as advanced as any established competitor must be acquired and learned and implemented by the newly entering firm. The firm must also have access to the resources needed for production.

In the strategic criterion of Capital, a very large investment is required for competitive entry, because established firms in the industry already have large production capacity and major marketing capability. Investment in production and marketing is always the major investment in hard goods. But even in services, investments may be required in facilities, delivery capacity, and marketing. Large investment to enter the markets of an established industry is the basis of what economists have called “barriers to entry” (see, e.g., MacAfee et al., 2003). Financing a new entry into a major competitive commodity product is difficult.

As we saw in Posco, without the South Korean government’s strategy and commitment, financing for a new major integrated steel maker in Korea would not have been possible. The international banking and steel industries thought another international steel competitor unnecessary for the world (even if it were desirable for Korea). For strategic leadership, large initial capital is needed to finance construction of production facilities and make initial sales; successful entry into a commodity-type market is expensive.

In the strategic criterion of Market, national markets will be large for commodity-type products of a technology-mature industry. For a new entry to a commodity market, it is difficult to take market share from established competitors because they have the advantages of brand recognition and established distribution and retail capabilities. In the case of Posco, market entry was easier because the first market for new steel producer was the growing market of South Korea. The demand for steel in South Korea made it easy for Posco to initially sell all its steel products, making revenue and profits from the start. Only later, after Posco had increased production capacity to a very large scale did it need to compete in the international market for steel. For strategic leadership, markets need to be growing, so that a new entry can initially market share without having to first displace established competitors.

In the strategic criterion of Competition, possible profits for a new entry are bounded by the prices of the existing products of competitors. Entries should not try to enter with higher prices but with lower prices. With established product prices as an upper price
barrier, profits are determined by costs. Initial low costs are necessary for profitability. Thus a focus upon low costs must be accomplished first and early, because having the time to learn how to lower costs (called the “production-learning-curve”) is not a luxury available to a new entrant. For a prime mover, cost targets have to be built into an initial business model and met. If competitive costs cannot be obtained initially in constructing the production facility and in designing the product, the new entry will not survive against established competition. For strategic leadership, initial costs of production must match or be lower than the production costs of established competitors — and at good or higher quality.

In the strategic criterion of Plan, elements of its initial business plan should contain: (1) product development and design, (2) construction of production plant, (3) customers and initial sales, and (4) financial projections of operations when production begins. In the case of Posco, its first planned products were steel plates rolled from steel slabs and sold in the Korean market. It’s plans for construction of the facilities was in four stages: first the rolling mill for producing steel products, then the blast furnace for producing slab steel, then expansion of facilities for increased production (in stages three and four). Because of the large but finite amount of financed capital, it was essential to keep the construction of facilities on time and on budget in order to make it through the first stage and second stage to an integrated steel plant. The customers for the first years were Korean industries and, for later years, international markets. Speed was important to keep to schedule. For this, finding and solving problems quickly was necessary to finish the project on time. Additional financing would not have been available to Posco, until after Posco successfully finished stages one and two. Then it could hope to raise additional financing for expansion of capacity in stages three and four. Close supervision of all operations directly by senior level managers, and while on-the-ground, was essential to quickly find and fix problems. Problems always occur in any project and can delay schedule. For strategic leadership, good plans and quick implementation is necessary to enter a commodity-type industry, competitive right from the start in quality and cost.

In the strategic criterion of Integrity, four levels in an organization need together to act honestly, competently, and with responsible transparency. These are government, executive, management, and worker levels. At the governmental level, government regulation of an industry is proper for safety and financial reporting. In the case of Posco, government planning for Korean export industry was necessary to create the initial financial investment for the construction of Posco facilities. It had been important that President Park Chung Hee agreed to keep government from interfering with operation of Posco as a private business. Chairman Park Tae Joon had the integrity to run an honest, effective business with proper care and support of its workers. At the managerial level, Posco managers respected integrity and managed with competent supervision, ensuring that schedules and targets were met. At the worker level, employees worked hard and long hours, receiving decent salaries and believing in the integrity of Posco’s mission to help build the South Korean nation. For strategic leadership, integrity (honesty, competence, responsibility, hard work) is necessary in all employees for a new firm, to compete immediately with established competitors.
Strategic management of any enterprise should have advanced technology, sufficient capital, growing markets, high-quality-low-cost production, good plans and implementation, and integrity. These six qualities must be embedded immediately in a new organization — with no time to learn them eventually.

Business Plans for New Ventures

The format of a strategic plan for a new venture differs from the format for strategic planning in an ongoing operation. In the new business start-up, everything must be planned de novo — from strategy to operations. In a continuing business, strategic planning is on change to current operations.

All new businesses need a business plan, and venture capitalists require such before considering an investment. The business plan expresses in detail the entrepreneurial vision and plan for a new enterprise system. The purposes of the business plan are:

(1) to identify the complete set of policies and strategic assumptions of the business model of the new business,
(2) to chart the course and identify the resources needed for the new venture,
(3) to attract venture capital.

As we saw above, a strategic plan for an ongoing operation focuses on (1) changes in strategic direction and (2) planning the details of the next term of operations. A strategic plan for an ongoing operation does not contain the strategic business model, but is built upon it. Accordingly, the format of a business plan for an operating business using the categories of:

Mission
Stakeholders
Scenario and Knowledge
Strategy
Competition
Objectives
Metrics
Tactics
Organization
Budget
In contrast, a new venture business plan explicitly contains the strategic business model. Accordingly, the format for a new venture business plan differs from that of a strategic plan of an ongoing organization. Thus in writing a business plan for a new venture, categories are used in its format that explicitly lay out the strategic business model for the new start-up. A complete set of business policies for a strategic business model should include:

– Innovation Strategy
– Product Strategy
– Production Strategy
– Marketing Strategy
– Diversification Strategy
– Organization Strategy
– Information Strategy
– Competitive Strategy
– Finance Strategy

We can use these categories to construct the format of a new venture business plan, whose format covers the following topics:

1. Executive Summary
2. Innovation Strategy
3. Product Strategy
4. Production Strategy
5. Marketing Strategy
6. Diversification Strategy
7. Organization Strategy
8. Information Strategy
9. Competitive Strategy
10. Finance Strategy

1. Executive Summary

This is a one page summary of the highlights of the business plan, written last and placed first. Its purpose is to generate sufficient interest by a potential investor to read the whole plan. The strategic concept of the new enterprise should be summarized as to how the business should provide functional capability to customers, who they are and their application needs. Then the concept should identify what kind of product or service the new business will provide for that customer, and how it will provide value to the customer. About this assumption of adding value to the customer, it is important to be very
explicit, for the pricing of the product or service depends on how much value it provides for the customer. Translating “value-added” into “price” is one of the most critical assumptions an entrepreneur will make in a business plan.

2. Innovation Strategy

The innovation strategy should identify and discuss what new idea is being brought into the enterprise to provide new kinds of products/services or to improve production or delivery of current kinds of products/services. When the innovation is in product or service, then the discussion should indicate how that will change customer’s applications or create new applications. When innovation is in production or organization for an already existing and standard product/service, then the value-added must translate into significant cost reduction and production quality improvement for the technological innovation to provide an entering competitive edge for a new business going up against existing competitors. One needs to address the continuing progress in the innovation. What further research needs to be done, who will do it, and how will the new business acquire and implement it.

3. Product Strategy

The next section should describe the concept of the new product or service which initially the new business will produce and market. The technical specifications of the product/service should be detailed, along with the current state of the development and design of the product. If the product is still in development, then a development schedule should be given, and technical risks in the development identified and described. Careful attention should be paid to identifying the technical risks and schedule for two reasons. The first is to make sure that sufficient capital is raised to carry through the development and begin manufacturing. The second reason is to protect the entrepreneur by due diligence from potential law suits by investors, if development fails or falls behind schedule.

4. Production Strategy

The business plan must also envision how the new product/service will be produced and the capital required to establish production. Production planning will require judgments about what parts and materials to produce and how to fabricate or assemble the product or service. The trade-off judgments here are capital and learning costs of establishing production versus loss of control over proprietary knowledge and costs through purchasing. The advantages of producing in-house are that costs and quality can be controlled and a proprietary technology can be used in design and/or in manufacturing, but this comes at capital costs. The disadvantages of outsourcing and purchasing parts and even
fabrication are that this cannot provide any competitive advantages over competitors who can source the same parts and materials. It is also important to estimate the capital required to expand production. For a new venture which is quickly successful, the most common way for an entrepreneur to continue to dilute equity is to need second and third rounds of investments to expand production.

5. Marketing Strategy

The marketing strategy needs to identify the potential customers for the new product/service and the applications context in which these customers will use the new product/service. The marketing strategy should also identify the customer requirements for the product/service and the price bracket for which the customer may pay for the product/service. The marketing strategy should identify the distribution channels for getting the product to the customer, and the costs and problems in setting up or entering these distribution channels. The marketing strategy should also plan the sales force, how they are organized and rewarded. The marketing strategy should identify efficient and effective means of advertising and distributing information about the new product/service to potential customers.

6. Diversification Strategy

It is also important in the business plan to identify not only the initial product/service but also a planned family of products and product lines and services that the business will evolve. It is rare that a single product will be sufficient to build a successful company. A product family and product lines are usually necessary for long-term commercial success.

7. Organization Strategy

Who are the initial management team? The experience and credentials of the management team for the new business should be described. This is very important, because experiences of successful venture capitalists have emphasized that what investors are basically investing in is the management. The organization of the business and operating procedures should be planned, and how staff will be recruited and trained should be outlined.

8. Information Strategy

How will the enterprise use information technology? What will be its “bricks & clicks” balance? In what parts of the operation can progress in information technology provide a competitive advantage?
9. Competition Strategy

The competitive strategy should identify the way the new business intends to compete and what are its planned competitive advantages. It is important to benchmark competing products or products for which the new product/service may substitute. An important feature of such benchmarking is specifying technical performance and features of competing products and their prices. The plan should show the rate of anticipated technology diffusion of the new product/service into the market, and critical assumptions which facilitate or hinder that diffusion.

10. Financial Strategy

The financial plan should be constructed to anticipate the cash flow of the operation through the critical milestones of a new venture. The financial plan should begin with a sales projection and planned growth and penetration of the market over the first five years of operation. For these sales projections, the financial plan should then forecast income, expenditures, and profits for the first five years of operation. In addition, working capital and balance sheets should be constructed for each of these years. Additional needs of further financing should be identified and discussed. The financial plan should show projected return-to-investors as increase in equity. And finally, the financial plan should have a “cash-out” plan for investors and entrepreneurs to gain liquidity.

Planning the new business adventure is important because all action requires a kind of completeness of means for successfully attaining an end. For example, one must produce a product before having something to sell, and one must sell the product to obtain revenue and one must collect the revenue to obtain a cash flow and one must pay for production and sales of the product — all of which together can create a profit on investment. This completeness of performing all the actions necessary for a successful business is what is crucial to plan. For if not planned, it may not happen — and then the business fails.

Seldom does anything go entirely as planned, but without some planning nothing ever even goes. The plan should lay out what must be done to make a new business go and what the assumptions are upon which the plan is based. Then when nothing ever goes to plan it is because either the plan was not fully implemented or some assumptions of the plan turned out not to be valid. One needs to know both these things for successful planned action: (1) what needed to be done, (2) what assumptions need changing for revising planned action. Good plans control the completeness of a successful action and identify the faulty assumptions in unsuccessful action.

SWOT Analysis

A particular technique called a “SWOT” analysis became popular in the practices of strategic planning in the United States in the 1990s. The acronym SWOT stood for a
strategic list of Strengths, Weaknesses, Opportunities, and Threats. The technique is not a strategic plan but a way to summarize the analysis in existing operations. The SWOT analysis can be properly used to summarize the salient points of an ongoing operation within the Scenarios and Knowledge section of a strategic plan.

Therein the SWOT analysis can summarize succinctly (as a list of bullets) the present capabilities of an operation in light of the planning scenario:

**Strengths**

– a list of the strategic strengths of current operations that should be continued;

**Weaknesses**

– a list of the strategic weaknesses of current operations that need to be corrected;

**Opportunities**

– a list of the business opportunities that need to be added by new operations;

**Threats**

– a list of the dangers presented by competitors.

*Within a strategic plan and as a part of the planning scenario, a SWOT analysis is a useful technique for briefly summarizing the implications of a planning scenario on current operations of an ongoing organization.*

**Summary**

Planning is a basic function of strategic leadership. Planning includes not only the formulation of a plan but also the implementation of the plan. Implementing a strategic plan requires leadership across the six dimensions of Technology, Capital, Market, Competition, Plan, and Integrity.

**Theoretical Principles**

1. The successful implementation of a plan is as important as good planning.
2. Leadership in implementing a good plan requires access to proper technology, sufficient capital, market entry, competitive operations, and management integrity.


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