Japanese Manufacturing Monopolies - What U.S. Enterprises Must Do To Maintain Global Competitiveness

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Hidden Japanese Monopolies

What U.S. Enterprises Must Do To Maintain Global Competitiveness

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Chapter I

Introduction

Problem Statement

This project proposes to identify numerous Japanese monopolistic manufacturing activities and how those activities can be addressed by U.S. enterprises through effective strategic management plans. With this goal in mind, one could also ask several questions about what, if anything, the federal government should do to aid U.S. enterprises. Should the federal government play a role in high-tech markets? Should it protect U.S.-based firms competing in strategically important industries? Should it attempt to preserve a U.S. industrial presence in consumer electronics? Should it devise new institutions for assisting industrial efforts to commercialize technology? As evidence of declining U.S. industrial strength in high-tech markets grows, these and similar questions are asked with increasing intensity.¹

At an aggregate level, the problem of U.S. industrial competitiveness is nearly hidden from view. The full extent of the competitiveness problem begins to reveal itself only when we consider U.S. industry performance in a critical subset of high-technology markets - markets such as consumer electronics, factory automation, semiconductor memories, and advanced displays. In these

markets, Japanese competitors have established strong positions, and U.S. firms have fared poorly. The significance of the U.S. position is not simply that Japanese firms have achieved leadership in large and rapidly growing markets, but that these large and rapidly growing markets are themselves driving advances in important related markets.

Despite repeated predictions that the high yen would drive Japan’s export industries to the wall, not a single significant Japanese manufacturing company has gone out of business in recent years. What’s sustaining Japan’s export boom? The answer is fairly simple: in a wide range of important products, the Japanese are now the world’s only significant suppliers. Many of these products are virtually invisible to the American public because they are high-tech materials, components or production machinery, but without them many American and European corporations would literally have to shut down. By establishing leadership in such products, Japan’s keiretsus have come to dominate the upper reaches of the world manufacturing hierarchy and thus enjoy strong price leadership in a wide range of downstream activities.2

Thanks to the increasing importance of research and development in advanced manufacturing, the ownership of industries is becoming more and more concentrated. In many key products, the world is down to just one or two suppliers. For example, lithographic machines, known as “steppers,” perform some of the most sophisticated work in the semiconductor manufacturing

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industry. Fifteen years ago the stepper market was fiercely contested by manufacturers in both Japan and the United States. Today just one Japanese company, Nikon, accounts for approximately 70 percent of the global market. The only other major supplier is Canon, another Japanese company. The full significance of Japan's leadership in steppers becomes apparent only when one realizes that advances in the semiconductor industry are paced by advances in stepper technology. The more accurate the stepper, the finer the lines that can be printed on a silicon chip and the more memory the chip can contain.³

Not all the world's monopoly industries are located in Japan. But Japan has been targeting such monopoly niches for many years. Interestingly, they are invisible monopolies. Apart from a few well-known categories such as cameras and fax machines, Japan's areas of monopolistic strength are rarely easy to identify. This is because neither the Japanese nor their rapidly downsizing customers in U.S. manufacturing like to acknowledge how hollowed out the American economy has increasingly become. In many industries dominated by the Japanese, U.S. corporations seem quite strong. But this is an optical illusion. Unbeknownst to the American public, U.S. corporations quietly source critical components or even whole products from Japanese competitors.

A good example is laser printers, whose defining laser components are built almost exclusively by the Japanese. Even Hewlett-Packard, which ironically has often been praised for its success in besting the Japanese, depends

critically on Japan's Canon for key components. Only when unforeseen circumstances disrupt the world's supplies does the existence of Japan's monopolies emerge. This was how word got out that Japan monopolizes a special steel needed to make valve springs for auto engines. For several weeks in January and February of 1995, this ultra-high-performance steel was in short supply because the Kobe, Japan earthquake had knocked out a Kobe steel plant that accounted for nearly 60 percent of the world's supply. Production was quickly restored and emergency action by other Japanese suppliers reduced any serious effects on the auto industry. But as the U.S. auto industry noted to its discomfort, all the alternative suppliers were also Japanese. There are many other critical areas where Japan enjoys a monopoly or near monopoly position.  

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Chapter II

Literature Review
Chapter II

Literature Review


Literature Review

Japan's economic leaders aim to establish monopolistic leadership in advanced industries. Their success to date has been greater than most Americans realize and constitutes one of Japan's greatest hidden strengths. How many economically significant monopolies does Japan now have? As this question has never been studied systematically by government officials or scholars, one can only guess. It seems reasonable to assume that monopolistic leadership is a factor in about one-third of Japan's exports.

Corporate Japan's most important area of monopolistic leadership is electronics. The seeds of monopoly which Japan has planted here promise a truly exceptional harvest. The Japanese technology expert Masanori Moritani has perhaps put it most succinctly, “The silicon revolution,” he says, “promises as big a transformation in the world economy as all other technologies developed since the eighteenth century put together.” This is quite a statement, but the evidence that it is true is widely apparent to anyone who has looked at how corporate Japan's control of the electronics industry is giving it growing
power to shape dozens of other industries, from robotics and factory automation to cars and aerospace.\(^5\)

**Monopolies of the Electronics Industry**

Listed below are several "advantageous positions" that Japanese companies control in the electronics industry:

*Flat panel displays.* Japan dominates the industry, especially in large high-end products such as thin-film transistor liquid crystal displays. These are the most familiar as the screens in laptop computers, but they are now indispensable in a wide range of applications not visible to the consumer. Their weight-saving possibilities have made them essential equipment in military and commercial aircraft. According to independent consultants, demand is likely to triple, to about $20 billion, by the year 2000. The United States largest maker of flat-panel displays, Planar Technologies, accounts for only 3 percent of the world market. Moreover, like Korean flat-panel makers, it depends on the Japanese for key inputs such as flat-panel drivers and raw liquid crystal.

*Laser diodes.* These are already indispensable in compact disk players and laser printers and now they are critical components for the new multimedia industry. Japan's global market share is more than 99 percent. Sharp Corporation's share alone is 40 percent.

*Compact disk players and CD-ROM drives.* Compact disk players need no introduction; their more advanced derivatives CD-ROM (compact disk read-only

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memory) drives are becoming well known because they are a core technology of
the multimedia revolution. Sony has about 40 percent of the global CD-ROM
market. Other Japanese makers control the rest.6

**Capacitors.** Murata makes 50 percent of the world's multi-layered ceramic
capacitors, which are essential in almost all electronic devices, and 80 percent
of the world's ceramic filters.

**Semiconductor materials and equipment.** Japan's share of the
semiconductor materials industry rose from 21 percent in 1980 to 73 percent in
1990 and is still rising. Japan's market share appears to be at least 80 percent in
several crucial items including ceramic substrates, silicon wafers, and bonding
wire. Japan also monopolizes the supply of copper foil for printed circuit boards.
Disco Corporation makes 70 percent of dicing saws for cutting silicon wafers.
Two-thirds of the world's quartz masks are made by Hoya, more than 50 percent
of photoresists by Tokyo Ohka Kogyo, and 40 percent of photomasks by Dai
Nippon Printing.

**Cellular phones and pagers.** A key area of Japanese dominance in
cellular phones is gallium arsenide chips, which operate at higher frequencies
and consume less power than silicon chips. Oki Electric is increasing its gallium
arsenide capacity by 50 percent in 1995 to keep up with booming demand.
Corporate Japan is believed to monopolize the market in surface acoustic wave
devices used in cellular phones.

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Optical character recognition. Optical scanning equipment allows postal services automatically to sort letters. It is also installed in automated ticket barriers in the world’s most advanced subway systems and in vending and change-making machines that accept bank notes. Much of the software in these machines is made in the United States and other Western countries, but the crucial hardware is almost entirely Japanese. The major manufacturer is Toshiba, which got its start in a MITI-sponsored research cartel in the 1960’s. Japan also leads in supermarket scanner technology.

Lithographic Steppers. These precision machines are vital for making semi-conductors and liquid crystal displays. Nikon enjoys close to 70 percent of the booming market for steppers; Canon has almost all the rest.  

Monopolies of Other Industries

Outside the electronics field, The following sectors have been identified as several of Japan’s most important areas of monopolistic leadership:

The information highway. Although American commentators think of the information highway as an American stronghold, Japan will make much of the relevant hardware, including many of the sophisticated asynchronous transmission mode (ATM) switching systems at the heart of interactive television. The Japanese have leveraged their expertise in video compression to lead a new international consortium that will own most of the patents for future video compression systems: of the eight companies participating in this consortium;

four are Japanese (Sony, Matsushita Electric, Fujitsu, and Mitsubishi Electric),
two are American (AT&T and General Instrument), and two are European
(Thomson and Philips).

Micro-engineering. Japan's micro-engineering expertise is easy to
overlook but it has enabled Japan to establish several important monopolies in
electro-mechanical components. Such components often must be machined to
tolerances measured in microns, or, millionths of a meter. Such precision is a
key reason for the superior reliability of, for example, Japanese videocassette
recorders (whose magnetic heads and drums contain dozens of tiny moving
parts which wear out quickly if they are not precisely aligned). Olympus Optical
recently announced a grinder that grinds steel to a tolerance of one-fiftieth of a
micron.8

Auto parts. America is hardly extinct in auto parts, but Japan leads in
miniaturization. As moving parts get ever smaller, problems of heat and wear are
correspondingly multiplied. The Japanese are acknowledged masters in making
materials which beat these problems. Miniaturization skills helped Japan
establish an effective global monopoly in motorcycles by the early 1970’s.
Another important area of Japanese leadership is small compressors for
automobile air-conditioning systems. Japan leads in sensors, displays, gauges,
and other electronic components, which now account for between 5 and 10
percent of the cost of a typical car. The Japanese reputedly have a lock on

plastic optical fibers for controlling a car's electronics; compared to traditional wires, optical fibers provide important weight and space reductions. The Japanese reportedly lead in critical future technologies such as lean-burn chemical catalysts, high-capacity batteries, piezoelectric vibrating gyroscopes (for navigation systems), and ceramic engine parts (which will improve efficiency by allowing engines to operate without cooling water).  

Auto industry manufacturing machinery. Much was made recently of Chrysler's Neon car, which was described by press commentators as Chrysler's "Japanese car killer." Most reports overlooked the fact that the Neon, like most other advanced American cars, is made using Japanese presses and other sophisticated production equipment. Although Schuler of Germany is still a player in large presses for the auto industry, the category is now led by Japan's Komatsu. Japan leads in so-called squeeze-mold techniques for the mass production of strong, precisely engineered aluminum sub-components. Honda is the world expert in using aluminum in engines. 

Micro-motors. Precise, powerful micro-motors are an important edge for Japan in everything from cameras to CD-ROMs and laptop computers. Most micro-motors are made in East Asia using specialized Japanese manufacturing

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technology. Mabuchi Motor now makes 900 million micro-motors a year, approximately one for every household in the world.¹¹

*Bearings.* Invisible to the consumer, bearings are a crucial area of Japanese leadership. They are most familiar as ball bearings, but they come in many specialized varieties. Bearings are used to relieve friction in virtually every mechanical process, and Japanese bearings are now vital in precision-engineering applications from videocassette recorders to fighter jets. Because bearings must combine extreme hardness with precise engineering, they are made in highly specialized factories, and monopolistic pressures have always been powerful in the industry. In recent years Japanese companies have leapfrogged over the American and Swedish companies that previously dominated the industry, and the United States now imports about 80 percent of its bearings. Just how strong the monopolistic pressures are in this industry can be gauged from the story of New Hampshire Ball Bearings, an American defense supplier that was taken over by Japan's Minebea in 1985. The takeover was controversial because America's ball bearing capacity had already fallen too low to meet surge production needs of a conventional war. But Ronald Reagan personally decided to approve the takeover in an effort to boost then Prime Minister Yasuhiro Nakasone's standing in Japan. Although Minebea had undertaken to expand in the United States, it instead quickly cut back and allegedly started importing East Asian ball bearings that were repackaged as

American-made. Why would Minebea risk offending the United States in such a serious way? Much of the answer lies in the ball bearing industry's huge monopolistic pressures that make it unprofitable to operate duplicate factories.

**Cameras.** The camera industry is a classic Japanese monopoly and it has conferred classic monopolistic advantages on the Japanese economy. Thanks to leadership in cameras, Japan rapidly ascended the learning curve in lenses and miniature motors and thus surpassed the Americans in copiers, semiconductor-making equipment, laptop computers, television broadcasting equipment, and a host of other seemingly unrelated products that depend on camera technology.

**Copiers.** The world leaders are the Japanese companies Canon, Ricoh, and Tokyo-based Fuji Xerox. Many of the sophisticated parts in American-brand copiers are made in Japan.\(^{12}\)

**Carbon fiber.** Stronger than steel and lighter than aluminum, carbon fiber has long been a vital material in aviation. Engineers approximate that carbon fiber components typically reduce a plane's total weight by 8 to 9 percent, a key advantage in fuel economy and, in the case of warplanes, in range and maneuverability. Japan is believed to enjoy a monopoly in the special source material from which most carbon fiber is made. Moreover, Japan specializes in new low-cost versions of carbon fiber which are expected to make substantial inroads into the auto industry.\(^{13}\)

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Titanium. Sumitomo Sitix is the world's leading producer of this increasingly important metal. Titanium's lightness and corrosion resistance make it a vital metal in aircraft, chemical plants, nuclear power stations, desalination plants, space and underwater exploration, automobile manufacturing, and offshore oil production.\textsuperscript{14}

Chapter III

Data Gathering Methodologies and Procedures
Chapter III

Data Gathering Methodologies and Procedures


Data Gathering Methodologies and Procedures

This project will address this topic with a literature review of published information available from public and university libraries, and strategic management databases available from global Internet sources.

Location of the Information

The secondary sources of information - journals and industry publications - are available at the library of Florida Atlantic University, the library of Lynn University, and the Palm Beach County Public Library. Global Internet sources will be tapped using Florida Atlantic University’s VAX computer and Telnet resources. Database search tools Gopher, Veronica, and Archie will be used to access resources available from national Internet locations.

Obtaining the Information

No complications exist with obtaining the secondary information for this project. All of the information will be secured from the stacks of the library of Florida Atlantic University, the library of Lynn University, and the Palm Beach County Public Library. The material will be reviewed and photocopies of whatever material requiring further study will be secured.
Chapter IV

Results
Chapter IV

Results


Results

The major difficulty in identifying Japan's monopolies is that statistics in this area are often misleading; qualitative factors are involved to an extraordinary degree. To assess the degree of monopoly one must, for example, distinguish between different production technologies. Often where the Japanese have a real monopoly, the Americans still can claim a presence. Typically one American supplier remains in any particular category who uses "handmade" production techniques for special-order military applications, while leaving the vast consumer market entirely to a Japanese cartel.

Many of Japan's monopolies are so obscure that they are virtually invisible to American executives and government officials. An example is a substance known as epoxy cresol novolac resin, an ingredient in most semiconductors. Almost no one in the United States had heard of this substance before 1993, but things changed fast when an explosion disabled a small factory in the remote Japanese town of Niihama. As astonished American semiconductor executives quickly discovered, the factory accounted for nearly 65 percent of the entire world supply.
Prices of some types of semiconductors doubled on the world market in the following two weeks. Within a month, the Clinton administration was pressing the Japanese to take emergency action to restore production. The closer American officials looked at the epoxy story, the more worried they became. They found that the Japanese also monopolized both the substance known as resolving silica, with which the epoxy is mixed before being incorporated in semiconductors, and the process by which resolving silica and epoxy are mixed. Thus three links of the manufacturing "food chain" in one hitherto unsung subdivision of the semiconductor industry had been monopolized by corporate Japan. Moreover, an alternative technology called ceramic packaging is also a Japanese monopoly.

In the wake of the Niihama disaster, top American companies like DuPont and Monsanto were urged to get into the business, but they didn't want to compete in a Japan-dominated product category. Why did the Niihama explosion come as such a surprise to the United States? In mapping gaps in America’s technology food chain, Americans have focused narrowly on a few "critical" technologies of compelling importance to American military security while ignoring unglamorous civilian technologies. Yet these civilian technologies account for a much larger share of world economic output.

Another problem in measuring Japanese monopoly is American corporations' increasing secrecy about their dependence on Japanese supplies. The secrecy is understandable: because wages are now lower in the United
States than in Japan, American employers who fire American workers in order to source from Japan are implicitly confessing they have lost the technology race. American defense contractors seem particularly secretive, perhaps because they made large profits in the 1980's by relying on cut-rate components imported from Japan while turning their backs on struggling American suppliers.

Another difficult qualitative question is to what extent control of apparently insignificant components gives Japan a monopoly in a whole industry. Does Japan monopolize the videocassette recorder industry? On paper, no: But in practice, probably yes, because non-Japanese makers are dependent on Japan for vital parts. In some industries dominated by corporate Japan, a few non-Japanese suppliers exist in Europe or East Asia. But often such suppliers are de facto junior partners in the Japanese cartels, and they are located in countries whose governments turn a blind eye to antitrust concerns. In general, once a Japanese cartel has captured at least 50 percent of the global market, it can be presumed to have established monopolistic leadership.

Most Americans seem to think America's growing dependence on Japanese manufacturing is of little significance. Even the fact that America's most advanced weapons depend on Japanese components elicits no more than a shrug from the likes of the Brookings Institution and the Wall Street Journal. This is globalism, they seem to say; sit back and enjoy it! The complacency seems to stem from a view that "mutual dependencies" are unavoidable in the modern global economy. Just as America is becoming dependent on Japan for
some products, so Japan is supposedly becoming dependent on America for others.\footnote{Philip Trezise, \textit{Brooking Review}, Winter 1989/90, 12.}

The truth is that the combination of a huge manufacturing work force and high productivity enable the Japanese economic system to aim for almost complete self-sufficiency in advanced manufacturing. In the last two decades Japan has reduced or eliminated its dependence on America in computers and computer components, telecommunications, machine tools, electronic manufacturing equipment, and robotics. Perhaps most significantly of all, the Japanese economic system has been working in a coordinated way to reduce Japan's dependence on America in aerospace, the last significant manufacturing industry that America leads. Rather than buy American warplanes, for instance, Japan decided in the late 1980's to build its own.

One reason American policy-makers have been unconcerned about the loss of American manufacturing power is that they believe the United States can easily get back into lost industries "in a matter of weeks" in an emergency. This theory has gone largely unchallenged because there are few hard numbers in the public domain that would allow academic economists to evaluate it.

On the rare occasions when the theory has been tested by events, however, it has proved startlingly one-sided. One such occasion was the Toshiba military secrets scandal of the 1980's. A Toshiba subsidiary was found to have sold crucial machine tools to the Soviet defense industry. The United
States wanted to retaliate by boycotting Toshiba products, but it quickly discovered it could not do so because many major American manufacturers were critically dependent on Toshiba for components. There followed one of the most humiliating episodes in American business history as such high-technology corporations as AT&T, Hewlett-Packard, and Apple Computer lobbied Capitol Hill in Toshiba's behalf. Although the companies were understandably embarrassed to associate their names with such a controversial cause they felt they had no choice. The estimated damage Toshiba's action had inflicted on American defenses had been estimated as high as $30 billion. In the end, Toshiba escaped with a slap on the wrist.\(^{16}\)

An even more significant admission of American dependency came in the early 1990's, after the small company Japan Aviation Electronics Industry was indicted by the United States Justice Department for selling defense technology to Iran. This time, the company turned out to be so important to America's defense strategy that the United States Defense Department quickly stepped in to plead successfully to get it off the hook. The message of the Toshiba and Japan Aviation incidents is clear: Japan's manufacturing prowess is rapidly becoming a vital tool of global power.

These monopoly positions are crucial to Japan's overall exports. About one third of Japan's exports consist of goods in which Japan has a monopolistic

lead, up from about a tenth in 1980. Moreover, in many downstream industries where the U.S. and Europe are apparently strong, the Japanese hold the upper hand by virtue of upstream monopolies. Thanks to many critical strengths in producing auto-making equipment and advanced components, the Japanese have been far less pressured by the high yen than many analysts predicted.

Japan’s monopolistic strengths have played a key role in bolstering the earnings of most of Japan’s major export corporations. As a result Japan’s corporate profits have been holding up well despite the rising yen.

Recently, there has been a rising challenge to Japan’s monopoly positions from other east Asian countries. But the Japanese have shown a remarkable ability to jump to higher levels of monopolistic leadership when their existing monopolies are challenged.17
Chapter V

Discussion / Conclusion
Chapter V

Discussion / Conclusion


Discussion / Conclusion

U.S. industry still leads the world in the production of manufactured goods by a substantial margin, accounting for 30.6 percent of total manufacturing production among OECD (Organization for Economic Cooperation and Development) member countries, compared to 21.6 percent for Japan. The U.S. share of total OECD production in high technology however, is shrinking (from 40 percent in 1980 to 36 percent in 1990), while Japan's is growing (from 18 percent to 29 percent), but here again, the aggregate data show no sign of serious difficulty.

The full extent of the competitiveness problem begins to reveal itself only when one considers U.S. industry performance in a critical subset of high-technology markets. The significance of this is not simply that Japanese firms have achieved leadership in large and rapidly growing markets, but that these large and rapidly growing markets are themselves driving advances in important related markets. Semiconductors and displays are the building blocks for electronic equipment. They represent an increasingly large portion of the total value added in a growing range of high-volume, fast-growing products, such as laptop computers, fax machines, compact disc players, camcorders, and
portable telephones. By dominating semiconductor memory and display markets, Japanese firms build the foundation for dominance in electronic equipment markets. Once leadership in equipment markets is established, it reinforces leadership in components.18

Here then can be seen the full range of the competitiveness problem. The strongest Japanese competitors are focusing on large, fast-growing industries that are the foundation for even larger, more widespread, future industries, and when U.S. firms go head to head against their Japanese counterparts in those industries, most fare poorly. The real issue in competitiveness is not leadership in the aggregate, but leadership where it matters most. The cause for alarm is not the marginal decline in U.S. industry’s share of overall global production but the striking failures in specific domains of long-term strategic importance.19

Technology Leadership

What can government do to help U.S.-based firms compete in global markets?

Build advantage through technology leadership. Better technology leads to superior products at lower or competitive costs, which in turn offsets the structural advantages enjoyed by the competition. The same is true for most U.S. companies competing in high-tech markets. A primary objective for U.S. policy-

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makers should therefore be to help firms build and maintain technology leadership.

Technology leadership is driven by competition. If there remains a serious obstacle in the U.S. to continuous improvement in cost and performance, it lies not in the financial environment or the managerial practices reinforced by that environment, but in the government mission-oriented culture that still predominates in U.S. research institutions. The culture of technology development and engineering in agencies such as the Department of Defense, National Aeronautics and Space Administration, and Department of Energy emphasizes one-of-a-kind, high performance systems that require customized, and often manual, manufacturing - precisely the reverse of the demands placed on high-tech firms competing head to head with the Japanese.\(^{20}\)

Technology leadership begins with creative and well-trained individuals pursuing radical and generational innovation. To many observers, the solution is simple; more interactions between industry and universities and fewer between universities and the government-agency culture. The more university-based science and engineering are oriented to problems of importance to industry, the more likely it is that students will be exposed to the need to balance high performance with low cost, and elegant design with manufacturability.\(^{21}\)


Success offers a clear and consistent message: Technology leadership is shaped by general management - by the strategic focus that it displays, by the consistency with which it applies that focus, by its pursuit of total rather than just high-end leadership, by its willingness and ability to pioneer continuous as well as discontinuous improvements in technology, and by a style of decision-making that is characterized by a willingness to learn by doing in the face of uncertainty and that is driven by the imperative to stay ahead rather than by financial objectives.\(^{22}\)

If technology leadership is shaped by general management, two logically distinct approaches could be to:

Change the financial environment. Sustained leadership in high-tech markets requires the ability to periodically renew businesses by pioneering radical and generational innovations. This ability requires general management that is willing and able to persist through decade-long periods of low or negative returns coupled with high investment. This does not mean that continuous incremental innovation within existing businesses is unimportant. But leadership cannot be maintained if it is not first established and then periodically renewed through the much more ambitious, risky, and painful discontinuous innovations.

Changing managerial practices directly. A different but complementary approach is to devise policies similar to R&D and investment tax credits that would directly influence managerial behavior. To be effective, any such

measures must have a significant impact on cash flow. The 25 percent tax credit on increases in R&D spending that was instituted in 1981 has too small an effect on cash flow to significantly alter a manager's decisions. And even if a larger R&D tax credit were instituted, it still might not induce the kind of long-term-oriented action required to build technology leadership, since in their current form, R&D tax credits can just as easily be used to subsidize minor modifications of existing products.  

Effective Strategic Planning

What must U.S. enterprises do to help themselves compete in global markets?

Among the many alternatives, strategic planning has been a highly successful method of competing in an ever-changing global marketplace. Strategic planning is the identification and creation of competitive advantage. It deals with the development of brand positioning as a central focus and the necessary tools to make that focus live; to secure resources and commitment; to monitor progress and help understand and embody external influences and changes. The systematic approach to the planning process is key and involves the following areas of concentration: the marketing audit, a thorough analysis of both internal and external environments; SWOT analysis, examining the key conditions of the product, the market and the competition; defining new

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objectives; determining the best ways to meet these objectives; and finally, how will they be measured.\textsuperscript{25}

Strategic planning is about the future development of a product or company and therefore must contain vision, as it is vision which provides the context for growth. Marketing by existing conditions has very limited growth opportunity, particularly as so few categories are experiencing incremental volume gains. Often the planning process does not allow for plans to extend beyond the immediate year ahead, as the management mindset is one of results, results, results, and yet in so many cases a 3-or-5 year plan is essential to defining how a product or technology will evolve. This is not to say that plans should not change as times and conditions change. On the contrary, products can be long-term equities that corporations should nurture carefully. The planning document, and in particular the positioning statement, needs to be reviewed constantly. It has to be a working document, an operational blueprint, not a "file-filler."\textsuperscript{26}

Japan and the United States will continue to compete and there will always be a leader in that competition. It will depend on the decision makers of America's production industries to make the decisive moves that will help improve American competitiveness on a global scale.


\textsuperscript{26}Thomas Renda, "Are Your Organization and Business Strategies at Odds?," Supervisory Management, March 1994, 10-12.
References
References


contained specific information related to CD-ROM technology and the Japanese hold on that technology.


A fact filled article that contains data specifically related to the lithographic stepper industry. An essential industry for computer enterprises.


The Journal always keeps abreast of the major changes in many industries, the auto industry is no exception. This article discussed the stranglehold that many Japanese parts manufacturers maintain on a global perspective.


Government publication that discusses the uses and future potential of carbon fiber and the technology that is required in its production. Japan is identified as a major U.S. supplier with no other major U.S. producers.


Another perspective of how the economic and political system of the U.S. is up for sale. This work sets the stage for how Japan uses all avenues of ingress to develop the monopolies that they will control in the future.


Discussion of senior management's need to concentrate on introducing strategic flexibility in their organizations. Strategic flexibility
enables an organization to quickly take advantage of external opportunities, which is a necessity in improving profit levels in a volatile international business environment. In my opinion, flexibility and adaptability is paramount for success.


A comprehensive work that attempts to identify the methods and strategies employed by Japanese executives to gain economic domination. Looking at the Sun was instrumental in helping to identify what is actually transpiring in the game of world politics and economics.


Article written by longtime Japan resident who helps to identify Japanese world monopolies. His insight into the Japanese culture helps westerners understand the Japanese business mentality.


Comprehensive work that intensifies its focus on the subtleties of Japanese culture and the misunderstandings and misinterpretations of the western press. How those misinterpretations have allowed Japanese industries to gain deep inroads into what was formerly U.S. industry dominated territories.


A work that gives an in-depth view how silicon and silicon technologies are employed in the all-encompassing computer industry. An intense perspective of how Japan dominates the silicon industry and how it plans to maintain its dominance.


Article highlighting lithographic stepper technology. Discusses how Japan dominates the stepper market.

Article that asks tough questions and suggests methods of improvement for small and large companies. Useful for this project to give greater depth to the choices involved in making a strategy decision.


Auto parts industry in Japan is one of the strongest in the world. Japan supplies parts to all major manufacturers and maintains strong links with their secondary parts markets.


Another series of excellent strategy suggestions. Useful due to its more aggressive policy suggestions.


The complexity of strategic planning is placing heavy cognitive demands on corporate strategists. This article helps to identify factors that make the strategic management process a required necessity for companies today.


A discussion of the competitive issues involved in the business battles of the U.S. and Japan. An insightful article using facts gathered from U.S. government sources tracking the competitive struggle with Japan.


Strategic leadership provides organizations with a long-term vision that influences people toward achieving desired results. This article highlights a conference of The Planning Forum. Insights from leaders of business related to the necessity for strategic planning.

Companies succeed because they have well-planned strategies that are supported by systems which are consistent with these strategies. This article was useful in that it discussed several successful strategies of international businesses.


Another discussion of the merits involved with long-term perspectives in business and the pitfalls involved with the short-sighted perspective. A useful insight to the competitive environment of international business.


The data gathered by this firm helps companies worldwide make effective decisions based on accurate information. Data compiled relating to large Japanese organizations was extremely useful in helping to identify Japanese monopolies.


Strategic management is serious business. Strategy suggestions for American business. Techniques and policies to improve international business competitiveness.


An interesting perspective from the American think tanks. Let the market leader dominate the market no matter the circumstance, the true economists perspective. This article supplies a perspective that is predominant with the bottom-line short-termed perspective of typical American businesses.
