

## CHAPTER ONE



# Introduction

When Steve Jobs returned to Apple Computer as interim CEO in the summer of 1997, he faced a massive strategic market planning challenge. Apple was in deep trouble. Many users no longer saw the Macintosh's user interface as significantly better than Microsoft's Windows 95 interface, so its leadership in this important area was no longer clear. Apple's prices were still higher than those of PCs. In the still-growing personal computer market, its global market share was declining rapidly, from 8.2% in the fourth quarter of 1994 to about 3% in July 1997. The company had lost \$1.6 billion over the preceding two years.

Jobs faced some very tough choices. Should Apple put more emphasis on "cheap" Macs that would be more competitively priced? This would help drive up unit volumes and reduce variable costs. Should he be more aggressive in licensing the Mac operating system to other computer manufacturers? This could both make the Mac platform more attractive to software developers and help lower costs on components and subsystems. Or would it just cut into Apple's own sales? Which market segments should Apple focus on? Should it still try to be a major player in the education market? Should it really focus on those segments, such as media and entertainment, where Apple had historically had a very strong following? Should it put more emphasis on new, emerging markets, such

as personal digital assistants (PDAs) like the Apple Newton or on Internet appliances? And what should it do to stop its dealers and value-added resellers from abandoning Apple? How might it encourage software developers to continue to develop software for the Macintosh platform? It was an almost overwhelming set of questions in which each one could not be treated in isolation. Jobs and his team had to make some very tough, difficult choices very quickly, if Apple was to be saved.

Steve Jobs moved quickly and decisively to address many of the key issues.<sup>1</sup> Apple killed the Newton product line and began refocusing the business around its core Macintosh and PowerBook product lines. He initiated a crash program to develop a dramatic new consumer product, the iMac, which was launched with a big splash in August 1998. Apple also began paying a lot of attention to the top 100 software developers to ensure that they continued to develop the complementary software that was essential if customers were going to continue to buy Macs. Whether these moves were enough to ensure Apple's survival is debatable, but at least Jobs was making the hard calls. Without them Apple would almost surely have withered away.

Our book is designed to help executives and managers in technology-intensive businesses, like Apple Computer, grapple with the extremely challenging planning issues they face in their businesses. We propose a process for managers and executives to deal with these types of issues in a systematic way, so that all the major factors influencing the difficult choices are considered. The process is focused on winning market leadership—that is, identifying and creating attractive, profitable market opportunities and developing the market plans that will lead your company to capture a dominant and profitable share of the market.

When we talk about technology-intensive businesses, we are referring to the company's products and services rather than its supporting infrastructure. Technology-intensive businesses are characterized by rapid advances in technology that allow the company and its competitors to offer new functionality or applications to help customers solve existing or latent problems. Computer hardware and software, telecommunications, advanced materials, pharmaceuticals,

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<sup>1</sup>"Back to the Future at Apple," *Business Week*, May 25, 1998.

semiconductors, electronic equipment, specialty chemicals, instruments and controls, and the services businesses built around these types of products are all examples of technology-intensive businesses. In addition, many pure service businesses, such as financial services, exhibit many of the characteristics of technology-intensive businesses.

The book presents an integrated strategic market planning process and a set of tools and concepts that are designed to address the particular issues faced by technology-intensive businesses like yours as you develop strategic market plans. The process can be used as the basis for the periodic planning process in your company, or for the more ad hoc analysis of new business opportunities or threats that emerge at unpredictable times and that must be screened and acted upon before the next iteration of the formal planning process.

The process and tools described here will help executives and managers to ask the tough questions and make the tough choices that need to be dealt with if your company is to achieve market leadership.

## **The Environment in Which Technology-Intensive Businesses Operate**

A number of characteristics of technology-intensive markets makes strategic market planning a particularly challenging activity for the companies competing in these markets. They are as follows:

- Complex and Dynamic Market Chains
- Network Effects
- Speed of Change to High
- Blurred Market Boundaries
- Markets and Competition are Global

### **Complex and Dynamic Market Chains**

In many technology-intensive businesses there is less vertical integration than in more mature, less technology-intensive businesses. This often results in long market chains with several different organizations playing, or potentially playing, key roles in the task of converting the raw materials into the solutions that the end users require. The market chain describes the organizations involved in creating

and delivering the products and services you help create for customers or end users. A simple market chain is shown in Figure 1-1. The company whose perspective we are taking is always shown as the focal point of the market chain (in Figure 1-1 it is the manufacturer). Companies in technology-intensive industries find it very difficult to develop and maintain the necessary competencies in all the roles in the market chain that contribute to success in a market. In addition, at the downstream end of the market chain, close to the ultimate customer, there are sometimes many niche market opportunities. It is often very difficult for one company acting alone to access all these opportunities effectively. As a result, many high-technology companies must rely on a complex network of partners, such as system integrators, value-added resellers, or other third parties to work with them to develop these niche opportunities.

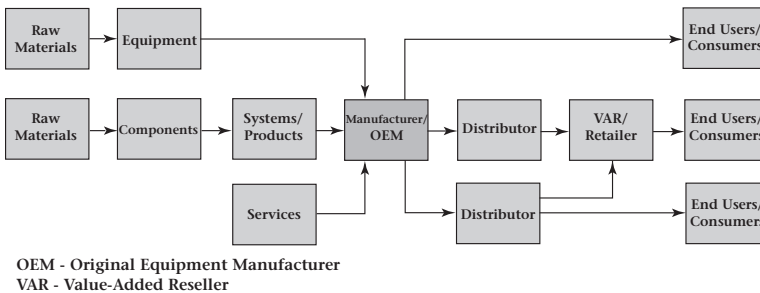


FIGURE 1-1: Market Chain

Frequently, the market chains are not only long and complex, but also unstable. As companies in a market chain search for new opportunities to enhance their own profitability in a changing market, some of them see opportunities to move either up or down the market chain, absorbing some of the activities of their suppliers or customers. In 1999 Lucent Technologies, the world's largest manufacturer of telecommunications equipment, acquired International Network Services. International Network Services designed, installed, and maintained computer networks for many large U.S. corporations and telephone companies. In this role it had a significant impact on the amount of Lucent equipment that was installed in these computer networks. By buying International Network Services, Lucent hoped to gain greater control over these purchase decisions. Such moves can have a significant impact on the competitive dynamics within a market chain and within the broader market.

In any situation where market chains are long and relatively complex, relationships between the various players in the market chain can have a major impact on the success of the companies in the market chain. For this reason, successful competitors in technology-intensive industries often are companies that are very effective at developing both the internal and external relationships required for success. These relationships can take a variety of forms. Some are focused directly on sales, while others might be concerned with accessing critical information or technology, or influencing major stakeholders in the business arena. Some major successes in technology-intensive industries have occurred when a company has been able both to develop a new type of relationship for its industry and to successfully leverage that relationship.

Glaxo Wellcome was the first major pharmaceutical company to really exploit co-marketing relationships when it used this type of relationship in the 1980s to ensure the rapid global adoption of its anti-ulcer pharmaceutical, Zantac.<sup>2</sup> At the time Zantac was launched, Glaxo was a moderately successful pharmaceutical company based in the United Kingdom. Its strongest markets were in Europe and in the countries of the British Commonwealth (its sales in Nigeria were larger than its sales in the United States!). In order to gain rapid global market share with its new product against a very strongly entrenched competitor, SmithKline, it made alliances with a number of other pharmaceutical companies that were strong in certain geographical markets. These partners either marketed Zantac under their own brand names and paid a royalty to Glaxo or used their sales forces to sell Zantac in return for a share of the revenues. The approach was remarkably successful, and it helped make Zantac the largest-selling pharmaceutical in the world, with sales of almost \$4 billion in 1994.

## Network Effects

A significant number of technology-intensive industries also exhibit network effects. When the value of a product or service to the user depends on the number of other users, the product exhibits network effects.<sup>3</sup> Network effects are particularly pronounced in

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<sup>2</sup> This example is based on INSEAD case study #592-045-1, *Zantac (A)* (Fontainebleau, France: INSEAD, 1992).

<sup>3</sup> Carl Shapiro and Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy* (Boston, Massachusetts: Harvard Business School Press, 1999).

communication technologies, such as e-mail, Internet access, and fax machines. Each of these products or services is more valuable to a user when the people the user wishes to communicate with also have the product. Network effects also exist for software products, since a community of, say, Macintosh users facilitates the exchange of files and encourages software developers to create additional programs for the Macintosh platform.

Frequently, products or services exhibiting network effects are slow to take off, but once a critical mass of users is established the growth can be explosive. The core technology for the Internet was available in the early 1970s, but it took about 20 years to reach the mainstream market, at which point the volume of traffic began to grow explosively.

The presence of network effects encourages companies to go to extraordinary lengths to establish market leadership and become the standard. It has now become common for companies to give away a basic version of their product to encourage adoption in order to become the standard. Netscape captured an early need in the Web browser market by using this strategy.

## Speed of Change Is High

By their very nature most technology-intensive markets undergo rapid and continuous change. The turbulence of these markets requires that companies competing in such industries must be continually making decisions about their business definitions. That is, they must constantly be making choices about the customers they will serve, the functions and applications they will provide to these customers, the technologies and competencies they will use to provide the functions or applications, and their own value-added role within the larger market chain.

Some of the changes that occur in these markets involve significant discontinuities. These discontinuities, which may be brought about by changes in technology or markets, provide major opportunities for new firms to topple the current market leaders from their leadership positions. In many technology-intensive industries it is rare for a firm to maintain leadership across a major market discontinuity. For example, in the computer industry, IBM was unable to transfer its leadership position in mainframes to the emerging minicomputer market in the 1960s and 1970s. As a

result, Digital Equipment Corporation and Hewlett-Packard emerged as the leaders in what became a very high growth segment of the market. When the next significant discontinuity in the computer industry, the personal computer, emerged in the early 1980s, Digital Equipment Corporation and Hewlett-Packard were both unable to gain a significant position in this new emerging industry. Leadership was assumed by new companies, such as Compaq, Dell, and Apple, and even a resurgent IBM.

The speed of change and the turbulence in technology-intensive markets place major stresses on the companies competing in these markets. New product development processes have to be responsive to deal with this turbulence. They must ensure a stream of timely new products that will earn a fast return on research and development investments in an environment where product life cycles are sometimes measured in weeks and months, not years.

**With rapid market change and a significant number of discontinuities, companies in technology-intensive industries cannot rest on their laurels. A company that has achieved market leadership must aggressively strive to maintain its leadership position. In many of these markets, sitting back and planning to be a "fast follower" is not a viable option.**

By the time a market or market segment is clearly defined and measurable, it is too late. Other more aggressive companies will have staked out leadership positions in the most attractive segments of the market. In addition, they may have helped establish industry standards or shaped the market in ways that play to their competencies and strategies. Often third parties will emerge to provide support and complementary products for the market leader's products and services, buttressing its leadership position. Therefore, your company must either strive for market leadership or be satisfied with reacting to a market where the rules and standards are set by others. A purely reactionary strategy is unlikely to be a very profitable one.

## Blurred Market Boundaries

A particular challenge in many technology-intensive industries is the blurred and changing nature of the market boundaries. Market boundaries are the hypothetical dividing line where one market, such

as personal computers, ends and where a related market, such as engineering workstations, begins. As technology advances on a broad front in the areas around a particular market, new ways of providing a particular functionality or application to a customer group are continually emerging. Sometimes these new technologies provide products with dramatically improved price and performance for particular segments of the market and with the potential to displace the incumbent suppliers.

In the mid-1980s, Aldus Corporation, in an alliance with Apple Computer and Adobe Systems, was very successful in creating the desktop publishing market with its software product PageMaker. Desktop publishing dramatically simplified the process and lowered the costs of developing newsletters, brochures, and other printed materials for individuals and organizations. But within a few years, the once-clear boundary around the desktop publishing market was gone as word processing packages, such as WordPerfect and Microsoft Word, added more and more desktop publishing features to their software packages. While this functionality did not meet the needs of the most sophisticated segments of the desktop publishing market, it did meet the needs of the casual user. Thus, Aldus found itself increasingly in competition with the large, well-financed, mainstream software producers.

## Markets and Competition Are Global

Most of the major technology-intensive industries are either already global or rapidly becoming global. The globalization of these industries is driven by a number of factors, including:

- converging customer needs,
- lower trade barriers,
- deregulation of markets (or lack of regulation), and
- the fundamental economics of many technology-intensive businesses.

Most technology-intensive industries are, by their very nature, heavily research and development-oriented. Thus, large investments are required to develop a new generation of technology and its associated products. Once this investment has been made, large volumes must be sold to recoup the investment. Given the relatively short product life cycles in many technology-intensive businesses, the only

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way these volumes can be achieved is by aggressively selling the product in all the major markets in the world. A major new pharmaceutical product can require a cumulative investment of over \$500 million.<sup>4</sup> In addition, it may take an ethical pharmaceutical company 10 to 12 years to develop the product and get the product through all the required clinical trials. With only a few years remaining before the patents expire or other competitors enter the market, the pharmaceutical company must achieve rapid worldwide distribution and market share if it is to recoup this enormous investment. In other technology-intensive businesses, such as notebook computers, the life cycle of the product may be measured in months, rather than years, making a strong global presence and global distribution an imperative.

The global nature of most technology-intensive industries sometimes results in the key players coming from different business cultures, each to a significant degree with its own objectives, competencies, and strategies. Taiwanese manufacturers in many segments of the electronics industry are well known for having very strong, low-cost manufacturing. They are often willing to accept low margins if doing so will allow them to achieve high volumes. This strategy has made them formidable competitors for North American or European manufacturers with different objectives, competencies, and business strategies. The mere fact that different global competitors in a technology-intensive industry have different business and marketing strategies can lead to more intense competition and require us to think about competition in new ways.

As companies competing in technology-intensive businesses try to penetrate the global market they must build and nurture relationships and strategic alliances with partners all over the world. Because of this, they must grapple with the difficult issues of building relationships with managers and executives from different cultures and business environments, which can be a challenging and time-consuming activity.

Not all technology-intensive industries have all the above characteristics: complex and dynamic market chains, network effects, high speed of change and frequent discontinuities, blurred market

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<sup>4</sup> Such a figure is likely when one considers that a single successful product must cover the costs of all the other drug compounds that were developed but failed to make it through the preclinical testing and clinical trials or failed to get regulatory approval.

boundaries, and global markets and competition. But many of these characteristics are present in most technology-intensive industries.

## Strategic Market Planning in a Technology-Intensive Business

Strategic market planning is the process by which a company selects and creates the business opportunities it will pursue, and develops the marketing plans that will propel it to market leadership in its targeted markets.

### Who Should Be Involved in the Process?

It is the accepted wisdom in most businesses today that strategic market planning should not just be left to those individuals with “marketing” in their titles. This principle is particularly important in technology-intensive industries. Given the range of technologies that may be involved and the rapid changes occurring in the base technologies, market chains, and end users, it is almost impossible for an individual or a small group of individuals to keep abreast of developments in all these areas.

Many marketing managers find it difficult to fully appreciate complex technological issues, and technology managers can have difficulty appreciating the marketing issues. Furthermore, in most technology-intensive businesses it is not possible to divorce the technology decisions from the marketing decisions, or vice versa. This means at the very least that multi-functional and multi-level teams must be involved in the planning process and that the planning process actively encourage a continuing dialogue among all members of the team on these issues.

### Planning Builds Mental Models

As Aries DeGeus, the former head of planning for Royal Dutch/Shell Group, has argued, the real purpose of planning is not to make plans, but to change the mental models that the decision makers carry in their heads.<sup>5</sup> Plans in fast-moving industries are often outdated, in at

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<sup>5</sup> Arie P. DeGeus, “Planning as Learning,” *Harvard Business Review* (March–April 1988), pp. 70–74.

least some details, the moment they are written. However, managers and individuals, even at low levels in the organization, have to make decisions that can affect the future of the company. They must make decisions about whether to pursue a new opportunity, such as a new contract, that was not contemplated during the planning process.

Being involved in the planning process increases the likelihood that each individual will have in her or his head a current “model” of where the business unit is trying to go. The individual can then quickly determine whether the unexpected opportunity will help move the company in the desired direction. If it will, the opportunity is seized; if not, it is quickly discarded without a lot of time being wasted. Given the turbulence in technology-intensive markets, it is not surprising that the actual realized strategy often differs significantly from the planned strategy as decision makers make adjustments over time in response to changes and opportunities in the environment (sometimes called the emergent strategy).<sup>6</sup> Thus, the planning process should facilitate the regular updating of the business unit’s “mental model.”

## Planning Process Must Be Iterative and Continuous

All of this suggests that in many technology-intensive, fast-moving businesses with short product life cycles, total reliance on a ritualistic once-a-year planning process would be ludicrous. While the general direction of the strategy for the business should be revisited periodically, often on an annual basis, strategic evaluations or re-evaluations of new emerging opportunities must be done on a more ad hoc basis—when they emerge and when they are needed. In fast-moving markets, waiting until the next periodic planning cycle may result in a strategic window being missed. Planning calendars have to be flexible, because a technology breakthrough or a major announcement by a competitor at a key trade show can significantly affect product and market dynamics and put existing plans into question.

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<sup>6</sup> For a discussion of intended, emergent, and realized strategies, see Henry Mintzberg, *The Rise and Fall of Strategic Planning* (New York: The Free Press, 1994), pp. 24–29.

## Planning Process Must Be Integrative

Planning processes in technology-intensive businesses must lead to an integrated set of choices to gain and sustain market leadership. The planning process should encourage such an integrated approach. Ideally, all members of the cross-functional team should work with the same process and the same language and set of tools, a procedure that improves communication within the teams.

Keeping communication clear is a real challenge in an era when organizations frequently use a series of consultants over time, each with their own terminologies and “buzz words” and each leaving a legacy of terms and processes in the organizations.

## Winning Market Leadership: An Integrated Approach

The strategic market planning process shown in Figure 1-2 is particularly well-suited to the environment and issues that technology-intensive businesses face. This planning process is focused on the issues faced by a strategic business unit (SBU). In a later chapter we will discuss how this process might interface with a typical strategic planning system in a large multi-business corporation.

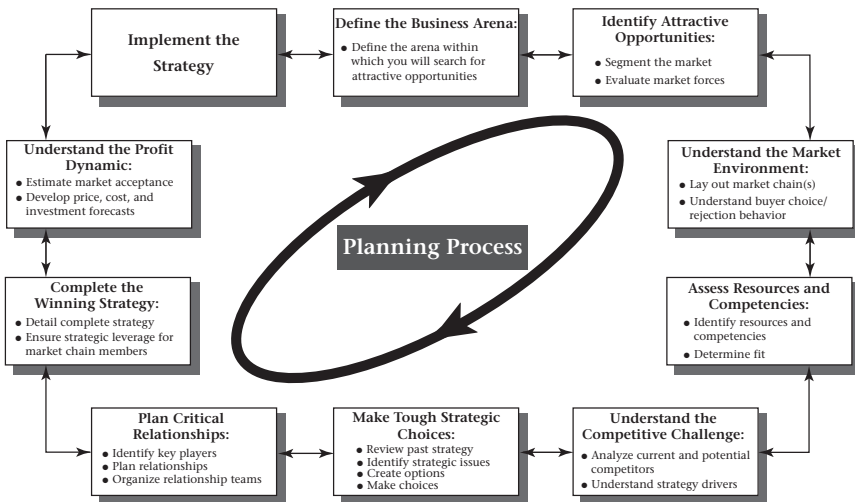


FIGURE 1-2: Winning Market Leadership—Steps in the Planning Process

In the next few pages we will briefly introduce the major steps in the process. The rest of the book will delve into each of these areas in depth with a chapter being devoted to each topic. We will deal with these topics in a logical order, beginning with choosing the arena where we will compete, but that is not to say that other sequences cannot be perfectly appropriate. In addition, the process is iterative—you may end up revisiting steps as your efforts in other areas raise new questions or generate new insights.

The process emphasizes the selection of the “right” set of market opportunities, which is a real challenge in many technology-intensive markets, where an organization may have dozens or hundreds of potential opportunities. The process also places heavy emphasis on market chains, which are often much more complex and more varied than they are for fast-moving consumer goods or for a mature business-to-business product or service. The complexity of the markets and the market chains, the blurred market boundaries, and the turbulent competitive environment mean that understanding the competitive environment is absolutely key in technology-intensive markets. And finally, winning in this complex environment means managing multiple shifting relationships. The process proposed here places particular emphasis on all these areas.

## Choose the Arena

The first step in the process is to tentatively identify the broad business arena or arenas that are or will be targeted by the strategic business unit (SBU). An existing business unit will already be active in one or more arenas. A new business may be trying to decide whether there is a viable opportunity or opportunities for it. Each arena of opportunity should be tentatively defined along four major dimensions:

1. Potential customer segments that could be served
2. Potential applications or functionality that could be provided to these customers
3. Possible technologies or competencies that could be used to create these applications or functionality
4. Possible value-adding roles for the SBU in the market chain

The latter refers to your initial thinking on your organization's role in providing the customer value compared to the roles of the other players in the market chain, such as your suppliers, your distributors, or your system integrators. At this stage, all of the above decisions must be tentative ones and may very well be reconsidered and changed as you move through the strategic market planning process. Almost certainly you will pick only a limited set of the opportunities that are included in this initial arena.

The selection of the business arena is crucial in any strategic market planning process, since it places some tentative boundaries on the arena in which the organization will seek specific opportunities and profits, and puts some boundaries around the area that will be subjected to intense analysis.<sup>7</sup> Selecting the business arena is especially important for businesses operating in technology-intensive markets, where the business may theoretically take a new technology into dozens or even hundreds of product-market segments. As we all recognize, it is by no means a trivial task to understand just one or two of these opportunities in enough depth to be able to develop a strategy for achieving leadership in it.

## Identify Potentially Attractive Opportunities

Once you have defined an arena to be the focus of the strategic market planning process, you need to begin gaining an in-depth understanding of its potential opportunities.

In some cases an opportunity will have presented itself to your company, perhaps as a result of a customer bringing a need to your attention or a technological breakthrough by your scientists or engineers. In other cases, the SBU may be actively searching for new opportunities, since the current opportunities it is pursuing will not allow it to meet its revenue or earnings targets.

Invariably, an important early step in identifying attractive opportunities is a thorough segmentation of the market to start developing a complete understanding of the applications or functionality the customers require, the technologies or competencies that the SBU might employ to deliver the application, and the value added they require from the market chain that will supply them.

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<sup>7</sup> George S. Day, *Strategic Market Planning: The Pursuit of Competitive Advantage* (St. Paul, Minnesota: West Publishing, 1984), pp. 16–17.

Having identified the segmentation, the management team must next try to develop an understanding of the likely profitability of serving particular market segments. If the market forces affecting a segment over the planning horizon are likely to be negative, so that none of the companies serving this market segment are likely to make money, you might eliminate this particular market segment from further consideration. By the mid-1990s, several market segments in the personal computer industry had become so unattractive that almost no company was making money in them. Thus, it was surprising when Sony, a leader in consumer electronics, announced its entry into the desktop market in late 1996. Even though the revenues in some of these segments might be high, these are not the market opportunities an SBU will typically wish to target, unless its management can see a way to change the business model or feels that for strategic reasons it has to have a presence in the segment. Sony clearly felt that the potential convergence of the home computer and home entertainment markets made it essential that it develop a strong presence in the home computer market. As the president of Sony Electronics said two years later, "The PC will be the hub of all the entertainment equipment for Sony."<sup>8</sup>

As you are conducting your analysis, be on the lookout for market segments where there might be the opportunity for you to drive the market by adopting a radically different strategy. These types of opportunities often arise as the result of major discontinuities occurring in a market, perhaps as the result of a technology breakthrough or deregulation or some other destabilizing force. Nortel Networks was able to become a major supplier of central office switching equipment to telephone companies in the United States during the late 1970s and 1980s by exploiting the breakup of AT&T and breakthroughs in digital switching technologies.

Once your team has developed one or more opportunities that look attractive, you can take the opportunities through the next three steps of the process either individually or as a group. Often small, cross-functional teams will do the analysis, drawing on other resources both inside and outside the business unit.

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<sup>8</sup> David Kirkpatrick, "Is the PC Dead? Not Even Close," *Fortune*, December 21, 1998, pp. 211-214.

## Understand the Market

To develop a deeper understanding of the opportunities that have passed the initial screen, a useful first step is to lay out the actual and potential market chain or chains that could supply the end users the SBU is targeting with its product or service. The market chains, extending from the major suppliers of raw materials for the product or service through the supply and distribution channels, may well be long and complex, but the visual representation is one that the team will return to many times as it does its analysis and develops its strategy.

While the main focus may be on the pieces of the market chain closest to the level in the chain where the SBU intends to focus, there are, as we shall see later in the book, some very good reasons to develop an understanding of the complete chain. This is particularly true for the “downstream” parts of the chain, between the SBU and the end users of the product or service.

The next step in understanding the market is to examine and understand buyer behavior in the potential target segments and the market chain or chains that serve (or could serve) them. If their needs are being met by other suppliers of the product or service the SBU hopes to provide, the team needs to discover what will cause the target customers to switch from that product to its product and the switching barriers that must be overcome.

In analyzing this choice/rejection behavior of all the players in the market chain, the SBU team needs to understand the decision making units that will be involved, the buying criteria of the members of the units, and the likely buying process they will go through. Again, the information the team will pull together in this process can be very helpful both in making the choices among opportunities and in developing implementable action plans to capitalize on the chosen opportunities. This analysis may expose some major barriers to the adoption of the proposed product or service that can't be overcome. Such findings may result in this opportunity being dropped from further consideration.

## Assess Resources and Competencies

After looking at the external marketplace, it is necessary to consider the business unit's internal situation and assess the resources and

competencies (or capabilities) that the business unit has to work with as it tries to seize the opportunities in the market arena.<sup>9</sup>

Resources are the tangible and intangible assets that the business unit and the company as a whole have developed and accumulated, such as its financial resources, technology platforms, intellectual property, manufacturing capacity, and brand equity. Competencies are complementary bundles of skills, knowledge, and collective learning that allow an organization to perform one or more important business processes effectively. Because of its strong process capability in new product development, 3M has been very successful in leveraging its technological competencies in substrates, coatings, and adhesives into hundreds of new products in a diverse set of markets.

Again, it may become apparent in the course of the assessment of an opportunity that the SBU and the company do not have the necessary resources or competencies, or the ability to acquire them. Again, this may eliminate the opportunity from further consideration.

## Understand the Competitive Challenge

Although the competitive analysis is an important part of the analysis of the external environment, it is best done after the review of the business' resources and competencies. You are always in a better position to assess your competitors if you have carefully looked at your own resources and competencies first. In addition, any competitive analysis has two fundamental purposes: to determine your likelihood of winning a profitable position in a particular market and to develop the strategy and tactics that will allow you to achieve the winning position.

Clearly, an SBU's assessment of the first requires that it be able to assess the resources and competencies of its potential competitors not only in an absolute sense, but also relative to its own resources and competencies. For example, a semiconductor company may be considering a market opportunity where rapid development of prototypes will be a key factor in success. This may be an area in which it is one of the leaders—typically being able to deliver a prototype in two months. However, if the key competitor is a company that is

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<sup>9</sup> Competencies and capabilities are used interchangeably in this book.

superlative at producing a prototype quickly and can typically deliver it in less than six weeks, the semiconductor company's two-month delivery becomes an area of relative weakness.

In order to conduct the competitive analysis, the team must first identify the actual, potential, and indirect competitors it will face. The indirect competitors are simply the companies that meet the same functional need of the customer by exploiting different technologies and competencies. If a company were looking at an opportunity in on-demand video for the home market using the cable TV infrastructure, indirect competition might come from telephone companies or direct-broadcast satellite companies, or even the local video store. If the team has done a good job of its market forces analysis earlier when it was assessing the attractiveness of the opportunity, this step should be straightforward, since all the likely competitors should have been identified as it went through that process.

The next step is to understand how each competitor or group of competitors competes, their current and likely future performance, and what the drivers are that underlie their business strategies. A good understanding of the business drivers and any changes in any of these driving forces can provide essential information for predicting their future moves. Sometimes changes in key executives, such as a new CEO, can signal a major shift in strategy, as when George Fisher moved from Motorola to become the new CEO of Eastman Kodak in 1993. Fisher sold all of Kodak's businesses that were unrelated to imaging and placed Kodak's embryonic digital imaging businesses in a business unit separate from its traditional silver-halide photography businesses. This increased focus on electronic imaging was an important development for both competitors and complementors in digital imaging.<sup>10</sup>

The final step in a competitive analysis is to pull together the implications of the competitive analysis for the opportunity being evaluated. These implications provide the answers to four major questions for each of the competitors, or strategic groups of competitors:

1. What is this competitor likely to do next?
2. What are this competitor's areas of weakness or vulnerability that you can potentially exploit?

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<sup>10</sup> Linda Grant, "Can Fisher Focus Kodak?" *Fortune*, January 13, 1997, pp. 76-79.

3. How is this competitor likely to react if you do X, or Y, or Z?
4. What has your team learned from this competitive analysis that could be applied in your own organization to make you a stronger, more effective competitor?

## Make Tough Strategic Choices

The essential step in any strategic market planning process is the identification of the strategic issues and making the tough choices associated with each issue. A strategic issue is one created by external or internal developments that:

- Has potential significant impact on the organization's future performance,
- Is controversial in that reasonable people can disagree on how to deal with it, and
- Has strategic consequences in that the resolution of the issue may mean implementing a change in strategy.<sup>11</sup>

Strategic issues involve tough choices which are controversial and where powerful arguments can be made for more than one alternative.

The strategic issues arise at two levels: at the level of the individual opportunity and at the level of the portfolio of opportunities the SBU is pursuing. At the level of the individual opportunity, two common strategic issues that arise are the selection of the best strategy for taking advantage of the opportunity and the decision as to whether this is an opportunity the SBU should pursue. The first issue addresses the question of winning. On the basis of the analysis the team has done, does it think it can develop a strategy that will allow it to achieve a leadership position?

The second addresses the question of what it will be worth to win. That is, is the market opportunity attractive enough and is the SBU's strategy powerful enough to generate a level of profitability that will meet its financial targets? Or if it won't be sufficiently profitable, are there other compelling reasons to proceed despite unacceptable financial results? For example, it might decide to proceed

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<sup>11</sup> William R. King, "Using Strategic Issues Analysis," *Long Range Planning* (August 1982), pp. 45–49.

with an opportunity that is not financially attractive if doing so positions the SBU to seize other opportunities that promise to be highly profitable. This was probably Sony's motivation for entering the PC business in 1996.

Winning profitable market leadership is about identifying and creating attractive market opportunities, where you can win.



FIGURE: 1-3 Winning Profitable Market Leadership

At the level of the portfolio of opportunities the business is pursuing, strategic issues often arise with regard to the fit with the other opportunities the SBU is pursuing or plans to pursue. Here the team is concerned about potential synergies within its portfolio of opportunities, such as leveraging a common technology or a market chain. An important issue is that the strategies for the various opportunities should be reasonably consistent, since the SBU is unlikely to be able to pull off two or more radically different strategies. For example, a strategy based on product leadership for one product line is unlikely to be workable with a strategy of cost leadership for a related line.

Perhaps the most challenging aspect of any strategic thinking process is making the hard choices—saying yes to this opportunity and no to that one. But this is what any good strategic market planning process should get you to do: select the few truly attractive opportunities, concentrate your resources on these opportunities, and develop a leadership position in the selected areas.

This is exactly what Intel did in 1985 when it decided to exit the memory business and focus on microprocessors.<sup>12</sup> Too often, management puts off making the hard choices and dissipates its resources over too many opportunities, developing a leadership position in

<sup>12</sup> Andrew S. Grove, *Only the Paranoid Survive* (New York: Doubleday, 1996), pp. 85–89.

none of them. This is a sure way to “underwhelm” the competition!<sup>13</sup> (see Figure 1-4 below).

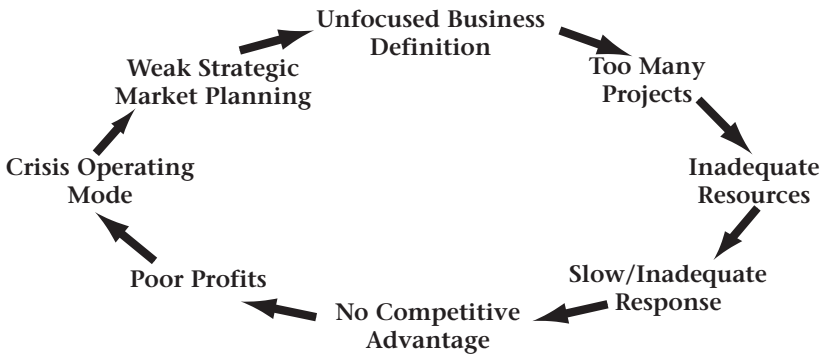


FIGURE 1-4: How to Underwhelm the Competition

Sometimes an outcome of the strategic thinking process and the analysis that leads up to it is a decision to redefine the business arena. Perhaps you recognized that you don’t have the competencies to win in most of the market opportunities within the original arena, but you now believe there are some promising opportunities outside the original arena, where your competencies will be applicable. In this case, you would redefine the business arena and work back around the process a second time to determine if some of these opportunities are truly attractive ones for you.

## Plan Key Relationships

At this point, many of the key decisions will have been made: the various opportunities within the arena will have been evaluated and prioritized and the strategic objective for each of the selected opportunities will have been set. The initiative now usually returns to the team that did the analysis of the opportunity to finalize the strategy and build the implementation plan.

As a result of the earlier analysis, several of the major strategy decisions will also have been tentatively made. The target segments should now be clear. It should also be clear exactly what functionality and applications will be provided to the target segments, as well

<sup>13</sup> Based on a discussion with Richard M. Levy, President and CEO, Varian Medical Systems.

as the resources and competencies that will be employed to deliver this functionality. As a result of thinking through the market chain and market forces issues, both the value-added role the SBU will play and the market chain or chains it will use, should also now be clear.

The value-added role and the market chain help clarify the important relationships that the SBU needs to develop and manage if it is to be successful. In many technology-intensive industries, the management of these relationships is absolutely crucial. Some of these crucial relationships will be within the chain, such as those between an original equipment manufacturer (OEM) and its value-added resellers (VARs). Others will be with individuals or organizations outside the market chain—perhaps with a company that has a strong position in a technology of potential interest to you, or with a standards-setting organization that could affect the acceptance of your products, or with the developer of complementary products or services.

## Complete the Winning Strategy

In order to complete the winning strategy, a number of additional issues need to be resolved. One crucial issue is the development of a clear positioning statement for the product or service, so that the target market will find it easy to buy. Other elements of the strategy that require attention are pricing and marketing communications. Both of these activities, if done skillfully, can help create the economic incentive for other companies in the market chain to work with you rather than with one of your competitors. You must create a strategy that will allow each of the key players in your market chain to achieve its business and personal objectives by working with you. Ideally, you want to give each member of the market chain a strong reason to adopt and aggressively push your product or service. The market chain members should find it more profitable to work with you than with any of your competitors. Otherwise, they will follow their economic self-interest and work with other partners.

Many technology-intensive businesses underestimate the importance of marketing communications, assuming that great products will “sell” themselves. Time and time again, we have seen companies with “inferior” products succeed, partly as a result of effective positioning and marketing communications. Many analysts feel that

this has been one of the factors that has contributed to Microsoft's success in many software markets.

## Understand the Profit Dynamic

In assessing the attractiveness of the various market opportunities being considered in the planning process and its ability to win in these opportunities, the SBU team is effectively assessing the potential profitability of the opportunities. Usually the financial analysis at those stages in the process is relatively crude, since a more refined analysis requires a detailed understanding of the complete marketing strategy and the associated costs. However, once the detailed strategy has been established, the team should understand the profit dynamic or financial model for each of the opportunities that have reached this stage in the planning process.

Understanding the profit dynamic requires an in-depth knowledge of the financial model underlying a market opportunity and each of the major cash flow drivers. With this knowledge, the managers and team members will have a clear understanding of the sensitivity of overall cash flow to changes in each of the drivers. As the team's understanding deepens, they may suggest modifications to the strategy that could enhance the present value of the cash flow stream associated with the opportunity.

## Implement the Chosen Strategy

Implementation is the final key step in the strategic market planning process. No matter how good the strategy is, it will fail if it is not implemented effectively. Implementation is not something that begins when the strategy development process ends. Rather, the strategy development process should always have the implementation step in clear view and anticipate it. One important way to do this is by making sure that the individuals who will play the key roles in the implementation process are heavily involved in, and committed to, the strategy. If they are involved in the strategy development process, they will contribute to its development, understand the rationale for particular choices, and be able to make the dozens of minor adjustments in strategy that are needed as the theory behind the strategy hits the shifting reality of the marketplace.

As we discussed earlier, strategic market planning in technology-intensive industries requires the ideas and energy from all of the major functional units in the company. As the strategic market plan comes together, the supporting functional strategies in such areas as research and development, purchasing, manufacturing, and logistics must be finalized. Any barriers to implementation in these areas must be identified and overcome.

In technology-intensive businesses there is seldom a smooth transition from strategy development to implementation. The environment is too fast-moving for such a clear demarcation. Even as you begin the implementation process, the strategy will evolve, requiring adjustments to the implementation process. It is truly an iterative, evolving process that is difficult to timetable.

## **What Is Different About This Book?**

### **Integrated Planning Process**

This book presents an integrated strategic market planning process and a set of tools and concepts that are designed to address the particular issues faced by technology-intensive businesses in developing strategic market plans. The process focuses on the critical questions that must be addressed in developing winning market plans in technology-intensive markets. It is a process that can be used by all members of the cross-functional team responsible for the development of the strategic market plan.

### **Process Applies to New or Existing Business Opportunities**

The process can be used in a variety of ways. As we discuss in Chapter 12, the process can dovetail very well with the strategic planning system used by a number of large, multi-business corporations. In such a planning process, the individual businesses may be looking at a number of potential opportunities that could be included in the plan they will be submitting to corporate management. The process described here will be very useful in identifying a coherent set of existing and new opportunities to be evaluated and in providing a systematic process for screening these opportunities to identify one

or more subsets that should be presented to corporate management for approval.

Alternatively, the process can be used to screen opportunities that arise between iterations of the periodic (often annual) planning process. In the turbulent world of technology-intensive businesses, opportunities don't always appear at the appropriate time in the planning cycle. Opportunities appear as a result of an unexpected technological breakthrough by the company or a competitor, an unexpected move by a competitor, or the request of a customer. On some rare occasions, decisions can be delayed until the next iteration of the planning process. But usually, this is not possible and a quick decision is essential. In this case, a team should be quickly assembled and the opportunity run through the appropriate steps in the process. The critical questions raised by the process are generic and can be applied in either case.

## Process Is Designed for Managers

The process is designed to help real managers make the tough decisions needed to gain market leadership in today's highly competitive technology-intensive markets.

