COMPARATIVE ANALYSIS OF
CORPORATE STRATEGIC PLANNING

by

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ABSTRACT

This thesis examines the way of the corporate strategic planning, especially in comparison with the U.S. firms and the Japanese firms, and tries to give some suggestions for more competitive planning.

During the 1970's, an increasing number of corporations in the United States began to use formal strategic planning for their corporate planning. Various planning techniques were developed and used for strategic planning in these organizations. Formal strategic planning has been regarded as successful and assessed as a superior method measured in terms of sales, profits, return of assets, return on equity, etc.

In recent years, however, many American industries are said to have become less competitive vis-a-vis foreign firms. Many firms recognized these disadvantages and started to wrestle with these issues to improve competitiveness. Many scholars and strategists in the United States examined Japanese management style and analyzed its strategy. Japanese management strategy is not a single formally expressed strategy but rather a number of business habits, some of which are grounded in Japanese culture and some of which were developed following World War II, and incorporate advanced western technology.

In this comparison, I hope to address several questions. Why do American firms which arm themselves with strategic planning techniques lose competitiveness in relation to firms which do not

arm themselves with those techniques? Is the problem based on poor strategy or poor techniques? Is the problem based on implementation of strategy or planning of strategy? Is strategy an adequate way of thinking for firms to use in competing with others, or simply to sustain themselves? What is the strategy and how is it implemented?

In fierce competition with foreign firms, U.S. firms that gave enthusiastic support to strategic planning in the past are now seeming to deemphasize its role. They face, however, a serious strategic problem in developing a practical innovative strategy for competing with others. Because of this, it is worthwhile examining the strategic planning processes before addressing the questions above.

There are various strategic planning processes developed by a range of strategists in the U.S. The appropriate planning process for any firm may depend on its particular business characteristics; a planning process which is appropriate for a single business firm with a functional organizational structure is different from that appropriate for a diversified firm. Nevertheless, there exists a basic set of features common to strategic planning processes. Hax and Majluf have developed a three-level hierarchy and twelve-step planning process which will be useful for most business firms.

I start with a brief look at the framework of Hax and Majluf's formal strategic planning which I believe to represent the core concepts of strategic thinking of U.S. firms. I then discuss the strategic tasks defined in the formal strategic planning. These discussions are integrated into my discussion in chapter 4 about the questions raised above. In chapter 4, after introducing two cases, I conclude that poor planning and implementation at a functional level are one of the key reasons that U.S. firms became less competitive in relation to foreign firms, and introduce an idea of vertical and horizontal coordination for improving the planning and implementation of the strategy. I also mention the role of middle managers for vertical and horizontal coordination.

In chapter 5, I examine Home Video Game industry as a case study of my strategic study. Although it is a relatively small industry and has few participants, two firms, Nintendo Inc. and Atari Corp., illustrate a great contrast in terms of strategic features. In chapter 6, I present my strategic analysis and conclude that the strength of Nintendo comes from the marketing, technology and financial strategies.

Finally I emphasize the importance of market and product information for competitiveness, which will be strengthened by vertical and horizontal coordination.

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COMPARATIVE ANALYSIS OF

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CHAPTER 1

INTRODUCTION

During the 1970's, an increasing number of corporations in the United States began to use formal strategic planning for their corporate planning. Various planning techniques were developed and used for strategic planning in these organizations. Formal strategic planning has been regarded as successful and assessed as a superior method measured in terms of sales, profits, return of assets, return on equity, etc.

In recent years, however, many American industries are said to have become less competitive vis-a-vis foreign firms. Various observers attribute this to

* outdated management strategies
* short-term profit concern
* lack of global perspective
* low productivity in technology development and production
* poor human resource management
* hostile relation between management and labor union and/or
* hostile relation between industries and government.

Many firms recognized these disadvantages and started to wrestle with these issues to improve competitiveness. In almost all cases, the management models these firms found or they were studying were Japanese ones. Many scholars and strategists in the United States examined Japanese management style and analyzed its strategy.

Japanese management strategy is not a single formally expressed strategy but rather a number of business habits, some of which are grounded in Japanese culture and some of which were developed following World War II, and incorporate advanced western technology.

In this comparison, I hope to address several questions. Why do American firms which arm themselves with strategic planning techniques lose competitiveness in relation to firms which do not arm themselves with those techniques? Is the problem based on poor strategy or poor techniques? Is the problem based on implementation of strategy or planning of strategy? Is strategy an adequate way of thinking for firms to use in competing with others, or simply to sustain themselves? What is the strategy and how is it implemented? These questions do not seem to be able to be solved in the short run.

In fierce competition with foreign firms, U.S. firms that gave enthusiastic support to strategic planning in the past are now seeming to deemphasize its role. They face, however, a serious strategic problem in developing a practical innovative strategy for competing with others. Because of this, it is worthwhile examining the strategic planning processes before addressing the questions above.

There are various strategic planning processes developed by a range of strategists in the U.S. The appropriate planning process for any firm may depend on its particular business characteristics; a planning process which is appropriate for a single business firm with a functional organizational structure is different from that

appropriate for a diversified firm. Nevertheless, there exists a basic set of features common to strategic planning processes, and many strategists and consulting firms have attempted to identify the most essential of these features of formal strategic planning processes. Hax and Majluf have developed a three-level hierarchy and twelve-step planning process which will be useful for most business firms.

I will start with a brief look at the framework of Hax and Majluf's formal strategic planning which I believe to represent the core concepts of strategic thinking of U.S. firms. I will then discuss the strategic tasks defined in the formal strategic planning. These discussions are integrated into my discussion in chapter 4 about the questions raised above. In chapter 4, I will conclude that poor planning and implementation at a functional level are one of the key reasons that U.S. firms became less competitive in relation to foreign firms, and introduce an idea of vertical and horizontal coordination for improving the planning and implementation of the strategy.

In chapter 5, I examine Home Video Game industry as a case study of my strategic study. Although it is a relatively small industry and has few participants, two firms, Nintendo Inc. and Atari Corp., illustrate a great contrast in terms of strategic features. In chapter 6, I will present my strategic analysis and give the strategic thinking on the key questions presented earlier.

PART I

CORPORATE STRATEGY

CHAPTER 2

CORPORATE STRATEGY

The simplest question is "What is corporate strategy?". Some say that corporate strategy is a process of corporate decision-making. Others call it a concept of corporate decision-making. There are many definitions of corporate strategy given by many strategic theoreticians and practitioners. To uncover all the definitions of corporate strategy is neither my purpose in this thesis nor is it the shortest way to find a solution to the questions raised in chapter 1. One way to find a solution is to follow what some respected strategists have established. Hax and Majluf's definition of strategy, their proposal to distinguish the concept of strategy and the process of strategy, and their three-level hierarchy and twelve-step planning process are good guides for understanding a formal strategic decision making process.

Corporate strategy is not only a theory, but must also have applicability to the real business world. To cope with the environmental change which surrounds a firm's business, a firm needs to continuously develop its strategic planning. Some say that corporate decision-making is made by a "rational person" to optimize its program. This view tends to apply formal strategic planning and techniques to finding the optimum solution among several alternatives. Another perspective holds that corporate decision-making is the result of continuous human interaction or of an executive bargaining and negotiation process. In contrast with the formal strategic planning process, these views based on the

behavioral theory show a different approach to strategy formulation and implementation.

In order to understand strategy, I would like to start with the introduction of formal strategic planning which I hope will provide a good perspective for corporate strategy. In section 2-1, I will discuss Hax and Majluf's formal strategic planning methods, which offer one approach to strategic formulation. Hax, however, refers to the contribution and limitation of the approach and recently edited a work presenting "logical incrementalism" developed by James B. Quinn as an integrative methodology of both formal planning methods and an organizational behavioral approach. This is shown in section 2-2.

Corporate decision-making is a continuous process and is made by reflecting on continuous changes in the market . Especially on the lower levels, continuous market changes should affect decision-making significantly. If not, the opportunity incorporate market information will simply be lost or will not be caught. This dynamic process of market interaction would be considered as logical incrementalism.

2-1 FORMAL STRATEGIC PLANNING

To understand formal strategic planning and to develop a discussion based on it, it is essential to follow a definition of strategy on the same basis with the formal strategic planning.

According to Hax and Majluf [1]:

1) Strategy is a coherent, unifying, and integrative pattern of decisions;
2) Strategy determines and reveals the organizational purpose in terms of its long-term objectives, action programs, and resources allocation priorities;
3) Strategy selects the business the organization is in or is to be in;
4) Strategy attempts to achieve a long-term sustainable advantage in each of its businesses, by responding properly to the opportunities and threats in the firm's environments, and strengths and weaknesses of the organization;
5) Strategy engages all the hierarchical levels of the firm (corporate, business, and functional); and
6) Strategy defines the nature of the economic and non-economic contributions it intends to make to its stakeholders.

From this point of view, strategy becomes a fundamental framework for maintaining a firm's continuity and for coping with environmental change.

With this definition of corporate strategy, I will list Hax and Majluf's corporate strategic planning process, which consists of the following twelve steps:

1. The vision of the firm.
2. Strategic posture and planning guidelines.
3. The mission of the business

[1] See A7, Chapter 1

4. Formulation of business strategy and broad action programs.
5. Formulation of functional strategies and broad action programs
6. Consolidation of business and functional strategies at the corporate level.
7. Definition and evaluation of specific action programs at the business level.
8. Definition and evaluation of specific action programs at the functional level.
9. Resource allocation and definition of performance measurements for management control.
10. Strategic and operational budgeting at the corporate level.
11. Strategic and operational budgeting at the business level.
12. Budget consolidation and approval of strategic and operational funds.

Attachment 2-1 illustrates schematically this formal corporate strategic planning process. In 2-1, note first that conceived in this process is a structure of three conceptual, hierarchical planning levels: the corporate, the business, and the functional. Second, not only the major tasks but also the responsibilities for the execution of these tasks are clearly defined and assigned at each planning level. These tasks will be discussed in chapter 3. Third, the sequence for the completion of these major tasks is clearly specified.

Finally, a distinction is made between activities that are more permanent in character and those which are repeated year in and year out during the life of an organization. The vision of the firm and the mission of the business are the two major activities which are

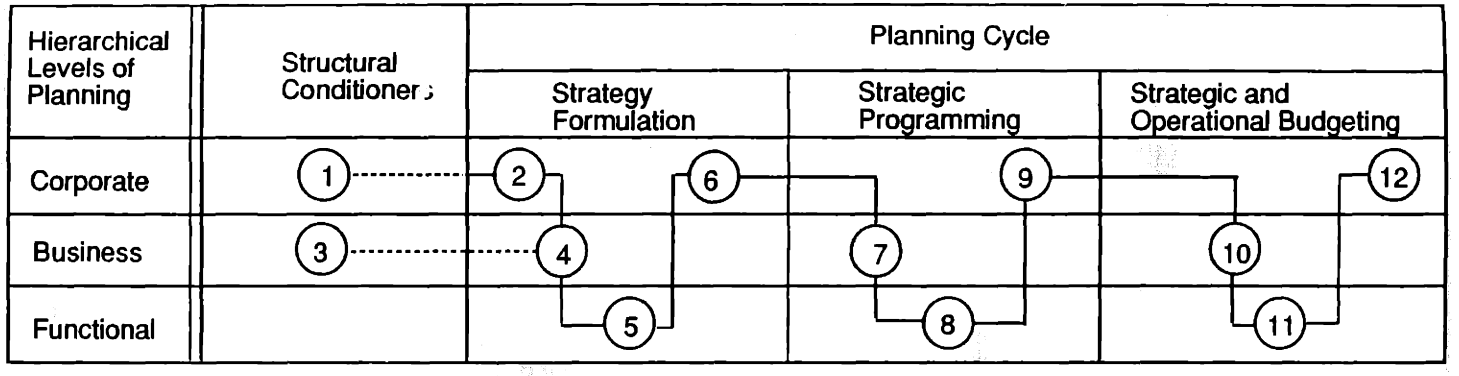
rather permanent in nature and are referred to as the structural conditioners of the business firm. Strategy formulation, strategic programming, and strategic and operational budgeting, on the other hand, are three major tasks that need to be updated and revised at every planning cycle.

As articulated by Hax and Majluf, the messages portrayed in Attachment 2-1 are as follows: 1) Corporate planning is neither a top-down nor bottom-up process. It is a highly interactive activity requiring strong participation of the key managers of the firm, an activity in which objectives are being proposed from the top, and specific programmatic alternatives are being suggested at the business and functional levels; 2) It is a process that, properly conducted, generates a wealth of individual commitment and personal participation from everyone with a definitive idea for sharpening the direction of the firm; and 3) It is a rich communication device, where the key managers have an opportunity to voice their personal beliefs about the conduct of the firm's businesses. Corporate planning offers a valuable joint experience as well as an educational opportunity to be shared by key participants.

While Hax and Majluf's vision of corporate planning is logistically sound and sensible, one can presume that such a process is not likely to fit the culture and management style of every type of corporation. Firms likely to implement such a process are those which consider corporate strategic planning to be a critical and integral part of the regular corporate management function and which have a corporate culture and management style that foster trust, cooperation and consensual decision making. Hax and Majluf describe

ATTACHMENT 2-1

A FORMAL STRATEGIC PLANNING PROCESS



(1) a) Vision of the Firm: Mission of the firm, bisiness segmentation, horizontal and vertical integration, corporate philosophy, special strategic issues.
b) Managerial infrastructure, corporate culture, and management of key personnel

(2) Strategic posture and planning guidelines: corporate strategic thrusts, planning challenges at corporate, business and functional levels, and corporate performance objectives.

(3) The mission of the business: business scope, ways to complete, and identification of product-market segments.

(4) Formulation of business strategy and broad action progams.

(5) Formulation of functional strategy: participation of business planning, concurrence or non-concurrence to business strategy proposals, broad action programs.

(6) Consolodation of business and functional strategies, portfolio management, and assigment of resource allocation priorities.

(7) Definition and evaluation of specific action programs at the business level.

(8) Definition and evaluation specific action programs at the functional level

(9) Resource allocation and definition of performance measurements for management control.

(10) Budgeting at the business level.

(11) Budgeting at the functional level.

(12) Budgeting consolidations, and approval of strategic and operational funds.

the merits of formal strategic planning as follows.

1) The planning process helps to unify corporate directions.
2) The segmentation of the firm is greatly improved.
3) The planning process introduces into the firm a discipline for long-term thinking
4) The planning process is an educational device, and an opportnity for multiple personal interactions and negotiations at all levels.

Formal strategic planning clearly has importance for making a coherent strategy. No one has claimed that firms can succeed without coherent strategies and concepts, and few firms are willing to abandon their planning systems even though some firms are reducing their planning staff. Analysis of formal strategic planning offers these lessons:

* Strategy exists at several different levels, and planning affects the whole system, but no single planning technique or approach is sufficient to address all levels.

* Planning affects the whole organization, and its implications must be anticipated and managed.

* Top managers need to clarify their objectives and adjust their expectations. Effective firms do not rely exclusively on formal strategic planning.

* A planning approach may have to be changed frequently to accomodate changing situations and circumstances.

Formal strategic planning, however, raise some questions:

* Formal strategic planning focuses on existing businesses. New business opportunities do not always come from formal planning. How can firms creat new businesses, or allocate resources to them?

* In each business level, firms compete with each other through specific products. Sustainability of products depends on the quality, cost, service, delivery, etc. of the products. These factors are not always able to be solved through the formal strategic planning.

* Formal strategic planning needs time matching on three levels. Normally, corporate-level planning needs a long time span while the business level and the functional level need a short time span. The cycle time difference creates a procedural gap between them. Actual business activities call for a continuous reaction to competitors' actions which may affect strategic planning.

* Formal strategic planning heavily relies on the capability of the people engaged in the planning; the people who connect the three levels play an especially important role in establishing the consistency of the strategy.

2-2 LOGICAL INCREMENTALISM

Logical incrementalism is an integrative methodology of formal strategic planning and organizational behavioral approach. Quinn described some dominant patterns in the successful management of strategic change in large organization, which I will give below [2].

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[2] See A6 "Planning Strategies That Work", Chapter 1

1) Creating awareness and commitment incrementally

Most major strategic issues first emerge in vague or undefined terms, and their signals may come from anywhere and may be difficult to distinguish from the background "noise" of ordinary communication. So before initiating actions, several steps shown below should be taken for strategy formulation to make smooth and efficient transition.

a) Informal network development

Informal networks to gather information throughout the organization are developed in order to sense possible needs for change.

b) Amplifying understanding and awareness

In some cases executives may seek amplifying data, wider executive understanding of issues, or greater organizational support.

c) Signaling to the organization

As awareness of the need for change grows, a manager often wants to signal the organization that certain types of change are coming, even if specific solutions are not in hand.

d) Legitimizing new viewpoints

Often before reaching specific strategic decisions, it is necessary to legitimize new options that have been acknowledged as possibilities, but which still entail an undue aura of uncertainty or concern.

e) Tactical shifts and partial solutions

Even though guiding executives may share a fairly clear vision of the general directions for movement, a totally new corporate

posture rarely emerges fully developed. Instead, early solutions are likely to be partial, tentative, or experimental.

f) Broadening political support

Committees, task forces, and retreats tend to be favored mechanisms for gathering broad political support.

g) Overcoming opposition

Executives of basically healthy firms realize that any attempt to introduce a new strategy will have to deal with the support for its predecessor. They try to get key people behind their concepts whenever possible, to avoid or neutralize serious opposition if necessary.

h) Structuring flexibility

Managers purposefully build flexibility into their organizations because of the many uncertainties in the total environment.

2) Solidifying progress incrementally

As events move forward, managers achieve a better understanding of the specific directions toward which the organization should and can move. Most managers, however, are careful not to state new goals in concrete terms until they have built a consensus among key players. Several movements can be seen in this stage.

a) Creating pockets of commitment

Early in this stage, guiding executives may need to actively recruit support for new thrusts in the organization. Initial projects can be kept small, partial, or ad hoc. In this way they can achieve organizational involvement and early commitment. Once under way, project teams of the more

successful programs in the sample become ever more committed to their particular areas of exploration. They become pockets of support for new strategies deep within the organization.

b) Focusing the organization

In spite of their apparent detachment, top executives do focus their organizations on developing strategies at critical points in the process.

c) Managing coalition

Power interactions among key players are important at this stage of solidifying the process.

d) Formalizing commitment by empowering champions

Committment to the most important new thrusts has to be comfirmed in formal plans.

e) Continuing the dynamics by eroding consensus

Major strategic changes tend to take many years to accomplish. The process is continuous, often without any clear beginning or end.

3) Integration of processes and interests

The analytical-political consensus process central to strategy formulation and implementation, although highly incremental, is not piecemeal. It requires continual attempts by top managers to integrate their actions into an understandable, cohesive whole. At each stage of strategy development, the following behaviors have been observed among top executives.

a) Formal analytical techniques

At each stage of strategy development, the effective executive constantly tris to visualize the new patterns that might exist

among the emerging strategies of various subsystems.

b) Power-behavioral aspects

All of the formal methodologies help, but the real integration of all the components in an enterprise's total strategy eventually takes place only in the minds of high-level executives.

c) Establishing, measuring, and rewarding key thrusts

Few executives or management teams can keep all the dimensions of a complex evolving strategy in mind as they deal with the continuous flux of urgent issues. Consequently, effective strategic managers seek to identify a few central themes that can help to draw diverse efforts together in a common cause.

Both formal strategic planning and logical incrementalism offer explanations of decision-making processes. When a strategic change occurs or is initiated in a corporation, these are productive paths to be taken. Formal strategic planning is clearly focused to cover all the factors which will affect the firm's strategic decisions, and also aims to check the ommision or bias caused by a certain type of decision-making and produce an optimal solution for the firm. It is difficult for an individual to cover all the factors or to make a coherent decision for strategic planning of a diversified firm through intuition or experience without having any ommision or bias. It is reasonable and persuasive to bring a systematic approach to a strategic decision. In a diversified firm, effective resource allocation and product development geared to achieving a superior

performance and sustaining a competitive advantage, both of which will bring higher return to the stakeholders, will be the main target for management. Formal strategic planning provides expertise for corporate planning. It does not, however, sufficiently provide a procedure to cope with human reaction, and with competitors reaction against it. After observing many firms, Quinn provides logical incrementalism as a realistic and successful approach to formal strategic planning. We can interpret this as a kind of American consensus mechanism or bargaining mechanism for coping with strategic change.

Combining formal strategic planning with logical incrementalism does not detract from its importance. It is still essential to plan a strategy and to check the corporate decision processes. In the next chapter, I will survey further processes and some techniques.

CHAPTER 3

STRATEGIC TASKS AT EACH LEVEL

Going back to Hax and Majluf's strategic planning with three hierarchical levels of decision-making - corporate, business, and functional - I would like to survey further the tasks that accrue to each level. By defining these tasks by level, top mangers or key players at those levels can properly understand their roles in initiating strategic change, communicating productively with each other, and facilitating the execution of the tasks. The definition gives a proper understanding of the roles of each player and how the tasks are divided and synthesized in corporate strategy to compete with others. [3]

CORPORATE TASKS:

The corporate tasks are identified as ten:

1) The mission of the firm:
   choosing competitive domains and the way to compete.
2) Business segmentation:
   selecting planning and organizational focuses.
3) Horizontal strategy:
   pursuing synergistic linkages across business units.

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[3] See A7 "Managing Strategically", Chapter 2, 8, 15 & 18

4) Vertical integration:

defining the boundary of the firm.

5) Corporate philosophy:

defining the relationship between the firm and its stakeholders.

6) Special strategic issues:

identifying current key subjects of strategic concern.

7) Strategic posture of the firm;

identifying strategic thrusts; corporate, business, and functional planning challenges; and corporate performance objectives.

8) Portfolio management:

assigning priorities for resource allocation and identifying opportunities for diversification and divestment.

9) Organization and managerial infrastructure:

adjusting the organizational structure, managerial processes and systems, in consonance with the culture of the firm,to facilitate the implementation of strategy.

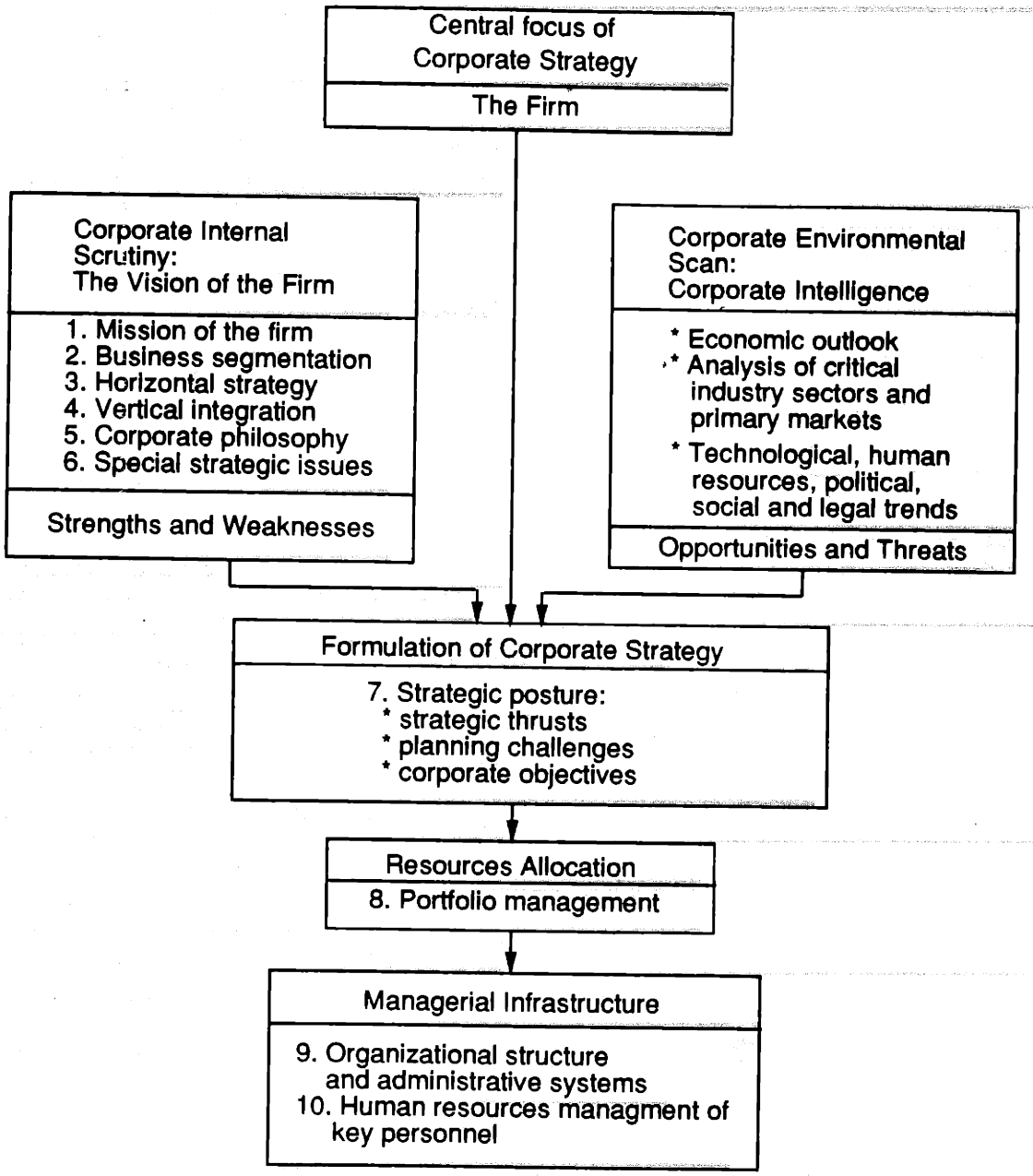
10) Human resource management of key personnel:

selection, development, appraisal, reward and promotion.

The above tasks are categorized in a framework and visualized in Attachment 3-1. Remember that competition does not occur at the corporate level. The corporate tasks place primary attention on nurturing the success of business strategy. The concept of corporate strategy most in use is, therefore, portfolio management, which is based on diversification on acquisition and liquidation. I do not mention in detail, however, the tools which are useful for portfolio

ATTACHMENT 3-1

FUNDAMENTAL ELEMENTS IN THE DEFINITION OF CORPORATE STRATEGY: THE TEN TASKS



management; these are listed in Attachment 3-2. Such tools are effective only after the appropriate framework of corporate strategy has been formulated. These tools are incorporated as a part of the tasks shown in Attachment 3-1.

BUSINESS TASKS

Most important managerial action against competitors is at the business level. All competitors confront each other here. Business strategic tasks are central to strategic planning, and connect both corporate and functional tasks. Before describing business tasks, I will explain the idea of a Strategic Business Unit (SBU) which will be defined at the corporate level as business segmentation. An SBU is an operating unit or a planning focus which groups a distinct set of products or services which are sold to a uniform set of customers, facing a set of competitors. The segmentation clues of SBU are defined by Arthur D. Little, Inc. as:

1) Competitors: The business unit should have a single set of competitors.
2) Prices: All products belonging to a business unit should be affected similarly by price changes.
3) Customers: Business units should have a single set of well-defined customers.
4) Quality/Style: In a properly defined business unit, change in quality and style affects products similarly.
5) Substitutability: All products in a business unit should be relatively close substitutes. Also, there should be no clear substitute in different business units, because this would signal

ATTACHMENT 3-2

MOST IMPORTANT PORTFOLIO MATRICES

AND THEIR EXTERNAL AND INTERNAL FACTORS

MATRICES	EXTERNAL FACTORS	INTERNAL FACTORS
Growth-Share Matrix	Market growth	Relative market share
Industry Attractiveness-Business Strength Matrix	Overall industry atractiveness • Critical structural factors • Five-forces model	Sources of competitive advantage • Critical success factors • Value chain
Life-Cycle Matrix	Industry maturity	Overall measurement of business position
Alternative BCG Matrix	Ways to complete (opportunities for differentiation)	Size (sustainability) of competitive advantage
Profitability Matrix	Market growth potential Cost of capital	Profitability Cash generation

the need to unify products in the same units.

6) Divestment or Liquidation: All products belonging to a given business unit should be able to stand alone as an autonomous viable economic entity if divested.

Attachment 3-3 displays a framework that identifies the major business tasks in the same way as displayed in Attachment 3-1.

FUNCTIONAL TASKS:

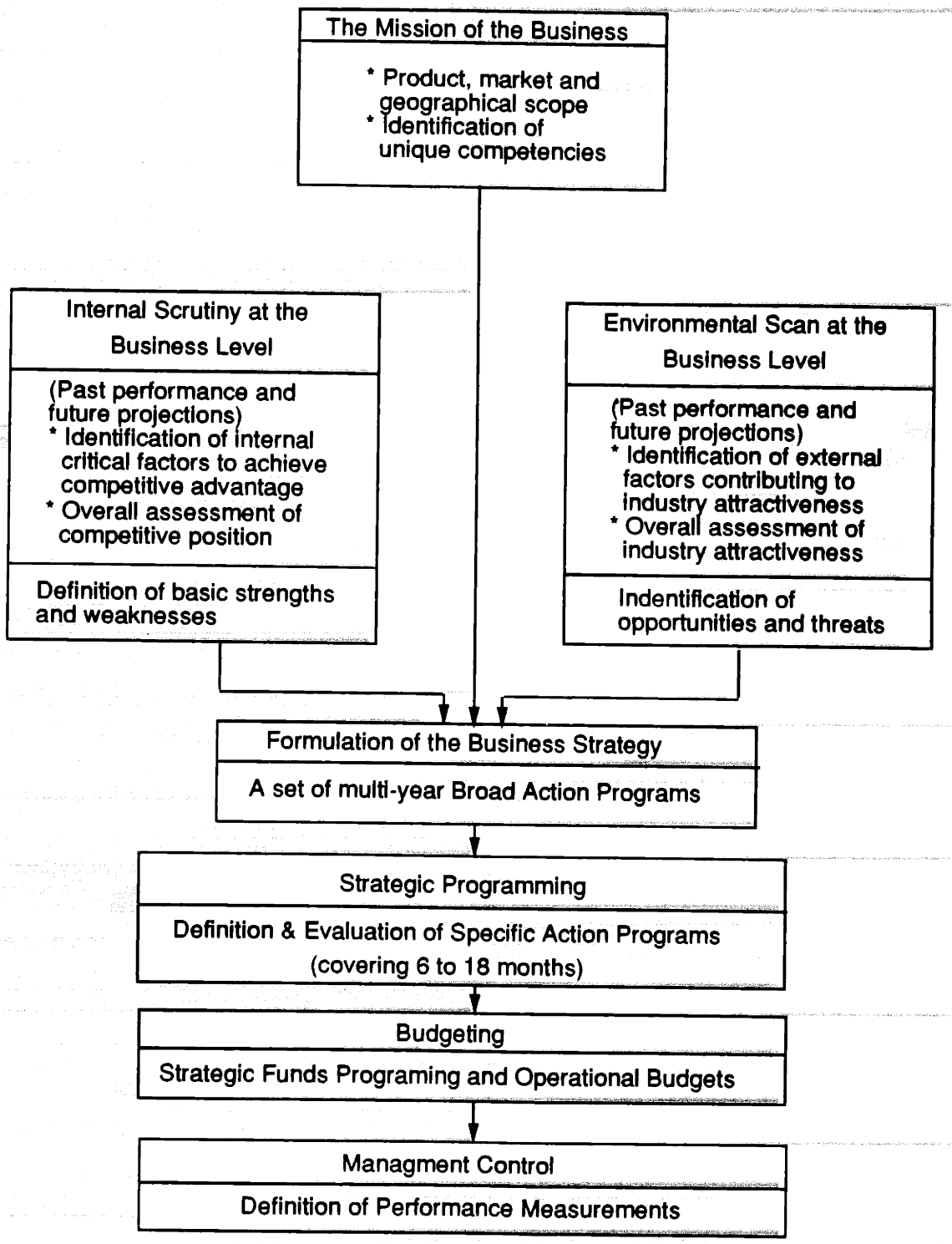
To define the key managerial functions of time, we will take the value chain as a conceptual framework. A firm's activities are grouped in a way that generate six major foci for strategic functional analysis:

- financial strategy
- human resource strategy
- technology strategy
- procurement strategy
- manufacturing strategy
- marketing strategy

These are the central areas of functional strategic concern. In addition to these functional strategies, we will define the Strategic Functional Units (SFUs) in the same manner as SBUs. The value chain of functional analysis is shown in Attachment 3-3. A definition of SFUs is also given in Attachment 3-4 and another definition of SFUs is shown in Attachment 3-5. Finally, a framework for the definition of a functional strategy is given in Attachment 3-6.

ATTACHMENT 3-3

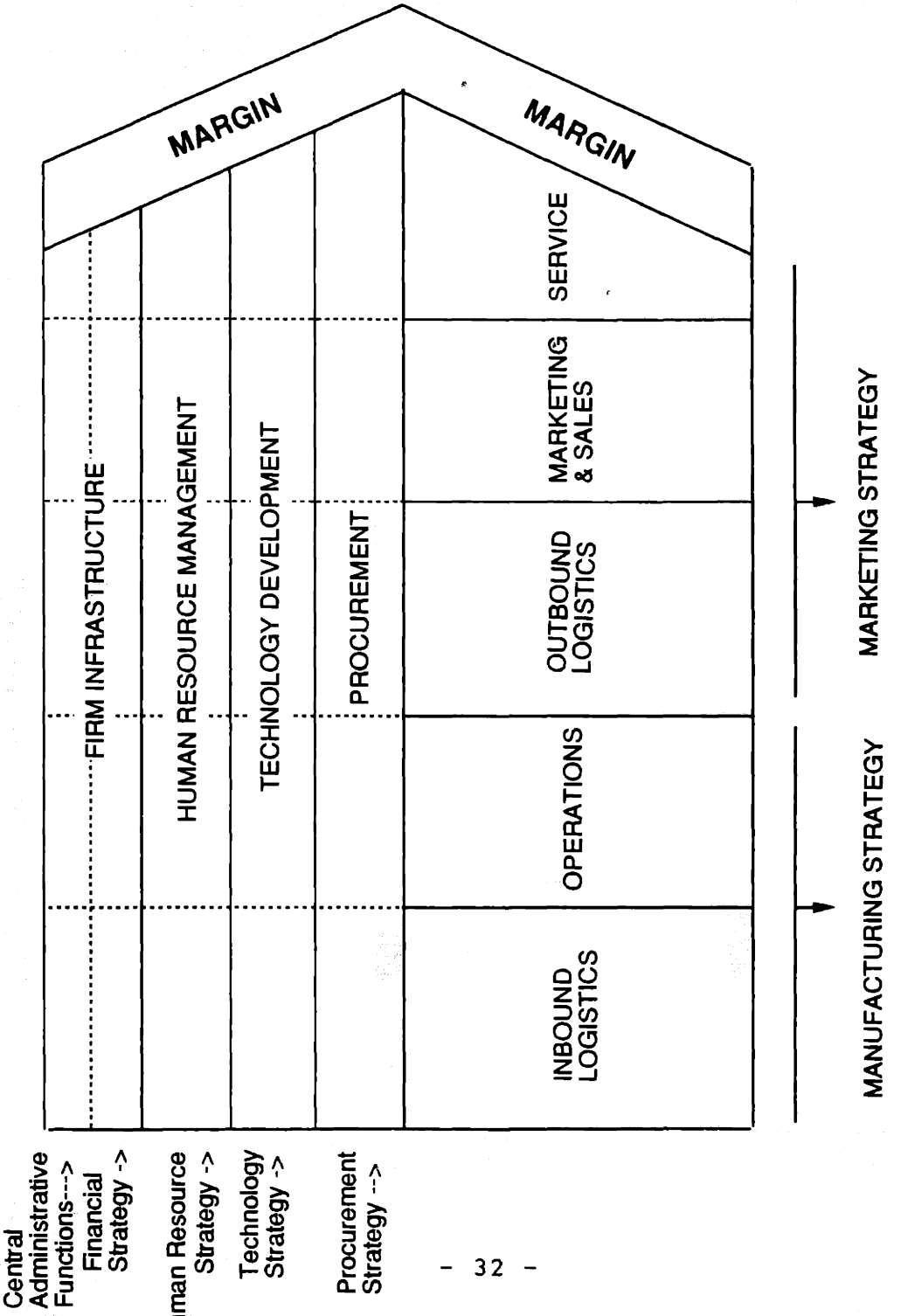
FUNDAMENTAL ELEMENTS IN THE DEFINITION OF A BUSINESS STRATEGY



ATTACHMENT 3-4

CENTRAL AREAS OF FUNCTIONAL STRATEGY

AS DERIVED FROM THE VALUE CHAIN



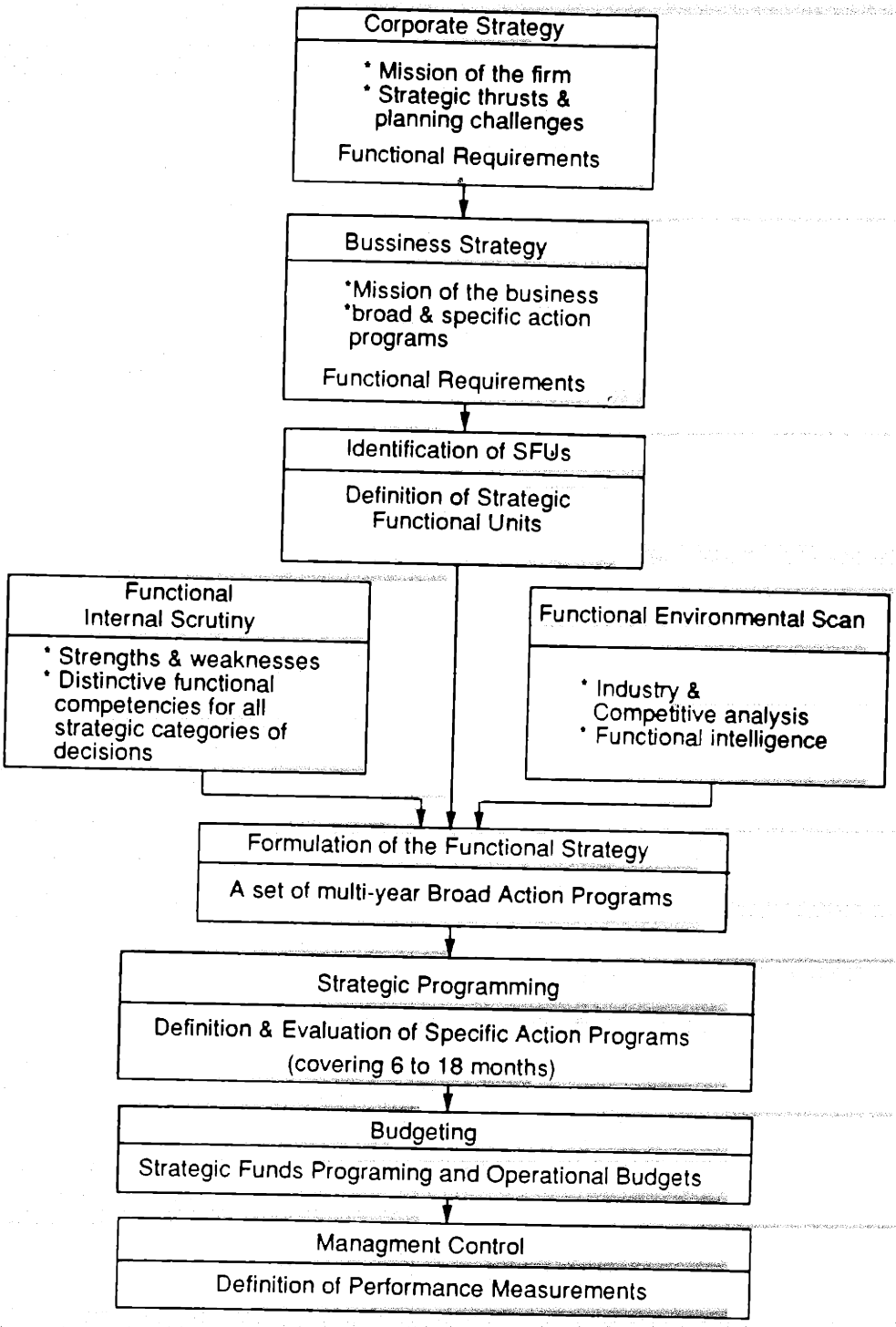
ATTACHMENT 3-5

DEFINITION OF STRATEGIC FUNCTIONAL UNITS

Areas of Functional Strategy	Strategic Funtional Units (SFUs)
1. Financial Strategy	The entire business firm. •Finance is the most centralized function of the firm. simply because its final accountability resides with the CEO. • Decisions pertaining to obtaining and allocating financial resources have to be made from the perspective of the firm as a whole. • Although balancing the portfolio of bisiness is key to a sound financial strategy, the overall perspective still resides at the level of the firm.
2. Human Resources Strategy	Two dimensions of strategic attention: The segmentation of labor markets and the SBU. • One level of attention of human resources strategy is the categories represented in the labor market: managers, professionals, clerical workers, and hourly-paid workers. Recognition of more specialized segments of the market may be desirable for some firms. • The other level is the SBU, to distinguish among the needs of distinct business units in terms of their strategic human resources support.
3. Technology Strategy	Strategic Technology Unit (STU). • An STU is a unit of analysis which includes the skills or disciplines that are applied to a particular product or service addressing a specific market need.
4. Manufacturing Strategy	Strategic Manufanturing Unit (SMU) • An SMU is a group of products sharing the same manufacturing strategic objectives expressed in terms of cost, quality, dependability, flexibility, and innovativeness.
5. Procurement Strategy	Two dimensions of strategic attention: The Strategic Manufacturing Unit (SMU), and the Strategic Business Unit (SBU) • The SMU, as defined above, is the focus of attention when concentrating in make vs. buy decisions, a central strategic procurement issue which defines the degree of vertical integration of the firm. • The SBU becomes the central concern when looking at procurement as a basic function to support the strategic development of the businesses.
6. Marketing Strategy	The Strategic Business Unit (SBU) • The SBU is defined as having an external marketing and competitive orientation; therefore, there is a clear congruency between the focus of attention of business and marketing strategies.

ATTACHMENT 3-6

FUNDAMENTAL ELEMENTS IN THE DEFINITION OF A FUNCTIONAL STRATEGY



CHAPTER 4

OPERATIONAL ISSUES

In chapter 2, I introduced the essential concepts and procedures of corporate strategic planning. The basic idea put forth is that these methods are the foundation for strategic planning in American corporations. Although not all firms use the planning methods described in chapter 2, the way described is the basis of American management thinking. That many management consulting firms armed with those strategic techniques prosper in the U.S. partly illustrates that firms are strategically managed, while management consulting firms are not so popular in other countries. Recent studies about Japanese management style and strategy and the penetration of many Japanese firms in the U.S. market says that utilizing strategic planning methods is not competitive in the global market or in foreign competition.

This does not simply mean that American management and strategy are useless or inferior; they have many attractive features. Indeed many top managers in Japan are unsatisfied with their management style and are trying to incorporate the American management strategy or decision-making system into their own management style [4]. American management can, on the other hand, benefit from the introduction of Japanese management style into their strategic planning. Confronted with fierce competition from Japanese firms, major American manufacturing firms have begun strategic reforms.

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[4] See B21 "Demystifying Japanese Management Practice"

These reforms are based on broad study of Japanese management, especially in manufacturing.

My intention in this chapter is to analyse what points in strategic planning make U.S. firms uncompetitive, and how these points can be improved to contribute to the firms' future competitiveness in the global market. According to Hax and Majluf, neglect of functional strategy has been one of the central causes of the decline in global competitiveness for U.S. firms.[5]

Apparently excessive functional specialization in American firms has produced deterioration in coherent strategic planning and has expanded the gap between functions. Another cause of decline in strategic planning are gaps between levels and the weakness in sensing "field symptoms". Field symptoms emerge from various information in the field like market information such as demand change or competitors' threat, or production information including cost change, inventory change, change in the defect rate, etc. Most Japanese graduate employees are first dispatched as trainees in the field. Engineers, for example, are sent to manufacturing sites and sales shops. Bankers are sent to branch offices. These assignments are planned to enhance their ability to sense "field symptoms" which come with many "background noises".

In terms of corporate strategic planning, horizontal coordination to avoid excessive functional specialization, and vertical coordination to incorporate real field information have an enormous impact on the development of successful strategy.

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[5] See A7 "Managing Strategically", Chapter 18

Attachment 4-1 illustrates the direction of these coordinations. I would like to use two cases of Japanese manufacturers and discuss them from the point of view of strategic planning in the following sections.

4.1 HORIZONTAL/VERTICAL COORDINATION (CASE 1)

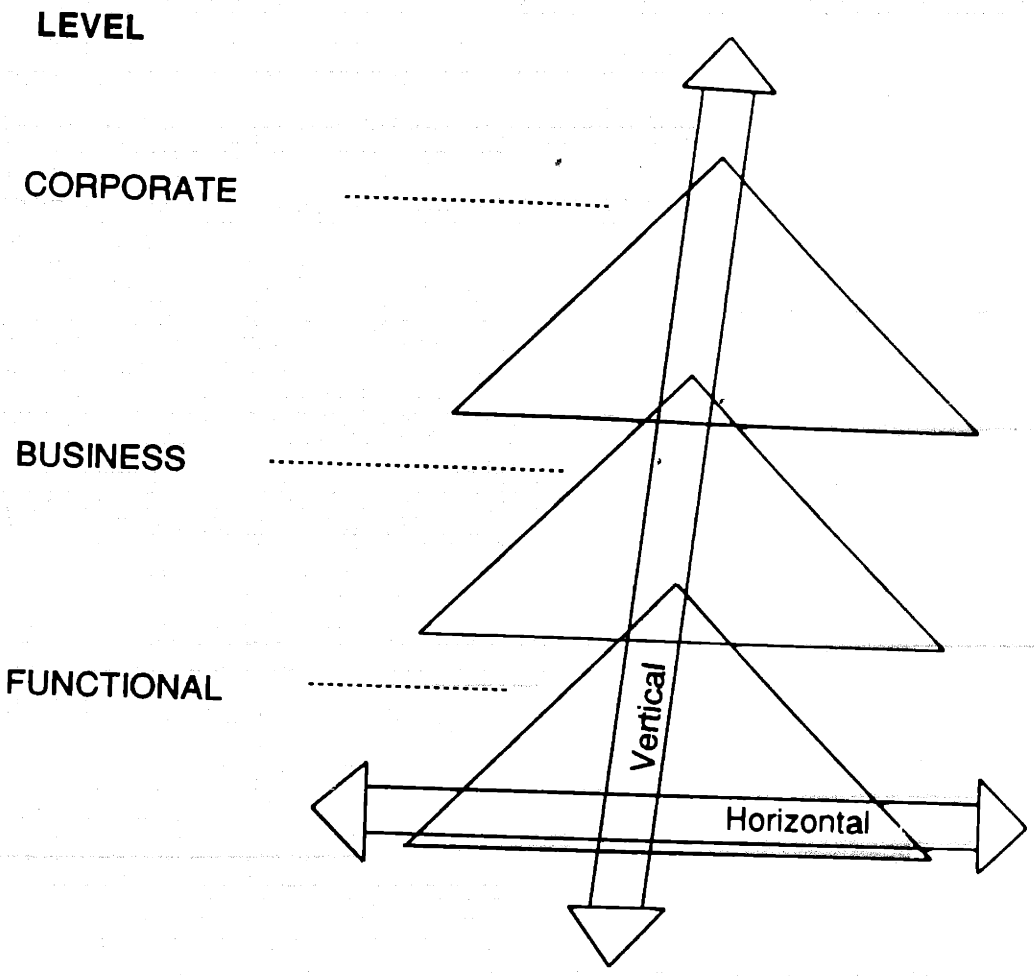
Recent studies of "competitiveness" come from the manufacturing side. Experts usually emphasize that firms have a "competitive advantage" when (1) their products are superior to competitors in terms of quality, (2) their manufacturing productivities are higher, and (3) their products reach the market on time. Based on these concepts for sustaining or creating competitiveness, many people look at the analysis of Japanese manufacturers which discusses manufacturing-oriented problems. Toyota's "Kanban" system seems to emphase "manufacturing problems". But "manufacturing problems" cannot be discussed without dicussing "engineering problems". Indeed, the intense competition in the calculator industry and the computer chip industry in 1970's in Japan to obtain competitive position cannot be explained from manufacturing advantage only.[6]

It is almost common sense in Japan that when a firm introduces a new product, competitors will introduce a similar product shortly. Then rapid cost-cutting follows and continues the cycle until

[6] See A1 "Kaisha: The Japanese Corporation" p34-p41

ATTACHMENT 4-1

HORIZONTAL & VERTICAL COORDINATION



competitors are weeded out to oligopolistic condition. The amount of R&D investment does not explain the competitive advantage. Significant cost-cutting exceeds the learning curve effect by mass production. The synergy effect of engineering and manufacturing is enormous. All the employees should be trained to work around product and market (i.e. customers). Their purposes are to provide a product of good quality with a comparatively low price to customers, promptly. To work around a product and customers makes their target clear to all the employees. A highly divisionalized system sometimes over-optimizes each subgoal and forgets to optimize its total goal; people forget that rational decision for a subsystem does not always constitute a rational decision of the total system.

Excessive specialization sometimes makes optimization of total system hard. In terms of competition, rational decision makers get into positions where they can look over entire system but are mentally closed to the product and customers. If the target of competition is clear, optimization would be possible at the functional level. According to Hax & Majluf's three-level planning, the tasks of strategic planning at each level are identified as shown in chapter 3. The key for strategic planning is to recognize market changes and customer demand, and involve these factors in strategic planning.

Market changes and customer demand are normally sensed at the functional level. To involve these factors in strategic planning, managers or strategic planners at the functional level should coordinate the tasks of each functional unit. Because market changes or customer demand always require the adjustment of the tasks of

each functional unit. (If these factors do not require the adjustment, strategic planning is not needed.) I called the coordination between the tasks of each functional unit as horizontal coordination. Managers or strategic planners at the functional level should also coordinate the tasks between functional level and business and/or corporate levels. Because strategic planning at the functional level needs an adjustment with those at business and/or corporate levels, when adjustment of strategic planning at functional level affects the tasks at higher levels. I called the coordination between the tasks of each level as vertical coordination.

Vertical and/or horizontal coordination at functional level should be applied not only for planning of strategy but also for implementation. Because strategy at functional level should continuously be improved to incorporate the market changes and customer demand. The continuous improvement can be carried out through implementation of strategy. Following is an example which illustrates vertical and/or horizontal coordination.

" A US navy destroyer, facing a major hull repair, pulled into a Japanese shipyard. A repair team of engineers, supervisors and shipworkers swarmed all over the damaged ship, while drawings were being prepared just twenty yards away on the dock and damaged sections were being removed.

Nothing waited for review or sign-off by higher levels in the engineering department. No bids had to go to purchasing for processing. Instead, there was a focused team totally dedicated to

the ship. Three days later, with all the repairs successfully made, the captain could only speculate why conventional wisdom had assured him that his was a 60-day job." [7]

The example shows explicitly neither strategic planning nor its implementation. But it implies that project members are working for customers and a project manager plays an important role for vertical and horizontal coordination.

Let's analyze the story in detail. The working team is established around a project manager who has broad knowledge and experience in engineering, procurement, manufacturing and other areas. The manager assigns design field specialists, supervisors and laborers. Experienced engineers and skilled supervisors are soon able to recognize an approach to repair when they scrutinize the damaged portion together. Laborers can start their work with only verbal contact with the supervisors. It is not always true that confirmation on drawings is more accurate than verbal confirmation. Formal confirmation on drawings sometimes becomes only wasting time.

The manager and engineers begin to procure the materials which normally take a long time to deliver. A long standing relationship with material suppliers makes it possible to deliver the materials in a short time, indeed, there is no bid and no formal contract, and the purchase contract follows delivery. The delivery price of materials, to some extent, is known to both sides. Time to order which is related with delivery schedule and time spent for price negotiation are trade-off. The project manager resolves this trade-

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[7] See B19 "Facing up to The Engineering Gap"

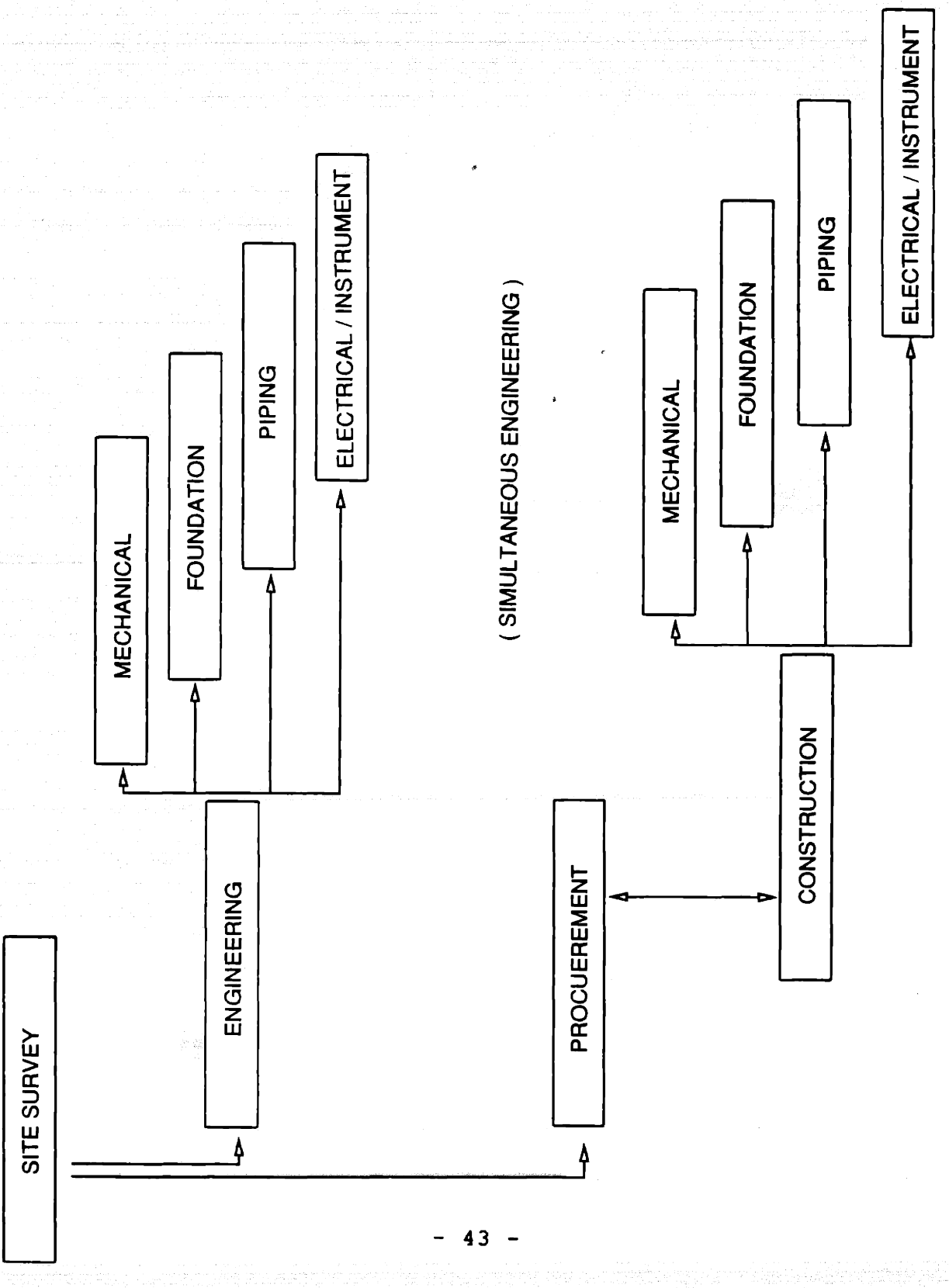
off as necessary in the total optimization, but a system with excessive specialization would not allow this. Customers obviously prefer less expense and less time, provided that the quality is assured. Rational decision makers should judge trade-off. Some of formal procedures for projects serve only to waste time or avoid minor troubles which may emerge around functional responsibilities. Work should be done around a product and customers.

This project raises some points of wisdom: 1) A project manager who has been trained to have broad knowledge and experience through a system of job rotations is given total responsibility for completion of the project. 2) The long relationship with suppliers makes possible timely procurement without formal procurement procedure. 3) All the assigned persons work for the product and the customer as a team. 4) Engineering tasks proceed in simultaneously. This simultaneous engineering is depicted in Attachment 4-2.

In association with simultaneous engineering, an interesting relationship between engineering cost and degree of overlapping can be seen, shown in Attachment 4-3 which is expained in detail in the following section. The project manager is always concerned about this trade-off, and tries to reduce the total engineering cost. At the same time, delivery time is very important as the market usually requires a quick delivery of products. Obviously, quick delivery contributes to the first mover advantage when a firm is competing to introduce new products, and to the accumulation of the experience curve effect. A strategic action for gaining a dominant lead over competitors is to introduce a constant stream of new models in a short period of time. A similar mechanism with above example works

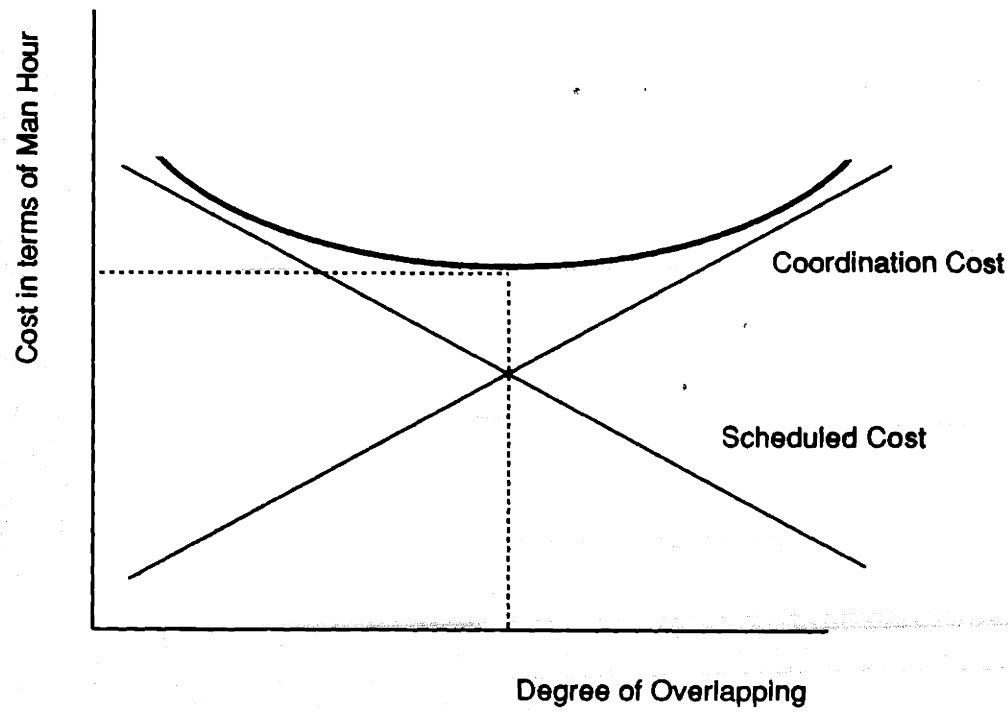
ATTACHMENT 4-2

PROJECT SCHEDULE (Example)



ATTACHMENT 4-3

TRADE-OFF OF OVERLAPPING



in the case. A horizontal cordination plays a very important role in this case.

This observation illustrates that coordination across functions is important for the development and implementation of the functional strategy. A superior strategic plan works with well-organized coordination across the functions. Strategic management tasks at the functional level should include synthesizing and coordinating separate sources of expertise.

4-2 HORIZONTAL/VERTICAL COORDINATION (CASE 2)

One criticism of formal strategic planning lies in the limitation of application to new business opportunities. Many cases of new business development come from innovative development. The germ of new business development sometimes starts from a tiny improvement, or from strategic intuition in top management. Whichever way new business development starts, the germ of new concept is based on strategic thinking at a certain level. Considering that the success of new development depends on the conformity with customer demand, all development should finally be done around customers. In this sense, strategic planning and market information from customers should be coordinated into a coherent strategy. Some critics of American firms say that strategic planning is made by persons who are accustomed to using financial figures or strategic tools, but not in tune with actual field information, the strategic planning made by these people tends to lack real field

information. The key lies in a person who can connects the strategic planning and actual field information. Such a person interprets strategic information from the top management to actual information which will be applicable to production or service work at field, and to relate the field information to strategic information for the top management. Horizontal coordination play an important role in htis case, and alleviates the criticism of formal strategic planning. Following illustrates some of the principles related to this strategy.

"In 1978, the management of Honda Motors was worried that the company was losing its vitality. Its basic models had reached "middle age" at a time of major generation shift in the Japanese market. Honda's top management decided to let the younger design engineers develop something for their own generation. The youngest people on Honda's design staff were selected as members of the "City" development team. Former president and other top managers promised there would be no interference with the team's operation.

During the development process, the project team comprised people from the development, production, and sales departments. The system performed the following functions: procuring personnel, facilities, and budget figures for the production plant; analyzing the automobile market and the competition; and setting a target market and determining sales price and production quantity. This process leads to a high level of information sharing. In a project team, members share a huge amount of managerial information received through conversations with top management; they also share market

information concerning the competition. Moreover, as the division of labor is rather unclear and flexible, members can meddle whereever they like.

They first attempted to develop a "Mini Civic" by shortening the car 100 mm in front and back. Although the original instructions from top management had been general and ambiguous, management resolutely rejected the compromise. After a month of heated discussion, the team began to move in another direction, "horizontally short and vertically tall". They finally produced "City" which is a prominent success." [8]

This example shows how top management strategic decisions were transferred to the lower level manager to implement the decision as a concrete concept. In the complicated business world, systematic decisions to make the strategies of the firm coherent are essential and effective for coping with fierce competition. In this sense, strategic planning at corporate and business levels have great importance. On the other hand, a strategic decision is realized at a functional level as a concrete concept. This clearly shows the critical importance of the middle manager selected as a project leader. His role had several key aspects: 1) providing direct information links to top management; 2) transforming top management general vision into directions for the team's activities and for pursuing the creation of meaning; 3) managing "chaos" and keeping it within tolerable limits; and 4) providing the context for integration across specialties. The middle manager's role is to

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[8] See B14 "Toward Middle-Up-Down Management"

connect the top management strategic decision with market requirement, and to translate them into their work. This is vertical coordination.

I described above the ways in which horizontal and vertical coordination are essential to concrete strategic planning. In fact, whatever the corporate and business strategies are on the points, those are not sufficiently competitive unless horizontal and vertical coordination work well at functional level. They are just like castles in the air. Horizontal and vertical coordination cover not only strategic planning but also implementation; those are continuous activities. Those transform corporate or business strategies into feasible functional strategies. Those siphon information from the field and formulate it into a functional strategy.

Horizontal and vertical coordination require key managers. There is much discussion about human resource management in terms of such managers which mentions

- team work,
- job rotation,
- working long hour,
- compensation, career paths, incentive, etc.

This discussion includes structual and cultural problems which are not the main topic of my thesis, so I will briefly discuss these in the following section.

4-3 STRUCTURAL AND CULTURAL PROBLEMS FOR HORIZONTAL/VERTICAL COORDINATION

I begin this section by explaining in detail the trade-off between engineering cost and degree of overlapping shown in Attachment 4-3. A typical American firm works for a project under a phased approach (no overlapping) which is illustrated in Attachment 4-4. In the phased project, pertinent information will be transmitted to the downstream unit as a bundle after work in the upstream unit is completed. The downstream unit is able to begin the work with prerequisite information from the upstream unit, although minimum uncertainty exists. The project schedule can be planned based on the accumulation of work volume at each unit. Planning relies heavily upon the estimation of work schedule of each unit. Once the schedule is established, the project can be carried out according to the schedule unless any disturbance or interruption occurs.

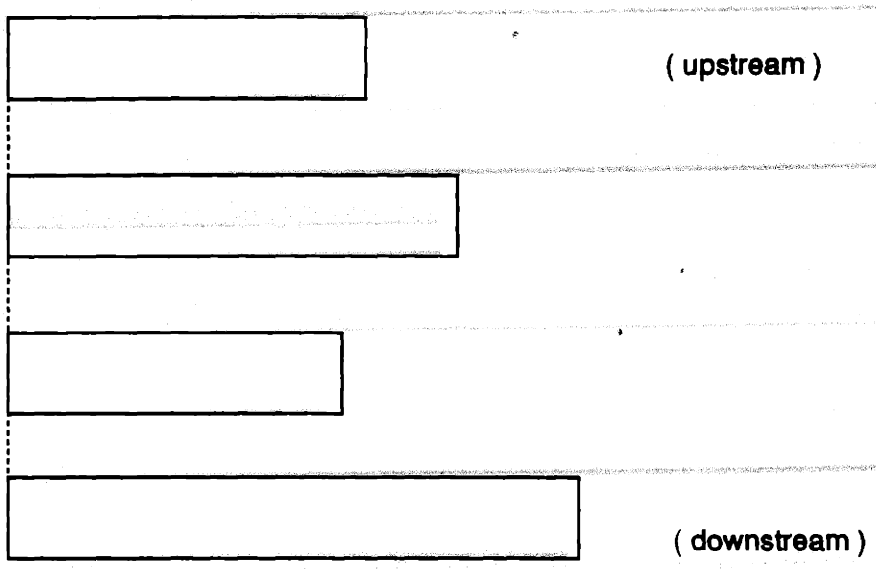
Experienced managers know from experience that a bundle of information from the upstream unit will include some mistakes or uncertainty that need clarification. When the people in the downstream unit refer those mistakes or uncertainty to the people in the upstream unit, it usually takes longer for the people in the upstream unit to check or clarify those mistakes or uncertainty in a phased approach than in an overlapping approach. This can be explained by the following. In a phased approach, people who leave the project after transmitting the information to the downstream

ATTACHMENT 4-4

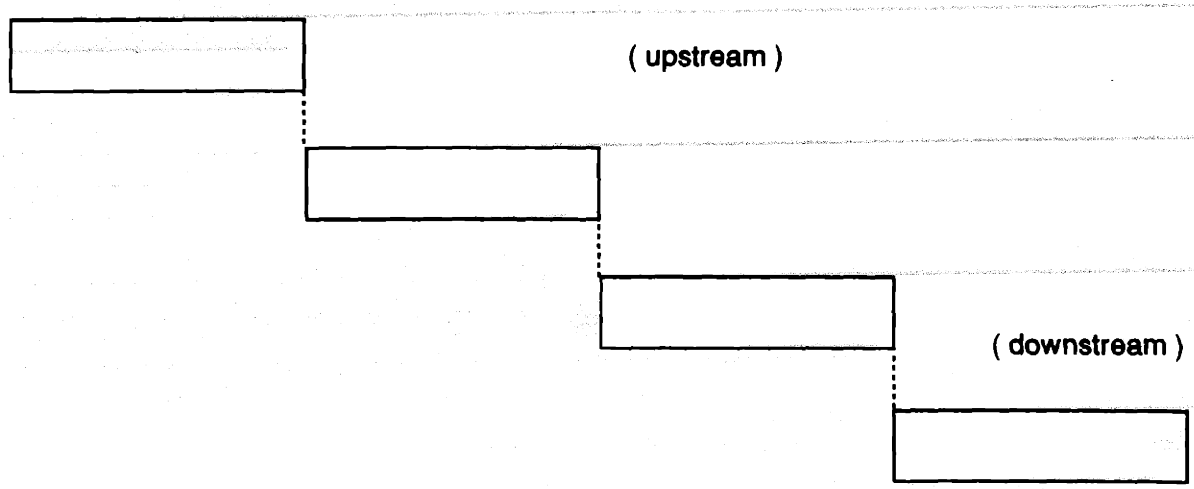
EXTREME OVERLAPPING APPROACH

V.S. PHASED APPROACH

A) Extreme Overlapping Approach



b) Phased Approach



unit take longer to recall their prior work. Also, finding the time for trouble shooting is a problem because they are usually assigned to other work. This results in idle time for the people in the downstream unit, while they wait for a response to their request for clarification or correction.

Sometimes minor changes are necessitated by customer requests or environmental changes. In a phased approach, it is hard to follow these changes as well. In addition, overhead and administrative costs also increase in accordance with the overall project schedule.

When the degree of overlapping increases, wasted or idle time mentioned above decreases because the people are still working on the same project and are able to respond promptly. When an overall schedule is shorter, overhead and administrative costs are less. As is shown in Attachment 4-4, the relationship of cost in terms of man-hour and degree of overlapping then becomes a downward sloping curve. In a phased project, however, coordination cost is minimum, because coordination is not necessary except at the transmission.

An overlapping project, on the other hand, requires much coordination among many related units, because the work proceeds with much uncertainty. As the work progresses, slices of information are transmitted to pertinent units from upstream units. Each unit needs to know in detail when and what level of information will be transmitted. Material or parts suppliers are also involved in this approach. An extreme case of overlapping which is almost impractical is shown in Attachment 4-4 for explaining the coordination cost.

In Japan, quite a few coordination meetings are held during the ovelapping approach. It is often seen that managers and engineers

spend most of their regular working hours for coordination and overtime for their own work. In an overlapping approach, design starts with rough information and later such information will be adjusted according to precise information. Sometimes the work is so complicated that all the concerned people need to meet together to communicate closely. The coordinator needs to arrange the schedule precisely as to when and what level of information will be transmitted. In addition, since minor correction by a unit may affect the design of all other units, close coordination among units becomes important. Exessive overlapping creates confusion among units and result in overtime work. In other words, overlapping is supported by many people's dedication to long work hours, and coordination cost increases with degree of overlapping. To reduce the coordination cost, task force or group work is encouraged and people sometimes sit together for easy communication.

Attachment 4-3 shows an optimal point of overlapping, which differs depending on the cost structure. In Japan, coordination cost is relatively cheap because this cost is covered by the overtime work. What is the incentive for them to do over-time work? This is explained partly by a business environment such as life-long employment, mild promotion, compensation with slight difference among employees, etc. Promotion takes longer period than for American counter parts. To show their capability in the long-run, people tend to work longer hours so that they do not fall behind others. In this environment, several people who are selected to be rotated many departments are expected to be managers who can lead an overlapping approach which requires coordination among many

related units. These managers are expected, sometimes implicitly, to coordinate the pertinent units horizontally and vertically.

In spite of the cultural and structural problems explained above, I believe that horizontal and vertical coordination is applicable to American firms, and gives insight for strategic planning and clues for coping with the limitations of formal strategic planning described in chapter 2.

PART II

CASE - HOME VIDEO GAME INDUSTRY

CHAPTER 5

VIDEO GAME INDUSTRY

In Part I, I discussed questions around formal strategic planning. As my interest lies in the uses and the limitations of strategic planning, and in making my proposal, I will not stress, in Part II, on analysing and discovering a firm's strategy. Rather I want to look over the video game industry and some participants, applying some of the analytical methods briefly discussed in chapters 2 and 3, and pick out some interesting characteristics for further discussions in the future. I choose home video game industry as my case study because the questions below seem provocative and worthy of examination.

- Nintendo specializes the business in this industry, and its strategy is developed around business and functional levels. Prominent portfolio management does not work here. What kind of role does corporate strategy play in this case?
- Japanese strength in the global market is usually examined from the manufacturing point of view: process innovation, team work, etc. The video game industry, however, does not seem to require a significant competitive advantage in terms of manufacturing. Without a manufacturing advantage, what kind of strategy makes Nintendo competitive?
- What is the main strategy that Nintendo used to become the dominant firm in the U.S. market?
- Why did Atari's management change frequently?

In this chapter, I will analyze the industry structure and describe the nature of the industry. The questions raised above will be discussed in chapter 6.

5.1 INTRODUCTION

These days, home video games are popular among almost all children in the United States. One firm's name "Nintendo", has become virtually synonymous with video games, and Nintendo Inc., Japanese Corporation, dominates with a more than 70% share of the market. Atari Corporation, Sunnyvale in California, and Tonka Corporation (distributer of Sega), Minnetonka in Minesota, other home video game providers, compete heavily with Nintendo in an attempt to increase their market share. Total sales in 1989 for this industry are expected to reach $3.4 billion, increasing 48% from 1988. The dominance of Nintendo is still strong. The surge of sales of home video game has eroded sales of other toy manufacturers, who set a target for the 1989 Christmas season merely to bounce back to their previous market shares.

Competition in the home video game industry displays an interesting structure. In this chapter, I will look at industry structure and environment, based on various analytical techniques, and provide a framework for competition which will be discussed in the following chapter.

5.2 INDUSTRY AND MARKET

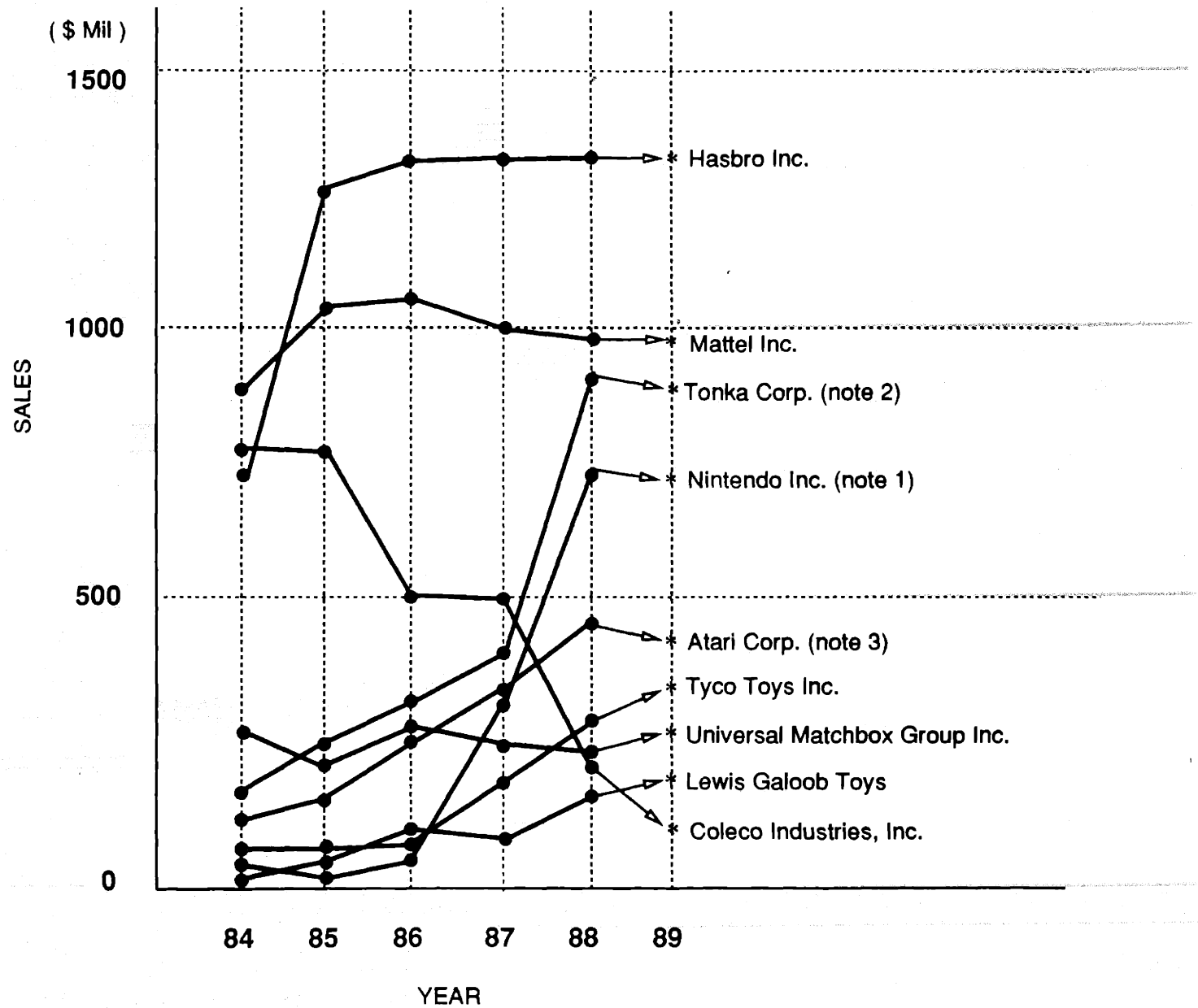
Video game industry, classified as a part of the toy & sporting goods industry, had wholesale sales in 1988 of $2,330 million, ranked 25th and employs 19,000.[1] Retail toy sales reached $12.75 billion in 1988 and home video game accounted for additional $2.3 billion.[2] Major target customers are children under 15 years old. It is known that parents spend average $200 per year per child for toys, the total market growth depends on 1) increase in family income, 2)children's population increase and 3) increase in exports. Attachment 5-1 shows major manufacturers' sales trends over five years (1984-1989). Five major manufacturers share more than 50% of the market.

The toy industry has various product lines; dolls, games, electronic play and learning products, action figures, etc. Some firms produce a variety of products, while others specialize in specific products, but very few diversify into other industries. Attachment 5-2 shows firm categorization on a matrix. Those firms compete with others in the same product line and different product lines simultaneously. For example, a sales increase of a firm's dolls may cause sales decrease of dolls of other firms, while a total sales increase of dolls may cause sales decrease of other toys; a product closely competes with other products as substitutes. Video games show a typical example of this phenomenon. Attachment 5-3 shows sales of video games over 10 years. From 1979 to 1982, sales

[1] See C2 D54
[2] See C1

ATTACHMENT 5-1

SALES TREND IN TOY INDUSTRY (1984-1988)



(Note 1) These data include whole export sales which include Nintendo of America Inc.
(Note 2) Sales increase in 1988 was attributed by merge of Kenner toys.
(Note 3) These data include sales of personal computers. It does not publishes separate data.

ATTACHMENT 5-2

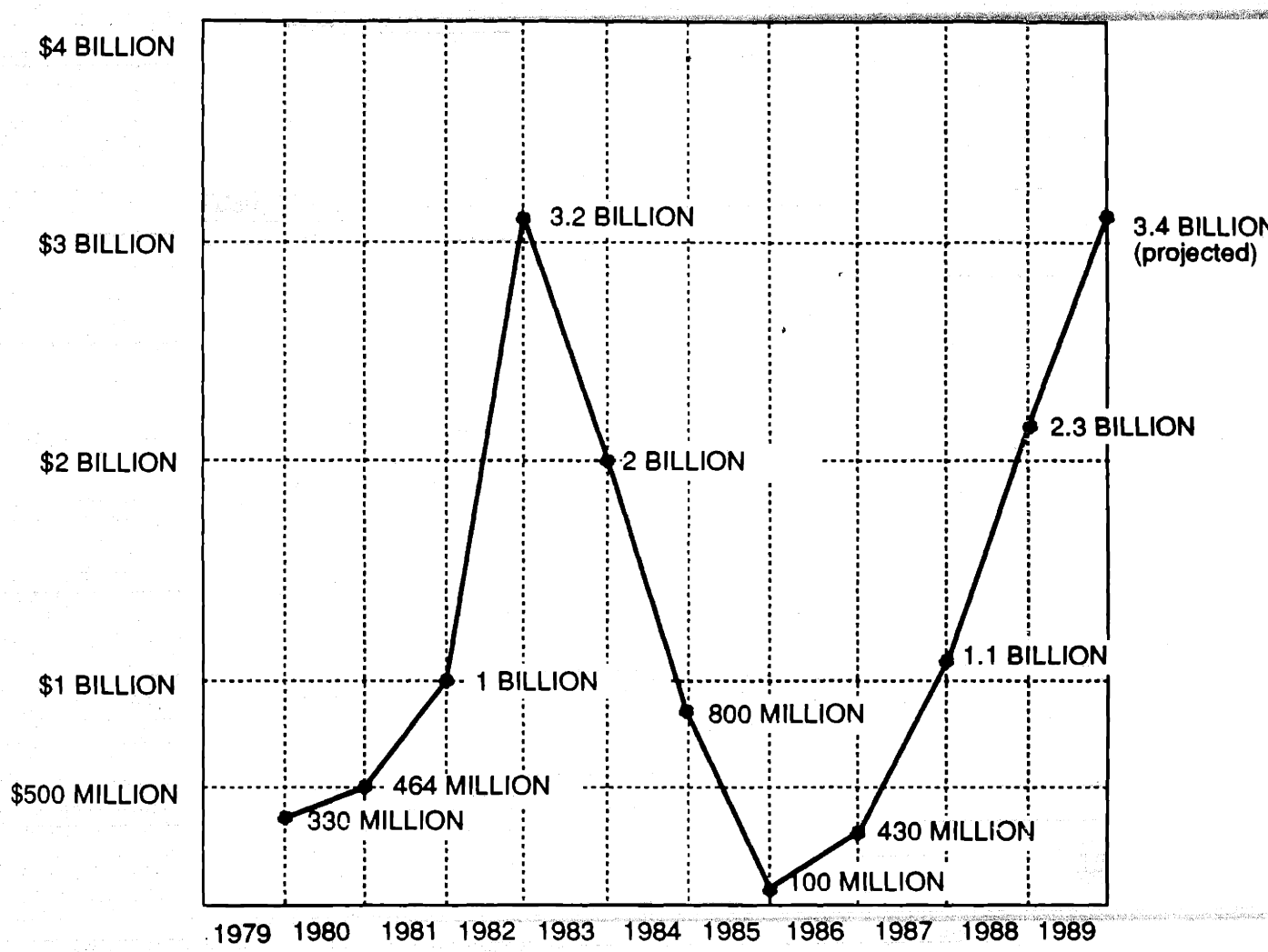
FIRM CATEGORIZATION

	Home Video Game Specialist	Diverse Product Line	Semi-Diverse Product Line
Toy & Sporting Goods Industry	* Nintendo Inc.	* Hasbro Inc. * Mattel Inc. * Tonka Corp. * Coleco Industries * Universal Matchbox	* Lews Galoob Toys
Multi Industry	* Atari Corp.		* Tyco Toys Inc.

(Note) Diverse product lines include toys, games, dolls, etc.
Semi-diverse product lines include several of diverse product lines.

ATTACHMENT 5-3

DECLINE AND REBIRTH OF THE VIDEO GAME INDUSTRY



Source: Nintendo of America Inc.

increased from 0 to $3.2 billion. Many entrants hurried to this profitable market until sales reached a heyday in 1982. Firms competed with each other by introducing various video games with low prices, with result that the market shrank dramatically to almost 0 by 1985. This shrinkage was said to have been artificially caused by the appearance of many low quality video games. Customers fled to substitutes. Almost all firms dropped from the market.

Nintendo came into this market in 1985 rising its enormous success as Nintendo Entertainment System (NES) in Japan and established a new era for the video game industry.

5.3 INDUSTRY STRUCTURE

Industry structure is explained here by Porter's five competitive forces [3], shown in Attachment 5-4.

1) Supplier

Suppliers of the video game industry could be categorized in three main groups: A) component supplier, B) software house, and C) semi-conductor chip supplier.

Component suppliers provide chassis, circuit boards, wire parts, etc. While there are many of these small suppliers, there are only a few buyers.

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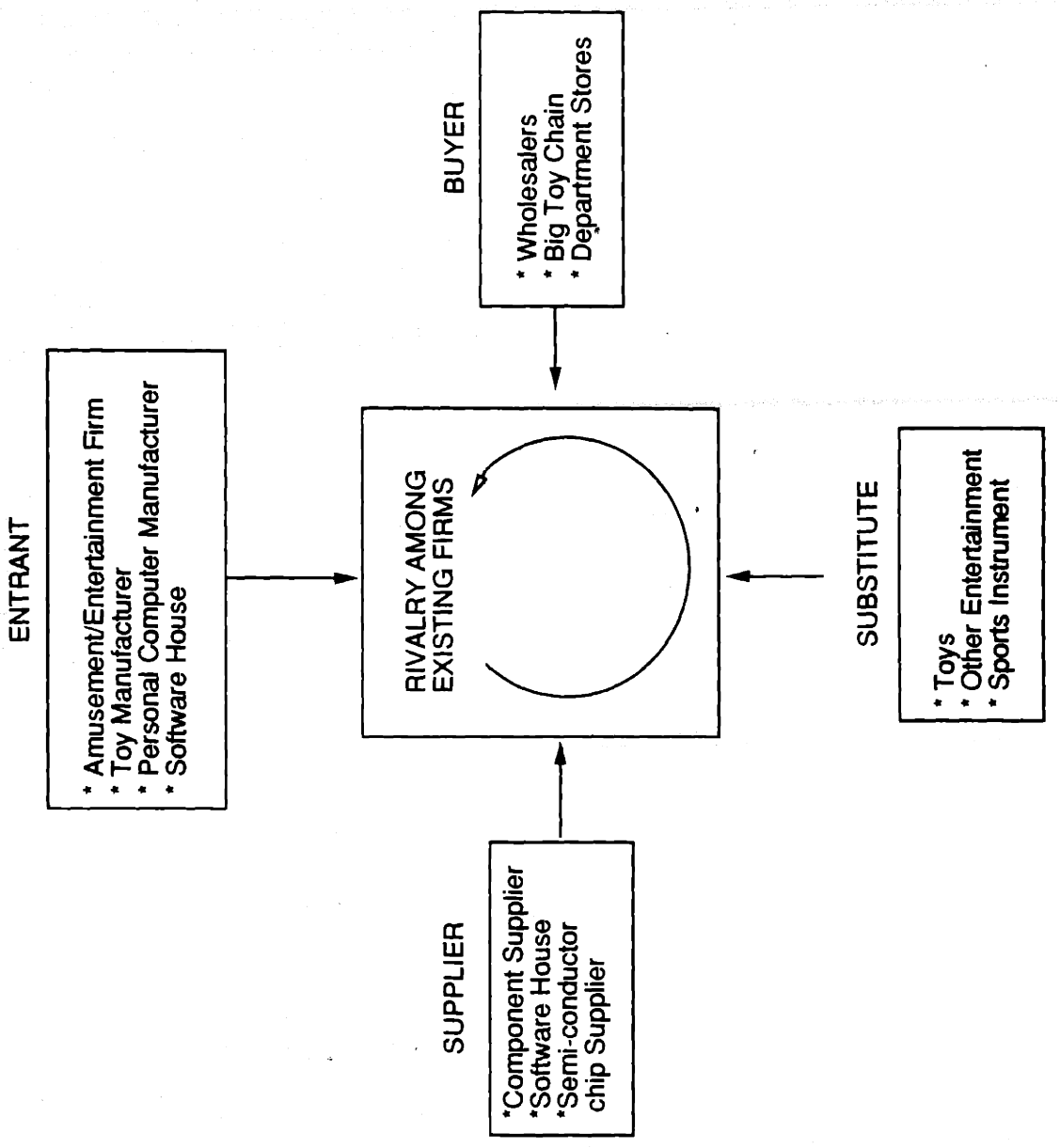
[3] See A12 "Competitive Strategy" Chapter 1

ATTACHMENT 5-4



Software houses are the most important suppliers. They usually make licence agreements to develop and to supply video game software to game manufacturers. Software sales constituted 60% margin for the manufacturers.

Semi-conductor chip suppliers are large electronics firms. They manufacture computer chips such as DRAM which are crucial for improving the quality of video game consoles and game cartridges. Video game firms look for large semi-conductor manufacturers willing to supply high-quality chips and to improve them constantly to obtain larger memory size and greater reliability.

Most video game manufacturers are vertically integrated into software house only. The semi-conductor business is a very competitive industry that requires high capital investments and large labor overhead. For video game manufacturers, there may be benefits to vertically integrating into this industry; however, the risks for investors outweigh the benefits. It is easy to understand that the semi-conductor market is too large to be a part of the home video game industry. In the case of component suppliers, there is no incentive for video game manufacturers to enter. Because there are many component suppliers, and they have relatively little technical expertise, they therefore do not have any bargaining power. As a result, the home video manufacturers can control these vendors' price, supply and delivery easily. However, software industry which requires relatively little capital to enter is attractive for integration. Video game software, the key to success for video game systems, offers high margins for manufacturers. Thus ownership of software house offers much synergy to video game manufacturers.

2) Potential Entrants

Potential entrants in this industry are A) Amusement/Entertainment firm; B) Toy manufacturer; C) Personal Computer manufacturers; and D) Software house.

Amusement/Entertainment firms are primarily engaged in such businesses as recorded music and music publishing, motion pictures and television, magazine and paperback publication and distribution, cable communication, resort hotel and facilities operation, casino operation, etc. Some of these firms are well diversified into various business areas related to the amusement/entertainment business. Electronics games are one of these areas, the posibility of their entrance in the industry is very high. Actually, Warner Communication Inc. (WCI), one of the largest entertainment firms, once merged Atari Inc. to develop its presence at the industry.

Toy manufacturers are also potential entrants to this industry. It is relatively easy for them to adapt their production to home video games, because they can utilize similar expertise for the products, distribution channel and other resources. Tonka Corp. is an example of this type of entrant.

Personal computer manufacturers are the third possible category. They can also utilize their expertise, in hardware for the products and in organizing software engineers and houses whom they are using. Atari Corp. is an example of such an entrant.

Software houses are the forth potential entrants in this industry. They can buy hardware on an OEM basis from a computer manufacturer and other peripheral manufacturers for their software, or just develop video games which can be used on a personal computer

sold in the market. In fact, the crash of the market in 1984 was caused by the flood of entrants from this field.

3) Substitute

As I mentioned in section 5.2, children have many options for entertainment, such as sports, TV or movies, and playing with other toys. Since the video game is only one of their options, manufacturers have to design products that would bring as much or more enjoyment as other types of entertainment. Even though some products may bring more enjoyment than other types of entertainment, if their prices are higher than the allowable budget of children, children will be forced to go to other options. Products are price sensitive to some extent. So we can conclude that switching cost for home video game is relatively low.

4) Buyers

Direct buyers from the manufacturers are big toy chains, department stores, wholesalers, etc. Since the number of manufacturers is limited, manufacturers have bargaining power over the direct buyers.

5) Rivalry among competitors

The video game industry is highly competitive and has been characterized by rapid technology advances in both hardware and software, and constant introduction of new products offering more features. Therefore, brand image/awareness serve as one of the key factors for success. Consumer purchasing behavior to a large degree depends on the reputation of the software that a firm offers for its

system. Since most of the firms' revenues comes from sales of the software (video cartridge) which are incompatible with competitors' systems, it was crucial for firms to sell their own hardware. Firms knew that once a customer purchases their system, he/she would have to buy their software. In addition, the following attributes apply to this industry.

- When children buy a certain product, more children would want to buy the same product until almost all children have the product.
- A firm's reputation is the factor that convinces children to buy its products.
- Children can exchange software with another when they purchase the same hardware.

From these three points, I could infer that there are strong network externalities.

One aspect of competition was elaborated by Nintendo's president. "Expenditure for entertainment of household is limited. They can buy only what they want most which is what they think is best. Therefore consumers' demand concentrates on one specific product. In other words, there is no room for second player in this industry; there is only one winner and many losers." [4]

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[4] See C27 "Zaikai" P54

5.4 INDUSTRY ENVIRONMENT

The toy industry shows a typically fragmented structure. The industry used to have many competitors and no market leader. The net Income Trend of primary toy manufacturers over 5 years is illustrated in Attachment 5-5. The incomes of these firms fluctuate significantly. One of the big reasons for this fluctuation is the high failure rate of new toy products, estimated at 50%-75%, probably exceeding that of any other industry. It is well known that the absence of brand loyalty makes success in the toy industry extremely unpredictable.

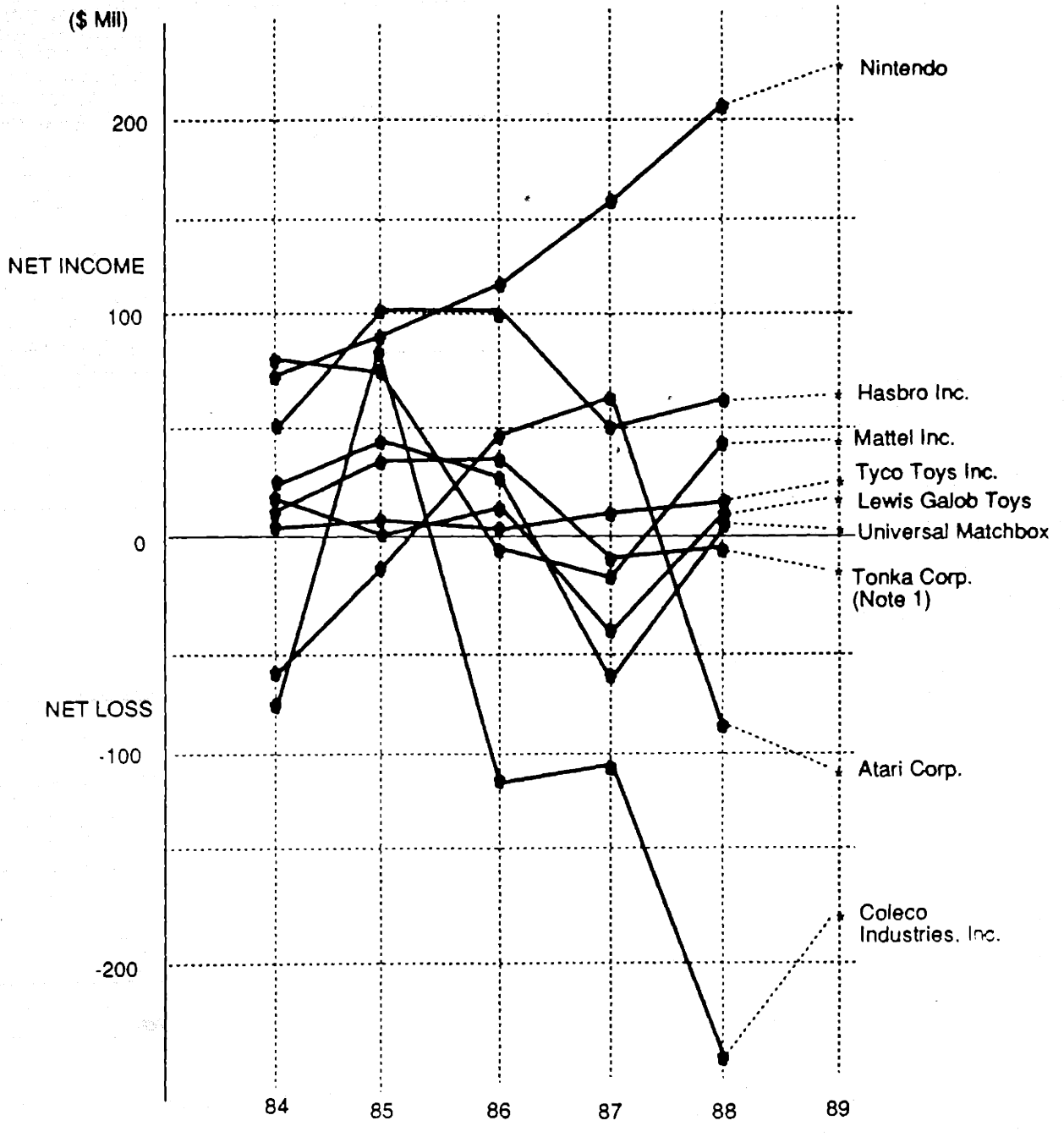
The video game industry has potentially the same structure as the toy industry. It was basically fragmented resulting in the crash of the market in 1984. Nintendo, however, has created a new structure in the industry. There are only three competitors in the market and Nintendo clearly leads. I will examine the causes of fragmentation and look at the new industry structure created by Nintendo. Following factor analysis shows how low the entry barrier is and why the industry is fragmented.

1) Economies of Scale

If economies of scale refer to declines in unit costs of products, economies of scale do not play an important role in competition, because cost reduction does not directly relate to price competition, and production cost is relatively small portion of the price. So even though small software houses may have an opportunity to sell their products with market price, when they

ATTACHMENT 5-5

NET INCOME TRENDS IN THE TOY INDUSTRY (1984-1988)



(Note 1) Net loss in 1988 was attributed by merger of Kenner Toys.

develop a creative product which attracts children. Participants learned in 1985 that price competition only brought market crash and they could not maintain the market without high quality. So the price of the product is now carefully controlled by manufacturers taking into consideration market demand. Once price is established around a target price, consumer buying behavior depends on product quality. There is an absence of economies of scale.

2) Product Differentiation

Product differentiation is based on innovation, i.e. new product concept. In other words, customers choose the product that they believe is most interesting. A survey conducted by a magazine found that the manufacturer's name was a factor in the toy-buying decision of only 12% of children interviewed. Two-thirds of respondents said that the name of the manufacturer made no difference in their decision. More than 20% said that they usually did not know who the manufacturer was. So there is basically an absence of brand recognition. Nintendo, however, has created high product differentiation. Nintendo's strong brand image prevents other competing softwares from making much headway in the market.

3) Capital Requirement

Compared to other industries, capital investment needed to enter the video game market is relatively low. From the technical point of view, video games used relatively simple technology that did not require heavy R&D to start up. Hence, it was relatively easy for the potential entrants to apply their existing resources to produce the new product. Software know-how is easily transferable to

other products, as seen in the numerous cases of lawsuits accusing firms of imitation and transmittal of software without proper licensing. Largely diversified firms could easily enter the market, which is just what happened in the first "video game fad" period. Learning from this, Nintendo developed a specific hardware which accepts only its own software or licensed software and is incompatible with all others. This development effectively protects Nintendo from potential entrants, especially software houses, who want to enter the market.

4) Switching Cost

The main consumer target for the product is children between the ages 8-15. Children, with many different entertainment options, get bored with things very easily. Therefore, manufacturers have to develop innovative and high-quality products that will keep the children playing.

5) Cost Disadvantage Independent of Scale

There are several factors which are generally seen as critical advantages for an incumbent; proprietary product technology, favorable access to raw materials, favorable locations, government subsidies, and learning or experience curve. As mentioned in item 2 above, proprietary product techology can be an effective entry barrier, while other factors clearly do not work well as barriers. For example, raw materials in the industry are computer chips, hardware chassis, software, etc, which can be easily purchased from outside suppliers. Hence, plant location for access to raw materials as well as for access to retailers and customers does not have

substantial importance. Experience curve does not really apply either. As mentioned in item 3), the manufacturing of home video game equipment does not require high technology. Software, however, is a key factor. While consumers buy the hardware only once, they purchase software repeatedly as long as the quality of the product is maintained. As we know, software development is more dependent on creativity than experience, thus experience curve has little effect in videogame industry. Although we could argue that through experience, software of similar technical level could be produced in less time, the benefit gained through this experience was usually negated by change in consumer demand: more technically advanced products with time.

6) Erratic Sales Fluctuation

Success in the toy industry remains closely tied to the ability to innovate and to take risks on new product concepts. Even though firms take risks to introduce a new product, the failure rate of new products is 50%-75% as mentioned before. This tells us that product sales are very erratic and extremely unpredictable.

5.5 FINANCIAL ANALYSIS

Utilizing the financial statements of the firms, we can figure out the commonality in terms of the financial structure in the industry and contrast the firm. Firms in the industry are normally

of different size, standardization of financial statement to a common size is useful in examining the strucure and the financial strategy of each firm. Attachment 5-6, presenting a common size financial statement of primary toy manufacturers, shows two firms which deviate from the others. One is Nintendo and other is Colecovision. Colecovision stands out as obviously ill-conditioned, and has enourmous debt, while Nintendo is extremely healthy and shows several areas of difference from the others. These are: a) no long-term debt, b) very small capital investment and c) comparatively low operating expenses.

Financial analysis in this section broadly shows Nintendo's strategy, a strategy which does not obviously depend on a formal strategic procedure. In the next chapter, I will analyze the Nintendo's strategy more in detail and find its sources.

5.6 MARKET GROWTH

When we talk about market growth, we need to discuss the 1984 market crash, shown in Attachment 5-3. This drastic sales drop almost bankrupted Warner Communications Inc. and Mattel Inc. Other firms suffered similar losses. The question arises, therefore, whether the market will grow or falter. If a crash is coming, how far will sales fall? According to market wisdom, the typical life expectancy of a product in the toy industry is one year for adult toys, and about three years for children's toys. From this

experience, the collapse of the video game seems to be near. But a repeat of the drastic drop is not expected in the industry.

First, until recently, Nintendo has been able to maintain total control over its inventory because it produced all the game cartridges for its system. In the last crash, inventories were totally out of control. Second, adults are much less a factor in the present video game fad than the previous one. In the toy industry, adults tend to be more fickle and have shorter attention spans than children. Third, with its huge marketing effort and strong retailer relationship, Nintendo can spur retailers to promote Nintendo product. As the market is clearly led by Nintendo, its projection shows a reliable forecast for the video game industry as a whole. Nintendo says that video game hardware has penetrated only 16% of U.S. households by the end of 1988. That figure is less than half the 33% household penetration reached in 1983, the peak of the last video game boom. Nintendo also maintains that its products are increasingly attractive to older teenagers and adults, as well as to young children, because of newly introduced software targeted to the older consumers. So the market will be expected to grow within a few years just to reach the 30% household penetration rate.[5]

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[5] See C5 "Nintendo Annual Report"

ATTACHMENT 5-6

COMMON SIZE STATEMENTS FOR A GROUP OF FIRMS IN THE TOY INDUSTRY (1988)

A. Common Size Balance Sheet (%).

	Hasbro Inc.	Mattel Inc.	Tonka Corp.	Nintendo Inc.	Tyco Inc.	Universal Matchbox Group Inc.	Coleco Vision	Lewis Galoob Toys.	Atari Corp.
Assets									
Total									
Current Assets	66	70	43	86	72	84	69	84	96
Net Property									
Plant & Equipment	15	25	6	1	9	13	5	15	3
Other Assets	19	5	51	13	19	3	26	1	1
Total Assets	100	100	100	100	100	100	100	100	100
Liability									
Total									
Current Liability	25	31	34	39	46	60	277	56	53
Long-Term Debt	11	33	55	0	14	1	N/A	12	22
Misc. L.T.Liability	1	8	1	1	1	6	8	—	—
Minority Interests	—	9	—	—	3	—	—	—	—
Shareholders									
Equity	63	19	10	60	36	33	-185	32	25
Total Liability & Shareholders									
Equitity	100	100	100	100	100	100	100	100	100

B. Common Size Income Statement (%)

Revenue	100	100	100	100	100	100	100	100	100
Cost of Good Sold	48	51	58	60	62	58	236	51	87
Ope. Expence	41	38	32	11	29	36	207	40	
Interest Expence	2	5	10	0	3	4	57	4	1
Others	—	—	—	—	—	—	—	—	25
Tax	4	2	1	15	2	1	—	0	4
Net Income	5	4	-1	14	4	1	-400	5	-18
	100	100	100	100	100	100	100	100	100
Price/Share	20.75	18.75	19.88	66.70	20.38	6.75	0.31	12.75	12.00
P/E ratio	15.96	17.05	24.54	20.90	10.95	48.21	-0.03	7.92	-7.55

CHAPTER 6

COMPARATIVE STRATEGY

Now there are only three competitors, Nintendo Inc. (hereinafter referred to as Nintendo), Atari Corporation (Atari) and Tonka Corporation (distributer of Sega Enterprise Inc.) in the video game market. Different from the fragmented toy industry, Nintendo Inc. dominates the market. Nintendo's success story and Atari's historical transition offer further insight on the value of strategic thinking. This chapter will deal mainly with the Nintendo's strategy in the U.S. market in contrast with the Atari's strategy. Discussions will be made following, to some extent, the strategic procedure described in Part I. I will start with profiles of the three major participants.

6.1 PROFILES OF THE THREE COMPETITORS

A. NINTENDO

Nintendo was once a small playing-card manufacturer founded in 1890 in Kyoto by Fusajiro Yamauchi, great-grandfather of current president. It entered the Japanese electronics toy marketplace in 1970 with a hand-held computer game featuring a liquid crystal screen. In recent years, Nintendo has introduced a variety of

electronic entertainment products, both hardware and software.

By 1982, Nintendo introduced its version of home video game system called "Famicon", meaning "family computer system". Nintendo released its product to the Japanese market in July 1983 after incorporating technologically-advanced graphics and a speed equivalent to coin-operated arcade games. By the end of 1988, Nintendo had sold more than 13 million units of Famicon hardware and 145 million software units, earning 90% of the Japanese market share and penetrating more than 30% of Japanese households.

It established its American subsidiary, Nintendo of America, Inc. in 1980 to enter the U.S. video game market, and in 1986 began to distribute its home video game system nationwide in the U.S, after wide success in Japan. It controlled more than 80% of the U.S. video game market which multiplied six-fold to become a $2.3 billion industry in only two years. With growth in the U.S. market, Nintendo's export weight of sales topped 60% in 1988.

B. ATARI CORPORATION

Atari Corporation is a leading manufacturer and marketer of personal computers, video game systems, a broad line of peripherals and a growing library of computer and video game software. Atari Inc. was originally founded in 1972 by Nolan Bushnell, a software developer, and had been a pioneer of video game systems. Despite some successes, Atari was too financially weak to push aggressively into the home video games. The stagnant firm was purchased by Warner Communications Inc. (WCI) in 1977. Atari developed the "programmable game" and introduced it in December 1977. After firing Bushnell, WCI

recruited Raymond E. Kassar from Burlington Industries Inc. in 1978 to lead Atari.

Raymond Kassar brought in new staff experienced at working in a large organization and with understanding of the consumer market. He made structural and organizational changes, which caused many key executives under Bushnell to leave the firm. Kassar employed four marketing strategy.

1) A $6 million advertising campaign, a tactic that Atari had resisted until then.
2) Introducing a new game cartridge in late January 1979, an action which turned a previously seasonal product into a year-round product.
3) Applying a coin-operated software to its video game cartridge
4) Exported the product to the European market in 1980.

From 1979 to 1981, Atari held 80% of both video cartridge and game machine markets. To consumers, the name Atari was synonymous to video games. With success in video games, Atari decided to diversify its product line, and in 1980, entered the $1 billion home and small business computer market, gaining a 40% market share in computers in the under-$1000 niche by the following year. Atari sales exceeded the combined sales of its main competitors, Commodore International and Texas Instruments.

By 1982, Atari's market shares of video cartridge, game machines, and microcomputer dropped to 41%, 50%, and 13% respectively, and operating income plunged from $236.5 million in 4th quarter of 1981 to $1.2 million a year later. In addition,

Kassar and other top managers were accused of insider trading, and under pressure from both WCI top management and SEC, Kassar resigned in mid-1983. WCI recruited James J. Morgan, Phillip Morris Inc senior vice president and ace marketer, to become Atari's next chief executive officer. Ten months, after in 1984, WCI sold Atari Inc. to Jack Tramiel, a former president of Commodore International, who renamed the firm Atari Corp. and firing James J. Morgan, replaced the former top management with his three sons and several former Commodore associates.

With rapid growth of video games in 1986, Atari began to refocus on its video game market and aggressively investment for new products to regain its lost market share. In 1987, Atari acquired The Federated Group, Inc. (Federated), a retailer of consumer electronic and home entertainment products. In 1989, Atari decided to discontinue its operation of Federated because of its huge losses and cash flow requirement, and is looking for suitors who will buy it.

C. TONKA CORPORATION

Tonka Corporation, the No. 3 toy manufacturer in the U.S., is engaged in the design, manufacture, marketing and distribution of a broad line of toy products. It is the distributer of a video game system, Sega Master System, made by Sega Enterprise of Japan covering approximately 10% market share. Tonka Corp. announced that its retail orders in 1989 totaled $650 million, $30 million less than the previous year. This was attributed to lower margin of Sega video game sales. Tonka Corp. has been burdened with a huge debt

load from its 1987 acquisition of Kenner Parker Toys Inc. Because of its position in the industry as a distributer, and because of its huge debt load, it is hard to imagine that Tonka Corp. can play a significant role in the industry in the near future.

6.2 HOW WAS NINTENDO ABLE TO ENTER THE U.S. MARKET?

The dominant player, Nintendo shows an especially interesting story in contrast with Atari. I will select some features which are interesting to examine from the strategic point of view. These examinations will consider the strategic tasks at each of the three levels, Corporate, Business and Functional, explained in chapter 3. The discussion for the most part will focus on a strategic comparison of the two firms.

A. EXAMINATION OF CORPORATE AND BUSINESS LEVELS

The discussion for corporate environmental scan was made in chapter 5 as a part of explanation about industry structure. So I will discuss the internal scrutiny of both firms.

<Business Segmentation>

Nintendo is a producer of various electronic entertainment products, both software and hardware, but since the total revenue of its video game system exceeds 90% of its corporate revenue, we can categorize it as a specialist in the home video game industry. Atari

on the other hand operates both personal computer and home video game system.

<Vertical Integration>

Nintendo owns assembly plants, but subcontracts the manufacturing, and has also licensed more than thirty software houses to develop software packages for its system. This shows that Nintendo does not intend to vertically integrate the functions, but rather intends to focus on planning and development, and marketing. It does, however, tightly control the software houses in terms of volume and delivery of products. Nintendo manufactures a product developed by a software house on an OEM basis, receiving a commission. As a reaction against tight control, many software houses are complaining privately that they are bound by a high licence fee and loyalty to develop software, and miss the timing of delivering the product to the market. From the Nintendo's point of view, there are several benefits. By subcontracting and licensing but maintaing tight control, Nintendo can achieve the same effect as with the vertical integration, but at the same time, keep its organization relatively simple and its own number of employees relatively small. This is very advantageous from a financial point of view. As discussed earlier, the toy industry is very fragmented and consumer behavior is capricious making investment in new products very risky. For these reasons, it is desirable for Nintendo to keep its corporate body as slim as possible in order to tolerate the financial pressure of fluctuating demand. It can also protect itself against low quality products which invade the market with low

prices, and against the competition with software houses.

When Atari was prosperous in the video game business under WCI in 1980, it diversified into the small computer market. This action weakened Atari's main product when resources were shifted from the video game business to the computer business, and allowed many firms enter entered the market. From the Corporate point of view, it is rational to shift resources from the cash cow division to the expected star division, but the result was a loss of competitiveness and an opportunity for new entrants to take advantage of the competition in the market. Atari was finally sold to the current owner, and in October 1987, expecting to achieve vertical integration, acquired Federated Group Inc. which had 68 consumer electronics "Superstores" in California, New Mexico, Arizona, Texas and Kansas. The result was a huge loss for Atari caused mainly by losses in these stores' operations.

<Corporate Philosophy and Culture>

Attachments 6-1 and 6-2 show a history summary, and a historic epoch illustration respectively, for Nintendo and Atari. Nintendo keeps its cultural consistency. In accordance with social changes, it changes its direction from card manufacturer to video game manufacturer. Its strategy seems very conservative from a financial point of view, which will be discussed later.

It seems that Nintendo knows the riskiness of business very well. When it invests in a new business, it analyzes the products and market, keeps it financially healthy and enters the market.

Atari's history is an interesting contrast with Nintendo. It is

ATTACHMENT 6-1

SUMMARY OF HISTORY

NINTENDO & ATARI

time	NINTENDO	ATARI
1890	Founded by Fusajiro Yamauchi	
⋮		
⋮		
1950	Installation Hiroshi Yamauchi	
1970	Entered in the Japanese Electronics Toy market	
1972		Founded by Nolan Bushnell
1977		Purchased by Warner Communication Inc. (WCI) Introduced "programmable game"
1978		Installation Raymon E. Kasser
1979		Introduced new game cartridge
1980	Established its American subsidiary, Nintendo of America	Export to foreign market Hold 80% of both video cartrige and game machine market Diversified into small business computer market
1982	Introduced home video game system "Famicon" in Japan	
1983	Built its manufacturing plant in Raymond, Washington	Installation James J. Morgan
1984		Purchased by Jack Tramiel Morgan resigned
1985	"Famicon" earned 90% Japanese market share Introduced "Famicon" renamed to "Nintendo Entertainment System" (NES) in U.S. market	
1986		Refocus on its video game market
1987	NES earned more than 70% of the U.S. video market	Acquired Federal Group Inc.
1989		Discontinued operation of Federated Gruop Inc.

ATTACHMENT 6-2

HISTORIC EPOCH ILLUSTRATION

NINTENDO & ATARI

time	NINTENDO	ATARI	
1970	Introduce New Technology		
1972		◁ATARI INC.▷ Entrepreneuler New Product	
1977		◁WCI▷ Acquisition	
		New culture	
1980		Export	
		Diversification	← severe competition
1982	New product	Focus on marketing	
1984	Export	◁ATARI CORP.▷ Acquisition	
1986		Reenter	
1987		Vertical Integration	← severe loss

not a continuously-held firm; the owners changed three times and CEO, four. Until today from the beginning, many corporate executives and key engineers left the firm voluntarily or were fired because of the differences in corporate culture or policy. These changes have destabilized Atari and weakened its technological development capability. Atari has been making the same product from the beginning, but the present entity is completely different from the original one.

<Environmental Scan at Business Level>

To assess industry attractiveness and threat from the environment, an environmental scan has been done according to Hax and Majluf. Attachment 6-3 shows the environmental scan and a summary is attached in Attachment 6-4.

B. EXAMINATION AT FUNCTIONAL LEVEL

Both firms' activities are analyzed and discussed in six major foci described in chapter 3.

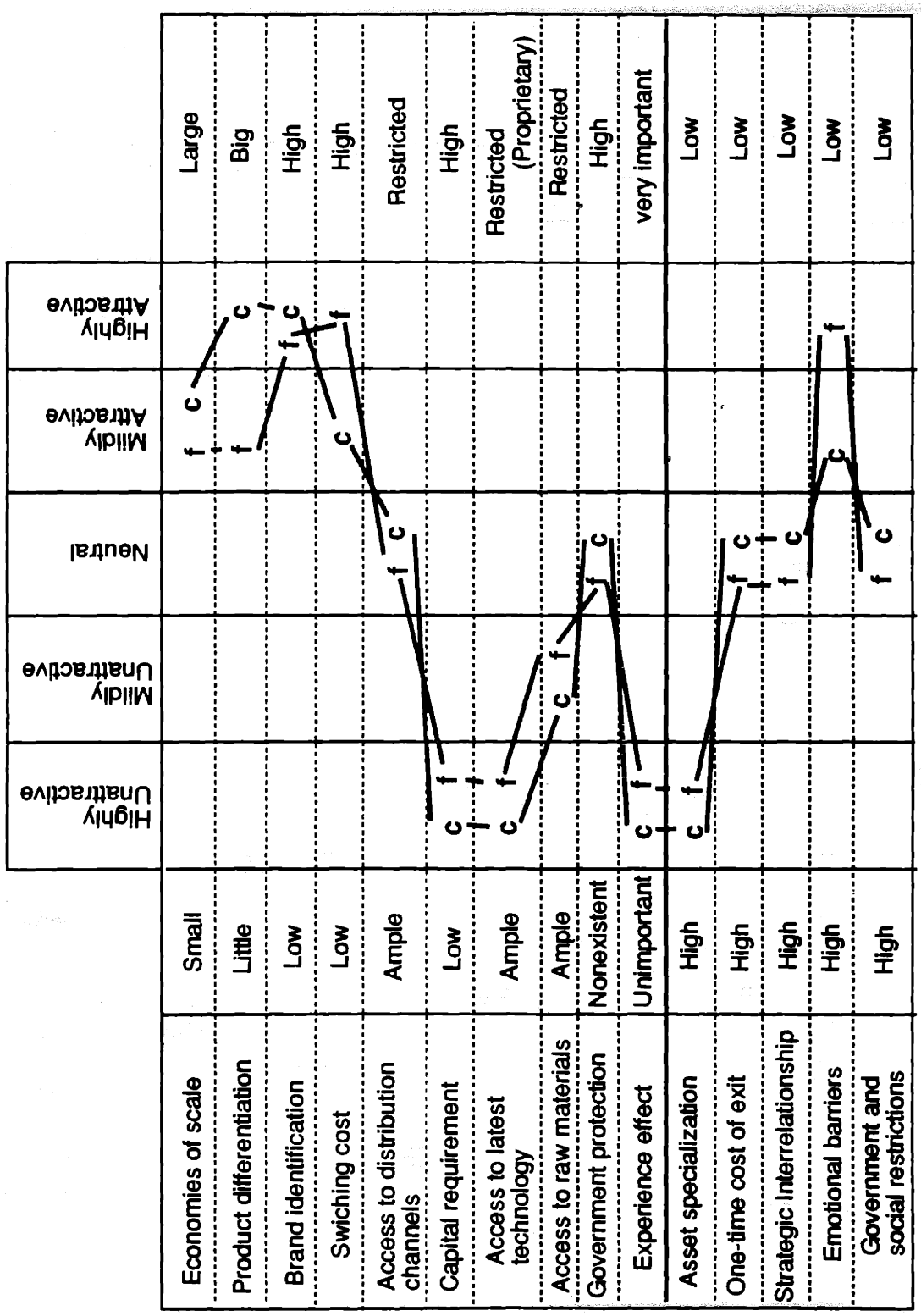
<Human Resource Management>

As is common throughout Japan, Nintendo has life-long employment and a corporate labor union. Since Nintendo owns its assembly plant, but subcontracts the manufacturing, the number of subcontractor employees is about 10,000, while that of Nintendo proper is only 700.

Atari had approximately 4,000 employees. Almost all the approximately 1,360 employees of Atari's Taiwan manufacturing

ATTACHMENT 6-3

VIDEO GAME BUSINESS: Environmental Scan



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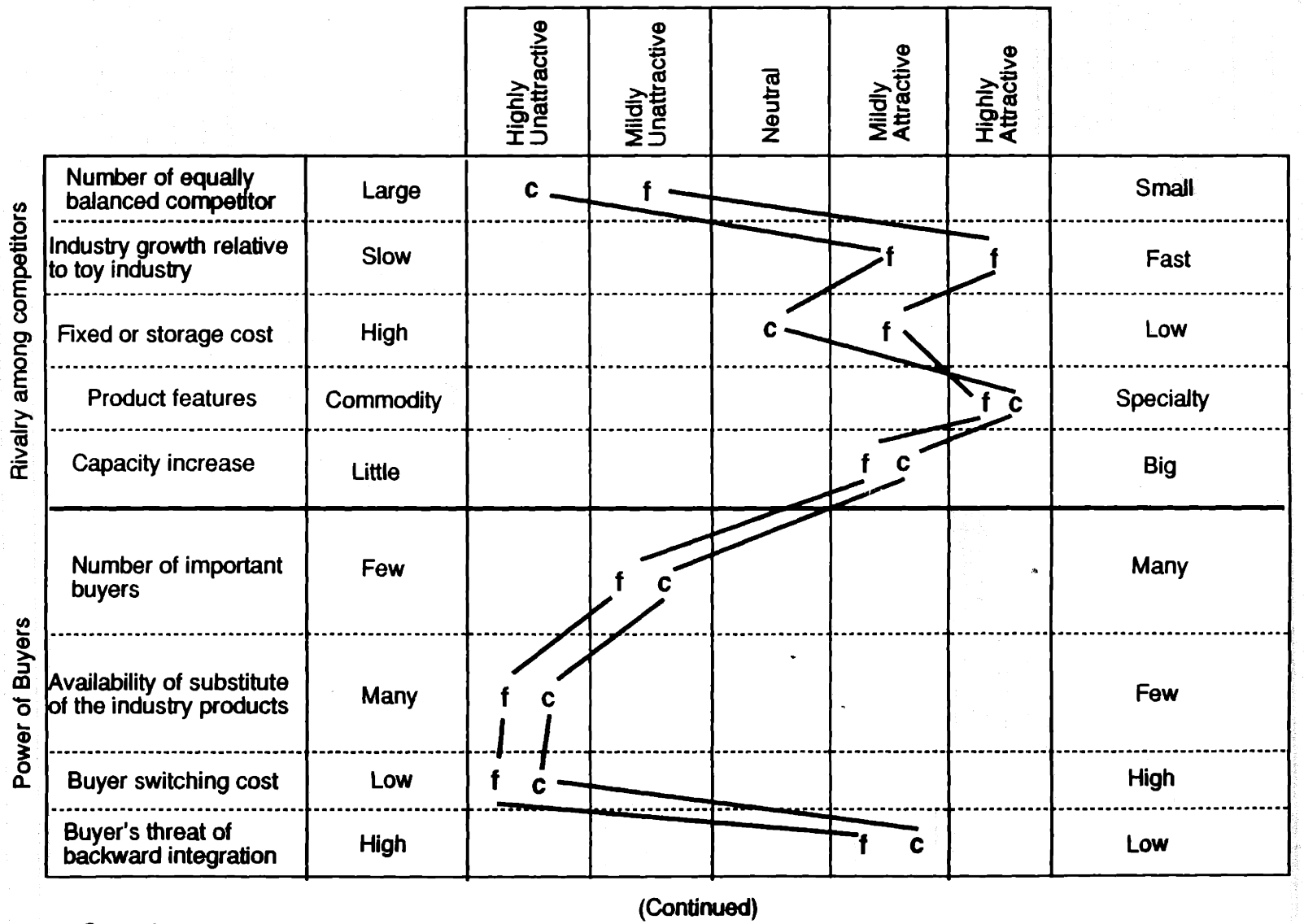

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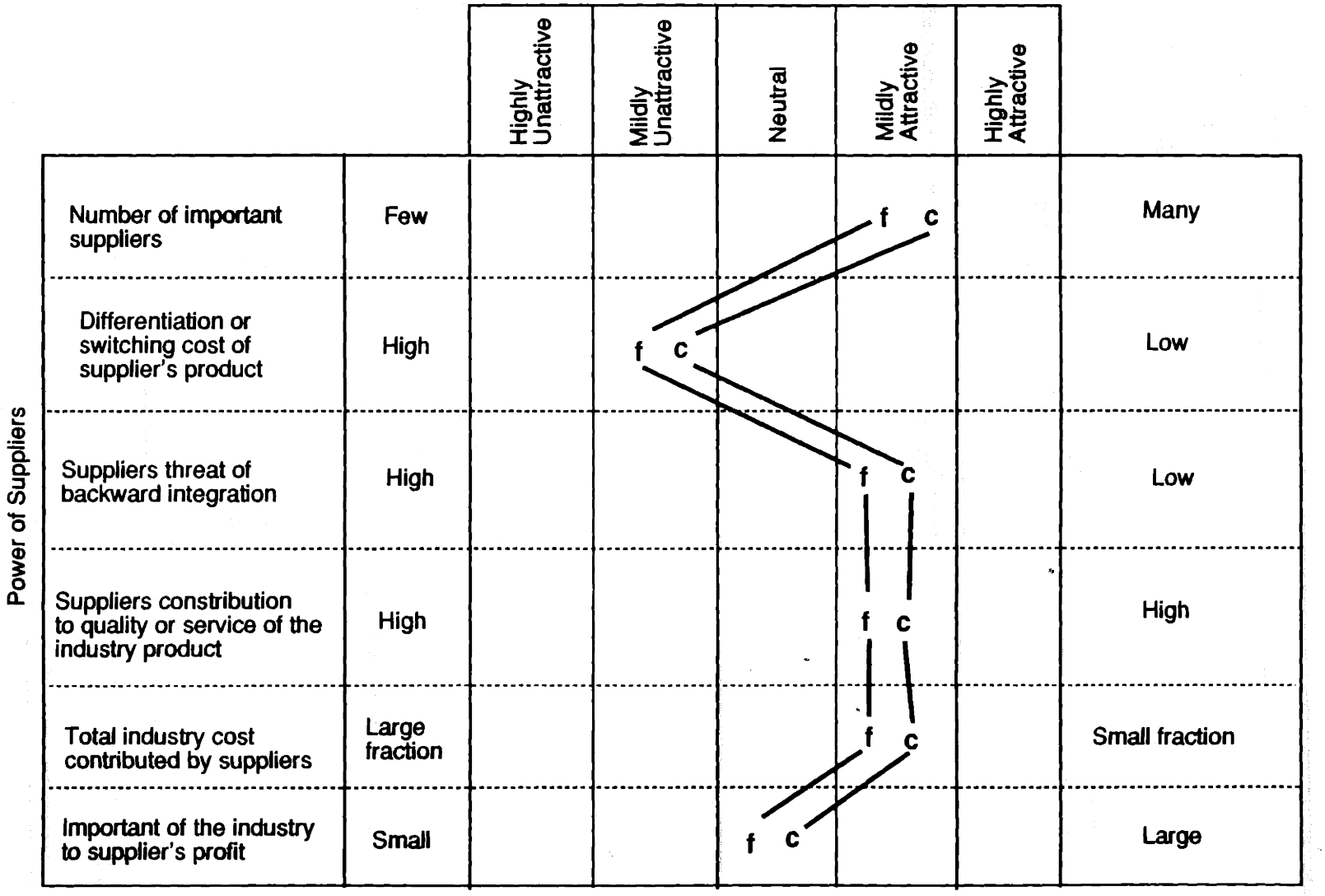
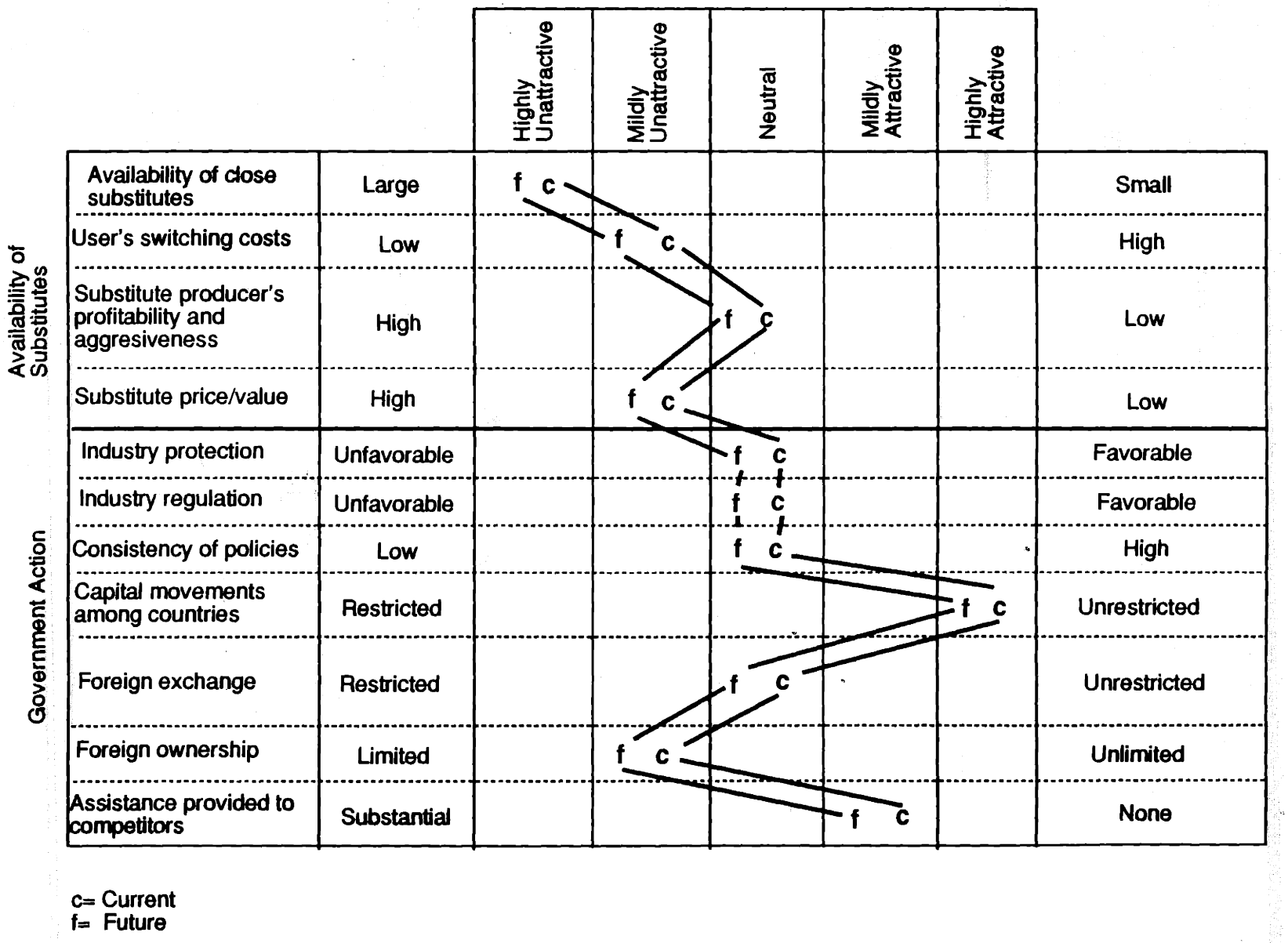
f= Future



(Continued)

c= Current
f= Future



c= Current
f= Future

ATTACHMENT 6-4

INDUSTRY ATTRACTIVENESS

	CURRENT			FUTURE		
	Low	Medium	high	Low	Medium	High
Barriers to Entry		⊗				⊗
Barriers to Exit		⊗			⊗	
Rivalry among Competitors	⊗				⊗	
Power of Buyers			⊗			⊗
Power of Suppliers			⊗			⊗
Availability of Substitute	⊗			⊗		
Government Actions		⊗				⊗
OVERALL ASSESSMENT		⊗				⊗

facility are represented by a labor union. Remainings are not represented by a labor union. Since Federated is treated as a discontinued operation, its 2,000 employees have been eliminated from the number of Atari employees. Atari now has approximately 1,780 employees.

<Technology Strategy>

It is well known that Nintendo is a prominent software developer and introduces new technology into its products. It maintains its position by incorporating high technology into its products and bringing high quality software to the market. Indeed, it was the first to apply a 2K bytes built-in memory with a central processing unit (CPU) and a custom-designed picture processing unit (PPU) to its product. Nintendo's software development capability is well known in the industry. Each software package has a built-in computer memory card with a minimum of 256K bytes memory capacity which is larger than any other memory capacity previously used in video games. The use of high technology makes it possible for Nintendo to produce high quality software.

At Atari, products are primarily developed by an internal engineering group. The firm also enters into agreements with outside firms to acquire or develop hardware and software technology. Atari is engaged in technologies which are subject to rapid change and competitive pressures which make the continual advancement of the firm's product offerings essential.

<Manufacturing Strategy>

Nintendo has three manufacturing plants in Kyoto, but it subcontracts almost all of its manufacturing. By subcontracting, it changes fixed cost to variable cost. In Japan, labor cost is regarded as fixed cost because of life-long employment.

Atari products are manufactured at the firm's facility in Taiwan.

<Procurement Strategy>

Ricoh is the single chip supplier to Nintendo and supplies critical Zylog chips of Nintendo. Nintendo drew on more than 30 software houses and these houses produced special games like Dragon Quest I,II and III.

In the case of Atari, component parts and peripheral equipment are substantially acquired from multiple sources and have been readily available. Some components and peripheral equipment are available only from a limited number of suppliers.

<Marketing Strategy>

Nintendo's marketing strategy has achieved extraordinary success, drawing great attention to product quality, sophistication and extensive customer service. Nintendo's success in the U.S. market is largely the culmination of a series of carefully planned marketing and advertising ploys. In entering the U.S. market, Nintendo adopted a complex business strategy involving lengthy analysis of the American video-game industry. It then test-marketed

New York City and Los Angeles and concluded that the last slump was artificial, caused by a flood of mediocre games and dramatic price fluctuations. They finally introduced nationally a product that was better than the others on the market. A specialist in a New York advertising firm serving toy marketers said "The toy industry has never seen this kind of sophistication. It is a brilliant marketing strategy. They have created a culture among the kids." [6]

In addition to creative and intensive marketing, Nintendo developed several unusual programs to protect itself from new entrants and to differentiate itself from the others; 1) making software cartridges non-transferable to other systems; 2) publishing its own bi-monthly magazines which now have over one million paid subscribers; and 3) establishing a telephone hotline which is manned by 60 Nintendo adult "game counselors" to assist anyone having problems with solving "mysteries" in Nintendo video games. It also prefers undersupplying to oversupplying because a shortage increases demand and at the same time prevents excessive inventory.

Atari sells video game system primarily through national retailers, department stores and mail order outlets as Nintendo does. To strengthen its distribution channels for both personal computers and video game system, it acquired Federated Group, Inc. a chain of retail "superstores"selling audio, video and other consumer electronics products, including Atari computer and video game products. Since the acquisition, the firm has been working to enhance computer and video game marketing, tighten financial

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[6] See C5

controls, increase product diversity and streamline operations to improve efficiency and responsiveness.

<Finance Strategy>

Attachments 6-5 to 6-8 show financial data and financial ratios for Nintendo and Atari from 1984 to 1988. Accounting rules and financial systems in the U.S. and Japan are so different that a straight financial comparison of the two firms does not have significant meaning in this case; I would rather instead look in detail at Nintendo's financial data. First of all, the most outstanding feature is that there has been no long-term debt from any financial institution since 1982. Clearly Nintendo's strategy is to escape the control and discipline imposed by financial institutions, and to establish its own firm financial foundation to survive in a risky and capricious toy industry.

From a financial point of view, one of the great differences between U.S. firms and Japanese firms is the distribution of retained earnings. The cash dividend, director's bonus and net income of Nintendo shown as ratios of cash dividend and director's bonus versus net income are shown in Table 6-1.

TABLE 6-1

	1984	1985	1986	1987	1988
Cash Dividend/Net Income (%)	13.5	15.5	9.3	9.5	9.6
Director's Bonus/Net Income (%)	0.6	0.6	0.4	0.3	0.3
Net Income (Million Yen)	9,433	9,823	16,742	25,191	30,109

ATTACHMENT 6-5

NINTENDO FINANCIAL DATA

(Million Yen)

Year Ended August 31	1984	1985	1986	1987	1988
Net Sales	68,140	81,428	123,036	144,575	203,301
Cost of sales	41,739	49,553	64,153	77,664	127,525
Salling and administrative expense	9,759	11,173	17,375	21,141	27,363
Income from operations	16,641	20,701	41,508	45,768	48,412
Other income	-2,168	2,221	3,363	5,545	8,054
Other expenses	-477	599	6,297	1,668	357
Extraordinary items	—	106	—	-454	-39
Income before tax	18,332	22,429	38,573	49,190	56,109
Tax	8,884	12,676	22,452	24,321	26,456
Translation adjustment	-14	70	622	323	496
Net income	9,433	9,823	16,742	25,191	30,109
Assets					
Current assets	58,663	70,501	117,191	129,560	182,447
Property, plant & equipment	9,388	8,899	11,627	17,207	28,734
Intangible assets	42	81	87	91	90
Other assets	1,264	1,272	1,541	1,816	1,937
Total assets	69,397	80,755	129,600	149,357	213,209
Liabillties					
Current liabilities	28,473	30,874	50,805	47,454	84,160
Fixed liabilities	1,047	1,571	1,864	2,362	2,382
Translation adjustment	—	83	—	—	189
Total liabilities	29,520	32,528	52,669	49,816	86,732
Retained earnings					
Balance at beginning	24,345	32,272	40,473	54,647	75,493
Decrease:					
Tranfer(legal reserve)	122	—	79	1,735	66
Cash dividend	1,270	1,524	1,557	2,385	2,883
Director's bonus	60	60	60	80	80
Net income	9,433	9,823	16,742	25,191	30,109
Translation adjustment	-53	-36	-872	-145	-167
Balance at end	32,272	40,473	54,647	75,493	102,406
common stock	2,541	2,541	9,800	9,800	10,065
capital surplus	4,592	4,592	11,849	11,849	11,584
legal reserve	635	635	714	2,450	2,516
treasury stock	-163	-15	-81	-53	-95
Shareholder's equity	39,877	48,226	76,930	99,540	126,476
Total liability and Shareholder's equity	69,397	80,755	129,600	149,357	213,209

ATTACHMENT 6-6

FINANCIAL RATIOS FOR NINTENDO

Year Ended August 31	1984	1985	1986	1987	1988
1. Indicators of Profitability					
1) ROI(all capital) (%)	15.2	13.1	15.9	18.1	16.6
2) ROE (%)	23.7	20.4	21.8	25.3	23.8
3) ROS (%)	13.8	12.1	13.6	17.4	14.8
2. Indicators of Efficiency					
1) Inventory turnover (times)	5.5	5.7	9.0	8.0	8.0
2) Accounts receivable turnover (times)	5.0	4.3	8.4	10.6	7.7
3) Number of day's sales in accounts receivablei	115.7	74.8	37.1	37.4	68.1
4) Plant & equipment turnover	8.8	8.9	13.0	10.6	8.9
3. Indicators of growth					
1) Sales (%)	100.6	119.5	151.1	117.5	140.6
2) Operating income (%)	-119.2	124.4	200.5	110.3	105.8
3) Income before income tax (%)	-120.6	121.8	172.8	128.7	113.0
4) Net income (%)	-109.8	104.1	170.4	150.5	119.5
4. Indicators of financing					
1) Debt to equity ratio (%)	74.0	67.4	68.5	50.0	68.6
5. Indicators of Liquidity					
1) Current ratio (%)	206.0	228.4	230.7	273.2	216.8
2) Quick ratio (%)	170.3	201.2	217.7	245.5	192.9

Source: Computed from Nintendo's annual report.

* See Appendix A for the definition of financial ratios

ATTACHMENT 6-7

ATARI FINANCIAL DATA

Year Ended December 31	1984	1985	1986	1987	1988
	(Included in WCI)				
Net Sales		141,987	258.131	362,608	452,201
Cost of sales		128,799	149.222	213,889	288,979
Selling and administrative expense		39,007	60.694	76,703	103,630 (Note 1)
Income from operations		-25,819	48.215	72,016	59,592
Interest income			1.866	7,121	5,351
Other income		20,645	5.201	7,262	-1,657
Interest expenses		9,140	8.049	3,167	4,783
Income before tax		-14,314	47.233	83,232	58,503
Tax		—	22.183	33,823	19,100
Income from operation		-14,314	25.050	49,409	39,403
Discontinued operation					
Operation loss		...	...	-5,257	-67,166
Provision for dispersion		...	...	...	-57,055
Extraordinally credit		...	19,466	13,277	...
Net Income		-14,314	44,516	57,429	-84,818
Assets					
Current assets		126,518	175,238	331,746	324,082
Property, plant & equipment		6,803	5,839	7,343	8,463
Assets discontinued operations		...	...	36,192	...
Other assets		5,723	3,099	10,621	5,813
Total assets		139,044	184,176	385,902	338,358
Liabilities					
Current liabilities		114,769	78.754	143,247	180,127
Long-term debt		43,752	...	75,000	75,000
Total liabilities		158,521	78,754	218,247	255,127
Balance at beginning (Paid-in capital)		32,596	142,764	142,247	142,658
Retained earnings		-77,072	-32,556	24,873	-59,945
Translation adjustment		-1,022	-2,777	1,375	1,082
Common stock ($0.01)		163	290	577	577
WCI stock right		27,500	...	...	...
Received stock sold		-1,642	-2,299	-1,417	-1,141
Shareholder's equity		-19,477	105,422	167,655	83,231

(Note 1) The ratio of cost of sales and selling and administrative expense in 1987 and 1988 are estimated by author.

ATTACHMENT 6-8

FINANTIAL RATIOS FOR ATARI

Year Ended December 31	1984	1985	1986	1987	1988
1. Indicators of Profitability	(Included in WCI)				
1) ROI (all capital) (%)		-10.3	27.5	20.1	-23.4
2) ROE (%)		73.5	103.6	42.1	-67.6
3) ROS (%)		-10.1	9.7	13.6	8.7
2. Indicators of Efficiency					
1) Inventory turnover (times)		1.7	2.1	2.3	2.4
2) Accounts receivable turnover (times)		6.4	8.7	5.7	4.7
3) Number of day's sales in accounts receivable		57.2	52.5	91.5	81.2
4) Plant & equipment turnover		20.9	40.8	55.0	57.2
3. Indicators of growth					
1) Sales (%)		100.0	81.8	140.5	124.7
2) Operating income (%)		—	-186.7	149.4	82.7
3) Income before income tax (%)		—	-330.0	176.2	70.3
4) Net income (%)		—	-311.0	129.0	-147.7
4. Indicators of financing					
1) Debt to equity ratio (%)		-813.9	74.7	130.2	306.5
5. Indicators of Liquidity					
1) Current ratio (%)		110.2	222.5	231.6	179.9

Source: Computed from Moody's Industrial Manuals.

* See Appendix A for the definition of financial ratios

Apparently, Nintendo pays out a relatively small fraction of net income for cash dividends and directors' bonuses compared with ordinary U.S. firms. The difference comes from structural and cultural differences between the U.S. and Japan. Even though Nintendo paid 100% cash dividend against its face value (50 yen) in 1988, which is quite rare in Japan, the dividend per share paid by Nintendo is smaller than that which would be paid by ordinary U.S. firms with similar finance. Executive compensation, generally, takes a form of a fixed salary plus a bonus in Japan. There are eight executives including three auditors in Nintendo. They were paid 80 million yen (approximately $550,000) in total in 1988 as bonuses which are, in general, smaller than those of U.S. executives. These small distributions to shareholders and corporate executives contribute to Nintendo's financial strength. As a result, Nintendo's retained earnings in 1988 reached 102,406 million yen (approximately $730 million) which is large enough to acquire 60% of the current outstanding shares of the largest toy manufacturer, Hasbro Inc.

Indicators of growth in Attachment 6-6 show that the rate of increase of sales is diminishing and the product will soon be in a maturing stage. Nintendo needs to introduce a new product in the market. Actually, in parallel with the expansion of the existing product, it introduced a hand-held video game called "Game Boy" in the U.S. market in 1989 and is diversifying its existing home video game to include financial information service to create an information network utilizing its video game product. Nintendo clearly has the financial strength to support these developments.

Atari's financial data on the other hand shows its weakness.

Atari started in 1984 to acquire certain computer and video game assets of WCI with certain liabilities, and expanded into consumer electronics retail stores for vertical integration in 1987. These dealings caused a huge financial debt load and weakened the competitiveness of Atari in the market. Atari did not pay cash dividends in 1989 and intends to retain future earnings to finance its growth.

<pricing strategy>

Nintendo sells its basic model at $69. Atari sells its basic model somewhat lower, under $50.

6.3 SUMMARY

I was able to survey, in chapter 6, how Nintendo entered the U.S. and created a market. It is surprising that Nintendo revived the U.S. market without competition. Nintendo came in the U.S. market after all the U.S. firms had retreated. Compared with Nintendo's strategy, U.S. firms seems to have destroyed the market by themselves by too much focus on corporate strategical advantage. Strategy should be created around market and products. Management should not be hobbled by their own management techniques. Without reinforcing the product itself or without knowing the market well, corporate strategies like vertical integration, acquisition or divesting do not work well. They are only management games and are

just like castles in the air, although these actions may be rational from the stockholders' point of view. When people lament that American firms are losing the competitiveness, they should examine how foreign firms employing a different set of assumptions and strategies are able to enter the market and obtain a large market share.

The strategies and tasks above are a partial response to the questions raised in the beginning of chapter 5. To summarize all these questions and discussions, I have illustrated Nintendo's strategic characteristics in Attachment 6-9 as a value chain. Observing this value chain, I conclude that Nintendo's strength comes from three areas:

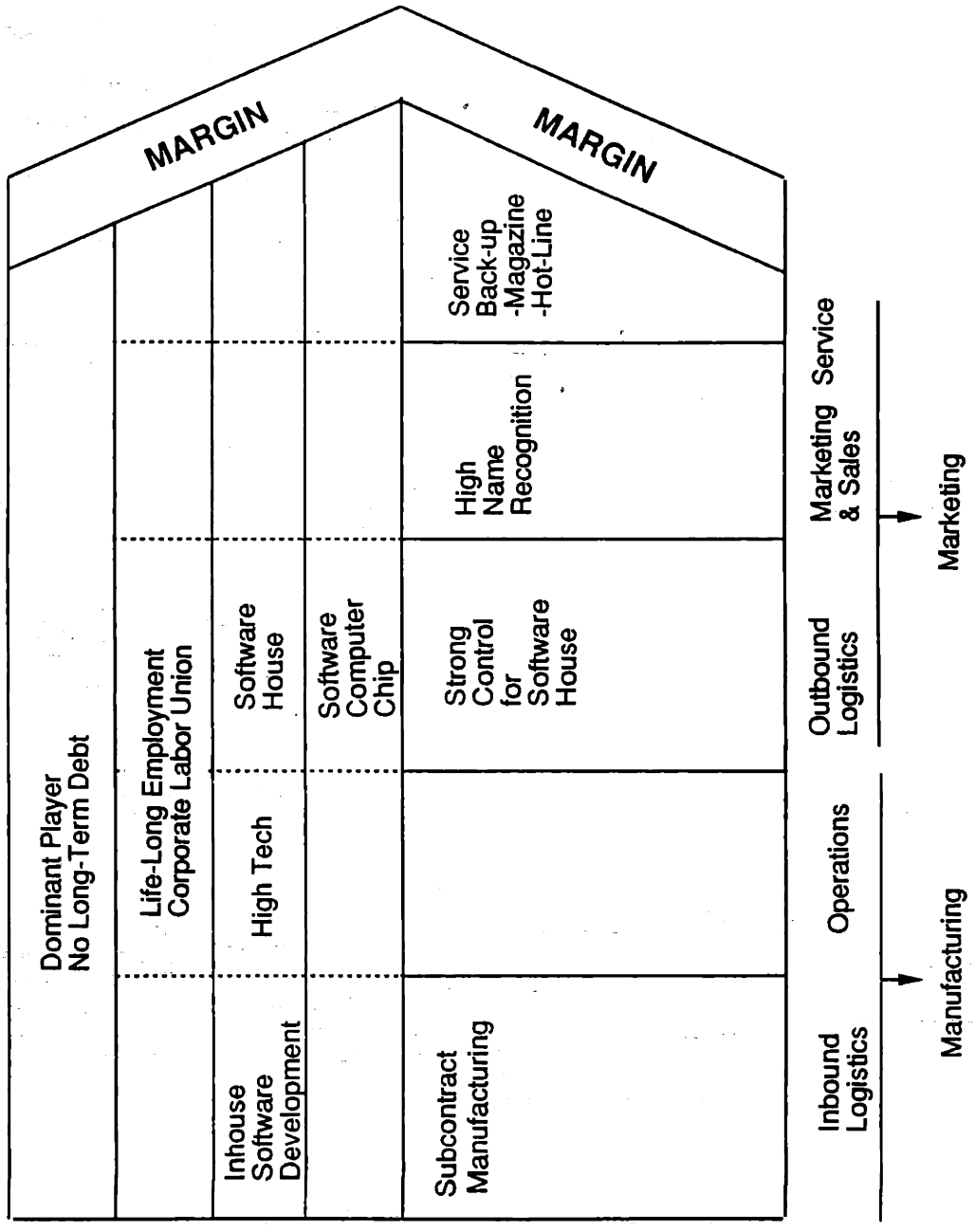
- High Technology,
- Marketing, and
- Finance.

Nintendo's strength is also reinforced by factors of the Japanese business environment which I have only alluded to in this thesis. Some aspects of this environment which clearly have helped Nintendo include a close relationship with suppliers, absence of a strict anti-trust law as in the U.S., less threat of corporate takeover, etc. But I believe these are only secondary factors and primary factors lie in the three areas identified above.

I feel that in the management of Atari there were three different entities which worked for the shareholders. As a result this type of firm may be able to keep shareholders' interest at each stage, but they lost the competitiveness of the product. They were sometimes forced to stay away from the products and the market.

ATTACHMENT 6-9

VALUE CHAIN FOR NINTENDO



Atari's current position in the home video game industry depends upon not only the current management ability or strategy but also the history of transition. In 1988, Atari sued Nintendo as violating anti-trust law. Although this may be one of its strategies to catch up with Nintendo, its strategies will not work well unless they are formed around market and products.

Now NEC and Sega have entered the U.S. market with 16-bits high tech video game system. The market seems to be dominated by Japanese manufacturers as has happened in the consumer electronics market. Not only for Atari but also for all such competitors, it is time to reexamine their strategies thoroughly getting back to the starting point.

CHAPTER 7

SUMMARY AND CONCLUSION

In Part I, after introducing Hax and Majluf's three-level hierarchy and twelve step strategic planning process, I discussed operational issues in chapter 4 where I emphasized the horizontal/vertical coordination. I also emphasized the role of middle managers who handle the field information and functional strategy, and connect those to corporate and business strategies. It seems that the strength of functional strategies gives competitive advantage to some Japanese firms. American firms, on the other hand, have strong business and corporate strategies. My discussion focuses on strengthening functional strategies of American firms by using horizontal/vertical coordination.

In Part II, I mainly discussed the competition in home video game industry, Nintendo vs. Atari using the strategic planning process shown in Chapter 2 and 3. In Part II, I tried to find some competitive advantage of a Japanese firm which does not have manufacturing edge which is said to be the main advantage of Japanese firms. Although Nintendo dominates the U.S. market, one may say it is only lucky. But those who call it lucky understand the history of British Motorcycle industry and American electronics industry. In both cases, there is no clear strategic benefit for firms to retreat from the market. I concluded in Part II that the strength of Nintendo comes from the marketing, technology and financial strategies.

It may seem that there is no relationship between Part I and Part II. But I believe competitiveness comes from the market and product, which will be strenghened by horizontal/vertical coordination. Without obtaining the correct market information and product information, no one can compete well in the market. Horizontal/vertical coordination plays an important role in having a competitive edge.

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APPENDIX A

DEFINITIONS OF FINANCIAL RATIOS

THis appendix is to provide definition and formula for financial ratios used in this thesis.

1. Indicators of Profitability

Profitability refers to the ability of a firm to generate revenues in excess of expenses. In examining this ability, it is useful to control for differences across firms in their resource base. The following three ratios illustrate alternative ways of expressing relative profitability:

1) Return on Investment (all capital) (ROI)

This ratio measures overall return on invested capital (on an unleveraged equivalent, aftertax basis); it can be used to compare firms with different amounts of leverage. This is the hypothetical return to common equity if the firm recapitalized and then had only common equity in its capital structure. It is calculated as:

$$ROI = \frac{\text{Net income + interest after tax}}{\text{Average assets}}$$

2) Return on Equity of common stockholders (ROE)

This ratio measures the efficiency with which common shareholders' equity is being employed within the firm. The numerator of this ratio is usually net income available to common

stock, i.e., after prefered stock dividends payments. As with the debt to equity ratio, the return on equity ratio implicitly requires one to define debt and equity.

The average of the opening and closing balances of total assets or shareholders' equity is usually recommended as the denominator. The formula is;

$$ROE = \frac{\text{Net income after tax} - \text{Preferred stock dividends}}{\text{Average equity of common stockholders}}$$

3) Return on Sales (ROS)

It is sometimes called Net Profit Margin. There are many possible definitions of profit margins. We use the following measure;

$$ROS = \frac{\text{Net income}}{\text{Net sales}}$$

2. Indicators of Efficiency

These ratios are used to judge how efficiently firms are using their assets. Various aspects of the efficiency with which assets are utilized can be measured. We use the following ratios.

1) Inventory Turnover (times)

This ratio measures the efficiency of inventory which firms turn over per year. The greater the number of times per year that inventory turns over, the more efficiently the inventory is being used. The smaller the inventory in relation to cost of goods sold, the greater the sales activity that the inventory is able

to sustain. But it may sometimes indicate short production runs and inadequate inventories. It is defined as;

$$\text{Inventory turnover} = \frac{\text{Cost of goods sold}}{\text{Average inventory}}$$

2) Accounts receivable turnover (times)

This ratio measures the number of times that receivables are generated and collected during a period. It is computed by dividing sales by average accounts receivable:

$$\text{Accounts receivable turnover} = \frac{\text{Sales}}{\text{Average accounts receivable}}$$

The greater the number of times that accounts receivable turn over, the smaller the amount of funds that the firm has "tied up" in accounts receivable and the greater the amount of funds that it invest in other assets.

3) Number of day's sales in accounts receivable

The number of days' sales in accounts receivable may be determined by dividing accounts receivable as of any particular day by average sales per day:

$$\text{Number of days' sales in accounts receivable} = \frac{\text{Accounts receivable}}{\text{Average sales per day}}$$

4) Plant & equipment turnover (times)

The efficiency with which plant and equipment is utilized

may be measured by the plant and equipment turn over ratio, determined by computing sales to average book value (cost less accumulated depreciation) of plant and equipment:

$$\text{Plant and equipment turnover} = \frac{\text{Sales}}{\text{Average plant and equipment}}$$

3. Indicator of growth

We include four ratios that measure the growth of a firm.

1) Sales Growth Rate (%)

Both year-over-year growth rate and average annual compound growth rate for a period of several years are used. By comparing sales growth rates of a firm to the industry or its competitors' growth rates we will show whether a firm is gaining, holding, or losing market share.

2) Operating Income Rate (%)

This rate is computed the same way as the sales growth rate and measures the profitability trend of the firm.

3) Income before Income Tax (%)

This rate is computed the same way as the sales growth rate and measures the profitability trend of the firm.

4) Net Income Growth Rate (%)

This rate is also computed the same way as the sales growth rate and measures the profitability trend of the firm.

4. Indicator of Financing

1) Debt to Equity Ratio (%)

Financing ratios, one of which is the debt to equity ratio, compare claims of creditors with the equity of stockholders.

The debt-to-equity ratio relates capital provided by creditors to that supplied by owners. Debt includes all outstanding liabilities, both current and noncurrent. Equity includes balances in all owners' equity accounts-common and preferred stock, capital provided in excess of par, and retained earnings.

$$\text{Debt-to-equity ratio} = \frac{\text{Total debt}}{\text{Stockholders' equity}}$$

The higher the debt-to-equity ratio, the greater the amount of the priority claims against the assets, and in the event the firm is unable to meet all its outstanding obligations, the less likely that any individual claim will be liquidated in full.

5. Indicators of liquidity

Liquidity refers to the ability of a firm to meet its short-term financial obligations when and as they fall due. Several ratios provide evidence on liquidity.

1) Current Ratio (%)

The current ratio measure a firm's ability to meet current obligation as they come due. As such it is especially meaningful to parties considering whether to extend credit to the firm. The current ratio compares current assets to current liabilities:

that is, it relates cash and the assets that are most likely to be transformed into cash within a single business cycle to the debts that will fall due within that period.

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

2) Quick Ratio (%)

The quick ratio measures, by a more severe test than current ratio, a firm's ability to meet current obligations as they come due. The quick ratio matches cash, marketable securities, and accounts receivable to current liabilities. It provides an indication of the ability of the company to satisfy its obligations without taking into account both inventories, which are less readily transformed into cash than other current assets, and prepaid expenses, which save the firm from having to disburse cash in the future but which are not themselves transformed into cash.

$$\text{Quick ratio} = \frac{\text{Cash + Marketable securities + Current receivable}}{\text{Current liabilities}}$$