CREATING DEMAND THROUGH DIVERSIFICATION: 
THE EVOLVING STRATEGIES OF THE 
LARGE JAPANESE CONSTRUCTION FIRMS

by

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Submitted to the School of Architecture in 
Partial Fulfillment of the Requirements for the 
Degree of 

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at the 
Massachusetts Institute of Technology 

September 1991

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ABSTRACT: 

The Japanese Construction Industry has experienced two decades of drastic change since the early 1970's. Over this period of booms and busts, large Japanese construction firms attempt to create a new future for themselves. They no longer await idly for construction orders to arrive; instead, they seek proactively to create demand for construction. 

This thesis has two goals: first, to study both the business diversification and multinational expansion strategies and their combined use to create demand; second, to examine how large Japanese construction firms respond to change. In order to create demand for construction, large Japanese construction firms have diversified into four major new business categories: real estate development, finance, engineering construction, and technology development. In addition, they have also pursued other new businesses both related and non-related to construction. Furthermore, these firms have ventured into the international markets in the following regions: Asia, the Middle East, Africa, South/Central America, North America, Europe, and Oceania. In short, these firms have attempted to maximize demand by simultaneously pursuing business diversification and multinational expansion. 

 Throughout the seventeen years of change, large Japanese construction firms have created and modified their strategies in response to the changing economic and political forces that dictate the market. In response to the construction slump in Japan between 1973 and 1987, large Japanese construction firms have sought a full-scale business diversification and multinational expansion in order to create demand. In response to the domestic construction boom between 1988 and 1990, these firms have shifted their focus to expanding the core business in the domestic market. Thus, this thesis concludes that the short-term strategies of the large Japanese construction firms are market driven. Their long-term strategies, however, are resolute. These firms plan to continue the multinational business diversification, and they are certainly preparing to enter the future market--the space market. 

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Title: Lecturer, Department of Urban Studies and Planning
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I would also like to express my sincere appreciation and gratitude to Gloria Schuck, my thesis advisor, and Eleanor Westney, my thesis reader for making this process a fun and rewarding learning experience. Throughout the past two months, Gloria has guided me through the organization of this thesis. She has taught me to organize and present my data in a clear and concise manner. Eleanor has guided me through the analysis and interpretation of the data. She has further provided valuable insights into the Japanese corporation.

A special thank you goes to Felix, Marc, Rio, Ross, and Vivi for their kind assistance during the different phases of this thesis.

The most heartfelt thanks go to my family. To Mom and Dad, thank you for your love and guidance; to George, my partner in life, thank you for your patience, love, encouragement, and unfailing sense of humor.
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INTRODUCTION

"In the Japanese business community, there is a time-tested saying: 'A period of change is a period of chance'... The success or failure of corporations will depend not only on how well they can learn from their experiences but also on how well they challenge the unknown, the unexperienced."

Fumio Hasegawa
Built by Japan, 1988

The period of change in the recent history of Japan's construction industry has been the construction booms and busts that occurred between 1973 and 1990. The first drastic change was the decade of slow growth (from mid-1970's to late 1980's) which ended Japan's fifteen years of economic expansion. Between 1985 and 1987, large Japanese construction firms formulated strategies to create demand for construction. They began to expand vigorously their core business and market share through business diversification and multinational expansion.

Shortly after launching their plans for diversification, another change ensued. In 1988, foreign restrictive moves against Japanese exports and the rapid appreciation of the value of the Japanese yen caused the Japanese government to promote domestic economic expansion¹. Consequently, the government's plans to

¹Further details will be discussed in Chapter 2.
improve domestic infrastructure, coupled with the private firms' business expansion, generated a large construction demand and, thus, construction opportunities for the Japanese construction firms. This drastic change diverted many large Japanese construction firms' earlier plans to diversify and prompted them to expand their core business in Japan. Nevertheless, the economic boom was short-lived. In 1990, the Japanese economy experienced yet another downturn.

While some people view the booms and busts merely as cycles of the construction business, others believe that drastic change signifies the need to seek a new destiny for the Japanese construction industry. Many large Japanese construction firms have sought to challenge the "unknown" by moving into new territories. Specifically, these firms began to develop new businesses in order to increase orders for construction. Examples of new businesses include real estate development, finance, engineering construction, technology development, and so forth.

Meanwhile, these firms also began to launch a multinational expansion in order to develop and expand their share in the world market. Steps taken towards multinational expansion are: first, to penetrate the developing regions (i.e., Asia, the Middle East, Africa) and then to enter the developed areas (i.e., North America, Europe).
In essence, this thesis focuses on two important themes. First, the large Japanese construction firms create demand through business diversification and multinational expansion. Within a period of seventeen years, these firms have diversified into a wide range of new businesses and have established presence in major cities throughout the world. Nevertheless, the Japanese construction firms do not dominate the world market. Second, the large Japanese construction firms respond immediately to the changing economic and political forces that dictate the market. Even though their short-term strategies are market driven, firms' long-term strategies tend to be resolute.

To begin, this thesis presents an overview of the Japanese construction industry and firms (Chapter 1). Specifically, who are the top general contractors? What are the characteristics of the Japanese construction industry and firms? How does relationship affect business in Japan?

Next, the thesis explores the period of change through a description of the economic and political factors which affect it (Chapter 2). The review of the academic literature on business diversification and multinational expansion strategies has led to the generation of an integrated model for business diversification and multinational expansion (Chapter 3). This dynamic model not only describes how firms pursue business and multinational
diversification but also demonstrates how firms' strategies change in a volatile market.

Case studies of three leading Japanese construction firms have been performed as a means to compare diversification strategies (Chapter 4). The firms chosen for the case studies are: Shimizu Corporation, Taisei Corporation, and Kumagai Gumi Company, Ltd. The first two firms belong to those of the traditional top five construction firms in Japan. The third firm has emerged to the top status during 1980's. All three firms have taken upon the role as real estate developers.

An analysis of the interview data provides insights into firms' business diversification activities and geographical expansion, and equally important, it examines how firms respond to change (Chapter 5). The integrated model for business and multinational diversification illustrates the short-term and long-term diversification strategies of each firm. Finally, a summary of key issues discussed in this thesis will be presented (Chapter 6).
CHAPTER 1
THE JAPANESE CONSTRUCTION INDUSTRY:
AN OVERVIEW

WHO ARE THE GENERAL CONTRACTORS?

In Japan, the construction industry consists of a large number of small firms and a small number of large firms. It is one of the largest industries in Japan, with more than 576,417 licensed construction enterprises which employ 4.8 million workers (Japan Statistics Yearbook, 1990).

General contractors are classified as construction firms who are capable of performing the entire range of building and civil engineering work. They range in different sizes and are measured according to the amount of their sales. According to a report by Bennett, Flanagan, and Norman (1987) on the Japanese construction industry, the top general contractors in Japan--the "Big Six"--are large by international standards, which is measured either by number of employees or by size of turnover (p. 26).

The Big Six comprise Kajima Corporation, Ohbayashi Corporation, Shimizu Corporation, Takenaka Corporation, Taisei Corporation--the traditional top five general contractors which have consistently achieved major market share in Japan--and Kumagai-Gumi Company, Ltd. Kumagai-Gumi has recently achieved the status as one of Japan's top general contractors primarily by working
overseas as both a developer and contractor. Table 1.1 exhibits some of the top 250 international contractors. The ranking of these international firms is based on total orders received from overseas activities in 1989. Note that leading Japanese general contractors are trailing the American and European engineering giants such as Brown & Root Inc. of the U.S., The Bechtel Group, Inc. of the U.S., and Bovis International Ltd. of the U.K.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Firm</th>
<th>Foreign</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Brown &amp; Root Inc., US</td>
<td>7,164.7</td>
<td>10,976.7</td>
</tr>
<tr>
<td>2</td>
<td>Bechtel Group, Inc., US</td>
<td>6,620.4</td>
<td>12,009.8</td>
</tr>
<tr>
<td>3</td>
<td>The M.W. Kellogg Co., US</td>
<td>5,560.0</td>
<td>9,394.0</td>
</tr>
<tr>
<td>5</td>
<td>Bovis Int'l Ltd., UK</td>
<td>4,378.5</td>
<td>6,187.1</td>
</tr>
<tr>
<td>11</td>
<td>The Parsons Corp., US</td>
<td>2,780.0</td>
<td>9,711.0</td>
</tr>
<tr>
<td>19</td>
<td>John Brown Eng.&amp;Con., UK</td>
<td>1,626.0</td>
<td>1,914.4</td>
</tr>
<tr>
<td>30</td>
<td>Ohbayashi Corp., Japan</td>
<td>951.1</td>
<td>9,972.3</td>
</tr>
<tr>
<td>31</td>
<td>Shimizu Corp., Japan</td>
<td>920.8</td>
<td>13,151.9</td>
</tr>
<tr>
<td>37</td>
<td>Kumagai Gumi Co., Japan</td>
<td>811.5</td>
<td>8,033.9</td>
</tr>
<tr>
<td>38</td>
<td>Takenaka Corp., Japan</td>
<td>736.0</td>
<td>11,254.0</td>
</tr>
<tr>
<td>39</td>
<td>Kajima Corp., Japan</td>
<td>657.2</td>
<td>11,940.1</td>
</tr>
<tr>
<td>70</td>
<td>Taisei Corp., Japan</td>
<td>317.2</td>
<td>11,502.1</td>
</tr>
<tr>
<td>71</td>
<td>China State Const. &amp; Eng.</td>
<td>316.9</td>
<td>971.1</td>
</tr>
<tr>
<td>100</td>
<td>John Laing ETE Ltd., UK</td>
<td>169.3</td>
<td>2,987.5</td>
</tr>
</tbody>
</table>

Dollar amounts in millions
Source: Engineering News Records, 1990

Firms' ranking within the Japanese construction
industry is not based on orders awarded from their international activities alone, however. According to executives in several Japanese construction firms, ranking is usually based on firms' total net sales, total orders awarded, and total number of employees.

The Japanese construction firms trace their origins back to the Edo Period (1603-1860). This period was marked by the relocation of Japan's capital from Kyoto to Tokyo. In general, Japanese cities underwent rapid development during this period.

The forefathers of the present-day contractors were carpenters who built mansions for the samurai families and stores for merchants. Today, these contractors are developers, organizers, financiers, and managers of primarily commercial and industrial projects of urban and regional scale. Large general contractors typically offer comprehensive services that include site selection, financing arrangement, design and construction management, and technology development. The Big Six, in particular, have expanded into the area of real estate investment in overseas ventures. Kumagai Gumi has become the first large Japanese general contractor to participate as a developer in overseas real estate development projects.
CHARACTERISTICS OF THE JAPANESE CONSTRUCTION INDUSTRY

Large Domestic Market

Prior to the mid 1980's, the construction industry was basically a domestic industry. Statistics in fiscal 1985 reveal the total construction investment in Japan to be approximately $330 billion, which translates to about 16% of GNP in that fiscal year (Hasegawa, 1988).

A large domestic market exists for three reasons. First, the Japanese government envisioned manufacturing industries as being the future leading industries through export immediately after World War II and hence declared the role of the construction industry as "the supporter of manufacturing industries in Japan's domestic economy" (Sugimoto, 1986, p. 16). Thus, construction firms began the rebuilding of factories to reactivate manufacturing industries. In return, the growth of the manufacturing industries benefitted the construction industry by their increasing demand for new factories and office space.

Second, the destruction of Japan's infrastructure and dwellings during the war generated an urgent need for rebuilding the nation. Under the government's direction, the reconstruction of the infrastructure, buildings and dwellings began. The tremendous and growing amount of construction projects initiated by both public and private investments
continuously created a large domestic market for the construction industry\textsuperscript{2}.

Third, Japan's infrastructure and housing conditions are underdeveloped relative to its rapid economic growth throughout the 1960's and 1970's. The lag in the development of a highway system and quality housing has continuously created a domestic market for Japanese contractors. Both Japan's postwar industrialization policies and the enormous opportunities at home explain the Japanese construction industry's large domestic demand and, therefore, low level of participation in the international market\textsuperscript{3}.

**The Role of Government in Regulating the Japanese Construction Industry**

Since the industrialization of Japan at the beginning of the Meiji Era (1868-1880), the Japanese government has been initiating plans to create new industries, promote existing industries, and reshape declining industries in order to modernize Japan. The Japanese government is extremely powerful with respect to its ability to combine regulatory, ministerial and discretionary functions to influence Japan's economy; however, every decision made by the government is first

\textsuperscript{2}See Appendix A

\textsuperscript{3}See Appendix B
considered in terms of that decision's influence on the business community. Because both the government and business look upon economic viability as the primary goal of the nation, they have developed an intimate relationship over time to work towards achieving this goal.

The Japanese government coordinates business activities by planning and implementing long-range economic and industrial policies. Two ministries which have direct influence on the construction industry are the Ministry of Construction and the Ministry of International Trade and Industry (MITI). The Ministry of Construction primarily controls domestic construction activities, while MITI is predominately involved in pre-fabrication and international construction.

The Ministry of Construction has been responsible for controlling the construction licensing required for starting a construction business\(^4\), for issuing building permits, and for enforcing the building code. This ministry further controls the award of public-sector contracts to the contractors by means of selecting the highest ranked general contractor to undertake the project\(^5\).

MITI has been responsible for formulating and

\(^4\)Also see Construction Licensing in Japan

\(^5\)Further detail of the Japanese construction firm ranking system will be discussed in Bidding System in Japan following this section.
implementing industrial policies in Japan. This ministry selects target industries, products, and technologies as strategically important for Japan's interest and promotes them (e.g., the recognition of manufacturing industries as the future leading industries through export, and the determination of construction industry as a supporter).

MITI plays an important role in coordinating domestic and international business activities through its powers "to issue permits and licenses, and through persuasion." (Bennett, 1987, p. 16) All overseas construction activities must obtain approval from MITI prior to engagement.

**Construction Licensing in Japan**

Prospective contractors are required by the Contract Construction Business Law to acquire, through the Ministry of Construction in Japan, an official license in order to start a construction business. These licenses differ according to the scale of business, such as the location of head and branch offices and the number of subcontractors the contractor is capable of hiring.

**Bidding System in Japan**

The standard bidding system used in both private and public sectors is restrictive in nature. Usually a small group of firms are invited by private clients or the Ministry of Construction to bid on projects.
The selection of firms is based on the size of the firm and the firm's relationship with the private or public clients. For private projects, client's selection of a contractor can sometimes take the form of a special appointment. For public projects, the selection is usually determined by the "point system" which is devised, by the Ministry of Construction, to rank the construction firms. Such ranking is based on "size, capital sufficiency, total project volume, research and development strength, staff expertise, and previous project experience" (Lindner and Monahan, 1986, p. 55). The top ranking firm is most likely to win the bids.

**The Role of Labor Unions in the Japanese Construction Industry**

In Japan, labor unions do not play a significant role in the construction industry. The primary reason for this is that general contractors do not maintain a large work force but hire subcontractors on a regular basis to perform construction work. The subcontractors are not unionized, and trade unions (i.e., carpenters and masons) do not exist in Japan.

**R&D Activities in the Japanese Construction Industry**

Top general contractors in Japan usually have their own research labs. The researchers whom they employ usually have advanced degrees from top universities. Some
of these firms employ more than 300 researches, and annual R&D budgets per researcher ranges from $200,000 to $800,000 (Sugimoto, 1986). Research falls primarily into four areas: using technical expertise of the lab to solve siting problems, using research to support high-level corporate strategy (including future entry into a new market), using research for long-term applications with the approval of management, and providing research service for outside clients.

Competition among Japanese general contractors is intense. Top firms with strong R&D facilities usually have a competitive edge over other firms because the R&D enables firms to develop new methods of building structures and materials to attract powerful clients.

CHARACTERISTICS OF THE GENERAL CONTRACTORS

General Contractors' Domestic Operations

In Japan, the construction business has traditionally been divided into two categories: building and civil engineering. The former includes the construction of dwellings and buildings: condominiums, office buildings, hospitals, and factories. The latter includes site renovation work and the construction of infrastructure: roads, highways, tunnels, bridges, dams, and so forth. In

---

6 See Appendix C for general R&D research areas.
general, large general contractors prefer urban
redevelopment and regional development projects because
these projects encompass both construction and civil
engineering operations.

It is important to note that single-family
housing is normally not included in general contractors'
repertoire. According to Eleanor Westney, author of
"Managing Innovation in the Information Age: the Case of the
Building Industry in Japan," (1987) single-family housing is
primarily produced by specialized housing firms. Over the
past few years, Japanese general contractors have made
several attempts to enter the single-family housing field,
but most have been unsuccessful. An example of a firm which
has successfully entered this field is Taisei, and this firm
is the only leading general contractor in Japan to include
housing in its construction business.

Since the late 1950's, Japanese general
contractors' core business has expanded to include real
estate development. In Built by Japan (1988), Hasegawa
indicates that leading general contractors "want to
eventually chalk up 10 to 30% of their total sales from
development projects" (p. 144). So far, sales from real
estate development is still a small percentage of their
total sales (ranging from 2 to 8%). Since real estate
development is a small part of the core business, sometimes
firms still treat it as a separate business.
Vertical Integration of the General Contractors

Large general contractors in Japan are vertically integrated. Firms like Shimizu and Kumagai-Gumi offer services such as architecture, civil engineering, construction, development, leasing, sales, appraisal, technology research, with construction as a core business. Full integration allows firms to operate on a turnkey basis and facilitates and expedites the building process. Individual departments within each firm work closely towards achieving a common goal--to help the firm achieve a competitive edge--by mutual cooperation to ensure clients of a quality product that can be built within the given time and budget.

Vertical integration allows general contractors to offer clients a wide range of services and, at the same time, allows them to operate with a core work-force of primarily architects and engineers and an efficient research staff. They subcontract construction work to specialized subcontractors and equipment installers (Hasegawa, 1988). This is because, in Japan, general contractors' roles in construction are specified in the area of organizing, financing, and managing construction projects.

Another reason for maintaining a tight permanent work-force is that employment in Japan is on a lifetime basis. General contractors consider the hiring of subcontractors on a project-by-project basis far more
advantageous than keeping permanent employees because this arrangement allows general contractors not only to adjust their work force in keeping with the market cycles but also to minimize problems involved with transferring workers to different regions whenever a new project starts.

Therefore, general contractors usually "foster a family of subcontractors" (Hasegawa, 1988, p. 4) in different regions across Japan and always rely on the long-term relationship with these subcontractors to procure labor and material. Due to their bondage with suppliers and lenders, general contractors achieve low cost and quality service while having access to various financial resources. These strong-ties with the aforementioned groups greatly reduce their financial risk.

THE IMPORTANCE OF RELATIONSHIP

Business in Japan is conducted through goodwill and trust. For this reason, it is important that trade partners develop long-term personal relationships. The bondage formed between the firm and its suppliers or between the firm and its banks is comparable to a marriage. Once committed to this marriage, the firm, its suppliers, and lenders are forbidden to engage in business with the competitors. Ronald Dore, the author of Taking Japan Seriously, 1987 describes this process as relational
contracting.

Table 1.2 illustrates the advantage of relational contracting: the financial institutions' ownership of Kajima Corporation gives the former incentives to share the losses of bad times and the gains of good times. This relationship further provides the contractor a wide range of financing sources and techniques. In this hierarchical relationship, the financial institutions are comparable to the benevolent superior which takes care of the contractor, the beneficiary. One officer of Shimizu Corporation reinforced this point during an interview, "the
banks are the parent and we are the children."

In summary, over a period of rapid growth in Japan during the 1960's and 1970's, the Japanese construction industry expanded and became one of the nation's largest industries. Yet, because of the Japanese government's industrialization policies and the large domestic demand, this industry operated primarily in the domestic market. Therefore, Japanese general contractors fell behind other nations' contractors in the international market.

The Japanese general contractors are vertically integrated and are able to take advantage of this vertical integration to provide a wide range of services to their clients. Meanwhile, general contractors maintain a tight work force, by means of subcontracting work to subcontractors, in order to maintain low overhead, achieve high flexibility, and maximize efficiency. Having explored the characteristics of the Japanese construction industry and firms, the next chapter describes a period of change in Japan.
REFERENCES


CHAPTER 2
A PERIOD OF CHANGE

The two oil crises, first in 1973 and again in 1979, curtailed Japan's post World War II economic expansion, reduced real estate investments and development opportunities in both the public and private sectors, and drove the construction industry into the "Winter Age."

Between mid 1988 and 1990, Japan experienced a sudden but brief economic boom, the "Bubble Economy." During this period, the Japanese construction industry was benefitted from the growth and expansion of the private sector as well as the government's investment in Japan's infrastructure. Nevertheless, the Bubble Economy collapsed in late 1990. Major reasons included the overheated Japanese real estate market, the enactment of Japan's Tight Money Policy, and the stock market crash in September, 1990.

The purpose of Chapter 2 is to examine the economic and political factors that have led to the booms and busts in the Japanese construction industry. The time frame in this chapter covers 1973 (the first oil crisis) to 1990 (the collapse of the Bubble Economy). Below is the time line which illustrates this period of change in the Japanese construction industry.
<table>
<thead>
<tr>
<th>Post W.W. II Expansion</th>
<th>The Winter Age</th>
<th>Bubble Economy</th>
</tr>
</thead>
<tbody>
<tr>
<td>late 1950</td>
<td>1973</td>
<td>1975</td>
</tr>
<tr>
<td></td>
<td>1979</td>
<td>1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1988</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1990</td>
</tr>
</tbody>
</table>

Briefly, Post World War II Economic Expansion took place between the late 1950's and 1973. In 1973, the first oil crisis occurred and marked the beginning of the Winter Age. In 1975, Japan entered a long period of slow growth, and consequently a construction slump, which only worsen by the second oil crisis in 1979. By 1985, large-scale business and geographical expansion of the Japanese construction firms ensued. This was also the time when corporate strategic planning within these firms became most vibrant.

In mid 1988, Japan entered a period so-called the Bubble Economy. During this period, the Tokyo metropolitan area experienced a sudden economic and construction boom. This miracle did not last, however. In late 1990, the Bubble Economy collapsed following the crash of the stock market.

THE WINTER AGE

The two oil crises were the direct cause of the Japanese construction slump, and they curtailed Japan's 15-year economic expansion. Companies across the major
industries suspended their plans to build factories and expensive office buildings during this period of slow growth. Meanwhile, orders for power plants decreased substantially as a result of soaring oil prices.

**Slump in the Private Sector**

Japanese industries (i.e., manufacturing, real estate, insurance, etc.) were the main source of demand for construction during this period in Japan. According to *Japan Statistic Yearbook*, 1990, domestic orders for construction from the private sector were 49% of total orders in 1975, increased to 61% in 1985, and further increased to 66% by 1987.

Although orders from the private sector increased during this period, these construction projects were small both in size and in cost. A major reason was that Japanese companies prioritized their expenditure on R&D and not plant or factory building. In his book *Built by Japan* (1988), Hasegawa revealed that the oil crises triggered the design and production of energy-efficient factories across Japanese industries. Most light and heavy industrial companies allocated their budgets to purchasing highly automated machines in order to reduce the labor force. They also began investing heavily into R&D to prepare for the forthcoming high-tech era.

The result of all this was that large
construction firms began to compete with small and mid-size construction firms for smaller projects. In the process, large firms squeezed out smaller firms. Figure 2.1 is a graph showing bankruptcy of firms in the various Japanese industries between 1972 and 1982. Note that construction industry demonstrates by far the highest bankruptcy rate.

Figure 2.1: Bankruptcy of Firms in Various Japanese Industries

Source: Bennett, 1987

Slump in the Public Sector

In order to fight the construction slump, Japanese government attempted to induce a high number of public construction projects since the beginning of the slow growth period. The government-induced demand growth kept the construction industry active temporarily; however, after
1980 public works lost its impact as the prime mover due to government budget shortages. Table 2.1 illustrates the difference in the level of public orders before 1980 and after 1980. Note that public orders took up approximately 40% of total value of construction orders in 1975 and 1980. The total value of orders plummeted to approximately 27% from 1985 through 1987.

Table 2.1: Value of Construction Orders Received by Japanese Construction Firms (1975-1987)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Private</th>
<th>%Total</th>
<th>Public</th>
<th>%Total</th>
<th>Other</th>
<th>%Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>5,945</td>
<td>2,887</td>
<td>48.6%</td>
<td>2,548</td>
<td>42.9%</td>
<td>8.5%</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>9,198</td>
<td>4,939</td>
<td>53.7%</td>
<td>3,756</td>
<td>40.8%</td>
<td>5.5%</td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>12,158</td>
<td>7,431</td>
<td>61.1%</td>
<td>3,370</td>
<td>27.7%</td>
<td>11.2%</td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>12,746</td>
<td>8,099</td>
<td>63.5%</td>
<td>3,621</td>
<td>28.4%</td>
<td>8.1%</td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>14,803</td>
<td>9,794</td>
<td>66.2%</td>
<td>4,018</td>
<td>27.1%</td>
<td>6.7%</td>
<td></td>
</tr>
</tbody>
</table>

Yen amounts in billions
Source: Japan Statistical Yearbook, 1990

Major Transformations of the Construction Industry

Because of changes in the Japanese economy during the Winter Age, several major transformations have occurred within the construction industry.

The Change in Market Demand

A paper by Eleanor Westney on "Managing Innovation in the Information Age: the Case of the Building Industry in Japan" (1987) points out the pronounced transformation of the nature of market demand:
"In industrial and commercial buildings, the shift in Japan's industrial structure away from industries with a high proportion of their investment in physical plant to the 'knowledge-intensive' and service industries has meant not only a lower expenditure on buildings but a change in the kind of buildings required (increasing emphasis on "new building products" such as intelligent buildings and bio-clean rooms.)" (pp. 6-7)

As a result of this transformation, the construction industry has perceived the need to diversify in products and services in order to address the changing needs of clients.

MULTINATIONAL BUSINESS DIVERSIFICATION

Another major transformation within the Japanese construction industry has been the large-scale multinational business diversification of the large Japanese firms. In order to compensate for the declining domestic orders, these companies have sought to create demand (for construction) through business diversification and multinational expansion.

In terms of business diversification, large construction firms have tried to initiate real estate development projects that would lead to construction opportunities. Another means of creating demand for construction has been the use of financial strategies such as project financing, guarantee of loans, equity investment, and establishment of overseas subsidiaries. Through these financial strategies, Japanese general contractors have been able to acquire international construction, real estate
development and investment projects.

The third method has been the provision of higher value-added services (through the role of "engineer constructors") to clients. Westney's paper defines "higher value-added" as follows:

"new products for which customers are prepared to pay a premium because they meet their needs more effectively or which because of greater suitability for customer needs are chosen over competing products (but at comparable prices); new business areas which meet emerging or latent needs; or existing products or businesses in which the building firm can carry out more of the value added chain. "Products"...[include] not only buildings but also services." (p. 7)

The fourth means of creating demand has been the pursuit of technology development. Large Japanese construction firms have thought that technological innovations would enable them to expand in higher value-added services and businesses. Furthermore, these companies have believed that technology development, especially space technology development, would open doors to construction opportunities in the future.

Besides diversifying in the above four categories, large construction firms have also sought development in other new business areas. These new businesses include build and manage, consulting, maintenance, new media, and tourism, just to name a few.

In terms of multinational expansion, large Japanese construction firms have expanded their activities
to Asia, the Middle East, Central/South America, North America, Europe, and Oceania. Why have the Japanese construction firms gone abroad?

Hasegawa (1988) states that a full-scale expansion into the international market has occurred only after the first oil shock in 1973 when the Japanese construction firms realized the need to "look outward" after the sharp plunge of domestic orders.

A report on Japanese construction industry (Bennett, 1987) indicates that foreign direct investment has been a "natural response to the threat of imposition of tariffs and other barriers to [Japanese] exports." (p. 22) Since threats have been growing in both the U.S. and Europe in the mid 1980's, Japanese manufacturing industries have begun to establish overseas subsidiaries (especially in these regions) to avoid tariff and non-tariff barriers. The Japanese manufacturing companies have then generated construction opportunities for the Japanese construction firms.

Finally, interviews with the executives of several construction companies reveal that the scarcity of land in Japan has been the primary reason for their multinational expansion. The multinational business diversification strategies will be discussed in greater detail in Chapter 3.
THE DEVELOPMENT OF CORPORATE STRATEGIC PLANNING GROUPS

The last salient transformation of the Japanese construction industry is the firms' development of corporate strategic planning groups. The goal of the centralized strategic planning body, according to Westney, is:

"to guide and coordinate diversification and strategic product development, and to maximize the synergies across the product and business areas. Until quite recently,... relatively little strategic planning was actually carried on. However, with the expansion into new businesses and the efforts to reduce dependency on outside orders by initiating projects, the need for corporate-level strategic planning has become increasingly evident."

(p. 19)

The corporate strategic planning groups have been responsible not only for identifying new business opportunities but also for initiating the development of new businesses. Thereafter, the groups would hand new businesses off to line management, which would continue their development. Westney points to Shimizu's "silver care" (business related to the elderly) as an example.

In the late 1980's, Shimizu's corporate strategic planning group identified "silver care" as a possible area of diversification. This group learned that a Los Angeles based firm specializing in the management of homes for the elderly had been trying to enter the Japanese market. Having discovered this opportunity, the strategic planning group negotiated a joint venture with this firm and
worked to develop an appropriate staff to manage the joint venture company.

THE BUBBLE ECONOMY

The Bubble Economy, according to several executives in the Japanese real estate and construction companies, is a period marked by an enormous domestic economic expansion. The positive outcome of this expansion is the increased orders for construction. Table 2.2 offers a comparison of the value of construction orders received in 1985, 1986, 1987 and 1988. Note the sudden boost in total value of construction orders during the transition from the Winter Age to the Bubble Economy. Specifically, the total value of construction orders in 1987 increased 16% from the previous year and in 1988 further escalated 22%.

Table 2.2: Value of Construction Orders Received by Japanese Construction Companies (1985-1988)

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>% Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The Winter Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>12,158</td>
<td>--</td>
</tr>
<tr>
<td>1986</td>
<td>12,746</td>
<td>5.0%</td>
</tr>
<tr>
<td>1987</td>
<td>14,803</td>
<td>16.1%</td>
</tr>
<tr>
<td><strong>The Bubble Economy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>17,996</td>
<td>21.5%</td>
</tr>
</tbody>
</table>

Yen amounts in billions
Source: Japan Statistical Yearbook, 1990
Definition of the Bubble Economy

What does "Bubble Economy" mean? Various answers have been given by executives and professionals of both the Japanese construction and real estate firms. One executive from a Japanese real estate company indicates that the term "bubble" refers to the tremendous land speculation in Japan, which has been attributed to Japanese banks' uncontrolled lending practice:

"The term 'bubble' means excess supply of funding/financing than demand. Traditionally, commercial banks play a key role in financing real estate and construction projects. Since the late 80's, banks have been losing their dominance in the market as corporations have been discovering other sources of financing such as securities companies, insurance companies...In order to increase profits, banks have been willing to finance all types of land speculation."

The tremendous turnover rate [for land] has caused a price hike not only for land but for real estate in general. The low interest rate and the tremendous financing availability [in Japan have enabled] real estate brokers to take advantage of the situation: they have assembled parcels of land not for development but rather for speculation. In Japan, land is divided into very small parcels, and land price is very, very expensive. If you assemble smaller pieces into a large chunk, you can sell it for an enormous profit."

Thus, the low interest rate has ignited land speculation while enormous financing availability has fueled land speculation. This speculation has rapidly led to an overheated real estate market in Japan.

An executive from a Japanese construction
firm states that during the Bubble Economy Japanese corporations have made use of other financing instruments besides the traditional bank loans. These instruments have included mortgage backed loans, commercial papers, bonds, and so forth. Since most of the financial activities have been based on loans and credits, the whole economy have become "fragile--like a bubble."

**Causes for Japan's Economic Boom During the Bubble Economy**

Interviews with these executives further reveal the causes for the domestic economic boom. First and foremost, Japan "has been encouraged by the U.S. to become a leader of the world economy." Accordingly, Japan would have an obligation to balance its trade surplus by increasing its domestic demand and consumption. For this reason, the Japanese government has promoted domestic demand by encouraging spending in the private sector and by investing in the improvement of Japan's infrastructure. (The annual report of Kumagai Gumi Company for 1990 projects a government investment of 430 trillion yen, or $2.7 trillion at the exchange rate of US$1=158 yen, for the next decade.)

The second reason, of course, has been the soaring exchange rate of Japanese yen against other major currencies. Westney explains in these words:

"The other reason was the rapid appreciation of the value of the yen, which gained about 50% in 1986-1987 over the other major currencies, and effectively cut the value of
revenues from exports in half. The Japanese market thus became increasingly important to Japanese companies, and they in turn wanted the government to take measures to increase domestic consumption."

In fact, the Japanese market has not only attracted Japanese companies but also foreign companies. One executive from a Japanese real estate company asserts:

"Since the increase of the yen value, the Japanese market has been attracting the attention of not only Japanese companies but also foreign companies like Morgan Stanley and Goldman Sacks. People have discovered that Japan is an important market."

For these reasons, the investment of private companies—both domestic and foreign—have contributed to the domestic economic boom. Investments by the private Japanese companies have further created tremendous construction orders.

**Causes for the Bust of the Bubble Economy**

Nevertheless, Japan's economic boom has been short-lived. Major reasons which have led to the bust, according to these sources, are the overheated real estate market caused by speculation, the enactment of the Tight Money Policy to decrease bank loans, and the stock market crash in 1990.

As previously discussed, the most speculation in the real estate market has been on land. An executive from a Japanese real estate company indicates that speculation on land have triggered an immense increase in
land prices while speculation in condominiums and apartment buildings has caused an oversupply in the housing market:

"At one point, land price reached 90% of total development cost. Yet, banks kept lending so [real estate] brokers kept buying land and then turn around and sold them.

On the other hand, there were also developers who bought land to build condos. On the average, it took two to three years to consolidate land, two more years to complete the concrete structure...because financing for development had been easy [to obtain], developers kept building. [This resulted in] the over-building during the late 80's. Everyone wanted the bubble to get bigger and bigger, but someone eventually push a nail into the bubble."

According to this source, this "someone" has been the Bank of the International Settlement (BIS), an international organization which controls banks that engage in international businesses:

"Through the Tight Money Policy, BIS raised the capital requirement of commercial banks' total assets. If banks were not able to meet the requirement, they would lose credibility and their reputations would suffer. BIS' requirement nullified Japanese banks' ability to lend money."

In order to comply with the new regulation, many Japanese banks have been raising money by calling back both short-term and long-term loans. Such a move has resulted in the bankruptcy of many companies in Japan and, eventually, has caused the bubble to burst. According to an executive of a Japanese construction firm, the last straw which caused the collapse of the Bubble Economy has been the stock market crash in September, 1990.
Having examined seventeen years of change in the Japanese economy and the transformations of the Japanese construction industry, Chapter 3 will describe, in detail, specific strategies applied by the construction industry to create demand.

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REFERENCES


CHAPTER 3

STRATEGIES FOR CREATING DEMAND

"[The construction companies are not immune to the cycles of the construction business...] The purpose of the [demand-creating] strategies is to smooth out the bumps and to shield the Japanese construction companies from the cyclic nature of the business."

Eleanor Westney, 1991

This chapter examines the demand-creating strategies of large Japanese general contractors. The strategies described in Hasegawa's Built by Japan (1988), which address the "new formula" for growth for the Japanese general contractors, provide the basis for this discussion. The theories and diversification models examined in Hasegawa's book are those of the manufacturing industry which have been applied, by Hasegawa and other academies, to the construction industry. The theories and models of the growth strategies will be discussed in the first section of this chapter.

Using these strategies and models, the author created a modified diversification model in order to integrate firms' business diversification strategies with their multinational expansion strategies. This model will be discussed in detail in the last section of this chapter.
Hasegawa's Three Criteria for Formulating Strategies

According to Hasegawa (1988), firms consider the "three criteria for formulating strategies" prior to strategy formation. The first criterion involves the assessment of market opportunities by means of evaluating the various segments of a market. The second criterion, status of competitors, is important since it allows Japanese construction firms to watch for competition from non-construction companies that are likely to move into the construction market, or companies in the particular market or market segment which the construction firms intend to enter and compete. By evaluating the status of existing or potential competitors, Japanese construction firms can compare their own strengths and weaknesses with these companies.

The final criterion entails the assessment of firms' own resources. Hasegawa defines "resources" as follows:

"personnel, equipment and materials, money, information, and branch office networks. Technology and business experience are subfactors under the information and personnel factors" (p. 34).

By capitalizing on their resources, Japanese construction firms formulate strategies that will enable them to further expand in the existing market and/or compete in a new market.
Hasegawa's discussion of "Analytical Axes for Market Segmentation"

In order to better understand how construction firms strategize to compete in different segments of the existing market or to penetrate new markets, it is important to first understand the market in which Japanese construction firms operate. Hasegawa defines "the market" in terms of three axes. As the following diagram illustrates, the market divides into three parameters, which in turn subdivides into various segments (pp. 30-34).

Figure 3.1: Three Axes for Market Analysis

Source: Hasegawa, 1988
The first parameter is the product parameter, which divides into two categories: building and civil engineering (Axis 1 - Products). Each category further classifies into subcategories. For example, housing and office buildings are classified under the building category, and roads and bridges are classified under the civil engineering category. Expansions among these construction product lines are defined as product diversification, a strategy commonly used by most contractors.

The second parameter is the geographical locations of the market, which divides into domestic market and overseas market (Axis 2 - Regions). The domestic market further classifies into subcategories such as regional block, prefecture (county), and municipality. Expansions into domestic or overseas markets are defined as geographical diversification. Prior to the oil crises, most expansions have been domestic; however, this expansion pattern has dramatically shifted to the overseas market since the construction slump in Japan in the mid 1970's.

The third parameter is the business parameter, which divides into construction related categories (i.e., construction, engineering, and real estate development) and non-construction related categories (i.e., sports, leisure, health care, etc.). Axis 3 in Table 3.1 depicts the business fields. Prior to the construction slump, this strategy is used by large Japanese construction
firms primarily for the following purposes:

1. to upgrade products through acquisition of improved engineering and design capabilities to better serve their clients,

2. to stabilize profits by increasing profit sources to include those outside of the construction market, and finally,

3. to create new jobs for older permanent employees who will be removed from the main construction operations when they pass their productivity peak. (Hasegawa, 1988)

Strengths and Weaknesses of the Large Japanese General Contractors

As previously mentioned, Japanese construction firms generally assess their strengths and weaknesses prior to formulating strategies. This section discusses the typical strengths and weaknesses of large Japanese general contractors.

In general, the vertically integrated firm structure is a major strength of the large Japanese general contractors. This strength enables them to pursue the entire range of the construction market: regional development, urban redevelopment, engineering, and so forth.

Strong-ties with chief financial institutions and major firms of the various industries is a strength of equal importance to these Japanese general contractors. Through their long established relationships with these institutions, large Japanese general contractors can easily gain access to capital and financing techniques.
In addition, large Japanese general contractors' dedication to improve and innovate technologies empowers the firms with the ability to handle construction and civil engineering projects of extreme complexity.

Thus, vertical integration, accessibility to vast financial sources, and advanced construction technologies equip large Japanese general contractors with the capacity to pursue large scale construction and consulting projects in both the domestic and international markets.

Nevertheless, since Japanese general contractors' previous experience has been predominantly in the domestic realm, they identify unfamiliarity with non-Japanese cultures as their major weakness when operating overseas. The lack of knowledge in local customs, land use, legal system, and so forth often causes tremendous problems for these firms in their international ventures.

Creating Demand Through Business Diversification

Having evaluated their strengths and weaknesses, the following sections will explore the growth strategies of large Japanese general contractors for the creation of new demand. According to Hasegawa, one strategy through which demand can be created is business diversification.

CONSTRUCTION RELATED BUSINESSES

There are two approaches to business
diversification: construction related and non-construction related. Construction related diversification describes the expansion of general contractors, through utilizing the strength of the vertically integrated firm structure, into the peripheral construction businesses. These businesses include real estate development, project financing and investment, engineering construction, and technology development.

Real Estate Development Project Strategy. Using this strategy, general contractors initiate development projects as a means to create opportunities for construction. Real estate development projects are defined as construction projects that involve purchases and sales of land or floor space and that usually operate at a large scale (e.g., regional development, urban development and redevelopment, industrial development). Since land is a scarce commodity in Japan, finding available land for development can be a real challenge. Large general contractors usually acquire development lots through the purchase of vacant plant sites.

Generally, there are two ways to engage in real estate development in the Japanese market. The first is the go-it-alone approach, which means that Japanese general contractors undertake the development of projects independently. This process includes land acquisition, project financing, planning and design, and construction.
Upon completion, the firms then take the responsibility of selling or maintaining the buildings. The independent approach is more commonly used among mid to small size projects, such as Kumagai Gumi's Evergreen Condominium development in Tokyo and Osaka. These projects range from 100 to 500 units.

Another approach, common among large-scale development, is the firms' participation in a project team consisting of themselves (the contractors), a bank, a developer, a brokerage company, and so forth. The project team will distribute the activities in the development process according to their area of expertise. The general contractors' roles in these projects are both contractor and co-developer. Shimizu's joint development project with Mitsubishi Estate (Japan's largest real estate company) for mid and high-rise buildings housing 5000 condominium units in Matsudo City (on the outskirts of Tokyo) is exemplary.

Japanese general contractors have found international real estate development to be a primary target of opportunity since 1985. Typical projects being developed in the overseas market include condominiums, office buildings, and hotels. Other targets of opportunity in real estate development include the following:

1. housing for the elderly since the Japanese population as a whole is aging as a result

7Details on the subject will be further discussed in Creating Demand Through Geographical Diversification.
of extended life expectancy and a declining birth-rate;

2. public works such as offshore airports, highways, and bridges that are initiated and financed by private Japanese companies;

3. local city development such as new town construction and urban redevelopment;

4. social service projects such as the construction of cultural, informational, and welfare facilities in response to the changing needs of the aging Japanese population and the increase of females in the work force;

5. resorts and recreational facilities since the work hours in Japan will be reduced;

6. industrial structure as a result of government's promotion of regional industries.

Financial Strategy. Strong-ties with financial institutions enable large Japanese general contractors to use finance as a tool to create orders. Hasegawa describes the four common financial strategies used by Japanese general contractors below.

The first is project financing, a strategy commonly used by Japanese general contractors for large overseas construction projects which require low-cost financing. Japanese general contractors would first introduce prospective clients to interested financial institutions; if the deal is successful, the general contractors would get the contract for construction. Kumagai Gumi is especially noted for its active use of this strategy. Its 270 billion-(Hong Kong)dollar undersea tunnel
in Hong Kong exemplifies how the firm employed project financing to gain a construction contract for the project.

The second strategy is the guarantee of loans. Although Japanese general contractors have offered loan guarantees to cash-deficit clients in the past, loan guarantees are recently being used consciously and deliberately to promote orders. For example, Kajima and Takenaka provide loan guarantee in the domestic market while Kumagai Gumi does so mostly in the international market.

The third strategy is equity investment. Large Japanese general contractors participate, through equity investment, in many development projects in the hope that these would generate additional revenues and construction work for them. Firms' investments work in two ways: either by buying equity shares of large-scale development projects or by participating, as financial partners, in real estate development projects. Large Japanese general contractors' purchase of equity shares in the New Kansai International Airport, illustrates the first type of investment. Taisei's recent participation, as limited partner, in the development of a 791 home planned residential community in Murrieta, California exemplifies the second type of investment.

Finally, the establishment of finance and leasing subsidiaries in the overseas market is a universal strategy employed by leading Japanese general contractors to
create demand. This is how it works:

"...Leading general contractors have set up finance and leasing subsidiaries designed primarily to provide construction funds to clients on behalf of the contractors. By mobilizing these specialized subsidiaries, the contractors can handle loans, loan guarantees, and factoring that are too risky or involve excess complications for the contractors. The subsidiaries not only earn profits from the financing business but also have the synergistic effect to helping their parents to win orders..." (Hasegawa, 1988, p. 181)


This strategy allows large Japanese general contractors to create demand by offering far more comprehensive services to their clients. Below is an illustration which generally describes the several stages in a full turnkey project.

Figure 3.2: The Full Turnkey Process

<table>
<thead>
<tr>
<th>Design Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Synopsis</td>
</tr>
<tr>
<td>Preliminary Planning (i.e., feasibility studies, environmental assessment)</td>
</tr>
<tr>
<td>Basic Design (schematic, design develop.)</td>
</tr>
<tr>
<td>Detailed Design (working drawings)</td>
</tr>
<tr>
<td>Contract</td>
</tr>
<tr>
<td>Commencement of Construction</td>
</tr>
<tr>
<td>Procurement</td>
</tr>
<tr>
<td>Construction</td>
</tr>
<tr>
<td>Completion</td>
</tr>
<tr>
<td>Test Run</td>
</tr>
<tr>
<td>Commencement of Operation</td>
</tr>
<tr>
<td>Operational Training</td>
</tr>
<tr>
<td>Maintenance/Aftercare</td>
</tr>
</tbody>
</table>

50
First, the firms must define the design basis by outlining a project plan. Then, the firms proceed to the planning stage which usually includes activities such as environmental assessment and feasibility studies. The subsequent step is, of course, to provide design of the building structures and mechanical installations. Thereafter, general contractors procure and install all necessary hardware system (e.g., electrical, piping), and finally, deliver full turnkey services after conducting several test runs of the products. It is quite common that general contractors maintain the buildings after their completion.

The vertically integrated firm structure enables Japanese general contractors to diversify into higher value added businesses such as the one described above. Another type of higher value-added business is the development of new products through new technology. Specifically, Japanese general contractors identify the changing needs of the manufacturing and high-tech industries as a new target of opportunity. These firms invest heavily in their research and development to create higher value-added products such as high-tech clean rooms, coal storage concrete silos, and intelligent buildings to meet the new demand. In the process, they begin to diversify into new markets.

A final point in engineering construction
pertains to the commercialization of engineering know-how. According to Hasegawa, large Japanese general contractors sell their technologies in the general market as full-fledged commercial products. Taisei's establishment of a subsidiary in Japan to market information services for construction related technologies is exemplary.

Technology Development Strategy. Large general contractors seek to create demand by diversifying, through advanced technology, the types of future construction opportunities. These general contractors have invested heavily in research and development of construction related technology.¹

This demand-creating strategy is formulated as a result of heated competition to develop low-cost structures and cost-saving construction techniques, of increasing demand for high-tech features in construction (e.g., intelligent building), of clients' interest to develop energy-saving technology to reduce the overhead costs of the building, and of general contractors' interests in expanding the types of future construction sites (e.g., offshore airports).

Large Japanese general contractors also identify overcrowding and the extremely high land prices in major Japanese city areas as key factors which will promote the construction of offshore cities and underwater tunnels.

¹See Appendix C for Research Areas by the Big Six.
They begin to not only develop technologies for this purpose but also explore technologies for the development of underground cities and space colonies. By and large, large construction firms are diversifying into the "new frontier market," which comprises marine, underground, super high-rise, and space development (Hasegawa, 1988, p. 168).

**NON-CONSTRUCTION RELATED**

Non-construction related diversification describes the expansion of large Japanese general contractors into non-construction businesses through joint ventures with firms in non-construction industries. The purpose of this type of business diversification is primarily to generate a synergistic effect on construction work. These businesses include sports, leisure, information and communication, and so forth.

**Creating Demand Through Geographical Diversification**

As construction opportunities have decreased relative to the increasing size of the Japanese construction industry, large general contractors have begun to expand actively into the overseas market since 1985. They create demand through multinational expansion and through vehicles such as direct investment, joint venture, and participation in foreign corporations through shareholding.

**MULTINATIONAL EXPANSION**

Multinational expansion is critical to
creating demand and expanding business operations. Using this strategy, large Japanese general contractors have established bases in various strategic locations (e.g., major cities such as New York, Los Angeles, London, Paris, etc.), and promoted development and construction opportunities as an "insider" to the host countries.

According to Professor N. Kobayashi at Keio University in Japan who proposed a transnationalization stage model (Hasegawa, 1988), Japanese general contractors are currently in the second of the five-stage development of international corporate management (Figure 3.3).

Figure 3.3: Transnationalization Stages of Construction Operations

The first stage is characterized by the overseas expansion of general contractors' operations, which
are managed by the main office in Japan. The second stage involves the gradual shift of management decisions to and development of autonomy in the overseas subsidiaries.

Today, large Japanese general contractors are moving towards the third stage, which requires them to establish regional centers in the major cities of investment host countries for the purpose of achieving a globally "efficient utilization of labor, office staff, machinery, materials, funds, and management resources" (Hasegawa, 1988, p. 99). The forth stage entails the development of markets around the regional centers. Once these markets become large enough to overlap one another, these general contractors can then implement global management strategies. This is the final stage of international corporate management development.

**RISKS AND CONSTRAINTS IN OVERSEAS VENTURES**

When working in an international environment, Japanese general contractors are exposed to three categories of risk factors. The first category is the emergency risks, such as wars and confiscation (Hasegawa, 1988), which are generally beyond the control of these firms.

The second category is the external risks. Through interviews with Shimizu Land Corporation (a U.S. subsidiary of Shimizu Corporation in Japan) and KG Land New York (a U.S. subsidiary of Kumagai Gumi Corporation in Japan), these risks have been identified as frequent changes
in local laws and regulations, the approval process, unfamiliarity with local culture, language, and customs, and so forth. To mitigate development risks (e.g., development laws and regulations, the approval process), Japanese general contractors can form joint ventures with local developers who are knowledgeable of local conditions. Mitigation of risks associated with unfamiliarity with local culture, language, and customs can also be accomplished through passive participation, such as direct investment through acquisition of buildings and participation in foreign corporations through shareholding.

The third category of risk is internal risks. These risks entail work processes, availability of local resources (labor and materials), organization of joint ventures and consortiums, and so forth (Hasegawa, 1988). These risks can be controlled by careful planning and by developing contingency plans.

AN INTEGRATED MODEL FOR BUSINESS DIVERSIFICATION AND MULTINATIONAL EXPANSION

Upon completion of the literature review, the author created a diversification model in order to integrate business diversification with multinational expansion. This analytical framework will enable a comparison of the diversification strategies among the three general contractors being examined in the case studies (Chapter 5).
The primary source of inspiration is Hasegawa's "three axes for market analysis," which has already been described in the previous section. Essentially, using basic vectors to define 1) a variety of products within each line of business (Product Axis), 2) a range of business activities (Business Field Axis), and 3) possible locations for business activities (Regions Axis), this model illustrates the various options and directions from which a firm can choose in its attempt to diversify.

Borrowing the idea of the axes and the two diversification components (business and geography), the author reconstructed a new framework with two axes. The vertical axis represents the fields of business related and not related to construction. The horizontal axis represents the geographical locations where a firm may develop its businesses. The point where both axes intersect denotes the original position of the firm before its diversification process.

Along the vertical axis, movement upward from the intersection indicates the firm's diversification to construction related businesses (i.e., engineering, real estate development) while movement downward from the intersection means diversification to non-construction related businesses (i.e., telecommunication, sports). Along the horizontal axis, movement to left of the intersection indicates geographical diversification within the domestic
market while movement to right of the intersection means overseas diversification. A graphical representation of the bi-axial diversification analysis appears below.

**Figure 3.4: Bi-Axial Diversification Analysis**

Using the bi-axial diversification analysis, the author then developed a descriptive model for multina-
tional business expansion. Central to this model are the two cores--one denotes the core business of the firm and the other marks the primary geographical location of the core business--plus the interrelationship of the two cores.

In terms of business diversification, the line(s) of business is(are) chosen based on a firm's evaluation of its own strengths and weaknesses and market's opportunities, risks, and constraints (indicated by the shaded zone between core business and satellite businesses). These factors link the core business to satellite businesses, which integrate either vertically or horizontally with the firm.

Similarly, multinational expansion requires a firm to assess its own strengths and weaknesses and market's opportunities, risks, and constraints (indicated by the shaded zone between primary location and overseas regions). These factors then lead the firm to choosing a suitable overseas region for geographical diversification.

Subsequently, strategies for diversification through multinational business expansion are chosen based on a firm's self-evaluation as well as an assessment of the market. As the following model illustrates, critical factors such as a firm's strengths and weaknesses and market's opportunities, risks, and constraints provide a link between each core and its satellites while individual firm strategies for creating demand provide the central connection between the cores.
An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.

- Satellite business
- Potential satellite business
- Overseas region
- Potential location for business
This model can be applied to describe both the present status of the Japanese construction industry and the short-term or long-term demand-creating strategies of the individual general contractor.

In the first instance, the large Japanese general contractors have diversified in the four major categories of new business--real estate development, finance, engineering construction, and technology development--plus other construction related and non-construction related new businesses. They have also penetrated several major overseas markets in the following regions: Asia, the Middle East, Africa, Central/South America, North America, Europe, and Oceania.

Figure 3.5 depicts the current status of the Japanese construction industry. The wheel on the left represents the current business activities engaged by the leading Japanese construction firms. These activities include the four major categories of new business and other new businesses mentioned above. The wheel on the right represents the overseas regions in which Japanese construction firms have already penetrated to date.
An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.
In the second instance, assume Company X is a large construction firm based in Japan. Its current satellite businesses include technology development and engineering construction while its overseas markets include Asia, the Middle East, and Oceania. The short-term strategy of Company X is to launch a multinational business expansion in order to create demand for construction opportunities. It plans to enter the real estate business in the U.S., to expand engineering construction in its market in Asia, and to develop the construction business in Europe. Accessibility to financing sources and tools is a major strength of this company.

The following illustration depicts the diversification strategies of Company X. Again, the wheel on the left illustrates the firm's current business activities in construction, technology development, and engineering construction and its potential business activity in real estate development. The wheel on the right illustrates the firm's current overseas markets in Asia, the Middle East, and Oceania and its potential overseas markets in the U.S. and Europe. The three curves linking the two wheels represent Company X's multinational business strategies: first, real estate development in the U.S., second, engineering construction in Asia, and finally, construction in Europe.
Figure 3.7: Short-Term Strategies for the Creation of New Demand of Company X

Summary of Strategies:
1. Real estate development in the U.S.
2. Expansion of engineering construction in Asia.

An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.
Strategies for the creation of new demand discussed in this chapter have enabled many large Japanese general contractors to survive the slow growth of the Winter Age in Japan. A passage from Hasegawa's book summarizes the fundamental purpose of the demand-creating strategies:

"All industries must experience a rise and a fall, good times and bad times, growth and decay... proper strategies [can help companies] avert the worst and again achieve growth even in the worst of times." (p. ix)

Using the framework developed in this chapter, Chapter 4 will examine how individual firms employ the demand-creating strategies throughout the seventeen years of change.

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REFERENCES

CHAPTER 4

CASE STUDIES OF LEADING JAPANESE GENERAL CONTRACTORS

This chapter explores the demand-creating strategies (through multinational business diversification) of three of the top six Japanese general contractors. The case studies are employed to examine how individual firms use the strategies discussed in Chapter 3 to create demand over a period of change.

All three firms—Shimizu, Taisei, and Kumagai Gumi—have applied the same category of strategies: they have used real estate development, finance, engineering construction, technology development, and other new businesses to diversify from the core business, and they have expanded into several continents to enlarge their market share. Interestingly, they have ended up with the generally similar strategic directions after seventeen years of change.

Currently, Shimizu's top priority is to pursue construction and technology development in Japan. Taisei plans not only to continue investment in technology development but also to increase its market share in Japan. Kumagai Gumi also aims to expand on the domestic construction business. The discriminating short-term strategic directions, however, are listed as follows:
Shimizu will focus only in the domestic core business in the next few years;

Taisei will continue the firm's multinational business diversification in addition to the development of core business in the domestic market;

Kumagai Gumi will consolidate its overseas businesses over the next few years.

All three firms envision their long-term strategies to be the continuation of the multinational business expansion.

Essentially, Chapter 4 examines the evolving strategies of three of Japan's six leading general contractors. This chapter consists four major sections. The first section describes the methodology for field research. The second section is an introduction to the case studies, which describes how the cases will be presented. The third section consists the case studies of Shimizu, Taisei, and Kumagai Gumi. Finally, the forth section is a chapter conclusion.

FIELD RESEARCH METHODOLOGY

The author has conducted interviews at the following sites:

Shimizu Land Corporation, New York
(a wholly-owned subsidiary of Shimizu Corporation in Tokyo).

Taisei America Corporation, Los Angeles
Taisei America Corporation, New York
(both are wholly-owned subsidiaries of Taisei Corporation in Tokyo).
Since access to Japanese firms in general requires personal relationship with these firms or referrals by other firms closely associated with these firms, firm access is the major determinant of firm selection for the case studies. The author's previous contacts (established during a term paper research) with Shimizu Land Corporation, New York and KG Land New York Corporation enable access to these firms.

With assistance from an alumnus of the MIT Center for Real Estate Development (who performed a case study on one of Taisei's projects in Long Beach, CA), the author has contacted and interviewed Taisei America Corporation in Los Angeles. Subsequently, with referrals by the L.A. Office, the author has been able to arrange an interview at Taisei America Corporation in New York.

During the process of gathering data, one face-to-face interview was conducted with senior executives at each of the following firms: Shimizu and Kumagai Gumi. Also, two face-to-face interviews were conducted with senior executives at North America Taisei Corporation: one at the Los Angeles office and the other at the New York office. The duration of each interview was approximately two hours. In addition, four follow-up telephone interviews were conducted with these executives to clarify and to further discuss interview notes.
The first draft of the case studies was also sent to these firms for their review and comments. Thereafter, ten telephone discussions regarding the comments took place.

The data gathering process also included at least thirty telephone calls and meetings with four people from the senior management level and two middle managers from Japanese real estate and construction firms. In addition, the process also involved fifteen telephone calls and meetings with Professor Eleanor Westney and three meetings with Professor Richard Locke of the International Management Department of Sloan School of Management, MIT. Finally, this process included one meeting with Professor Larry Bacow of the MIT Center for Real Estate Development.

This thesis focuses mostly on qualitative issues. Specifically, the author studies each firm's business diversification and multinational expansion strategies and examines the evolution of these strategies over seventeen years of change.

INTRODUCTION TO THE CASE STUDIES

Separate case studies have been written on Shimizu, Taisei, and Kumagai Gumi. Each case consists of a synopsis of the firm's background and a profile of the firm's business and market. Each case then describes the
firm's strategic directions during the Winter Age (1973-1987) and the Bubble Economy (1988-1990). In addition, each case portrays individual firm's short-term strategies (2-3 years), and lastly, firm's long-term strategies (5-10 years). Each strategic direction is explored in terms of business diversification and multinational expansion.

There are all together four charts at the end of each case study which summarize the firm's demand-creating strategies up to 1990. The two charts exhibited under the Winter Age display firm's business activities and multinational expansion during that period. Similarly, the two charts exhibited under the Bubble Economy show business activities and multinational expansion during that period. Graphic representations of these charts appear below.

**Business Diversification**

<table>
<thead>
<tr>
<th>Business Diversification</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate Development</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Finance</td>
<td></td>
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<td></td>
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<tr>
<td>Engineer Const.</td>
<td></td>
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<tr>
<td>Tech. Develop.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Businesses</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
### Multinational Expansion

<table>
<thead>
<tr>
<th>Region</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle East</td>
<td></td>
<td></td>
<td></td>
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<td>Africa</td>
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<td>Ctrl./So America</td>
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<td>North America</td>
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<td>Europe</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Oceania</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
CASE 1: SHIMIZU CORPORATION

Background

Shimizu Corporation had been the leading general contractor in Japan for the past six years (Yamada, 1989). The firm was one of this nation's oldest construction companies, with a traceable history back to 1804. In 1915, Shimizu converted from private management to a corporation. As of 1990, the firm was a publicly-held, family-operated establishment. The firm had 100 domestic offices (including the head office in Tokyo), 26 overseas offices, and 54 overseas subsidiaries and affiliates. It had a total of 15,376 employees. Shimizu believed its skills in planning, technology, and engineering, combined with its use of construction robots and innovative computer manufacturing systems, would enhance the quality of its products and services and, therefore, the firm's prestige. As one officer\(^9\) put it:

"We must be number one so we can attract all the best students and advertise ourselves as number one to attract more clients."

Business and Market Profile

This firm's core business was divided into building construction, civil engineering, and real estate development.

\(^9\)Due to Shimizu's low profile policy, the identities of the interviewees at this firm will not be revealed. For the remainder of this case, the author will refer to the interviewees as "an officer".
Building construction, ranging from office towers to industrial buildings to condominiums, was by far the most crucial component of Shimizu's core business. Since the firm's establishment, building construction had been consistent in producing the highest rate of orders and net sales. In 1990, orders awarded under this category totaled over $10 billion (assuming the exchange rate to be US$1=158 yen), which accounted for 79% of total orders awarded ($12.8 billion) for that year. About 95% of the demand for building construction came from the private sector in Japan.

Civil engineering, encompassing large-scale projects such as highways, railroads, bridges, dams, water systems, and sewerage, was also a key part of Shimizu's business. In 1990, orders awarded in civil engineering (domestic and overseas) were 17% of total orders awarded. The domestic orders attributed 62% to the private sector and 38% to the public sector.

Real estate development consisted of development and sale of condominiums and office buildings, and leasing of buildings built and owned by the firm. Thus far, real estate development played a relatively minor role in the firm's business. Orders awarded in this category was $520 million, accounting for only 4.8% of total orders awarded.

Shimizu's overseas businesses generated
approximately 4.6% of the firm's total revenues, with construction and real estate investment as the primary sources of revenue. Overseas construction projects included industrial facilities, office buildings, housing, hotels, and roads in over twenty-five countries. As for real estate investment, Shimizu participated as an equity investor in real estate development projects in the U.S., Europe, Australia, and Southeast Asia. The following table illustrates the proportional share of construction awards and real estate investment business in its overseas markets in fiscal 1989.


<table>
<thead>
<tr>
<th></th>
<th>U.S.A.</th>
<th>Europe</th>
<th>Asia</th>
<th>Australia</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Const.</td>
<td>20.0</td>
<td>2.4</td>
<td>62.4</td>
<td>2.7</td>
<td>12.5</td>
<td>100</td>
</tr>
<tr>
<td>R.E. Invest</td>
<td>29.3</td>
<td>38.5</td>
<td>4.5</td>
<td>27.7</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

Percent
Source: Shimizu Corporation Annual Report, 1990

Strategic Direction During the Winter Age: 1973-1987

During Japan's decade-long slow growth period, Shimizu's business was hurt particularly by the slow growth of the private sector. The primary reason, one executive explained, was that the firm relied too much on private projects.

Nevertheless, Shimizu was confident that the
changed environment would ensue a promising path for the firm. Shimizu Group FS, the corporate strategic planning groups, developed plans to guide and coordinate diversification of the firm's product development, business, and market. Mr. Teruzo Yoshino, the president of Shimizu Corporation, Tokyo proclaimed that "this period of renovation [,the Winter Age, would be] a period of advancement for [the] company." (Hasegawa, 1988, p. 26)

**BUSINESS DIVERSIFICATION**

Shimizu's demand-creating strategies entailed the expansion of the firm's existing business to all regions in Japan and overseas and the creation of new business in both the domestic and international markets. For business diversification, Shimizu pursued strategies in the following order of priority:

**Integrated Engineering Construction Strategy.**

Like many leading general contractors who had responded to the emergent demand for a more extensive service than just construction, Shimizu developed its own full turnkey service in the early 1980's and had since aggressively sought clients for full turnkey projects.

For example, Shimizu, together with Mitsubishi Corporation (a large Japanese trading house), received a full turnkey order in 1982 from the Iraqi Agency of Science and Technology for the construction of a Solar Energy Research Institute. The contract specified not only
the procurement and installation of the required furnishings and equipment but also the provision of maintenance and local engineering services for one year after project completion (Hasegawa, 1988, p. 130)

During the Winter Age, Shimizu attempted to create demand through diversification within the engineering business. Besides promoting the full turnkey service, the firm pursued other higher value-added businesses: the design and construction of high-tech clean rooms, coal storage concrete silos, ocean ranches, air-supported membrane structure, and so forth. The firm's strategy was to develop new markets through new technologies.

Real Estate Development Strategy. Shimizu had identified real estate development as another vehicle that would create demand for construction. In Japan, the firm ambitiously pursued large-scale development projects including the development of new towns.

As an example, Shimizu developed a total of 5000 condominium units in Matsudo City, located on the outskirts of Tokyo, in the early 1970's. Prior to development, the developer had to acquire land and then perform land consolidation as required by law. In this particular case, Shimizu acquired and assembled land through a process which the private landowners donated a fixed percentage of landholding to the development project. In return, the developer designated a portion of the project
for public use, such as the provision of public amenity (i.e., parks) and/or other public structures (i.e., schools).

Shimizu, together with Mitsubishi Estate (Japan's largest real estate company), financed the land consolidation project. Shimizu then arranged financing with its main banks for building the condominium units. This so-called "Shin-Matsudo Method" benefitted both the developer and the town. The developer built without having to purchase land (land is very expensive in Japan and usually consists of 60 to 70% of total development cost), while the town gained by getting parks and schools.

For large-scale development projects like Matsudo, Shimizu almost always formed joint ventures with banks and trading companies (which could provide financing), or with real estate companies (which could provide the experience and expertise in real estate development). According to an officer, Shimizu's main interest in development projects was to create demand for construction, thereby bringing additional revenues to the firm.

As of 1990, Shimizu had not participated as a developer in overseas real estate development projects.

**Financial Strategy.** In order to expand its construction business, Shimizu began to establish overseas offices and subsidiaries since the early 1970's for the purpose of financing overseas projects. Shimizu
participated, through its subsidiaries, as a financial partner in real estate development projects in the U.S., Europe, Australia, and Asia. In 1987, the firm established a U.S. subsidiary, Shimizu International Finance (U.S.A.) Ltd., to finance projects in North America. In that same year, Shimizu International Finance (U.K.) Ltd. was formed, and in 1988, Shimizu International Finance (Australia) was established. The firm's financial strategy was to use equity investment to generate demand for construction in the overseas market.

According to an officer, the biggest risk inherent in this type of financial strategy was the cyclic nature of the real estate market. Since Shimizu participated only in development projects (because returns for these projects were potentially higher than those of existing buildings), the firm tried to minimize development risk by forming joint ventures with local developers who already had the building permits in hand. In return, Shimizu would provide equity or arrange low rate financing through its parent company or main banks. Shimizu usually would acquire up to 50% ownership shares, and local developers would guarantee completion. In these joint venture deals, Shimizu would receive a preferred return, and both Shimizu and the local developers would split residual cash flows and losses equally.

Since Shimizu did not have a systematic
approach to selecting joint venture partners, the firm's selection of local developers relied entirely on referrals by other Japanese companies or banks. One officer said that this selection process was "most subjective; it was based on intuition and trust." Thus, the selection process went basically by trial-and-error. Shimizu would make mistakes in the process, but the firm would learn from them. This learning process would, in turn, enable the firm to reduce the risk of choosing the wrong partner in the future.

Equity investment and the establishment of overseas subsidiaries were commonly used by Shimizu for the creation of new demand. This firm also employed project financing for international development projects; however, this strategy was not as frequently utilized as the previous two.

Technology Development. Throughout the 1970's and the 1980's, Shimizu consistently topped the other large general contractors in R&D expenditure. The firm invested nearly 9 billion yen in 1985 (Westney, 1987); by fiscal 1986, the R&D expenditure jumped to 11 billion yen, an amount equivalent to 1.1% of its annual sales (Hasegawa, 1988, p. 161). Technology development played an increasingly important role in Shimizu's business as the firm tried to keep pace with its clients' "complex and diverse needs." The firm recognized that technology development strategies would increase the firm's capability
as an engineer constructor and would help create new businesses (i.e., commercializing technology know-how).

As of 1990, Shimizu had three R&D organizations: the Institute of Technology, the Osaki Research Institute, and the Technology Division of Shimizu. Its laboratories were responsible for research and development (both basic and application research) and for technology development. The topics of research ranged from conventional construction technology to robotics engineering.

Shimizu initiated its "new frontier" technology development in 1987 when the firm set up a space development section within its main office organization. A year earlier, the firm had signed a technical collaboration contract with Starnet Structures of the United States. In preparation to enter the space market, Shimizu's first targets (as were those of the other leading general contractors) included the ground-base facilities for supporting space activities (Hasegawa, 1988, p. 168). Ultimately, the firm envisioned the building of a "Space Hotel for the 21st Century" in an orbit 450km above the Earth.

**Other Businesses.** Shimizu's other new business ventures included build and manage, consulting, information and communication, housing, insurance, leasing, maintenance, new media, tourism, and transportation.
MULTINATIONAL EXPANSION

Shimizu's geographical expansion began in 1950 when the firm launched work in Pakistan. In 1973, the firm established representative offices on four major continents: Latin America (Brazil), North America (San Francisco, New York), Asia (Singapore, Indonesia), and Oceania (Australia). Over the subsequent fourteen years, Shimizu continued to expand in the aforementioned areas by establishing overseas offices and subsidiaries, and by setting up alliances, through joint ventures, with local firms for construction and real estate development projects worldwide.

Between 1973 and 1987, Shimizu established approximately twenty-nine overseas offices and subsidiaries: one subsidiary in Latin America, ten offices and subsidiaries in North America, four subsidiaries in Europe (primarily in U.K.), ten offices and subsidiaries in Asia, three subsidiaries in Oceania, and one subsidiary in the Middle East.

In summary, Shimizu entered the overseas market using two strategies. First, the firm participated as equity investor in overseas real estate development. In every development project, Shimizu formed a joint venture with a local developer. Second, the firm acquired construction contracts from the overseas subsidiaries of Japanese manufacturers.
Strategic Direction During the Bubble Economy: 1988-1990

During this period of rapid growth in Japan, one officer said that Shimizu experienced a dramatic business expansion, especially in the domestic construction business. Below is Shimizu's five-year net sales figures demonstrating a rapid increase in sales over the past three years:

Table 5.2: Shimizu's Net Sales Between 1986 and 1990

<table>
<thead>
<tr>
<th>WINTER AGE</th>
<th>THE BUBBLE ECONOMY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>1987</td>
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<tr>
<td>$6,660</td>
<td>$6,450</td>
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<tr>
<td></td>
<td>$6,973</td>
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<tr>
<td></td>
<td>$7,941</td>
</tr>
<tr>
<td></td>
<td>$9,346</td>
</tr>
</tbody>
</table>

Dollar amounts in millions (US$1=158 yen)
Source: Shimizu Corporation Annual Report, 1990

BUSINESS DIVERSIFICATION

Shimizu continued its diversification activities during this period of domestic construction boom. Its annual report for 1990 revealed an increase in the firm's investments in the equity share of its subsidiaries. This was indicative of Shimizu's commitment in the businesses developed during the Winter Age. (Investment in subsidiaries for 1988, 1989, 1990 were $101 million, $145 million, and $243 million.) Nevertheless, little happened in the development of new businesses. Perhaps the only major new business developed during the Bubble Economy was Shimizu's elderly program.

During this period, Shimizu proceeded with
more investment in R&D (R&D investment for 1988, 1989, 1990 were $77 million, $82 million, and $85 million). Clearly, Shimizu continued to use technology development strategy to create new businesses and, eventually, new demand for construction.

There was a slight decrease in the firm's real estate activities (real estate for sale in 1988, 1989, 1990 were $238 million, $232 million, and $200 million). One officer remarked that this was a period to observe the market. In particular, Shimizu would maintain the current slow rate of growth in its U.S. real estate investment.

When the "bubble" collapsed in mid 1990, one officer asserted that domestic demand for construction would continue. The reasons were: 1) the Japanese government would continue to invest in the domestic infrastructure and 2) Shimizu had orders carried over (into the following year) in the amount of $15.7 billion at the end of 1990. The tremendous amount of contract orders would generate work for the firm over the next few years.

MULTINATIONAL EXPANSION

Geographical expansion during this period shifted to Europe. Between 1989 and 1990, Shimizu established one subsidiary in each of the following countries: France, Germany, Spain, Belgium, the Netherlands, and Hungary. Although Shimizu did not explicitly state the motivation, it appeared that the firm wanted to enter the
European market before the European countries would erect trade barriers against non-European counties in 1992.

Current/Short-Term Strategic Direction: the Next 2-3 Years

As of 1990, construction dominated Shimizu's business. Real estate development remained a relatively minor role ($520 million, approximately 4.8% of core business). The Japanese market was still the firm's primary market. (Net sales from overseas market was 4.6%.) The firm's current strategic direction, according to Chairman Yoshino, entailed the following.

First, the firm would continue to pursue technology innovation that would "reform production systems and strengthen building methods." Through technology and management innovations, the firm would be able to "raise its position in the construction industry." Shimizu had sent a clear message that being number one was important to the firm: it would attract more private clients as well as gain more government projects in Japan.

Second, despite the bust of the Bubble Economy, Shimizu viewed that public investment would continue to create demand for construction. Thus, this firm would proceed with seeking new construction opportunities in Japan. In terms of business diversification, the firm planned to "expand its field of business, including increase involvement in real estate development and new businesses."

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Finally, Shimizu's plan included the development of new business in the overseas market. Nevertheless, one officer said that overseas expansion would be a low priority in the next few years. In the mean time, the firm would continue to observe the overseas market.

**Future/Long-Term Strategic Direction: the Next 5-10 Years**

SHIMZ-21 (the firm's growth plan for the twenty-first century) encompassed Shimizu's demand-creating strategies for the next decade. The first priority was to expand the firm's core business in construction, both domestically and worldwide. Second, the firm planned to pursue activity in real estate development, engineering, and overseas businesses. Third, the firm would continue to develop businesses such as the "silver-care" (elderly) program and the space program. Finally, the firm would pursue globalization.

One officer further expressed the need for Shimizu to internationalize from within:

"Shimizu is not satisfied with serving just Japanese clients and will broaden its business base in the overseas market. [In addition], Shimizu needs to employ foreign people in the Japan offices and to keep sending Japanese employees overseas."

In the year 2000, Shimizu projected sales volume to be 3 trillion yen, profit to be 200 billion yen, and R&D investment to be 30 billion yen. In order to succeed as a company of the twenty-first century, SHIMZ-21
stated the firm's goal to "accumulate high-tech power...and to develop highly mobile corporate culture with ever-changing innovation."
### Table 5.3.1: Business Diversification

<table>
<thead>
<tr>
<th></th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
</tr>
</thead>
</table>
| **Real Estate Develop.**     | *Domestic*: go-it-alone approach for mid to small size development; j.v. with banks, real estate companies, brokerage companies, etc. for large scale projects  
                               *Overseas*: n/a                                                    |        |         |
| **Finance**                  | *Project financing*                                            |        |         |
|                              | *Establishment of overseas offices & subsidiaries*              |        |         |
|                              | *Equity investment* in real estate development via j.v. with local developers.* |        |         |
| **Engineer Constru.**        | *Higher value-added*: full turnkey; clean rooms, coal storage concrete silos, ocean ranches, air supported membrane, etc.; commercialization of engineering know-how |        |         |
| **Tech. Develop.**           | *Conventional technology*: civil eng. structure, earthquake-proof structure, sublevel structure, information system, biotech., radioactivity, robotics, electronics, etc.  
                               *Space technology*                                               |        |         |
| **Other Bus.**               | *Construction related*: build & mgt., consulting, information & communication, housing, leasing, maintenance  
                               *Non-construction related*: insurance, new media, tourism, transportation |        |         |
### Table 5.3.2: Multinational Expansion

<table>
<thead>
<tr>
<th>Region</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
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<tbody>
<tr>
<td>Asia</td>
<td>China, Hong Kong, Thailand, Malaysia, Singapore, Indonesia, Bangladesh, Nepal</td>
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<td></td>
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<tr>
<td>Middle East</td>
<td>Iraq, Kuwait</td>
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<tr>
<td>Africa</td>
<td>Zambia, Zaire</td>
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<td>Ctrl./So. America</td>
<td>Brazil</td>
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<tr>
<td>North America</td>
<td>U.S., Canada, Guam, Saipan</td>
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<tr>
<td>Europe</td>
<td>the Netherlands, U.K., Sweden, Germany</td>
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<tr>
<td>Oceania</td>
<td>Australia, New Zealand</td>
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</tbody>
</table>

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10Overseas representative offices, branch offices, subsidiaries, and joint ventures/partnerships at the following locations.

Table 5.4.1: Business Diversification

<table>
<thead>
<tr>
<th></th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
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<tbody>
<tr>
<td>Real Estate</td>
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<tr>
<td>Develop.</td>
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<td>Finance</td>
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<td>Other Bus.</td>
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<td>Non-construction related:</td>
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<td>mgt. of the elderly program</td>
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Table 5.4.2: Multinational Expansion

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<td>Europe</td>
<td>France, Germany, Spain, the Netherlands, Austria, Italy, Portugal, Belgium, Hungary</td>
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<td>Oceania</td>
<td>Australia</td>
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11 Continuation of previous activities in real estate development, finance, engineering construction, and technology development.

12 Overseas representative offices and subsidiaries at the following locations.
CASE 2: TAISEI CORPORATION

Background

Taisei Corporation, founded in 1873, was one of the top general contractors in Japan. Unlike the other top five Japanese general contractors, Taisei was a publicly held, non-family operated company. Its principle shareholders included Chiyoda Mutual Life Insurance Company, Fuji Bank, Ltd., Mitsubishi Trust & Banking Corporation, and Yasuda Trust & Banking Company, Ltd. As of 1990, Taisei had 11 domestic offices (including the head office in Tokyo), 22 overseas offices, and 23 overseas subsidiaries and affiliates. The firm had a total of 12,500 employees, 2,000 domestic work sites and 50 overseas construction projects and research laboratories. The firm took pride in its tunnel construction and technology which, according to Mr. Kumazawa (president of Taisei America Corporation, New York), were the best in the world. Taisei claimed that the firm was "a general construction company to represent the construction industry of Japan itself."

Business and Market Profile

Taisei's core business was divided into three areas: building construction, civil engineering, and housing and real estate.

The building construction division had been playing an important role in Taisei's construction business
because of its high rate of orders and net sales. In 1990, net sales under the building construction division reached over $7 billion (assuming the exchange rate to be US$1=158 yen), which accounted for 67.5% of total net sales ($10.6 billion) of that year. The primary source of demand for building construction came from the private sector in Japan.

The civil engineering division took on large-scale infrastructure projects, ranging from tunnel construction to long-span bridge, both in Japan and overseas. In 1990, net sales was 24.5% of total net sales, with major orders coming from the public sector.

Founded in the mid 1960's, Taisei's housing section in the housing and real estate division specialized in light-weight foam concrete single family housing and in wooden single family housing, which was built using two-by-fours. In general, the real estate division handled the development and sale of these ready-built houses, condominiums, and residential blocks. This division also handled the resale of land to clients and the rental of office buildings and land. Thus far, real estate development played a relatively minor role in the construction business. Net sales for real estate division was $433 million, which was 0.2% of total net sales.

Taisei's overseas businesses yielded approximately 2% of the firm's total net sales. Nevertheless, the configuration of the firm's activities was
wide, covering twenty countries in the seven major overseas regions.

**Strategic Direction During the Winter Age: 1973-1987**

Like most of the leading Japanese general contractors, Taisei was in search for a new path during the Winter Age. Chairman Hajime Sako made the following statement before the firm's new employees:

"In comparison with other industries, our construction industry is undergoing a profound transformation, and which companies are the more capable and resourceful will soon become clear. Our company faces the challenge of evolving into a knowledge-intensive general contractor."

(Hasegawa, 1988, p. 26)

The firm's new direction--to become a knowledge-intensive general contractor--would open doors to new business opportunities. This meant that Taisei would be able to seek higher value added businesses, such as providing turnkey services, commercializing engineering know-how, and so forth. New businesses would in turn promote orders for construction.

**BUSINESS DIVERSIFICATION**

Taisei's demand-creating strategies entailed the expansion of the firm's existing business to all regions in Japan and overseas and the creation of new business in both the domestic and international markets. For business diversification, Taisei pursued strategies in the following
order of priority:

Integrated Engineering Construction Strategy. Prior to the oil shocks, Taisei had already envisioned the importance of engineering in its construction business. The firm was the first general contractor to establish an engineering section in its main technical office headquarters in Japan (Hasegawa, 1988, p. 128). After the oil shocks occurred, Taisei responded to the pressure of a shrinking domestic construction market by seeking higher value-added businesses, such as building projects on a full turnkey basis. Major value-added products included automated warehouses, handling systems, clean rooms, and the various engineering and anti-pollution technologies.

Besides offering clients the above mentioned services and products, Taisei also sought to commercialize engineering know-how as an additional avenue for profit. The firm sold engineering technology and knowledge as full-fledged commercial products to smaller general contractors.

Financial Strategy. Since 1982, Taisei began to establish overseas subsidiaries to finance its projects outside of Japan. Taisei set up U.S. subsidiaries, first North America Taisei Corporation and then NAT Capital Corporation, to finance local development and construction projects. According to Mr. Kumazawa, Taisei "aimed to have its own assets as a long-term commitment in the U.S. market; [the firm's equity investment in the U.S. market] eventually
led to the construction opportunities [in this market]."

For example, the L.A. office of Taisei America Corporation participated in the firm's first real estate development project in North America--Shoreline Square--as a general partner in 1986. This project was a joint venture between Taisei America Corporation, Marubeni Development U.S.A. Inc. (subsidiary of Marubeni Corporation, a leading Japanese trading company), and Stan Cohen (a local developer). The three parties formed a general partnership. This project was comprised of a twenty-one story office tower (361,000 s.f.) and a 475 room Sheraton Hotel (Cantwell, 1990), with North America Taisei Corporation as one of the major general contractors.

A case-study (Cantwell, 1990) on the Shoreline Square project revealed that Taisei was planning to enter the U.S. construction market but "[was] finding it hard to compete" (p. 5). Using their leverage by bringing financing to the project, Taisei was able to secure construction work at Shoreline Square. (Taisei formed a joint venture with Charles Pankow Builders, Ltd., the original general contractor on the project.) In 1985, Taisei also established Taisei Europe Ltd. in Amsterdam, the Netherlands.

Equity investment and the establishment of overseas subsidiaries were commonly use by Taisei for the creation of new demand. This firm also employed project
financing for international development projects; however, this strategy was not as frequently utilized as the previous two.

Real Estate Development Strategy. Taisei also targeted its marketing plans to serving the development and rehabilitation needs of other Japanese firms worldwide. Most of Taisei's real estate development activities occurred in Japan, where the firm would acquire land and tried to immediately sell it to potential clients who were looking for sites to build plants, offices, or housing. Through land sales, the firm negotiated the contracts for construction. Mr. Kumazawa emphasized that client pull was a key element for gaining construction businesses in the developed countries:

"If the local market is self-sufficient [such as the U.S. market], then there is no room for new [or foreign construction] companies to enter and compete. For example, U.S. now does not have construction opportunities. If we compete [with the local companies], we will have to lower our profit margin.

Japanese clients are generally disturbed by their unfamiliarity with the U.S. customs and climate. We [have identified] the Japanese clients' needs, and we construct new buildings and appraised and buy existing buildings for them. If our profit is low, it's o.k. What's more important is to have a good relationship with the clients...to get their future businesses."

Taisei's real estate investment activities in the U.K. were similar to those in the U.S. Thus far, the
firm had not participated as a developer in the international real estate development projects. Mr. Kumazawa expressed that the firm would continue to seek international real estate development opportunities.

**Technology development.** Taisei considered technology development to be important to the firm's success since being a leader in this area would enable the firm to gain competitiveness both in Japan and worldwide. The firm's R&D expenditure in 1985 was over 6 billion yen (Westney, 1987). In 1986, investment increased to approximately 8 billion, or an amount equivalent to 0.9% of its annual sales in that year (Hasegawa, 1988, p. 161). Its research laboratory conducted a wide range of experiments such as oceanographic experimentation, anti-vibration research (for earthquake-proof structure), biotechnological research, clean room studies, and CAD system development.

Taisei's research focus for the "new frontier" technology development included that of underground tunneling and space technology. For example, the firm was toying with the concept of developing an underground city (ALICE CITY) which would make maximum use of increasingly precious urban space. The firm was also exploring a new system called the catapult linear motor which aimed at facilitating space experimentation and research. This project would take Taisei one step further in its space development plan. Mr. Kumazawa stressed that
it was the company's policy to continue funding technology research and development, especially during the Winter Age.

Other Businesses. Taisei's other new business ventures included build and manage, consulting, engineering, insurance, air-conditioning, information and communication, leasing, maintenance, new media, rice sales, and tourism.

MULTINATIONAL EXPANSION

Taisei's geographical expansion began in 1959 when the firm completed a large hotel in Indonesia. Over the next two decades, the firm pursued actively off-shore partnership projects in both Asia and the Middle East. Their projects were predominantly construction ranging from power plants to cultural/educational facilities to hotels. Throughout the 1980's, Taisei launched a large-scale expansion to North America. In the U.S. alone, this firm established approximately ten overseas offices and subsidiaries in major states such as New York, California, Hawaii, Illinois, and Texas.

In late 1985, Taisei established a London Office in order to enter the European market. This office handled primarily construction and real estate investment activities. As mentioned previously, Taisei set up another office in Amsterdam in the same year for the purpose of serving growing needs of global financing activities within Taisei Groups of Companies.
In summary, Taisei entered the overseas market using two strategies. First, the firm participated as an equity investor in overseas real estate development. In every development project, Taisei formed a joint venture with a local developer. Second, the firm acquired construction contracts from the overseas subsidiaries of Japanese manufacturing and services industries.

**Strategic Direction During the Bubble Economy: 1988-1990**

According to Mr. Kumazawa, Japan's construction market during this period was equivalent to two-and-a-half times that of the U.S. The construction boom in Japan triggered a dramatic increase in Taisei's net sales. The following is Taisei's net sales figures over a five-year period. Note a 35% increase in sales between 1988 and 1990.

**Table 5.5: Taisei's Net Sales Between 1986 and 1990**

<table>
<thead>
<tr>
<th>WINTER</th>
<th>AGE</th>
<th>THE</th>
<th>BUBBLE</th>
<th>ECONOMY</th>
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<tbody>
<tr>
<td>$7,357</td>
<td>$7,449</td>
<td>$7,819</td>
<td>$9,571</td>
<td>$10,569</td>
</tr>
</tbody>
</table>

Dollar amounts in millions (US$1=158 yen)
Source: Taisei Corporation Annual Report, 1990

**BUSINESS DIVERSIFICATION**

Although there was a construction boom in Japan, Mr. Kumazawa said that Taisei continued to invest in real estate development projects (the annual report showed
that sales in 1990 increased 12.6% from that of 1989) in both the U.S. and the U.K., where the firm had been successful. Taisei continued to pursue previous activities, but the firm did not develop any major new businesses.

During this period, Taisei increased its investment in technology development. Meanwhile, the firm had also been aggressively pursuing construction opportunities back home. Essentially, the firm's strategy had been to continue its diversification activities by investing in international real estate development, by developing new technology, and by expanding construction business in Japan.

When the "bubble" collapsed in mid 1990, Mr. Kumazawa believed that the demand for construction would continue into the next five years. One reason was that Japanese government would continue to invest in the domestic infrastructure. Another reason was that Taisei had orders carried over (to the subsequent year) in the amount of $13 billion at the end of 1990, which would keep the firm busy for some time.

**MULTINATIONAL EXPANSION**

Geographical expansion during this period encompassed several countries in Europe: France, Austria, Luxembourg, Spain, and Germany. These locations were designated for representative offices at the moment. According to Mr. Kumazawa, Taisei's goal was to penetrate
the European market before it would shut out the world in 1992.

**Current/Short-Term Strategic Direction: the Next 2-3 Years**

As of 1990, construction dominated Taisei's business. Real estate development remained a relatively minor role ($433 million, or approximately 4% of core business). The Japanese market was still the firm's primary market. (Net sales from overseas market was 2%.) When asked about Taisei's current diversification plan, Mr. Kumazawa responded with the three strategies.

First, the firm would continue to pursue business diversification by investing in real estate development both in the U.S. and the U.K. Second, it would continue to increase funding for technology development (specifically, conventional building technology, high technology, and space technology). Third, it would further its geographical expansion by gradually developing the European market. Finally, it would expand its construction business operations and market in Japan.

Mr. Kumazawa expressed that business and geographical expansion would enable Taisei to cultivate new demand for future businesses:

"The construction activities [in Japan] will level off some time in the future; [therefore,] it is important to plant seeds for future businesses. It is important [for us to continue] to diversify."
Future/Long-Term Strategic Direction: the Next 5-10 Years

Taisei's ultimate goal was globalization. Mr. Kumazawa's explained that, through business diversification and multinational expansion, Taisei would become a "world company, like the Coca-Cola Company."

Before exploring Taisei's globalization strategy, it is important to first understand the current structure of the firm's multinational operations. Mr. Arai (Executive Vice President of Taisei America Corporation, Los Angeles) and Mr. Kubo (manager of real estate development, North America Taisei, Los Angeles) explained the current structure in terms of project financing and local decision making:

"Project financing is one of the most important decisions in globalization. It is controlled by our headquarters in Tokyo. Taisei has established relationships globally over a hundred years, and we use this relationship to secure local financing. [In Taisei's international ventures], Taisei wears two hats: one as a partner-investor and the other as contractor. We always work with a local partner.

[Except project financing,] all other decisions are made locally. Real estate development and construction are a local business. The company relies on the [local] middle managers to make decisions on choosing a joint venture partner or negotiating with banks. [In this regard], local managers have a great deal of autonomy."

Currently, Taisei seemed to linger between Stage 2 and Stage 3 of Dr. Kobayashi's Transnationalization Stage Model (discussed in Chapter 3). True to the model's
prediction, the firm emphasized local management and had entered projects through joint ventures with local firms. The firm had further been establishing regional offices worldwide.

Nevertheless, both Mr. Arai and Mr. Kubo remarked that it would be difficult to achieve an efficient, systematic utilization of labor, material, funds, management resources, and so forth since the allocation of firm's resources depended entirely on local conditions, needs, and regulations. For projects in Saudi Arabia, Taisei imported everything. For projects in Africa, Taisei brought in everything except labor. For projects in the U.S., Taisei brought only their management; financing, material, and labor were procured locally.

Mr. Kumazawa summarized Taisei's future growth strategy in the following words:

"[Our strategy is] globalization and localization. Globalization means becoming a world company, and localization means we should let local managers run the subsidiaries. I believe Taisei is able to achieve Stages 4 and 5 in Dr. Kobayashi's [stage] model."

Achieving management with worldwide perspectives and global logistics would be Taisei's challenge in the twenty-first century.
## Table 5.6.1: Business Diversification

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<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
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<tbody>
<tr>
<td><strong>Real Estate Develop.</strong></td>
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<td><strong>Domestic:</strong> go-it-alone approach for mid to small size development; j.v. with banks, real estate companies, brokerage companies, etc. for large scale projects</td>
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<td></td>
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<td><strong>Overseas:</strong> n/a</td>
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<tr>
<td><strong>Finance</strong></td>
<td></td>
<td><strong>Project financing</strong></td>
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<td></td>
<td></td>
<td><strong>Establishment of overseas offices &amp; subsidiaries</strong></td>
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<td></td>
<td></td>
<td><strong>Equity investment</strong> in real estate development via j.v. with local developers</td>
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<tr>
<td><strong>Engineer Const.</strong></td>
<td></td>
<td><strong>Higher value-added:</strong> full turnkey; commercializing engineering know-how and engineering technology; clean rooms, automated warehouse, etc.</td>
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<tr>
<td><strong>Tech. Develop.</strong></td>
<td></td>
<td><strong>Conventional technology:</strong> tunnelling, civil engineering, oceanography, earthquake-resistant structure, biotech, clean rooms, robotics, CAD, etc.</td>
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<td></td>
<td></td>
<td><strong>Space technology.</strong></td>
<td></td>
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<tr>
<td><strong>Other Bus.</strong></td>
<td></td>
<td><strong>Construction related:</strong> build &amp; mgt., consulting, engineering, information &amp; communication, leasing, maintenance</td>
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<td></td>
<td></td>
<td><strong>Non-construction related:</strong> air-conditioning, insurance, new media, rice sales, tourism</td>
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Table 5.6.2: Multinational Expansion

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<tr>
<th>Region</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
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<tr>
<td>Asia</td>
<td>Indonesia, Philippines,</td>
<td>Malaysia, Thailand, Taiwan,</td>
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<td></td>
<td>China, Hong Kong</td>
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<td>Middle East</td>
<td>Qatar, Saudi Arabia, the</td>
<td>United Arab Emirate, Iraq,</td>
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<td>United Arab Emirate, Iraq,</td>
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<td>Europe</td>
<td>U.K., the Netherlands</td>
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<td>Oceania</td>
<td>Australia, New Zealand</td>
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13Overseas branch offices, subsidiaries, and joint ventures/partnerships at the following locations.
### Table 5.7.1: Business Diversification

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<tr>
<th>Shimizu</th>
<th>Taisei</th>
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<tr>
<td>Real Estate Develop.</td>
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<td>Engineer Constru.</td>
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<td>Tech. Develop.</td>
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<td>Other Bus.</td>
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### Table 5.7.2: Multinational Expansion

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<td>Europe</td>
<td>France, Spain, Luxembourg, Germany, Austria</td>
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<td>Oceania</td>
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14 Continuation of previous activities in real estate development, finance, engineering construction, and technology development. No new activity under Other New Businesses.

15 Overseas representative offices at the following locations.
CASE 3: KUMAGAI GUMI COMPANY, LTD.

Background

During the 1980's, Kumagai Gumi Company achieved the status as one of the top six general contractors (the "Big Six") in Japan largely by working overseas. In 1986, this firm ranked number six among the top 250 international contractors (Engineering News Record, July 1986), and it led the other five major Japanese general contractors in total volume of foreign contracts received for that year. Kumagai Gumi was founded in 1898 and incorporated in 1938. As of 1990, the firm was a publicly-held, family-operated establishment. The firm had 15 domestic offices (including the head office in Tokyo), 25 overseas offices, and 24 overseas subsidiaries and affiliates. It had a total of 8,767 employees. Kumagai Gumi took pride in its staff, which included experts in every field ranging from architectural design to geotechnical research to financing. The firm claimed that innovation and experience were critical to its success.

Business and Market Profile

Kumagai Gumi's core business consisted building construction, civil engineering, and real estate development. Although building construction consistently led the other two categories in sales volume, it had not dominated the core business like the previous two firms had.
In this regard, the core business at Kumagai Gumi was more diversified.

Building construction, ranging from office towers to condominiums to resorts, produced over $4 billion (assuming the exchange rate to be US$1=158 yen) in net sales, which accounted for 58% of total net sales ($6.9 billion) in 1990. The private sector accounted for 89% of the demand for building construction.

Civil engineering, encompassing large-scale projects such as tunneling, railroads, bridges, and highways, yielded over $2 billion. This amount was 27% of total net sales. The private sector accounted for 62% of the demand for civil engineering.

Real estate development entailed development and sale of condominiums and office buildings, and leasing of buildings built and owned by the firm. This category generated $492 million, or 7% of total net sales.

Kumagai Gumi's annual report for 1990 indicated that overseas business (construction contracts only) generated approximately 11% of the firm's total revenues. Since a major portion of this firm's real estate development occurred in foreign countries, therefore, overseas business was actually more than 11% of total revenues. During the 1980's, Kumagai Gumi's activities expanded to 25 countries in five major overseas regions: Asia, the Middle East, Oceania, North America, and Europe.
**Strategic Direction During the Winter Age: 1973-1987**

Japan's decade-long slow growth period was in fact a period of opportunity for Kumagai Gumi. Even though domestic orders for construction declined, the firm sought to boost sales by focusing in its international ventures. In mid 1980's, this firm earned over 45% of its total turnover overseas (Bennett, 1987, p. 73).

**BUSINESS DIVERSIFICATION**

Kumagai Gumi's demand-creating strategies focused primarily in the expansion of the firm's existing business overseas and the creation of new business in the international market. Kumagai Gumi was a risk taker. In order to penetrate the overseas market quickly, this firm pursued two strategies: real estate development to create demand for construction, and high risk speculative development projects where there would be little competition with local companies. Kumagai Gumi's business diversification strategies were discussed in the following order of priority:

**Real Estate Development Strategy.** Kumagai Gumi pursued real estate development both in Japan and overseas during this period; however, its main thrust was in international real estate development. The firm first penetrated the Australian market in the early 1980's. Three years prior to its penetration of the Australian market, Kumagai Gumi placed a senior executive in that country "with
the simple objective of listening and learning. Subsequent build-up of activity [had been] rapid. In three years Kumagai Gumi [became] involved in Australian construction projects worth nearly $2.23 billion, with direct risk exposure of about $0.75 billion." (Bennett, 1987, p. 73).

An interview with a project manager at KG Land New York Corporation (a wholly-owned subsidiary of Kumagai Gumi Company in Tokyo) revealed that Australia was a testing-ground for this firm's export drive:

"The company treated its investment [in Australia] over the past few years as a learning experience. It spent a lot of money, but the return was slow. This puzzled the locals because they typically expected high return within a short time frame.

Kumagai's goal was long-term investment: to become a major participant in the local market. In order to avoid competition with the locals for construction projects, Kumagai assumed the role of a developer, and this allowed Kumagai to develop and construct its own projects."

According to this manager, most of Kumagai's projects in Australia began as joint venture projects, but the firm gradually bought out its partners in order to gain more control over its destiny.

In the mid 1980's, the same strategy was repeated in both the U.S. and U.K. In the U.S., Kumagai Gumi used a joint venture with local developer as a vehicle to pursue real estate development in this country. In the process, the firm accumulated knowledge in the local
approval process, contracting and bidding, legal system, and so forth. This was the firm's strategy to reduce risks associated with cultural unfamiliarity.

In 1985, Kumagai Gumi acquired a project for the redevelopment of the old Madison Square Garden in New York. The general contractor formed a redevelopment joint venture firm to include its U.S. subsidiary and a U.S. general contractor. In Hawaii, Kumagai Gumi invested 600 billion yen in a resort development project as both the developer and contractor (Hasegawa, 1988, p. 95). These ventures exemplified how Kumagai Gumi created construction opportunity through creating demand.

Kumagai Gumi applied the same formula throughout its international development ventures. The firm's formula for international real estate development was to integrate the firm's activities at all levels: from development of potential demand to proposal, planning, design, funding, building, maintenance, and after-care (Hasegawa, 1988, p. 95).

**Financial Strategy.** In general, Kumagai Gumi used four financial strategies to create demand for construction: project financing, guarantee of loans, equity investment, and establishment of finance and leasing subsidiaries.

The Eastern Harbor Crossing, the second undersea tunnel in Hong Kong, was one of Kumagai Gumi's
noted projects which the firm used project financing as the demand-creating strategy. The firm was able to arrange an international syndicate loan of 54 billion yen at a low interest rate for the tunnel construction.

Kumagai Gumi's "Build-Operate-Transfer Method" (BOT) was "a means of financing large infrastructure projects without using public sector funds. A private sector consortium [would construct] a facility and [would recover] its investment by operating that facility for a number of years. At the end of a specified period, ownership [would be] transferred to the government" (Kumagai Gumi Company Annual Report, 1990, p. 3). In large-scale international projects like the Eastern Harbor Crossing, Kumagai Gumi's primary function was to organize finance and to provide technical assistance in complex civil engineering.

Another strategy which helped Kumagai Gumi win international construction and development projects was the guarantee of loans. According to a report on Japanese construction industry (Bennett, 1987, pp. 73-74), Kumagai Gumi would first identify speculative development projects for which finance is needed. In most cases, the firm would avoid tenders since it preferred to not compete directly with the local companies. As a result, Kumagai Gumi would pick high risk projects where there would be little competition with Australian companies.
Kumagai Gumi would then arrange the financing by becoming a guarantor. The guarantee was usually backed by a letter of credit provided by its main banks (Sumitomo Bank or the Bank of Tokyo). Even though the projects were high risk, Kumagai Gumi would be able to secure financing based on the letter of credit and the contractor's reputation as a guarantor. If the project failed, it would be foreclosed and sold at 20% below cost. The Japanese bank would cover the balance, but it would turn to Kumagai Gumi to cover the losses.

As soon as financing had been arranged, Kumagai Gumi would negotiate to become the head contractor. Thereafter, it would subcontract the job to an Australian construction company "with which Kumagai Gumi [had] friendly relationships, and in some cases, in which it [held] an equity share." (Bennett, 1987, p. 74)

In every case that Kumagai Gumi acted as a developer, the project had been financed locally. This was because, according to a project manager at KG Land New York, "Kumagai Gumi's objective was to establish a long-term business relationship--or friendship--with the [host] country." As of 1986, this firm's total loan guarantee was $1.7 billion, and 80% of the loan guarantee was in foreign currencies (Hasegawa, 1988, p. 180).

In addition, Kumagai Gumi participated as an equity investor in numerous international projects to
promote construction orders. Typically, this firm participated as an owner in joint ventures or a partner in partnerships with local developers. For example, this firm invested $670 million in an Australian project to redevelop Adelaide Train Station in 1983. The firm repeated the same strategy in both the U.S. and Europe (Hasegawa, 1988, p. 181).

Finally, Kumagai Gumi established overseas offices and subsidiaries since the mid 1970's for the purpose of financing overseas projects. In 1975, Kumagai International Ltd, Hong Kong was established. In 1984, Kumagai International USA Corporation in Dallas, Texas was formed and finally, in 1986, Kumagai Australia Finance Ltd. was formed. All of these subsidiaries served the same purpose: real estate business and financing.

Integrated Engineering Construction Strategy. Kumagai Gumi's engineering expertise was in tunnelling. During this period, the firm's strategy was to diversify into new businesses through new technology. These higher value-added businesses included the design and construction of clean rooms, intelligent buildings, and so forth. In addition, this firm also provide full turnkey projects.

Technology development. Kumagai Gumi began to invest heavily in its R&D since the 1980's. By 1983 its R&D investment exceeded one billion yen. The firm's investment in R&D continued to increase in the subsequent
years. In 1985, it reached approximately 3 billion yen (Hasegawa, 1988, p. 163).

Technology development played an increasingly important role in Kumagai Gumi's business. The firm's goal was to develop new construction technique and material in order to add value to the construction process. For example, the firm developed a Tunnel Segment Assembly Robot to facilitate tunnel segment assembly, the most difficult and time-consuming process in tunnel construction.

Other Businesses. Kumagai Gumi's other new business ventures included build and manage and maintenance.

MULTINATIONAL EXPANSION

Kumagai Gumi had engaged in international ventures prior to 1980's. During 1980's, the firm excelled by its rapid, international expansion. Between 1980 and 1987, this firm had established at least twenty-one offices and subsidiaries in nine countries. As of 1987, Kumagai Gumi had a total of forty-four overseas offices and subsidiaries located in Asia, Oceania, North America, and Europe.

In summary, Kumagai Gumi entered the overseas market using the following strategies. First, the firm penetrated the overseas market initially as a real estate developer in order to eventually become the contractor. Second, the firm entered as an equity investor in overseas real estate development to ultimately negotiate a contract
for construction. In every development project, Kumagai Gumi formed a joint venture with a local developer.

**Strategic Direction During the Bubble Economy: 1988-1990**

Between 1988 and 1990, the robust economy in Japan led to business expansion of many private manufacturing companies. As a result of brisk activity in the domestic construction market, Kumagai Gumi experienced consistent growth over this period. Below is Kumagai Gumi's five-year net sales figures demonstrating an increase in sales over the past three years.¹⁶

<table>
<thead>
<tr>
<th>Table 5.8: Kumagai Gumi's Net Sales Between 1986 and 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>WINTER</td>
</tr>
<tr>
<td>$5,323</td>
</tr>
</tbody>
</table>

Dollar amounts in millions (US$1=158 yen)
Source: Kumagai Gumi Company Annual Report, 1990

**BUSINESS DIVERSIFICATION**

During this period, the combination of construction boom in Japan and downturn of the U.S. real estate market shifted the focus of Kumagai Gumi's diversification plan.

According to Dr. Takahashi (a senior advisor

of Kumagai Gumi Company, Ltd in Tokyo), this firm absorbed losses that were caused by high vacancy rates in the U.S. real estate market in both 1989 and 1990, especially in the northeast region where most of the firm's properties were held. Meanwhile, the losses were balanced by Kumagai Gumi's high sales volume in Japan, where growth in the construction industry was robust.

Consequently, the Bubble Economy was a period of change, and Kumagai Gumi went through a company-wide adjustment. In terms of business diversification, Kumagai Gumi shifted its focus to technology development. In the firm's annual report, the president of the firm emphasized that "technology [had] been an important theme for Kumagai Gumi, as a means of adding greater value to work." The firm would further invest in R&D "not only to improve existing technology but also to enter new markets..." In 1988, the firm completed its second research facility, Tsukuba Institute of Construction Technology.

Another aspect of the adjustment included a slow down in real estate activities. Real estate for sale during fiscal 1990 (a twelve-month period) was 8% less than that of fiscal 1989 (a six-month period).

**MULTINATIONAL EXPANSION**

Between 1988 and 1990, Kumagai Gumi slowed its pace abruptly in multinational expansion. No major overseas subsidiaries were formed after 1987. A more
pronounced move was the establishment of representative offices in four European countries—the Netherlands, Germany, France, and Spain—in light of EEC 1992. According to Dr. Takahashi, these offices were just "liaisons"; there were no plan to start business on these sites at the moment.

**Current/Short-Term Strategic Direction: the Next 2-3 Years**

As of 1990, real estate development remained a relatively small role ($492 million, approximately 7%) in Kumagai Gumi's business. Although the Japanese market was the firm's primary market, its overseas markets had developed substantial influence over the firm's business (net sales from overseas market was over 11% of the total net sales). Dr. Takahashi expressed that Kumagai Gumi would continue to invest in technology development. He further summarized the firm's current strategic direction in the following words:

"[Kumagai Gumi] has invested billions of dollars overseas in the past years. Now, it is time to go back to construction. [Growth in Japan will continue to be strong,]...and we have to keep up with the demand.

Our target in the next few years is to sell and lease the buildings [that] we own. [We will] consolidate our overseas businesses and properties and reduce our liability."

In short, Kumagai Gumi would continue to invest in technology development. The firm would further continue to focus in construction business in the domestic market. As for the overseas offices and subsidiaries, the
next few years would be a period of re-organization: to consolidate business, to reduce liability, and on to recovery.

**Future/Long-Term Strategic Direction: the Next 5-10 Years**

According to Dr. Takahashi, Kumagai Gumi's primary goal was to be the number one construction-engineering company in ten years. The firm would diversify in the field of engineering (e.g., ocean engineering) and in technology development (e.g., space technology). The reason was that "Kumagai Gumi's employees [were] engineers", and the firm would be able to achieve success by capitalizing on its strength--the engineers. Kumagai Gumi's strategy to create demand in the future would be to become the leader in technology and to be a comprehensive engineering/design-built firm, like Bechtel.

Globalization did not appear to be a top priority because, according to Dr. Takahashi, the firm had already established the foundation for globalization in the 1980's:

"Globalization? We have already been there...globalization means to go overseas to do projects and hire local employees. We have spent too much time doing that. [Now] it's time to rest: to resolve what's already there [Dr. Takahashi was referring to selling real estate properties--i.e., condominiums--that the firm had not been able to market]."

In Dr. Takahashi's view, the overseas...
expansion in the 1980's had been a lesson for the firm. Since Kumagai Gumi lacked familiarity with the local customs and legal system, the firm found itself to be "constantly at the mercy of the ambitious and powerful local developer-partners." According to Dr. Takahashi, Japanese typically acquired projects or entered joint ventures based on referrals by other Japanese companies or banks. Japanese general contractors were not accustomed to checking the background of local developer-partners. For this reason, many Japanese general contractors had been "trapped by the inequitable contractual agreements with these local developer-partners."

Ultimately, Kumagai Gumi would re-enter the international real estate development as part of its plan to continue the multinational business diversification. The firm believed that it already had the experience and resources, it was waiting for the opportunity. Dr. Takahashi explained:

"We have learned the lesson the hard way. What we have [gained] over the past ten to fifteen years is experienced employees. When employees make critical mistakes, we don't fire them. We learn from their experience. Our capital is human resources. During the next round in international real estate development, Kumagai Gumi will be ready."

Dr. Takahashi concluded by saying that the resources at Kumagai Gumi were "people and mind. These [would be] the future of the company."
### Table 5.9.1: Business Diversification

<table>
<thead>
<tr>
<th></th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
</table>
| **Real Estate Develop.**    |         |        | Domestic: go-it-alone approach for mid to small size development; j.v. with banks, real estate companies, brokerage companies, etc. for large scale projects.  
                             |         |        | Overseas: j.v. with local developers; project financing arranged locally. |
| **Finance**                 |         |        | Project financing  
                             |         |        | Guarantee of loans |
|                             |         |        | Establishment of overseas offices & subsidiaries  
                             |         |        | Equity investment in real estate development via j.v. with local developers. |
| **Engineer Const.**         |         |        | Higher Value-added: clean rooms, intelligent buildings; full turnkey |
| **Tech. Develop.**          |         |        | Conventional technology: civil engineering, earthquake resistant structure, super clean rooms, intelligent buildings, tunnel segment assembly robot, etc. |
| **Other Bus.**              |         |        | built & mgt., maintenance |
### Table 5.9.2: Multinational Expansion

<table>
<thead>
<tr>
<th>Region</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td>Hong Kong, China, Indonesia, Taiwan, Philippines, Singapore, Malaysia, Thailand, Brunei, Sri Lanka</td>
</tr>
<tr>
<td>Middle East</td>
<td></td>
<td></td>
<td>Turkey</td>
</tr>
<tr>
<td>Africa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ctrl./So. America</td>
<td></td>
<td></td>
<td>U.S., Canada</td>
</tr>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td>U.K.</td>
</tr>
<tr>
<td>Oceania</td>
<td></td>
<td></td>
<td>Australia, New Guinea</td>
</tr>
</tbody>
</table>

17 Overseas branch offices and subsidiaries at the following locations.

Table 5.10.1: Business Diversification

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shimizu</td>
<td>Taisei</td>
<td>Kumagai Gumi</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Construction related: consulting
Non-construction related: tourism

Table 5.10.2: Multinational Expansion

<table>
<thead>
<tr>
<th>Asia</th>
<th>Middle East</th>
<th>Africa</th>
<th>Ctrl./So. America</th>
<th>North America</th>
<th>Europe</th>
<th>Oceania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shimizu</td>
<td>Taisei</td>
<td>Kumagai Gumi</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Puerto Rico
the Netherlands, Germany, France, Spain

---

18Continuation of previous activities in real estate development, finance, engineering construction, and technology development.

19Overseas representative offices at the above locations.
CONCLUSION

Clearly, the three cases have exhibited a relationship between the business and the multinational strategies. This combined use of the strategies has effectively driven the creation of new demand. Since the Winter Age, Japanese general contractors have realized that pursuing business diversification within the domestic market alone would not have generated as much demand as it would in both the domestic and international realm. Similarly, pursuing multinational expansion of construction business alone would have yielded substantially less profits than pursuing the alternative strategy of initiating projects for construction through business diversification.

The case studies have further demonstrated how the three firms' have applied the integrated business diversification and multinational expansion strategies throughout their diversification process. Shimizu, Taisei, and Kumagai Gumi's establishment of overseas subsidiaries to finance international construction and real estate development projects and Kumagai Gumi's international real estate ventures are exemplary of the integrated strategies.

Through these integrated strategies, firms have been able to cultivate and expand their market share in different regions of the world. The Japanese general contractors have come a long way. They have learned to use the proactive approach to create demand worldwide rather
than to merely take orders from clients, which has been the traditional practice.

***************

REFERENCES


CHAPTER 5

ANALYSIS: MAPPING THE EVOLVING DEMAND-CREATION STRATEGIES

The purpose of this chapter is two-fold: first, to examine the case studies in the previous chapter in view of the demand-creating strategies and the integrated business diversification and multinational expansion model presented in Chapter 3; second, to deduce how these firms respond to change.

To begin, this chapter presents a summary of the three firms by a background review and by ranking these firms according to net sales, orders awarded, and firm size (measured by total number of employees). Next, it compares the firms' strategies and discusses how leading Japanese general contractors respond to change. This chapter ends with a conclusion summarizing the findings.

PROFILE AND RANKINGS OF THE THREE FIRMS

Table 5.1 lists Shimizu, Taisei, and Kumagai Gumi by age, size of operations, sales volume, and domestic and overseas orders. As the table illustrates, Shimizu is the oldest and has the largest operations among the three firms. According to 1990's data, Shimizu has 100 domestic offices and 80 overseas offices and subsidiaries.

Taisei and Kumagai Gumi are somewhat more
Table 5.1: Profile of the Three Firms (1990)

<table>
<thead>
<tr>
<th></th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm's Age</td>
<td>187</td>
<td>118</td>
<td>93</td>
</tr>
<tr>
<td>No. Domestic Offices (including Tokyo HQ)</td>
<td>100</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>No. Overseas Offices</td>
<td>26</td>
<td>22</td>
<td>25</td>
</tr>
<tr>
<td>No. Overseas Subsidiaries/ Affiliates</td>
<td>54</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>Net sales (Core Business)</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>.Construction (Bldg and CE)</td>
<td>95.21%</td>
<td>92.40%</td>
<td>92.93%</td>
</tr>
<tr>
<td>.Real Estate</td>
<td>4.79%</td>
<td>4.20%</td>
<td>7.07%</td>
</tr>
<tr>
<td>.Other</td>
<td>0.00%</td>
<td>3.40%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Orders Awarded (Core Business)</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>.Construction (Bldg and CE)</td>
<td>95.76%</td>
<td>90.67%</td>
<td>92.79%</td>
</tr>
<tr>
<td>.Real Estate</td>
<td>4.24%</td>
<td>3.50%</td>
<td>7.20%</td>
</tr>
<tr>
<td>.Other</td>
<td>0.00%</td>
<td>5.83%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Orders Awarded (Core Business)</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
<tr>
<td>.Domestic</td>
<td>95.41%</td>
<td>98.00%</td>
<td>89.06%</td>
</tr>
<tr>
<td>.Overseas</td>
<td>4.59%</td>
<td>2.00%</td>
<td>10.94%</td>
</tr>
</tbody>
</table>

diversified within their core business, as reflected in the firms' net sales and orders awarded in 1990. Nonetheless, the core business of the three firms is dominated by building construction and civil engineering.

As of 1990, Kumagai Gumi has led the other two firms by the volume of overseas orders, which has been
approximately 11% of total orders awarded.

Ranking is important to the Japanese general contractors. As discussed in Chapter 1, Japanese construction industry ranks firms according to annual net sales, orders awarded, and size of the firm. Table 5.2 displays the rankings of Shimizu, Taisei, and Kumagai Gumi based on 1990's data. Taisei ranks first based on 1990's net sales and orders awarded. Shimizu leads the others by size.

<table>
<thead>
<tr>
<th>Table 5.2: Rankings of the Three Firms (1990)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Net Sales (total)</td>
</tr>
<tr>
<td>.Rank</td>
</tr>
<tr>
<td>Orders Awarded (total)</td>
</tr>
<tr>
<td>.Rank</td>
</tr>
<tr>
<td>Total Employees</td>
</tr>
<tr>
<td>.Rank</td>
</tr>
</tbody>
</table>

Dollar amounts in thousands (US$1=158 yen)

The following two sections compare the demand-creating strategies of the three firms over four time periods. Matrices will be used for analyzing firms' business diversification and multinational expansion activities during the Winter Age and the Bubble Economy. The integrated business diversification and multinational expansion model (introduced in Chapter 3) will be employed.
to describe firms' current and future strategic directions.


During the Winter Age, the Japanese construction industry itself underwent major transformations. Japanese general contractors like Shimizu, Taisei, and Kumagai Gumi pursued large-scale business diversification and multinational expansion. Interestingly, these firms did not maintain the same level of zeal in developing new businesses during the Bubble Economy.

Throughout the Bubble Economy, leading general contractors continued to invest in the same major categories of business (real estate development, finance, engineering construction, and technology development) as well as the same businesses outside of the "major four" (i.e., build & manage, consulting). Firms were not particularly aggressive in pursuing new business activities, however. This phenomenon was attributed to the sudden economic and construction boom in Japan. The instant prosperity in the domestic market (especially the Tokyo market) attracted the attention of many Japanese construction companies. Accordingly, leading general contractors shifted their focus to the construction opportunities back home.

The following tables (Table 5.3 through 5.6)
summarizes Shimizu, Taisei, and Kumagai Gumi's diversification activities during the Winter Age and the Bubble Economy.

Table 5.3: Business Diversification Within the Four Major Categories--Strategies During the Winter Age (1973-1987)

<table>
<thead>
<tr>
<th>Business Category</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j.v. with trading co., banks, real estate co.</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>go-it-alone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overseas:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j.v. with local real estate developers</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Finance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Financing</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Guarantee of Loans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equity Investment in Overseas Real Estate Development (via j.v. with local developers)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Establishment of Overseas Offices and Subsidiaries</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Engineer Constr.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value-Added Businesses</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Technology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conventional Technology</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Space Technology</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Diversification within the four major business categories (real estate development, finance, engineering construction, and technology development) of Shimizu, Taisei, and Kumagai Gumi during the Winter Age are
almost identical (Table 5.3). All three firms became developers in domestic real estate development. Furthermore, they used the same development vehicles: joint ventures for large scale projects and go-it-alone for smaller ones.

In terms of financial strategies, all the three firms used project financing and equity investment to secure international real estate development and construction projects. Many of the international projects were financed through firms' overseas offices and subsidiaries. These projects then led to construction opportunities. Shimizu, Taisei, and Kumagai Gumi also developed value-added business during this period of slow growth in an attempt to increase construction orders. They further invested in conventional technology development to improve and enhance their products.

The only differences in their demand-creating strategies were, as follows:

1. Kumagai Gumi participated as a developer and loan guarantor to a large extent in international real estate development; Shimizu and Taisei did not;

2. both Shimizu and Taisei already began experimenting with space technology; Kumagai Gumi did not.

As previously mentioned, these three firms continued to invest in the same major four business categories during the Bubble Economy. Table 5.4 shows that there has been no major new business development during this
period.

Table 5.4: Business Diversification Within the Four Major Categories—Strategies During the Bubble Economy (1988-1990)  

<table>
<thead>
<tr>
<th></th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Estate Dev.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineer Constr.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech. Dev.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Also, all three firms were not very aggressive in pursuing new business activities outside of the four major categories during the Bubble Economy. This phenomenon immediately becomes clear when one compares the activities in Table 5.5 with those in Table 5.6. Furthermore, this comparison of firms' activities reveals a more incongruous pattern in firms' development of new businesses outside of the four major categories. Specifically, new businesses established by Shimizu and Taisei were much more extensive than those of Kumagai Gumi during the Winter Age. In fact, the latter only engaged in two areas during this period, both of which were construction related. (See Tables 5.5)

20 Continuation of all activities.
### Table 5.5: Diversification Into New Businesses--Strategies During the Winter Age (1973-1987)

<table>
<thead>
<tr>
<th>Constr. Related</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build and Manage</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Consulting</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Information+Communication</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Leasing</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Maintenance</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Non-Constr. Related</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>New Media</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Tourism</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.Air-conditioning</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>.Rice sales</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>.Transportation</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

### Table 5.6: Diversification Into New Businesses--Strategies During the Bubble Economy (1988-1990)

<table>
<thead>
<tr>
<th>Constr. Related</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elderly Housing</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consulting</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Non-Constr. Related</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elderly Program (Mgt.)</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
Geographical expansion persisted throughout both periods. All three firms exhibited the same primary expansion pattern: Asia and the Middle East during the 1970's, North America (specifically the U.S.) from early 1980's through mid 1980's, and Europe during the late 1980's. Tables 5.7 and 5.8 clearly illustrate this pattern.

Table 5.7: Multinational Expansion--Strategies During the Winter Age (1973-1987)

<table>
<thead>
<tr>
<th>1970's</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Taiwan</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Thailand</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Brunei</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Malaysia</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
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<td></td>
<td>x</td>
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<tr>
<td>Nepal</td>
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<td>x</td>
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<tr>
<td>Philippines</td>
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<td>x</td>
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<tr>
<td>Middle East</td>
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<td></td>
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<tr>
<td>Iraq</td>
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<td></td>
<td>x</td>
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<tr>
<td>Kuwait</td>
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<td>x</td>
</tr>
<tr>
<td>Qatar</td>
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<td>x</td>
</tr>
<tr>
<td>the United Arab Emirate</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td></td>
<td></td>
<td>x</td>
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<tr>
<td>Turkey</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Table continues on next page.
1970's

<table>
<thead>
<tr>
<th>Region</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Nigeria</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Zambia</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Zaire</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Ctrl/South. America</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Brazil</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Early to Mid 1980's

<table>
<thead>
<tr>
<th>Region</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The United States</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arizona</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>California</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Georgia</td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td>Hawaii</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Illinois</td>
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<tr>
<td>Kentucky</td>
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<tr>
<td>Massachusetts</td>
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<td></td>
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<tr>
<td>Missouri</td>
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<td>x</td>
<td></td>
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<tr>
<td>New York</td>
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<tr>
<td>New Jersey</td>
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<tr>
<td>Oregon</td>
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<td>x</td>
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<tr>
<td>Pennsylvania</td>
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<td></td>
<td>x</td>
</tr>
<tr>
<td>Texas</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td>x</td>
<td></td>
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<tr>
<td>Guam</td>
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<td>x</td>
<td></td>
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<tr>
<td>Saipan</td>
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<td>x</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
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<td></td>
<td></td>
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<tr>
<td>The United Kingdom</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>The Netherlands</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Germany</td>
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<td>x</td>
<td></td>
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<tr>
<td>Sweden</td>
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<tr>
<td>Oceania</td>
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<td></td>
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<tr>
<td>Australia</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
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<td>x</td>
<td>x</td>
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<tr>
<td>New Guinea</td>
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<td></td>
<td>x</td>
</tr>
</tbody>
</table>
Table 5.8: Multinational Expansion--Strategies During the Bubble Economy (1988-1990)\(^2\)

<table>
<thead>
<tr>
<th>Region</th>
<th>Shimizu</th>
<th>Taisei</th>
<th>Kumagai Gumi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td></td>
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<td></td>
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<tr>
<td>Philippines</td>
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<td></td>
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<tr>
<td>Middle East</td>
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<tr>
<td>Africa</td>
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<td></td>
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<tr>
<td>Ctrl/So. America</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>North America</td>
<td>Puerto Rico</td>
<td></td>
<td>x</td>
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<tr>
<td>Europe</td>
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<td></td>
<td></td>
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<tr>
<td>The Netherlands</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Germany</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>France</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Belgium</td>
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<tr>
<td>Spain</td>
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<td>x</td>
<td>x</td>
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<tr>
<td>Austria</td>
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<td>x</td>
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<tr>
<td>Luxembourg</td>
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<tr>
<td>Italy</td>
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<tr>
<td>Portugal</td>
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<td></td>
<td></td>
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<tr>
<td>Hungary</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>Australia</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

\(^2\) Overseas representative offices, branches, subsidiaries, and JVs at the following locations.
Shimizu, Taisei, and Kumagai Gumi's multinational expansion pattern conveys an interesting market penetration strategy. First, these firms have initiated the process by exporting construction expertise and technologies to undeveloped regions. Once these firms have acquired experience working internationally, they have proceeded into the developed countries. Knowing that these countries would not depend on the Japanese construction expertise and technologies, all three firms have entered these markets mostly through equity investment and establishment of overseas offices and subsidiaries. Kumagai Gumi has gone further to become a developer of international real estate development projects.

As the above tables illustrate, the sudden shift from the U.S. market to the European market during the late 1980's has been attributed to the declining real estate market in the U.S. and the forthcoming establishment of European Economic Community in 1992.

Base on all three firms' business diversification and multinational expansion data, three general issues regarding the diversification process of these three firms have been identified. First, it appears that the firm which has a substantially larger operation and that has been in operation for a considerably longer time tends to progress furthest along the diversification process. Perhaps this phenomenon can be explained by the
fact that the larger and older establishment has developed, over time, the experience and resources necessary for multinational business diversification.

To exemplify this, Shimizu is the oldest and largest firm among the three, and this firm is most advanced in both business and geographical diversification. Previous discussions relating to Tables 5.3 through 5.8 have addressed fact that Shimizu has expanded systematically across the various business fields.

On the other hand, Kumagai Gumi is a relatively young firm in comparison with Shimizu. The extent of its business diversification is less comparable to that of the other firm. Throughout both the Winter Age and the Bubble Economy, Kumagai Gumi has only established four other new businesses besides pursuing diversification in the four major categories: build and manage, maintenance, consulting, and tourism.

Second, while older firms like Shimizu and Taisei pursue diversification with their accumulated experience and resources, a relatively young firm like Kumagai Gumi seeks diversification using unconventional and high risk strategies. Previous data have shown that, thus far, Shimizu and Taisei have participated as developers of real estate development projects only in the domestic market. Both firms have participated in overseas real estate development projects only as equity investors, using
overseas subsidiaries as an investment vehicle.

Unlike its counterparts which have used a more conservative approach to diversification, Kumagai Gumi has been a risk taker. The firm has ventured into high risk real estate development projects as a developer, project financier, guarantor of loans, and equity investor. Participation in most of the firm's overseas development projects has been realized through its overseas subsidiaries. According to some executives in the leading Japanese construction and real estate development firms, Kumagai Gumi "has started construction on its development projects before financing has been secured...Kumagai has ended up putting in its own equity."

Third, as the data indicate, all three firms have consistently believed that engineering construction would increase their market share both in Japan and worldwide and have pursued this path faithfully as a business diversification strategy. In addition, all three firms have viewed technological innovations as the ticket to future construction opportunities. Therefore, all three firms have continued to increase their investment in technology development.

DEMAND-CREATING STRATEGIES: SHORT-TERM (2-3 YEARS) AND LONG-TERM (5-10 YEARS)

When examining the short-term strategies of
Shimizu, Taisei, and Kumagai Gumi, two trends emerge. First, these firms are in the process of shifting their attention to the construction business in Japan, and second, they are continuing to increase their investment in technology development. Using the integrated business diversification and multinational expansion model, Figures 5.1, 5.2, and 5.3 describe the three firms' current/short-term strategic directions.

Figure 5.1 on the following page depicts Shimizu's short-term strategies. The wheel to the left represents the firm's business diversification while the wheel to the right represents firm's multinational expansion strategy. As of 1991, the firm has diversified into the five satellite businesses (the squares), which are the extension of the core construction business (the circle at the center). Altogether there are four squares representing the four major categories of new business, plus one other square indicating new businesses outside of the four major categories. This "Other New Businesses" further subdivides into two subcategories: construction related activities and non-construction related activities.

The wheel to the right represents multinational expansion. As of 1991, Shimizu has expanded into all seven satellite regions around the world (the squares), all of which are the extension of its primary operating location in Japan (the inner circle).
Summary of Strategies:
1. Development of technology.
2. Expansion of construction business in Japan.
The curve(s) linking the two wheels represent(s) the firm's business diversification strategy, multinational strategy, or integrated multinational business diversification strategy.

The upper curve indicating "Technology development" represents one of Shimizu's short-term strategies: to diversify in technology development. The lower curve indicating "Construction in Japan" points at both the business diversification and geographical expansion activities. This means that, in the short run, Shimizu's business strategy is to concentrate in its core business while its geographical expansion is focused in the Japanese market.

Like Shimizu, Taisei's business diversification is extensive. Business diversification of the firm include the four major categories of business as well as the other new businesses both related and unrelated to construction. Taisei's overseas presence is broad as it covers the seven major overseas regions. Similar to Shimizu's strategies, Taisei also seeks to continue its investment in technology development and to expand its core business in Japan. In addition, the firm plans to increase real estate development activities both in the U.S. and U.K., and it further plans to continue the development of the European market. Accordingly, Figure 5.2 displays Taisei's prioritized short-term strategies.
Summary of Strategies:
1. Real estate development in U.S. and U.K.
2. Development of Technology.
3. Development of the European market.
4. Expansion of construction.

An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.
Kumagai Gumi's business diversification is not as extensive as the previous two firms. Besides the major four categories of business, this firm's other new businesses include only four activities. Like the previous two firms, Kumagai Gumi's overseas presence is broad. Kumagai Gumi's short-term strategies (see Figure 5.3 below)

**Figure 5.3: Kumagai Gumi's Short-Term Strategic Direction (2-3 Years)**

**Summary of Strategies:**
1. Expansion of construction in Japan.
2. Development of technology.

---

An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.
for the next two to three years only involve the expansion of the construction business in Japan and development of new technologies. These strategies are demonstrated by the integrated business diversification and multinational expansion model in Figure 5.3.

Although the Bubble Economy collapsed just a year ago, all three firms view that construction orders will continue to escalate (as a result of continuous government investment in Japan's infrastructure) and that orders carried over from the previous years will sustain the firms. Meanwhile, these firms share the fear that current domestic prosperity may not last forever. As a result, these firms hope to develop technological innovations not only to enlarge their current market share but also to prepare themselves for entering future markets, such as the space market.

The general direction of the three firms' long-term multinational business diversification strategies is similar. All three firms have expressed their desire to continue multinational business diversification in the long run; however, the scale of their diversification and expansion varies. It appears that each firm envisions the long-term strategies according to its perceived strengths. For example, Shimizu and Taisei believe that they have long established a worldwide operation over time. International experience and resources are considered by these firms to be
their major strengths and are perceived to serve as the bases for carrying out the firms' globalization\textsuperscript{22} plans.

In this regard, both Shimizu and Taisei see themselves proceeding in the direction of becoming transnational firms (Stage 5 of Professor Kobayashi's Transnationalization Stage Model discussed in Chapter 3), those which will manage with worldwide perspectives and global logistics.

According to these firms, steps taken to prepare for their emergence as fully diversified transnational firms are, as follows:

1. to continue to pursue diversification within the four major categories of business (real estate development, finance, engineering construction, and technology development);

2. to continue to increase investment in technology development;

3. to continue to develop businesses outside of the "major four" or to establish new businesses;

4. to continue to develop overseas markets where the firms' presence has not been particularly strong (i.e., the European

\textsuperscript{22}In his dissertation on globalization (1990), Sugimoto defines "globalization" as follows:

"Globalization is essentially a category of internationalization. International strategies are diverse and include global strategies, which are aimed at gaining competitiveness by coordinating activities in a value chain (internal and external) that is dispersed across countries (such as marketing and R&D centers in several countries). Therefore, globalization is concerned with how widely a firm captures geographical, often "worldwide", markets rather than mere market penetration in terms of foreign sales or FDI, and leverages and advantages across its activities and inputs in various locations." (p.91)
market) and to develop markets around each of the regional center;

5. once steps 1 through 4 have been completed, the firms will proceed with the implementation of global management strategies.

Figures 5.4 and 5.5 display the long-term diversification strategies of Shimizu and Taisei. Shimizu's long-term diversification strategies (Figure 5.4) entail the following. The first and second strategies involve the expansion of construction business in Japan and overseas and the expansion of real estate development and engineering businesses in Japan and overseas.

The third strategy includes expansion of non-construction related business such as the elderly program. Finally, the forth strategy is globalization, which is denoted by the arrows in the right hand wheel in Figure 5.4. The arrows linking the overseas regions to Japan and to one another suggest a conceptual global operations of the firm, with its headquarters located in Japan. The firm's world market is divided into eight regional blocks: Japan, Asia, the Middle East, South/Central America, North America, Europe, and Oceania. Within each regional block, one regional center will be established. Also, close, instant communication between Japan headquarters and each regional center and between one regional center to another will be established. Essentially, this is the final stage of the transnationalization stage model: management with global
perspectives and global logistics.

Figure 5.4: Shimizu's Long-Term Strategic Direction (5-10 Years)

Summary of Strategies:
1. Expansion of construction business in Japan and overseas.
2. Business expansion in real estate development and engineering construction in Japan and overseas.

An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.
Like Shimizu, Taisei considers globalization, indicated by the arrows on the right hand wheel in Figure 5.5, as its long-term strategy. In fact, globalization is the strategy which Taisei hopes to achieve after the firm completes the foundation for globalization in the next few years.

Figure 5.5: Taisei's Long-Term Strategic Direction (5-10 Years)

Summary of Strategies:

- Build & Manage
- Consulting
- Engineering
- Housing
- Info. & Comm.
- Leasing
- Maintenance
- Constr
- Fin.
- Eng.
- Constr
- Tech.

R.E. Dev.

An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.
Interestingly, the progress towards full diversification and globalization varies between these two firms (i.e., Shimizu anticipates pursuing these steps within the next 5 to 10 years while Taisei claims that it is already in the process of doing so). Perhaps this disparity is attributable to an individual firm's decision and distinctive outlook of the future.

On the other hand, Kumagai Gumi's long-term strategies is to develop new technology, expand the engineering construction business, and to re-enter international real estate development. Figure 5.6 on the following page illustrates the firm's long-term strategies using the integrated model. Note that the author has not included globalization as a strategy in this model, despite the interviewee's claim that Kumagai Gumi has already achieved globalization in the 1980's. Strictly speaking, Kumagai Gumi has not yet achieved globalization since globalization, according to Sugimoto, is concerned with how widely a firm captures worldwide markets and not mere market penetration. (Thus far, no Japanese construction firm has achieved globalization.) Therefore, the author believes that multinational expansion strategy would be the proper terminology to characterize Kumagai Gumi's geographical expansion.
Figure 5.6: Kumagai Gumi's Long-Term Strategic Direction (2-3 Years)

Summary of Strategies:
1. Development of technology.
2. Expansion in engineering construction business.
3. Real estate development overseas.

An evaluation process in which the firm assesses its strengths and weaknesses, market opportunities, risks, and constraints before entering a new business or an overseas market.
Unlike Shimizu and Taisei, Kumagai Gumi is not as fully diversified in the business fields. The firm's long-term strategies as well as its short-term strategies focus only in technology development, engineering construction, and real estate development. As Dr. Takahashi (the interviewee) asserts:

"Kumagai Gumi's employees are engineers and not sales people...Kumagai Gumi will develop business related to engineering and construction [but] not in non-construction related businesses."

As both the short-term and long-term integrated models illustrate, Kumagai Gumi shows no indication of evolving into a fully diversified transnational firm. The firm will continue its multinational expansion and operations.

HOW LEADING JAPANESE GENERAL CONTRACTORS RESPOND TO CHANGE

An inference can be made about how leading Japanese general contractors respond to change by tracing the evolving strategies of Shimizu, Taisei, and Kumagai Gumi. In general, leading Japanese general contractors seem to have very strong survival instincts and, therefore, respond immediately to change. The following review of the firms' strategies over seventeen years of change demonstrates how Shimizu, Taisei, and Kumagai Gumi have reacted to the volatile market.
In response to the diminishing domestic market during the Winter Age, all three firms pursued business diversification and multinational expansion in order to create new demand. Strategies for the creation of new demand are summarized as follows:

1. to seek real estate development opportunities both in Japan and overseas as a means to create demand for construction;

2. to use financial strategies (enabled by firms' vertically integrated structure and strong-ties with Japanese banks) as a means to acquire international construction, real estate development and investment opportunities;

3. to pursue the role of engineer constructors (enabled by firms' vertically integrated structure) and offer higher value-added services to clients both in Japan and overseas;

4. to invest in technology development as a means not only to improve products and services but also to seek entrance into new markets (i.e., space market);

5. to diversify into other fields of businesses which may or may not related to construction as another means of creating demand;

6. to establish regional centers worldwide as the base for future market expansion;

In response to the sudden economic and construction boom in the Tokyo metropolitan area during the Bubble Economy, Shimizu, Taisei, and Kumagai Gumi simultaneously shifted their focus to the construction business back home. During this period, these firms continued to pursue businesses initiated during the Winter
Age, but they were not aggressive in the pursuit of new businesses. Their overseas activities, in general, also decreased. Although all three firms established offices and subsidiaries in several European countries, most of these offices were there merely to establish a nominal presence.

Currently, even though the "Bubble" has burst, the demand for construction in Japan persists. The appeal in developing the domestic core business is further enhanced by the slumping international markets (especially in the U.S.). Naturally, developing domestic construction business remains a top priority in firms' strategies.

CONCLUSION

Having analyzed the data, two important conclusions have been made regarding leading Japanese general contractors. The first conclusion is that firms' short-term strategies have consistently been market driven. This phenomenon repeats throughout the period of change: first during the Winter Age and then the Bubble Economy.

During Japan's slow growth period when the domestic market declined, leading Japanese general contractors pursued opportunities overseas. During the Bubble Economy when construction opportunities at home boosted, these firms turned toward home.

This observation is further supported by the
following quote from a manager of one of Japan's leading general contractors:

"The importance of international construction changes from time to time. It depends on the balance between the condition of the Japanese market and that of the international markets. We are different from specialized engineering firms which earn revenues from international markets, and the home market is very important to most of us (contractors). When the home market is in a slump, we tend to emphasize international markets. But, when it is not, we come back to the home market...Currently, because of the tremendous construction boom in Japan, many contractors are reluctant to develop their international markets very aggressively." (Sugimoto, 1990, pp. 275-6)

Even though Japanese general contractors' short-term strategies are market driven and tend to change with respect to the balance between the domestic and international markets, Japanese general contractors always keep their long-term strategies in sight. This observation leads to a second conclusion: Japanese general contractors look to the future for business opportunities. Since the passage to future opportunities is technological innovations, Japanese general contractors continue to increase investment in technology development and to seek entrance into future markets. They believe that technology and management innovations serve as their best competitive advantage. The strength of this Japanese attitude is stated in Eleanor Westney's address to the semi-annual MIT Center for Real Estate Development Members Meeting in June 1988:
"Learning to management in new markets is critical... and the Japanese learn well. They learn from best practice; they believe in R&D; they provide incentives for innovation.

Managers need to innovate to enhance their capacity to innovate. How they manage is a critically important part of competitive advantage."

REFERENCE

CHAPTER 6
WHAT WAS LEARNED

The large Japanese general contractors have evolved into versatile organizations over the seventeen years of change. The range of activities in which firms have engaged includes real estate development and investment, finance, engineering construction, development of conventional and space technologies, and the various construction related and non-construction related businesses. These firms have also expanded their operations into major cities throughout the world. The diversity of their activities worldwide is the result of their full-scale multinational business diversification since the first oil crisis in 1973.

The following is a summary of key points which have been discussed in this thesis regarding leading Japanese general contractors and their diversification process.

KILLING THE MYTH: DESPITE THE WIDE CONFIGURATION OF THEIR INTERNATIONAL ACTIVITIES, LEADING JAPANESE GENERAL CONTRACTORS DO NOT DOMINATE THE WORLD MARKET.

An interesting phenomenon discovered during this thesis research is that, despite their wide configuration of international activities, large Japanese general contractors' international revenue is relatively
small, and the scale of their international operations is still small compared with international contractors in the U.S. and Europe.

The list of the top 250 international contractors exhibited in Chapter 1 indicates that international orders acquired by leading Japanese general contractors never exceed 12% of their total orders. Their international competitors generally gain a much greater percentage of orders from overseas. For example, the same list indicates that first ranked Brown & Root Inc. of the U.S. gained 65% of its orders from abroad; the second ranked Bechtel Group Inc. registered 55%, and the fifth ranked Bovis International Ltd. of U.K. posted 70% as of 1989.

Although leading Japanese general contractors have achieved top status in the domestic realm, they still have a long way to go in the international arena.

THE IMPORTANCE OF TECHNOLOGY DEVELOPMENT IN THE JAPANESE GENERAL CONTRACTORS

Technology development is critical to large Japanese general contractors not only as a source of competitiveness (i.e., to provide value-added services) but also as a vehicle to enter future markets (e.g., space development). Generally, large Japanese general contractors have one or more R&D divisions. These technology laboratories shape and sustain firms' growth through diversification into businesses in which technology plays an
important role. Leading general contractors will continue to increase their investment in technology development in the future.

**THE JAPANESE DEFINITION OF "LONG-TERM"**

In comparison with the West, the Japanese have a much longer time frame. The interviews with three leading Japanese general contractors reveal that these firms are already thinking about enlarging market share to include space development in the twenty-first century. In preparation to enter the space market, these firms are either in the process of developing or will begin the process to develop conceptual designs and technologies necessary for their new endeavors. At present, Shimizu is contemplating the conceptual designs of a space hotel orbiting Earth, and Taisei is in the process of designing a conceptual catapult linear motor aiming to facilitate space research.

**THE TWO PRINCIPAL FACTORS THAT DRIVE MULTINATIONAL BUSINESS DIVERSIFICATION: VERTICALLY INTEGRATED FIRM STRUCTURE AND STRONG-TIES WITH FINANCIAL SOURCES.**

Indeed, vertically integrated firm structure and strong-ties with financial sources (especially Japanese banks) are the two major strengths of large Japanese general contractors. Vertical integration enables these firms to pursue higher value-added businesses (i.e., engineering
construction) worldwide. Strong financing ability allow them to diversify into international real estate development and investment by first identifying projects that require financing and then arranging project financing or equity investment. Leading Japanese general contractors have relied on these two strengths to penetrate major markets throughout the world.

**JOINT VENTURE: THE MAIN VEHICLE FOR FIRMS' PARTICIPATION IN INTERNATIONAL PROJECTS**

In order to minimize problems and risks associated with unfamiliarity with local culture in international projects, large Japanese general contractors almost always form joint ventures with other Japanese firms and local firms. Joint ventures not only protect Japanese general contractors from the shock of operating in a disparate culture but also allow these firms to gain experience and local know-how from local partners.

Per the interviews, leading Japanese general contractors maintain that joint ventures are indispensable particularly in overseas real estate development. The primary reason is that land use regulations differ from country to country (in the U.S., they differ from city to city), and the local developers are the best source of local knowledge.
TWO CRITERIA FOR THE SELECTION OF LOCAL JOINT VENTURE PARTNERS: REFERRALS AND INSTINCT

Most leading Japanese general contractors choose joint venture partners primarily by referrals from other Japanese organizations: banks, trading companies, clients, just to name a few. According to Shimizu and Kumagai Gumi, general contractors like themselves seldom perform background checks on their joint venture partners. One officer from Shimizu indicates that the firm seeks business advise from their lawyers, but the decision on joint venture partners is based entirely on "trust and intuition, and [the process] is most subjective."

THE IMPORTANCE OF "CLIENT PULL" IN MULTINATIONAL BUSINESS EXPANSION

"Client pull" is a very important source of demand for overseas construction and development projects. In general, when Japanese manufacturing and service firms establish their offices and production plants in foreign countries, they hire Japanese general contractors to build these facilities. Many leading Japanese general contractors have relied on these clients to expand their operations internationally.

STRATEGIES USED BY LARGE JAPANESE GENERAL CONTRACTORS TO PENETRATE INTERNATIONAL MARKETS

Large Japanese general contractors generally have different strategic plans for penetrating developing
countries and developed countries. In developing regions where construction technology and knowledge is needed, these firms export construction technologies and know-how in exchange for construction orders. In developed regions like the U.S. and U.K., however, these firms invest in local real estate and development projects which then lead to construction opportunities.

**SOURCING FOR INTERNATIONAL PROJECTS**

In general, large Japanese general contractors source labor and material worldwide for projects in developing countries. For projects located in developed countries, these firms procure labor, material, subcontractors, and equipment locally. Besides the fact that these are available in developed countries, more important is that Japanese general contractors find it difficult to import labor and material due to restrictive regulations of the host countries (Sugimoto, 1990, p. 278).

**BUSINESS DIVERSIFICATION AND MULTINATIONAL EXPANSION IN THE 90'S: STATUS AND TREND**

The short-term strategies of leading Japanese general contractors are market driven; therefore, these firms will go where there are opportunities.

In the next few years, these firms will continue to pursue construction in Japan because of the projected strong domestic demand throughout the next few years.
years. They will also continue to invest in technology development.

Furthermore, Japanese general contractors will likely expand their activities in the European market. Firms will continue to establish representative offices or subsidiaries in the various European countries in light of the EEC 1992 event.

In conclusion, large Japanese general contractors have gained worldwide presence, have diversified into a wide range of construction related and nonconstruction related businesses, and have certainly acquired ample experience working overseas. What lies ahead is the tremendous pressure and hard work to maintain their current status, or even to further their status. (Being the number one firm is important to leading Japanese general contractors.)

Divergent opinions exist in both the construction industry and the academies regarding the future of the Japanese general contractors. The three firms interviewed maintain that they will continue business diversification and multinational expansion to enlarge their market share. Two of the three firms assert that, eventually, they will achieve globalization.

Nevertheless, a PhD. dissertation, Globalization of International Engineering and General
contractors for Building Their Competitiveness (1990), suggests that the lack of efficient internal systems (e.g., worldwide sourcing capability) and limited commitment to the international markets will be the major drawbacks for firms' globalization plan. Sugimoto, the author, concludes the section with the following argument:

"Taking [the above mentioned drawbacks] into consideration, whether Japanese contractors will become truly global (even international) firms is very uncertain." (p. 304)

Despite the divergent opinions, one thing is certain: leading Japanese general contractors are definitely planting seeds for their futures.
### APPENDIX A

#### CONSTRUCTION INVESTMENT IN JAPAN, 1960-1983
(Percentages of Components)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Const. Invest (%)</th>
<th>Public Const. (%)</th>
<th>Priv. Const. (%)</th>
<th>Civil Const. (%)</th>
<th>Bldg. Const. (%)</th>
<th>House Const. (%)</th>
<th>Non-House Const (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>100.00</td>
<td>34.5</td>
<td>65.5</td>
<td>38.6</td>
<td>61.4</td>
<td>28.4</td>
<td>33.3</td>
</tr>
<tr>
<td>1966</td>
<td>100.00</td>
<td>38.4</td>
<td>61.6</td>
<td>38.8</td>
<td>61.2</td>
<td>34.8</td>
<td>26.4</td>
</tr>
<tr>
<td>1971</td>
<td>100.00</td>
<td>37.2</td>
<td>62.8</td>
<td>37.1</td>
<td>62.9</td>
<td>34.1</td>
<td>28.7</td>
</tr>
<tr>
<td>1976</td>
<td>100.00</td>
<td>35.7</td>
<td>64.3</td>
<td>36.9</td>
<td>63.1</td>
<td>38.5</td>
<td>24.5</td>
</tr>
<tr>
<td>1981</td>
<td>100.00</td>
<td>40.4</td>
<td>59.6</td>
<td>42.3</td>
<td>57.7</td>
<td>31.3</td>
<td>26.4</td>
</tr>
<tr>
<td>1983</td>
<td>100.00</td>
<td>40.7</td>
<td>59.3</td>
<td>42.7</td>
<td>57.3</td>
<td>30.8</td>
<td>26.4</td>
</tr>
</tbody>
</table>

Source: Sugimoto, 1986
APPENDIX B

DOMESTIC CONSTRUCTION VS. OVERSEAS CONSTRUCTION IN JAPAN

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Overseas Construction ($ billion)</th>
<th>Overseas as % of Domestic (%)</th>
<th>Total Domestic Construction ($ billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>0.33</td>
<td>0.25</td>
<td>129.99</td>
</tr>
<tr>
<td>1974</td>
<td>0.55</td>
<td>0.41</td>
<td>133.28</td>
</tr>
<tr>
<td>1975</td>
<td>1.15</td>
<td>1.05</td>
<td>143.39</td>
</tr>
<tr>
<td>1976</td>
<td>2.47</td>
<td>1.50</td>
<td>155.06</td>
</tr>
<tr>
<td>1977</td>
<td>1.87</td>
<td>1.06</td>
<td>175.93</td>
</tr>
<tr>
<td>1978</td>
<td>2.70</td>
<td>1.39</td>
<td>193.55</td>
</tr>
<tr>
<td>1979</td>
<td>2.84</td>
<td>1.31</td>
<td>217.29</td>
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<tr>
<td>1980</td>
<td>2.46</td>
<td>1.10</td>
<td>224.34</td>
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<td>1981</td>
<td>3.97</td>
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<tr>
<td>1982</td>
<td>4.21</td>
<td>1.85</td>
<td>227.03</td>
</tr>
<tr>
<td>1983</td>
<td>4.78</td>
<td>2.20</td>
<td>217.56</td>
</tr>
<tr>
<td>1984</td>
<td>4.59</td>
<td>----</td>
<td>----</td>
</tr>
</tbody>
</table>

($1=220.54 yen)

Source: Sugimoto, 1986

\(^{23}\)Total domestic construction does not include overseas construction.
APPENDIX C

RESEARCH AREAS BY THE BIG SIX

- Earthquake engineering - development of earthquake resistant structures and base isolation devises.
- Development of new materials for higher performance structures in such areas as resin impregnated concrete, GRC free access floors, heat insulation materials.
- Soil testing and geotechnical.
- Large scale structure testing.
- Concrete materials - development of lighter, stronger, more durable concrete.
- Hydronamics - analysis of marine and off shore structures.
- Energy efficient buildings and plant - solar energy and heat storage, energy conservation.
- Nuclear power facilities.
- Tunnelling - development of new tunnelling techniques.
- Construction industry robotization - producing robots to undertake construction tasks including placing concrete, power floating, painting.
- High grade clean rooms for manufacturing and research facilities. Clean air technologies for high tech industries.
- Chemical engineering - physio chemical investigations of soils and rocks and soil stabilization. Chemical pollution, treatment and utilization of wastes.
- Acoustics - planning for low noise environments.
- Environmental characteristics of underground spaces - widening the range of application of underground spaces and the control of the thermal environment.
- Coal storage silos - investigation of fuel flow properties, structural strengths and pressure properties.
- Underground and surface liquified natural gas storage tanks.
- Pneumatic structures.
- Air supported domes - tests are being conducted into the structural integrity, fire prevention and snow melting systems. Work is also being conducted to make domes suitable for a wide range of activities.
- Management systems for planning, quality control, and cost control.
- Computer assisted design systems.
- Intelligent buildings - develop 'smart' buildings.
- Security systems for building using microelectronics.

Source: Bennett, 1987

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