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A STRATEGIC DIRECTION FOR SKF IN JAPAN

AN ANALYSIS

By

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A Strategic Direction for SKF in Japan

ABSTRACT

Industries reflect changes in the environment – they evolve with the rest of the society, or cease to exist as they become obsolete. That is why companies have to reinvent themselves, in order to keep their pace with evolution and development. Strategy facilitates the process of reinvention – it determines the direction and focus an organization will eventually follow in order to assume its desired new shape. This thesis is examining the strategic direction of SKF Japan through Porter's five competitive forces and his framework for competitors' analysis. Other key topics covered in this analysis are bearing industry in Japan, SKF's main competitors, and the history and current position of SKF Japan.

Key Words: Strategic Management, Michael E. Porter, SKF, Japanese Market, and Japanese Bearing Industry.

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I am also grateful for the comments of Sissi, Eandas and Stella Frangos. Their support for my work was crucial. Unki's comments on group positioning and Puki's on alternative cost curves were illuminating.

Much information was gathered through interviews and material provided by SKF. A great deal of attention was given in order to not reveal any sensitive material. At some points, generalizations will be used and at other points information will not be referred to, but it will be implied that it was acquired through SKF sources.

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I. Introduction

If history is a source of convincing assumptions, then certainly any foreign company wishing to enter the Japanese market should bestow some attention to examining some past examples of companies who attempted such a move. The history of SKF in Japan is a compelling story to explore. SKF is not a new or a recent entrant to the Japanese market. As a matter of fact, the company's presence in the Japanese market preceded almost all of its competitors. The company, however, exhibited an unusual variation in performance and market share; at its zenith in pre-second World War years, the company enjoyed an undisputed dominance in the market with a 70% market share, and at its nadir an almost 0%. The reasons for such an extraordinary shift in status will be part of what this paper examines. However, the main issue examined in this thesis, is the company's current strategic position. An analysis of the bearing industry in Japan will be conducted following Porter's models for structural competitive analysis. After the attempt to identify the current strategic direction of the company I will try to evaluate it and draw my conclusions. Moreover, the Japanese market was long considered to be an almost unconquerable bastion for western companies, filled with peculiarities that compose the uniqueness of Japanese thought. It is therefore necessary, to also investigate the peculiarities of the Japanese market that distinguishes it from Western ones.

The main axis of this analysis is based upon the realization that it is necessary for SKF to compete on the basis of a unique positioning, in terms of its competitors. Hopefully, as a result of the analysis, some valuable lessons about the Japanese economy and foreign companies can be learned.

So, to begin with, we have to establish the real goal of the company on the Japanese market. Is it to expand the size of its market? Is an expanded market share the venue for real growth? SKF has a wide range of products and services, expanding its market share in all segments in the Japanese market, could prove suicidal. To grow does not necessarily lead to prosperity, and in this case it would prove disproportionately expensive, with potentially disastrous results. In order to substantiate this claim, an analysis of the market and the competitors has to be conducted. The company should expand the market, or the segment of the market, in which it can maintain an advantage over its competitors.

A. Background

There are several reasons for the presence of SKF in the Japanese market. The Japanese economy, despite its current slump, is the second largest in the world, comprising roughly one fifth of the world's industrial production. Some of SKF's largest competitors – NSK, NTN and KOYO – have their home markets in Japan. For some time SKF's Japanese competitors have threaten the US and European markets by applying constant pressure to SKF's operations especially in terms of price competition. The need for SKF to balance the effect of the pressure ought to be considered sufficient stimuli to overcome the company's reluctance to expand its Japanese market share. It has always been a wise policy for a firm, to have a division where its bigger competitors are, since a company can then always have better access to competitors' new products, operational processes, and strategic concepts. A competitor is more likely to launch new concepts in its home market before launching them abroad. As a company may track more easily new policies and practices employed by competitors, it will have more time to evaluate them and generate a counter-measure. Moreover, the unforgiving Japanese market is considered as a proving ground for the company's products and processes. The constant demand for quality and timeliness requires SKF to be constantly on the edge and at its best performance.

B. Problem Analysis

1. Problem Statement

What is the strategic direction of SKF in Japan and what are the reasons behind the company's decision to follow this particular strategy? This is an investigation of the bearing industry in Japan and SKF's position in it. What are the critical factors and the main problem areas for the company? And perhaps most importantly what can be learned from a protracted effort like this one? Could it be possible to identify the critical factors that influence the strategic positioning and areas to be examined when SKF and other foreign companies wish to penetrate the market?

2. Methodology

The theoretical part is based solely on Porter's models and theories of competitive strategies. On the other hand empirical data was gathered from a number of different sources. The primary source of information was SKF and

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most of the information was obtained in the form of interviews. SKF has also provided with statistical data and other material from its own database. More secondary information was gathered from articles, magazines, periodicals, books and the internet. Extra attention was paid in scrutinizing the sources of information and presenting reliable data.

The analysis is conducted based on both elements of knowledge – theoretical and empirical. Porter was chosen for the clarity and the applicability of its models and theorems. There was a deliberate attempt to minimize the number of theories involved and only use those models that would be used in the analysis. Alternative theorists are not included in this thesis as an exhibition of pluralism in theoretical thought would not contribute to my analysis.

My intention is not to follow Porter's models and theories unquestionably, but to accommodate my analysis needs as better as possible. For instance, in the competitors' analysis I do not employ all of Porter's factors, as such a process would have been tedious and time consuming and would not contribute for this paper's substance and aim. Importance was also paid to the readability of the paper.

C. A Sketch of SKF

a) A Global Perspective

SKF led the world in bearing production and innovation for decades. The company constitutes a prime example of an industrial company that constantly strives to understand the needs of its customers and, in turn, create practical and effective solutions satisfying those needs. The company established a global status early on, by the founder, and that was the *modus operandi* that SKF followed to the present (Frangos, 2001). The company proved to be particularly successful as it utilized its unique products and applications in combination with its founder's marketing capabilities. Later on, Sweden's neutrality during the two great wars ensured that SKF had an uninterrupted mode of operations and excess demand for its bearing products. The firm substantially developed its position during and following the two world wars. Of course, in post-war years, SKF was producing for the reconstructed economies of half the world, and trying to catch up with a frantic demand. A company is rarely found in such an advantageous position for such a long time. This favourable position

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accounted for a substantial capital reserve that was used for the expansion and consolidation of its market dominance. At least, that was the case until the German and Japanese economies bounced back.

It was during the 60s, however, that Japanese producers began to seriously challenge SKF's dominance. The favourable position was abruptly over and SKF was under heavy pressure from the influx of Japanese imports into the European and US markets. The Japanese products were both of higher quality and lower cost – a most potent combination – and it was soon recognized that the need for changes was pressing. It was around this time that the Japanese began to establish a more solid base of operations in Europe and the US by launching production facilities. SKF was being squeezed between new global entrants with a wide range of products and the growth of relatively specialized small manufactures. As market shares began to shrink, profit margins began to be uncomfortably low and could no longer support the company's ineffective inter-organizational structure and manufacturing processes. With factories scattered throughout Europe, each geared to a broad product line for the local market, the Swedish company was a big target for the Japanese. SKF reacted by trying to avoid direct competition with the Japanese: it added higher margin products to serve specialized applications. But, SKF did not simultaneously drop any low-margin products, thereby complicating its plant operations and adding to production costs. In effect, SKF provided a cost umbrella for the Japanese. As long as they operated beneath it, the Japanese could expand their product line and move into more varied applications.

SKF recovered its position through a massive reorganization directed by Lennart Johansson, who was the CEO at the time. The turnaround was remarkable and it was the result of much hard work, innovative new processes and substantial capital investment. SKF expanded its technological competences in bearing design and fabrication, while limiting its product diversification (through the rationalizations) in a way that was shaped by the pattern of end-use demand. The reorganization that resulted in the rationalization of the 70s was more or less a reactionary effort to the aggressive strategies of the Japanese competitors. In the process of recovery, Japanese style management policies were adopted and an effort was made to imitate the kind of capabilities Japanese firms possessed (i.e. lean management, flexibility, high levels of productivity and low cost). The Swedish response consisted of changing or augmenting capabilities and by taking good advantage of a set of capabilities and knowledge developed in earlier years especially in production processes, which substantially improved operational effectiveness.

Currently, SKF's leadership in the global market is based on its intense technological competitiveness, which is supported by its industrial structure.

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This structure includes highly specialized production units in countries with high rates of productivity and more standardized and high volume production units in countries with less efficient productivity rates. This combination proved to serve the company's global aspirations well. The bad news is that all the major competitors have equivalent structures to facilitate their global positioning. This structure provides a multitude of advantages such as flexibility, the ability to focus on specific products utilizing appropriate production units, and the ability to take advantage of the external and internal knowledge and information gathered through the network of stakeholders. As the competitors are able to operate in similar conditions – employing equivalent manufacturing processes and structures that result in high quality and low costs – it is imperative for SKF to consider alternative strategies. A natural direction for the company would be the adoption of alternative strategies which will aim at achieving higher profit margins and customer value.

SKF's four major competitors are well established global corporations competing in all major markets segments. NSK and NTN are Japanese, FAG is the European competitor of German origin, and Timken is a US company. NSK and NTN constitute roughly 60% of the Japanese bearing market. All major competitors in figure I-1 share similar characteristics and have more or less similar operational structures and are pursuing similar global strategies.

Figure I-1. Global Bearing Market Share

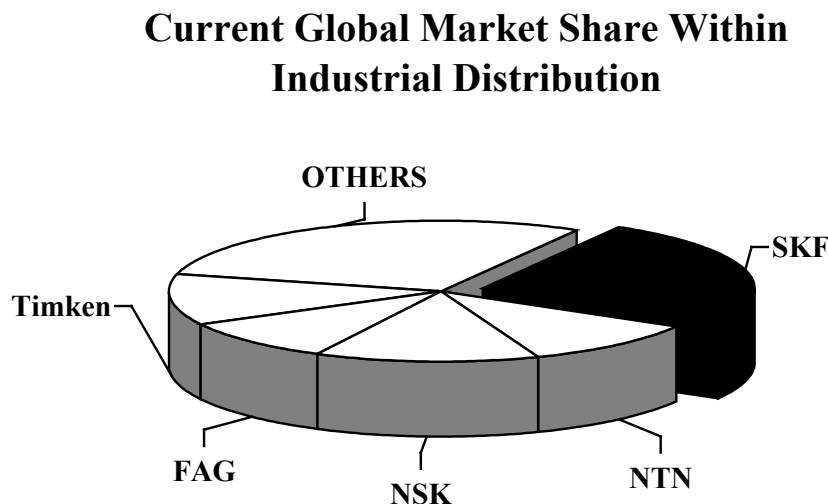


Figure 1: Source SKF (Percentage By approximation)

b) Position in Japan

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SKF has a relatively long history in Japan as it was established in 1932.¹ Even though SKF currently supplies half of Japan's bearings imports, its market share is only 1%, while it enjoys about a fifth of the non-Japanese Asian market². Domestic bearing sales in Japan account for roughly a fifth of world sales totalling about 20 billion U.S. dollars a year. The bearing market in Japan is currently suffering from the overall economic slowdown, even though some small market segments witnessed a moderate growth in demand. The recent terrorist attacks in the U.S. and the subsequent American slowdown has compounded the recessionary effect. As a result, Japanese manufacturing firms in an effort to cope with increasing production costs are shifting their production units in Asian countries with close proximity to Japan such as China, Malaysia, Thailand, and the Philippines. This trend has been ongoing since the mid 90s when the strong yen and the high rate of Japanese wages made production in Japan excessively costly. This trend has subsequently decreased bearing demand in the home market.

SKF Japan, in an effort to boost profitability, has decided to concentrate on products and business with high margins. In the recent past, the company tried to improve its position by launching new types of innovative bearings. For example, in 1997 in an effort to boost its share in the Japanese market, the company introduced Carb, or Compact Aligning Roller Bearing, which was promoted by the company as the most important innovation in the industry for 40 years. The Carb enabled industrial machines to run 15 per cent more quickly than conventional systems. This boosted factory efficiency significantly, as well as allowed cars to travel further for the same amount of fuel as a result of smoother running gearboxes. Even though SKF thought that its Carb system would appeal in particular to machinery users in Japan, it did not result in breakthrough sale increases. It did, however, improve sales margins and gained some important customers.

The company enjoys a clear advantage in designing and manufacturing highly customised products over its competitors. An example of this was the award of the contract to dig a tunnel under the Tokyo Bay for engineers Hitachi Zosen in 94. All of Japan's main bearing manufacturers tendered for the contract, but SKF beat them to it (International Management, 1994). When it comes to specialized, highly precise solutions, SKF is the company most likely to provide them. Competitors have recognized their disadvantage, but the high costs involved in attaining the technology, knowledge and manufacturing processes needed for such products, renders it prohibitive.

¹ Information obtained by SKF Japan. A more thorough look into SKF's history in Japan will be presented in the Empirical part.

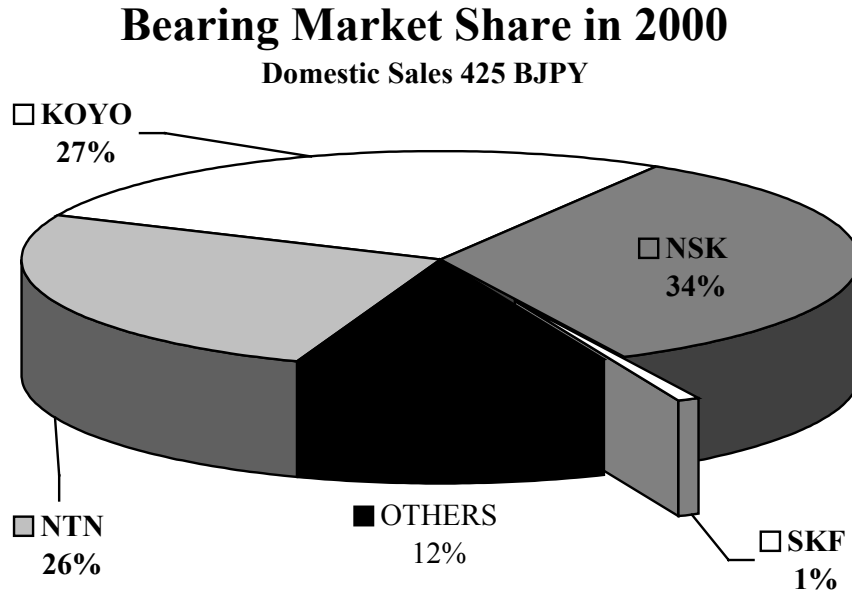
² Source: SKF

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The three biggest competitors comprise 87% of the market share in Japan. These companies have been producing bearings for the Japanese industrial manufacturers since before the Second World War. Their growth has been parallel to the robustness of the Japanese economy. All the Japanese competitors have been focusing in bearing products which are linked with the country's exporting industries – automotive, home appliances and general machinery. Industry analysis has revealed that Japanese competitors lack experience in products related to industries that Japan is not competitive (like aerospace for example), and especially in products that require a high degree of customisation.

Even though the position of SKF may seem precarious in terms of its small market share, an examination of the market conditions revealed that the company has been following a strategic position which allowed it to establish and enhance its competitive advantage and consolidate its position in the market. The company obviously cannot expand its market share by competing in terms of price reductions in standardised products, since competitors' sheer size and weight and equal expertise would be decisive factors against the company.

Figure I-2. Japanese Bearing Market Share in 2000



Source: SKF

II. Theoretical Framework

In this part, a number of related strategic theories and concepts is described in order to present the framework and the working tools of the analysis. Porter is the main theorist employed since his models are found to be the most suitable for this case and offer a substantial and an in-depth analysis of the elements to be examined. Porter's generic models offer a sensible and clear perspective of the strategic arena's overview. Furthermore, Porter's framework of structural analysis has provided a valuable basis from which to conduct a reliable evaluation of the situation. The reader should note that this is an overview of Porter's models and not a precise illustration³.

This is an overview of Porter's models and theorems that will be described in the theoretical part. First, a look at Porter's five competitive forces that are driving industry competition. Second, a summary of Porter's competitive strategies; another major aspect of Porter's work. These strategies comprise the backbone of strategic direction and involve the position of a firm in respect to the five competitive forces that affect competition in an industry. Finally the framework for competitor analysis, on which the analysis for the Japanese bearing competitors will be based. The formulation of strategic groups will be part of competitors' analysis which will help to map different groups of competing firms and thus facilitate the analysis.

Not all aspects of the theoretical models are followed during the conduct of the analysis. I have chosen the parts that are the most relevant to the case at hand. Moreover, I haven't applied the same analysis for all competitive firms, as this would have been time and space consuming, not to mention the tedious result of such an effort. The description of general strategic concepts, will hopefully provide the non-initiated reader with a general idea of strategic positions, competitive advantage and the general forces affecting them. Moreover, the purpose of the spartan explanation of the models is to enable the reader to follow the analytical part and the models employed without being bogged down in the analysis of a multitude of factors and the jargon surrounding such an effort.

³ For a more thorough look in Porter's models and strategies see Competitive Strategy 1998 ed.

A. Competitive Strategy

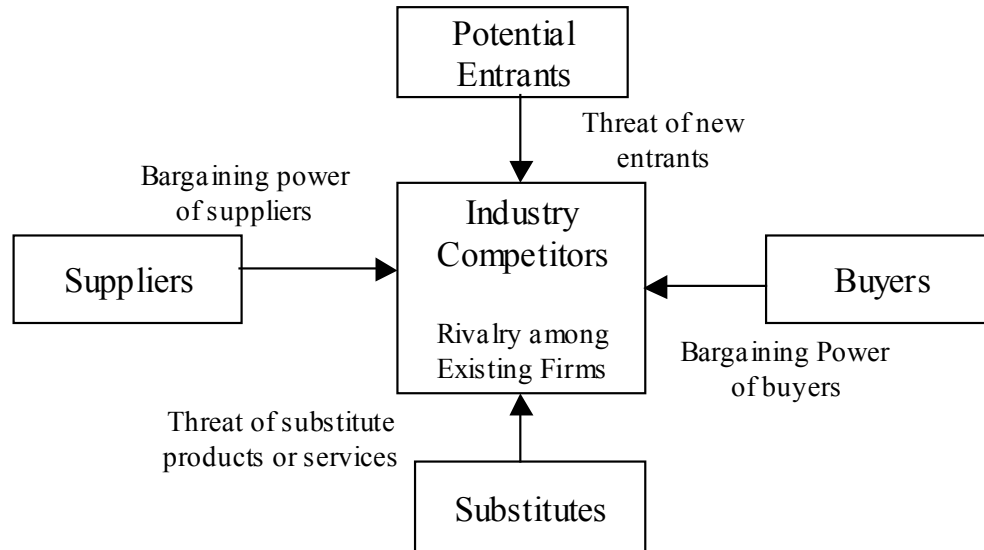
1. The Forces Driving Industry Competition

The five forces depicted in the following figure (II-2), are an essential part of Porter's theorems. According to Porter, the collective strength of these forces determines the long-run return on invested capital within an industry. And of course it is the return on investment that eventually determines whether a company and even an industry are worth the input of resources. Even though, expected return could be in terms of knowledge a firm cannot afford to accumulate experience and knowledge without eventually transforming it into profits. Neither gaining knowledge in disproportionately costly projects is a valid alibi for being entangled in cash trap investments. The aspect of harvesting future returns remains the main driving factor in all firms.

Understanding how Porter's five competitive forces interplay within an industry is necessary for identifying the key structural features that determine the strength of the competitive forces and, hence, industry profitability. Although the impact of these forces may be obvious for all industry members, the key for developing strategy, Porter argues, is to analyse the sources of each of these factors. Porter continues by saying that, "knowledge of these underlying sources of competitive pressure highlights the critical strengths and weaknesses of the company, animates its positioning in its industry, clarifies the areas where strategic changes may yield the greatest payoff, and highlights the areas where industry trends promise to hold the greatest significance as either opportunities or threats".

The competitive forces described in the next part are heavily based on Porter's 1998 Competitive Strategy, page 3-33.

Figure II-1. Porter's Five Competitive Forces



Source: Porter 1998

a) A Short Description of the Five Competitive Forces

Threat of Entry – new entrants to an industry bring new capacity, the desire to gain market share, and often substantial resources. As a result, prices could be reduced and affect profitability. Companies diversifying through acquisition into the industry from other sectors should be viewed as entrants if the company intends to build a position in the industry. A number of variables affect this competitive factor, such as economies of scale, product differentiation, capital requirements, access to distribution costs, etc.

Intensity of Rivalry Among Existing Competitors – firms within an industry are “jockeying for position”, using tactics such as price competition, advertising, product introductions, and increased customer service or warranties. Rivalry occurs because one or more of the competitors either feels pressure or sees the opportunity to improve their position. Some forms of competition, such as price competition can be particularly destabilizing for an industry. Some factors which could result in intense rivalry within an industry are: numerous or equally balanced competitors; slow industry growth, lack of differentiation; diverse competitors; and others.

Pressure From Substitute Products – substitutes limit the potential returns on an industry by placing a ceiling on the prices firms in the industry can profitably charge. According to Porter, firms in an industry are competing with industries producing substitute products. The impact of substitutes in an industry, Porter continues, can be summarized as the industry's overall elasticity of demand. Substitute products that deserve the most attention are those that are subject to trends improving their price-performance trade-off with the industry's product, or are produced by industries earning high profits. In the latter case, substitutes often come rapidly into play if some development increases competition in their industries and causes price reduction or performance improvement.

Bargaining Power of Buyers – buyers compete with the industry by forcing down prices, bargaining for higher quality or more services, and playing competitors against each other. A company's choice of buyer groups to sell to should be viewed as a crucial strategic decision. A company can improve its strategic posture by finding buyers who possess the least power to influence it adversely. Some factors that constitute a buyer group powerful are: if the products are standard or undifferentiated; the products represent a significant fraction of the buyer's costs or purchases; and if buyers pose a credible threat of backward integration, and others.

Bargaining Power of Suppliers – suppliers can exert bargaining power over an industry by threatening to raise prices or reduce the quality of purchased goods and services. The conditions determining suppliers' power are not only subject to change but also often out of the firm's control. A supplier group is powerful if the following apply: it is dominated by a few companies and is more concentrated than the industry it sells to; it is not obliged to contend with other substitute products for sale to the industry it sells to; the suppliers' product is an important input to the buyer's business; and others.

2. A View of Porter's Competitive Strategies

Porter describes competitive strategy as “taking offensive or defensive actions to create a defensible position in an industry, to cope successfully with the five competitive forces and thereby yield a superior return on investment for the firm”. Firms can employ a multitude of approaches to accomplish the task that Porter described. The best strategy for a firm is conditional reflecting and depending on the unique circumstances enveloping the firm. Nevertheless, at the broad level, Porter has identified three generic strategies that can be used singly or in combination for creating a strong position in the long run and outperforming competitors within an industry. These strategies are:

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- Overall cost leadership
- Differentiation
- Focus

a) Overall Cost Leadership

The first strategy aims at achieving overall cost leadership within an industry through a set of functional policies (Porter 1998, p. 35). Cost leadership requires aggressive construction of efficient-scale facilities, vigorous pursuit of cost reductions from experience, tight cost and overhead control, and cost minimization in areas of production and promotion. A great deal of managerial attention to cost control is necessary to achieve these aims. Any firm which has a low-cost position aims at yielding above average returns in its industry, despite the presence of strong competitive forces.

A low-cost position protects firms against the five competitive forces because bargaining can only continue to erode profits until those of the next most efficient competitor are eliminated, and because the less efficient competitors will suffer first in the face of competitive pressures.⁴

b) Differentiation

The second generic strategy is one of differentiating the product or service by creating something that is perceived industry-wide as being unique. Approaches to differentiation can take many forms: design or brand image, technology, features, customer service, etc. Ideally the firm differentiates itself along several dimensions. Caterpillar Tractor, for example, is known not only for its dealer network and excellent spare parts availability, but also for its extremely high-quality durable products, all of which are crucial in heavy equipment where downtime is very expensive (Porter 1998, p. 37). It should be noted that the differentiation strategy does not allow the firm to ignore costs, but rather they are not the primary strategic target.

Differentiation, if achieved, is a viable strategy for earning above the industry average returns because according to Porter, it creates a defensible position for coping with the five competitive forces in a distinctively unique way. Differentiation provides insulation against competitive rivalry because of brand

⁴ Please note that this could be working for mass produced standardised products that do not take into consideration breakthrough innovations. If a competitor produces an upgraded product or a substitute, then the low-cost position will be irrelevant, if not obsolete.

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loyalty by customers and resulting lower sensitivity to price. The resulting customer loyalty and the need for a competitor to overcome uniqueness provides substantial entry barriers. Differentiation yields higher margins and diminishes customer power, since buyers lack comparable alternatives and are thereby less price sensitive. In effect, a firm that manages to position itself based on differentiation will achieve an advantage in respect to substitutes against competition.

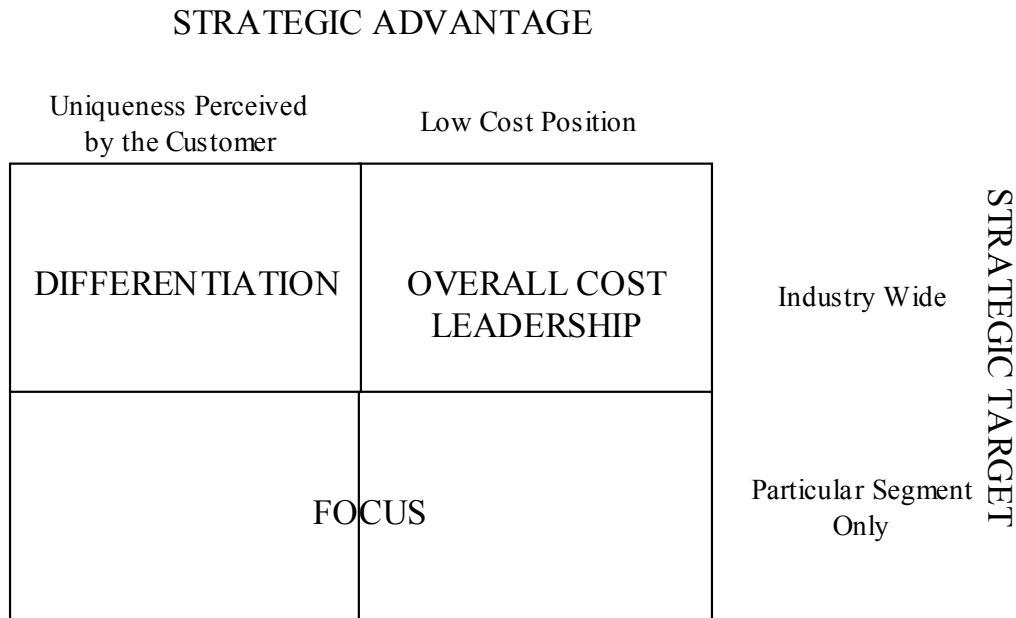
On the other hand, differentiation may exclude the possibility of attaining a high market share. Whereas customers industry-wide will acknowledge the firm's superiority, not all customers will be willing or able to pay the required higher prices.

c) Focus

The final generic strategy could be either focusing on a particular buyer group, segment of the product line, or geographic market. As with differentiation, focus can take many forms. Although the low cost and differentiation strategies are aimed at achieving their objectives industry wide, the entire focus strategy is built around serving a particular target very well, and each functional policy is developed accordingly (Porter 1998, p. 38). The strategy rest on the premise that the firm is thus able to serve its narrow strategic target more effectively or efficiently than competitors who are competing more broadly. As a result, the firm achieves either differentiation from better meeting the needs of the particular target, or lower costs in serving this target, or both. Even though the focus strategy does not achieve low costs or differentiation from the prospective of the market as a whole; it does achieve one or both of these positions with regard to its narrow market place.

The firm that achieves focus may potentially earn above average returns for its industry. Its focus means that the firm either has a low cost position with its strategic target, high differentiation, or both. Focus can be used to select the targets least vulnerable to substitutes or where the competitors are the weakest. The focus strategy, nevertheless, implies some limitations on the overall market share achievable. Focus necessarily involves a trade-off between profitability and sales volume.

Figure II-2. **The Three Generic Strategies**



Source: Porter 1998, p. 39.

According to Porter, the basic risks in pursuing the generic strategies are twofold: first, failing to attain or sustain a strategy (meaning the company has to be willing to commit the necessary resources needed for accomplishing such a move); and second, the value of the strategic advantage provided by the strategy to erode with industry evolution. Industry conditions are constantly altering and a company should monitor its environment and be able to respond in any major shifts occurring in the industry. Mature industries for example, tend to be more predictable than high growth industries. There are different factors a company should be aware of, depending on which stage an industry is.

B. Structural Analysis and Competitive Strategy

Once the forces affecting competition in an industry have been diagnosed, a firm is in a position to identify its strengths and weaknesses relative to the industry. An effective competitive strategy takes offensive or defensive action in order to create a defensible position against the five competitive forces (Porter, 1998). The following are a number of possible approaches:

Positioning

Positioning the firm so that its capabilities provide the best defence against the existing array of competitive forces, or finding positions where those forces are weakest.

Influencing the Balance

Influencing the balance of forces through strategic moves, thereby improving the firm's relative position. A company would try to alter the balance within an industry. Some examples of this approach could be capital investments in large scale facilities, vertical integration, and innovations in product attributes.

Exploiting Change

Anticipating shifts in the factors underlying the forces and responding to them; thereby, exploiting change by choosing a strategy appropriate to the new competitive balance before rivals recognize it. Industry evolution is an important aspect when considering strategy, since the structural sources of competition alter and new factors come into play as the industry evolves.

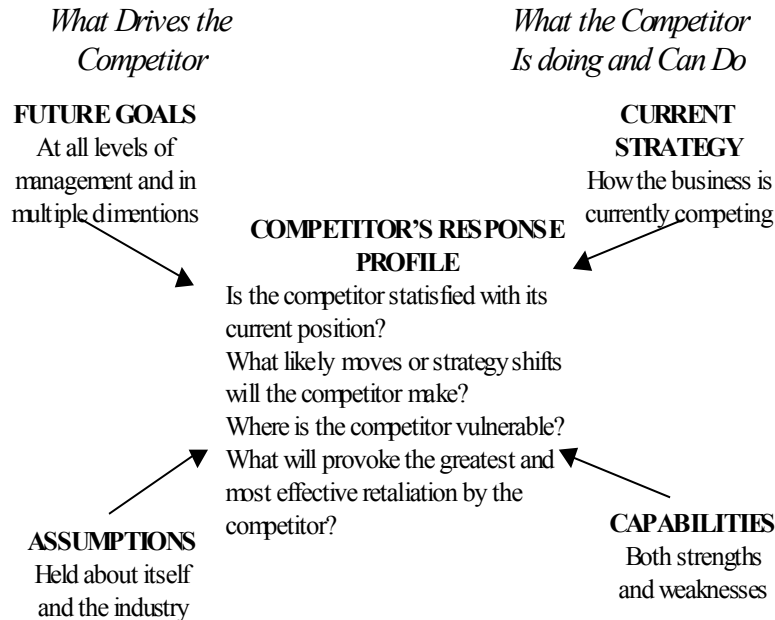
1. A Framework for Competitor Analysis⁵

Competitive strategy involves positioning a business to maximize the value of capabilities that distinguish it from its competitors. The objective of a competitor analysis is to develop a profile of each competitor, drawing their probable response to industry variations, environmental shifts, and the firm's positioning. Anticipating competitors response should be a major focal point, as it could result in identifying and avoiding unnecessary pitched battles which would deplete valuable resources without any significant gains.

⁵ This heading comes straight from Porter's "Competitive Strategy" Chapter 3 p.47

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Figure II-3. The Components of a Competitor Analysis



Source: Porter, 1998 Competitive Strategy page 49.

There are four diagnostic components to Porter's competitor analysis: future goals, current strategy, assumptions, and capabilities (Porter, 1998). Conclusions deriving from such an analysis are of great importance, as they will shape a firm's assumptions and its subsequent behaviour and are crucial in making competitive moves. The objective of a competitor analysis is to develop a profile of the nature and success of the likely strategy changes each competitor might make, and each competitor's probable reaction to the array of industry changes and broader environmental shifts that might occur.

Given an analysis of a competitor's future goals, assumptions, current strategies, and capabilities, one can begin to formulate probable competitor responses and predict the probable strategic changes initiated. The next move would be to construct a portfolio of possible responses in such moves. Such a portfolio would be based upon vulnerability, provocation and the effectiveness of retaliation.

2. Strategic Groups Within an Industry

The first step in structural analysis within industries is to characterise the strategies of all significant competitors along these dimensions. This activity then allows for the mapping of the industry into strategic groups. A strategic group is the group of firms in an industry following the same or a similar

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strategy. In the global bearing industry as a whole, one strategic group (with SKF as a prime example) is characterized by broad product lines, international production facilities, extensive distribution and service, and substantial Research & Development centres. Another group consists of specialist producers who are focusing on highly specialized product lines and selective distribution. Another group consists of low cost manufacturers who focus on low cost products (i.e. inexpensive, expendable, plastic bearing units) that bigger manufacturers do not bother producing. Yet another group is part of the backward integration of manufacturers (e.g. Sumitomo).

Strategic groups form and change in an industry for a variety of reasons. First, firms often begin with or later develop differences in skills or resources, and thus, select different strategies. The well-situated firms outdistance others in the race toward the strategic groups protected by high mobility barriers as the industry develops. Second, the firms differ in their goals or risk posture. Different strategic groups exert a different level of bargaining power with suppliers and customers. A firm wishing to follow a specific strategy that will allow it to have a specific positioning in terms of suppliers and customers will inevitably find itself within a specific strategic group.

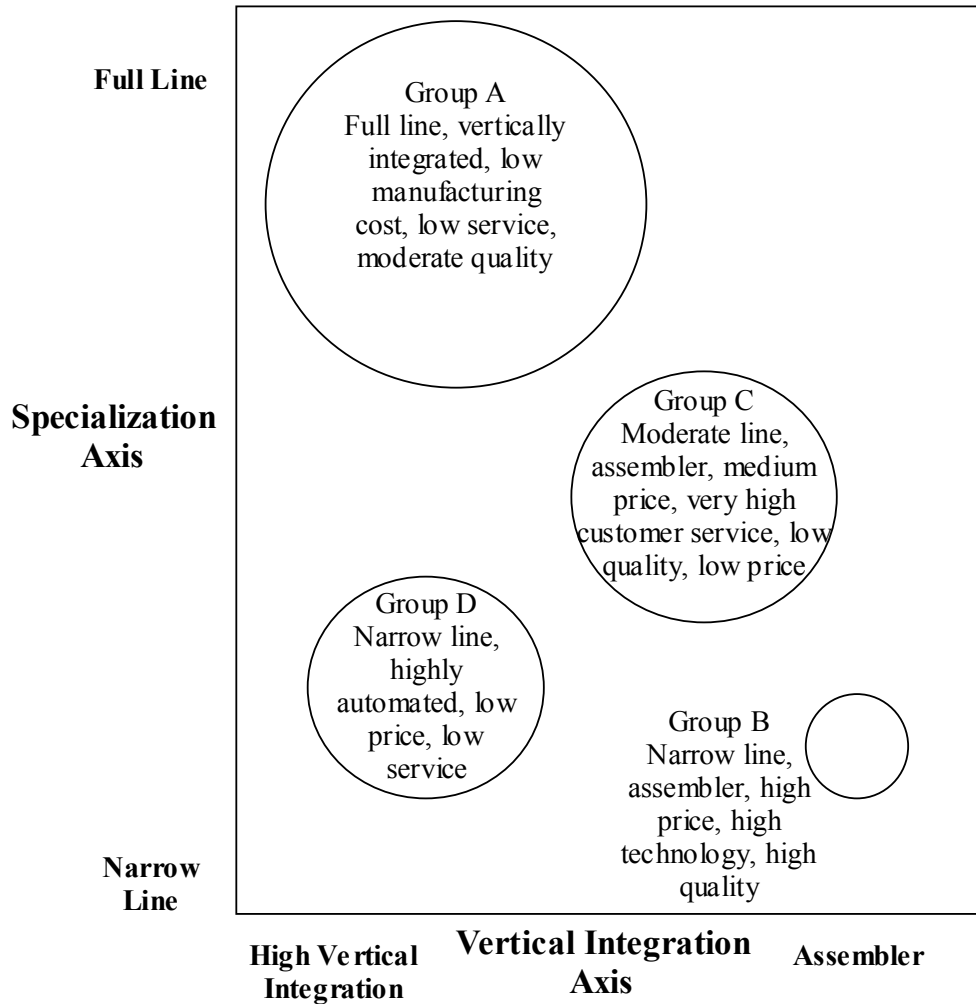
Strategic groups have a different response to the threat of substitutes depending whether they are focusing on different parts of the product line; serving different customers; operating at different levels of quality or technological sophistication; or have different cost positions. Accordingly, different strategic groups have a different stance towards rivalry among firms. The industry with a complicated map of strategic groups will tend to be more competitive as a whole than one with few groups. Recent research (Porter, 1976) substantiates this point. Factors influencing rivalry among strategic groups are: market interdependence; degree of product differentiation created by the groups' strategies; market share; and the number of strategic groups.

Finally, what determines the distance of the various strategic groups within an industry are: the terms of brand identification; cost position of the firms comprising the strategic groups; and the level of technological leadership.

Strategic groups in an industry can be displayed on a map like the one shown in the following figure.

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Figure II-4. A Map of Strategic Groups in a Hypothetical Industry



Source: Porter, 1998 Competitive Strategy page 131.

III. Empirical description

A. The Japanese Economic Environment

a) The Past

In 1854 Japan was forcefully opened to the world by Commodore Perry – an officer of the United States Navy. Soon after Japan became aware of the fact that its existence was in danger unless it adopted European ways. The transformation took place in three stages: First, the overcoming of the ancient feudal structures; second, the domestic application of the reforms; and finally, the rise of the empire to world power status. The third stage was accomplished by “enforcing the industrialization of the country” which was promoted by a significant rise in population from 26 million in 1867, to 52 million in 1913.

The Japanese, because of their eagerness to learn, their capacity to adapt, their discipline and their frugality, caught up with the world economy much quicker than expected.⁶ Family trusts such as, the Mitsui, the Yasuda, and the Sumitomo, controlled various industries, trade and the banks. The primary concern for Japanese policy makers was to obtain raw materials and markets abroad. This concept seems to have obsessed the Japanese for decades and is what drove them to the Second World War (the need to establish “a new order” within their sphere of influence).

War is always a source for growth in industrial output and Japan’s colonial aspirations in Korea and China led to a further expansion of its industrial base (Sino-Japanese war of 1894-5, and Russo-Japanese War of 1904-5). Moreover, the First World War was another reason for increased demand. In 1919, Japan became a major power in the Pacific and the third largest naval power in the world. But the post war boom was abruptly ended by a series of shocks. Between 1920 and 1922, foreign markets were lost because of deficient quality of Japanese products. In 1923, there was a great earthquake in the Tokyo area, in 1925 a deflationary crisis, and in 1927 a financial crisis. An aftermath of the financial crisis in 1927 was for several banks to file for bankruptcy which left five *zaibatsu* – (related banks) intact and in a dominating position⁷. When

⁶ This short introduction to early 20th century Japanese History is taken from the Atlas of World History, p. 115.

⁷ This part of Japanese industrial history is adopted from Sten Jönsson’s Understanding Japanese Management.

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efforts were undertaken to rebuild the economy, models and ideas were taken from fascist Italy and Nazi Germany focusing order, state intervention and stability (Jönsson, 1999).

Despite achieving a substantial level of industrialization at the beginning of the late century, the evolution of large industrial enterprises in Japan differed greatly from those in the West. For Japan was just taking the first steps towards modern industrialization in the same decades that the new transportation and communication revolution was spawning the second industrial revolution in Europe and the United States. Only in the years after the Second World War was the economy large enough and strong enough to support modern mass production and mass distribution (Chandler, 1986).

In the early years of the past century, Japan's domestic and foreign markets were totally different. At the time of the Meiji Restoration, Japanese manufacturers enjoyed a highly concentrated domestic market with long established channels of distribution of traditional consumer goods. The close relationship between the managers of the manufacturing companies and those of the trading firms, either within the giant *zaibatsu*⁸ or between cooperating manufacturers in less formal groups, permitted the Japanese to capture an increased share of world trade, particularly in the low-technology industries. It also ensured an entrenched position of the domestic market share for both consumer and industrial products. However, where marketing and distribution did require product-specific skills services, and facilities, enterprises set up their own distributing network and operated outside of the *zaibatsu* and other group enterprises (Chandler, 1986).

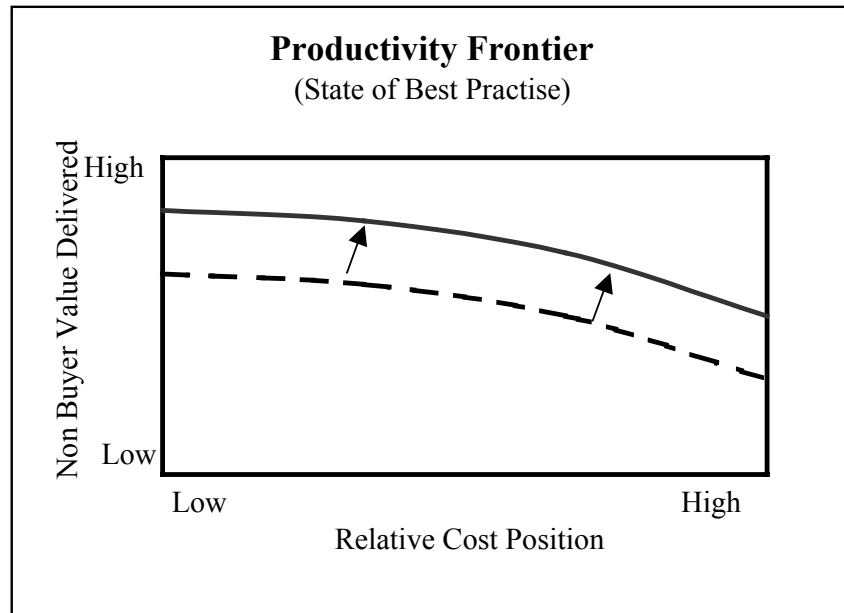
Since 1945, Japanese manufacturers have shifted their strategic focus at least four times. Between 1945 and 1960 industrial production was concentrated in low labour costs and, in combination with a devalued Yen, exports were booming. The close proximity to Korea and Vietnam, locations of extended conflict, was another reason for increased demand in industrial output. From the early 60s to the mid 60s, Japanese realised that their production facilities had to be upgraded and their productivity to be increased. In accordance, Japanese strategic focus was directed towards extended capital investment and higher workforce productivity. In the late 60s and up until the 80s, strategic direction was attended to *focused factories*, where production was focusing on

⁸ The reader should be careful to distinguish between a *zaibatsu*: a large family owned Japanese business that existed before World War II and consisted of a series of financial and manufacturing companies usually held together by a large holding company: and a *keiretsu*: a corporate relationship linking certain Japanese companies, usually involving a non controlling interest in each other, strong high level personal relationships among managers in the different companies, and interlocking directorships.

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higher productivity and lower costs. Since the 80s and into the 21st century, the Japanese were focusing on flexible factories where operational effectiveness was and still is being constantly pursued as a medium of competitive advantage.

Figure III-1 Productivity Frontier



Source: Porter 1980

In the 70s and 80s, Japanese companies pushed the productivity frontier well beyond the capabilities of many Western companies. Far more operationally effective, they could beat Western companies on both cost and differentiation. As Japanese companies have discovered, sooner or later competitors will imitate best practices. The most generic operational improvements – that is, those involving widely applicable management techniques, process technologies, and input improvements – diffuse the fastest.

(1) The Japanese Government Model

Since Japan's post war economic development began with extensive government protection perhaps it would be helpful to outline how the government actually interfered with economic development adopted by (Tsurata 1985). What characterised the Japanese government's interference was mainly the adoption of protective trade policies and the limitation of direct foreign investment. This trend was initiated by the American occupation force in its effort to restructure the Japanese economy after the Second World War. Autocratic measures were employed in an effort to quickly restructure the

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economy and prevent any communistic influences in the workforce. The following is a summary of the Japanese government model:

- Activist, central government with a stable bureaucracy
- Targeting of priority industries to enhance economic growth
- Aggressive promotion of exports
- Extensive guidance, approval requirements and regulations
- Selective protection of home markets
- Restrictions of foreign direct investment
- Lax anti-trust enforcement
- Government led industry restructuring
- Official sanctioning of cartels
- Highly regulated financial markets and limited corporate guidance
- Government sponsored cooperative Research & Development projects
- Sound microeconomic policies

This policies may have worked well in previous years when the economy was being carried by a few growing export industries, but now when those industries have been saturated the entire economy is suffering.

b) **The Present**

Japan is mired in a seemingly endless slump. Since 1997, economic growth has either turned negative or anaemic at best. The banking industry is showing few signs of recovering from its bad loans. Real estate prices, after skyrocketing during the late 1980s have plummeted by as much as 78% (Porter, Takeuchi and Sakakibara, 2000). Standard & Poor's, the US rating agency, issued a report warning the "re-emergence of bad loan problems is increasing the possibility that the government will be forced into another round of intervention at the banks. The banks' problems, according to Financial Times, partly stem from the recession. The government believes that Japan's economy is likely to shrink by 0.9 per cent in the year to March, the sharpest projected post-war contraction. However, the institutions' problems were also deep rooted in their weak profit generation capacities, lack of lending discipline, and the ongoing vulnerability of the domestic corporate sector, S&P warned.

Before the bubble burst, there were clear signs that Japanese productivity was not what it should be, and that the process of upgrading and productivity growth was faltering (Porter, 1990).

The First sign – the relatively small number of industries in which Japan is competitive in world markets. For such a large economy, modern Japan is a player in a surprisingly narrow array of significant export industries.

The Second sign – Japanese corporate profit rates have long been chronically low by international standards, even in its competitive industries and after controlling accounting differences.

The Third sign – the pattern of industry performance within the economy. Some sectors are highly competitive (i.e. consumer electronics and bearings), which carried the entire economy driving growth in both exports and productivity. Such industries are relatively few. Uncompetitive sectors: agriculture, chemicals, consumer packaged goods, medical products, software and all services.

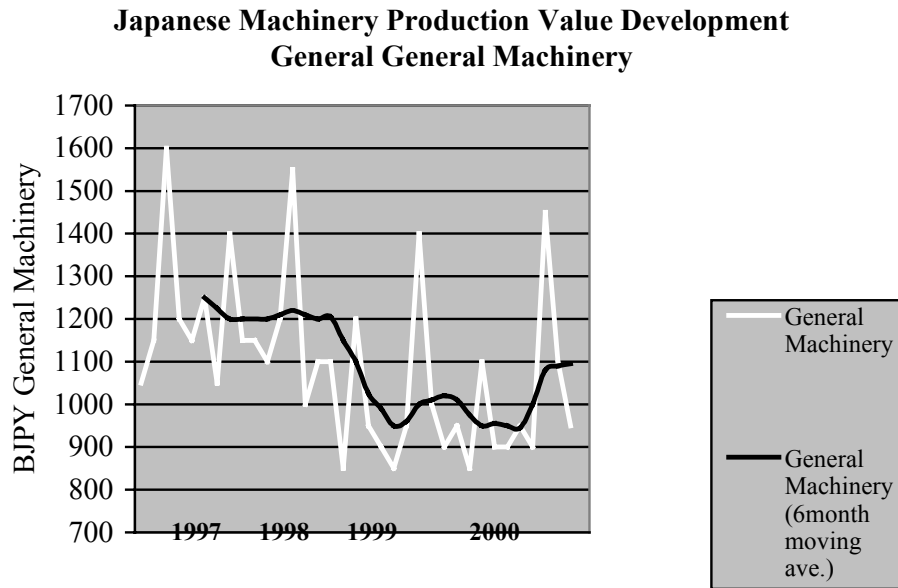
The emerging consensus, according to Porter, attributes Japan's economic problems to three main causes:

- The collapse of the so-called bubble economy of overvalued equities and real estate. Imploding asset prices sent shock waves through the banking system and the rest of the economy, making credit scarce. As the value of collateral plummeted, banks, corporations and even households found themselves heavily in debt, which suppressed consumption and investment.
- Over regulation and overprotection by meddling governmental ministries. Government intervention distorts companies' behaviour, drives up their costs, and reduces their flexibility; thus, undermining their competitiveness.
- By raising taxes, failing to stimulate domestic demand, and clinging to their policy of export led growth for too long, Japanese bureaucrats mismanaged macroeconomic policy. As Japanese companies encountered limits on exports and expanded their foreign investment, slow domestic investment and sluggish domestic demand undermined economic growth.

Even the keiretsu that were once the principal drivers of new business growth now seem to be in retreat (Porter, 2000). There is evidence that keiretsu firms tend to over invest and overproduce relative to independent firms (Weinstein and Yaleh 1995). Another study found that keiretsu affiliated firms registered significantly lower returns on assets between 1971 and 1982 than independent firms (Nakatani, 1984). Chronic underperformance was more prevalent in the very type of company that was most identified with the nation's competitive success.

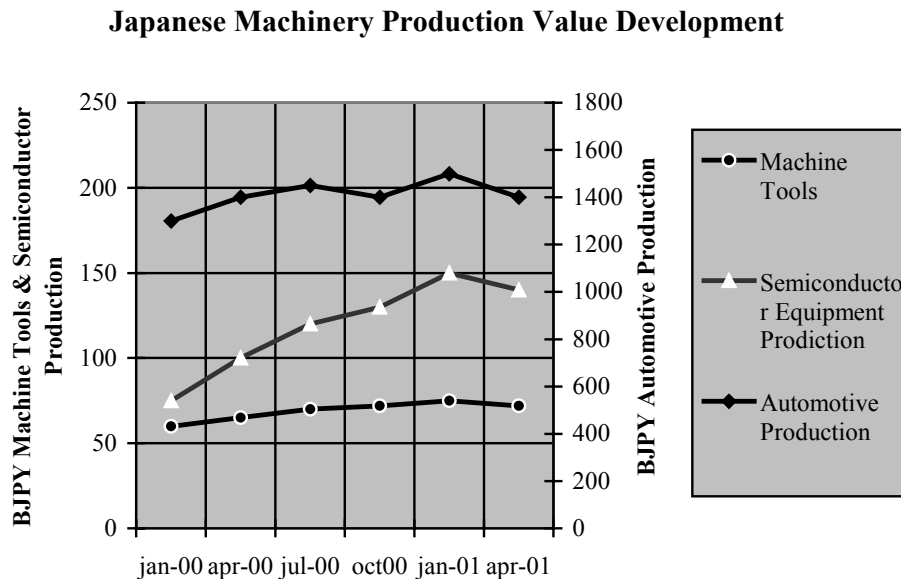
A Strategic Direction for SKF in Japan

Figure III-2.



Source: SKF

Figure III-3



Source: SKF

The two figures above exhibit the manufacturing trend of General Machinery since Japan's economic slump. Even though demand is recovering, it is a long way from the previous standards. General machinery is an important market for the bearing industry, and any fluctuations in its demand curve will have an immediate impact on bearing manufacturing output. Even though the recovery of the Japanese economy is certain to occur, indications are that it will take

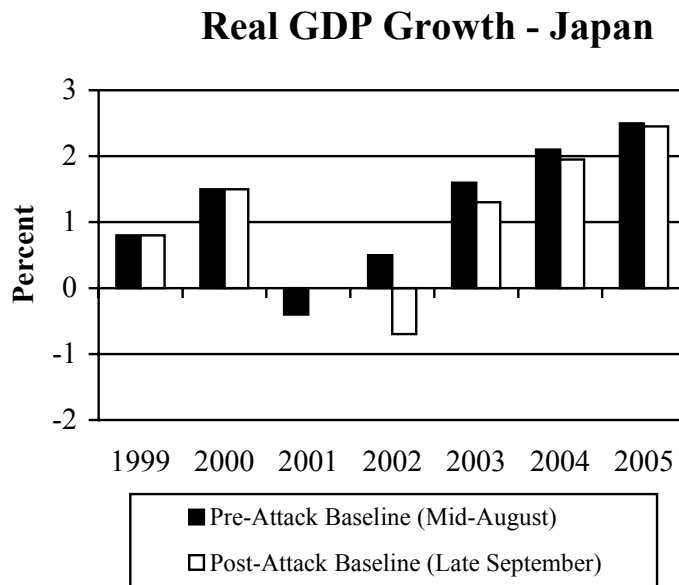
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some time until it reaches previous levels. Even though some analysts are optimistic about the immediate future, most are cautious. The New York attack and the subsequent stock market turmoil has worsened the financial crisis as Japan was already in recession. For the time being the yen is very vulnerable and growth is stagnant.

c) The Future

Only recently, after being confronted with company failures and huge losses, have many Japanese begun to realise that a structural problem exists. Even now, there is a persistent tendency for premature optimism at any sign of restructuring. Since the 1990s, Western companies have emulated the best of Japan's management practices and even surpassed them in important aspects. At the same time, other Asian nations with their lower wages have copied Japan and are competing in a similar fashion. Approaches that may have worked in the earlier context may no longer be sufficient to maintain competitive success and keep productivity (Porter, 2000). What was once a viable approach to competition no longer works in today's global marketplace. Ultimately, a nation's competitiveness depends on its productivity, or the value of goods and services produced per unit of labour or invested capital (Porter, 2000). According to Porter, the core of the problem for Japan is that the government mistrust competition and, therefore, is prone to intervene in the economy in ways that harm the nation's productivity and prosperity.

Figure III-4.



Source: SKF (Projected Values)

A Strategic Direction for SKF in Japan

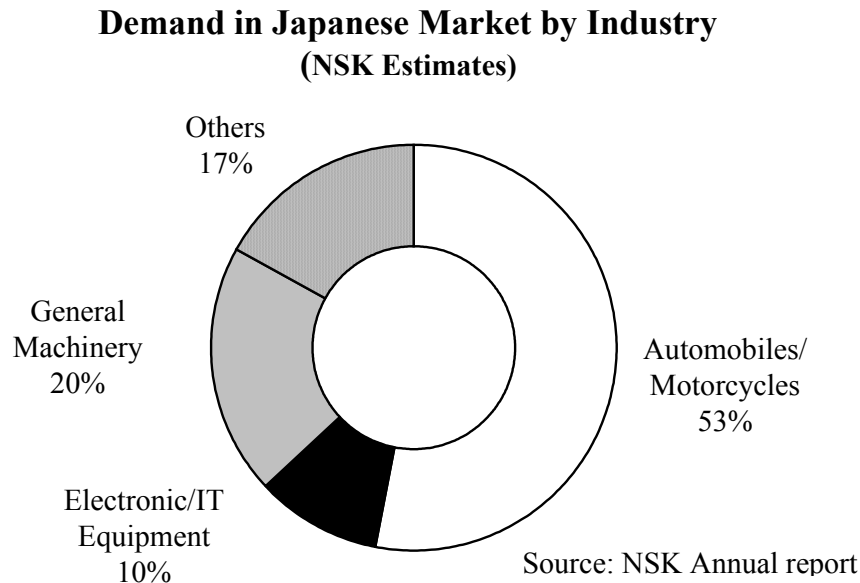
However, a closer examination of the Japanese economy reveals that changes do occur. The Japanese economy is being re-oriented away from export dependence and there are traces of re-organization of the domestic economy in order to make it as efficient and productive as the export economy. Cash-rich exporters could be encouraged by the Japanese government to pursue takeovers as a relatively simple means of rationalizing the domestic market. Moreover, most Japanese manufacturing companies, in an effort to regain some of their competitiveness, are shifting their production to nearby Asian countries where low operating costs allow them bigger profitability margins.

B. The Bearing Industry in Japan

a) The Industry in General

Overall world demand for rolling bearings is estimated to be 2.3 trillion Yen, most of which is accounted for by four major markets – the United States, Western Europe, Asia excluding Japan and Japan. Through industry reorganization, bearing manufacturers in the world markets have been separated to eleven major players. AB SKF is number one, with NSK being number two with a 14% share in the global market and number one in Japan with 34% of the market share. SKF is leading in Europe, Timken in the U.S., and NSK in Asia, including Japan.

Figure III-5.

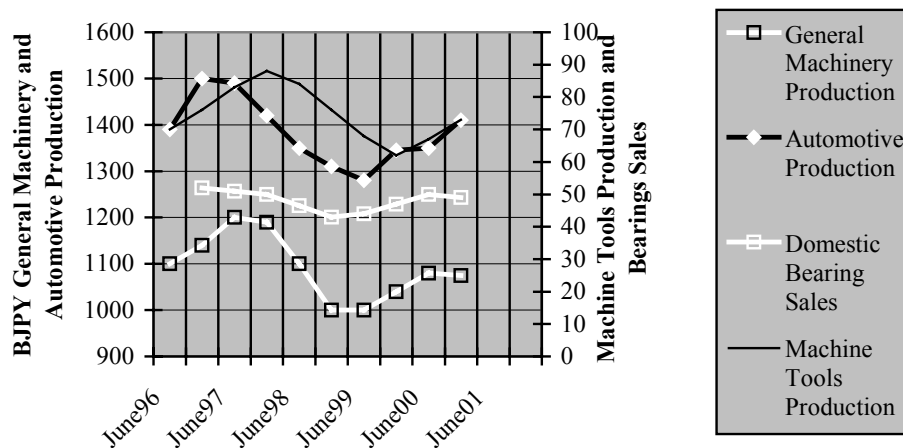


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The major buyers of rolling bearings — automakers, electrical home appliance and IT equipment makers — try to establish global alliances and reorganize. Their efforts include the screening of suppliers in the four major economic zones of: Japan, the Americas, Asia and Europe in terms of production mobility; price competitiveness; and technological development capability criteria. The same applies to bearing suppliers. This trend presents great opportunities for bearing manufacturers with established global network backgrounds, in the above mentioned four economic zones other manufacturers who cannot afford to build such global networks independently are compelled to take countermeasures, such as entering into alliances with other companies. Consequently, reorganization initiatives within the industry are expected to accelerate in the future.

Figure III-6.

**Japanese General Machinery Production Value
Development and Domestic Bearings Sales Development**



Source: SKF

One can observe the close link between the three different production lines and bearing sales – it is their synchronous paths that denotes a high degree of interdependence. The bearing industry suffers whenever the overall economic conditions decline as industrial output decreases.

b) General Characteristics of Competitors in Japan

In general, bearing manufacturers in Japan are characterised by high quality and low cost products. They have been focusing on process improvements that reduce costs, defects, rework, number of parts or delay, and also improve product quality. In effect, standardization and mass production and an effort to

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eliminate any unnecessary process steps is thought to be the best way to achieve very high levels of quality in terms of consistency and timeliness – two features of critical importance for standard bearing buyers.

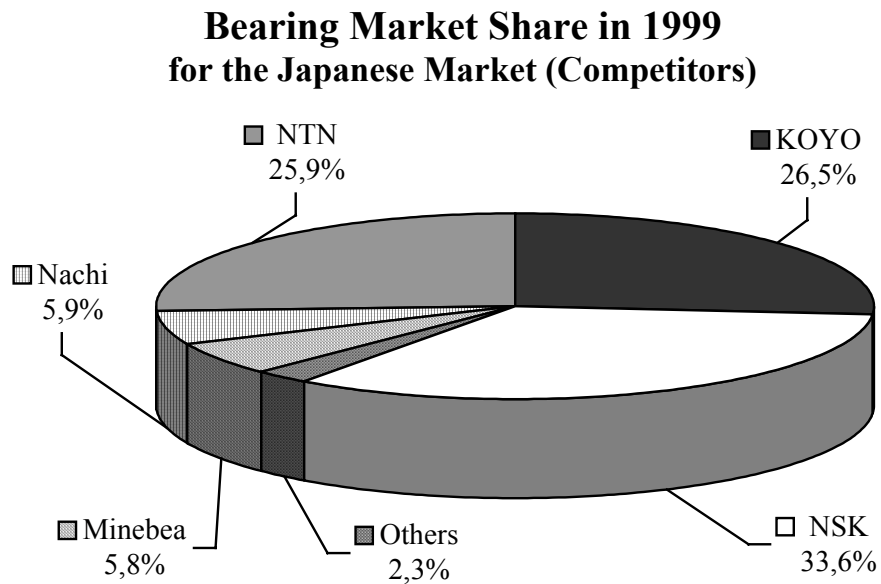
Most companies are prone to produce a wide array of products, but in related market segments e.g. automotive bearings, bearings for general machinery, and home appliances. Lean production, which was pioneered by Toyota, is the standard production doctrine followed by the industry within product development, production, purchasing and timely delivery and flexibility. All the major players have strong inter-corporate networks with other industrial groups and hold equity in one another. The keiretsu factor is not absent in the bearing industry, even though the situation is slowly changing and companies are beginning to not be too attached in keiretsu practices. Companies used to place importance on growth of market share, and on capacity utilization. The recent economic slump has forced a rethinking of strategic position. Most companies have been internally diversified in order to have access into high growth segments of the market.

Competition based on price is typical concerning standardised products and is particularly destabilizing but tends to be less intensive as products' complexity and customisation increases. New products and practices are relatively easy to imitate, especially concerning standardised products of identical or similar lines. Highly customised products require for a different set of manufacturing processes, manufacturing equipment, and technological knowledge. These factors are not easily assimilated unless a company commits in considerable capital investments.

c) Selected Competitors' Profiles

There is multitude of bearing manufacturing companies in Japan. Despite the fact that almost 86% of the market is dominated by three companies, and 11.7% by another two, the remaining 2.3% is represented by a massive number of subcontractors and sub-subcontractors. It was decided that only two Japanese companies will be portrayed in this section. The companies were chosen as they are considered to be representative of different strategic groups within the industry. The first is NSK, the market leader who is very similar to the other two big Japanese companies, NTN and KOYO. The second company is Minebea, whose unorthodox behaviour has drawn my attention and deserves to be examined; one reason being that the company was turned into the undisputed global leader in its market despite being an inconspicuous domestic subcontracting company.

Figure III-7. The Japanese Bearing Market Share in 1999

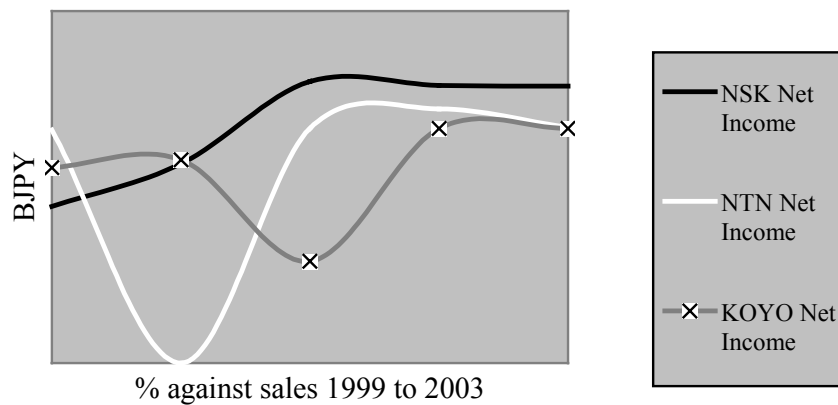


Source: SKF

The main players of the industry are shown in the figure above. Market shares have changed only marginally since 1999. The three big companies still control roughly 90% of the market share.

Figure III-8.

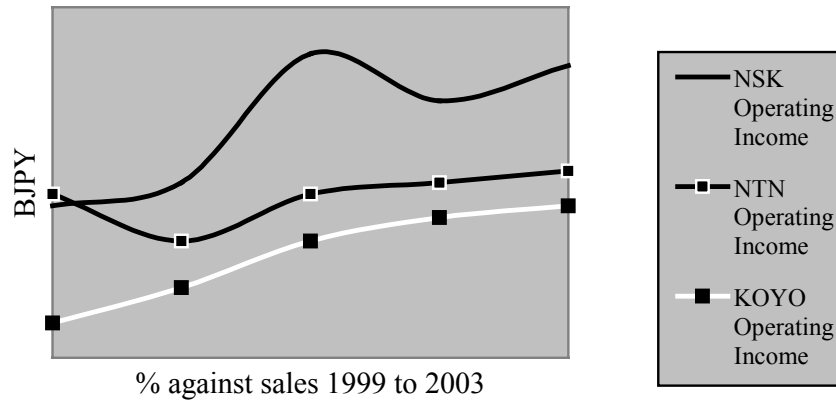
Main Competitors' Financial Performance Development



Source: SKF

Figure III-9.

Competitors' Financial Performance Development



Source: SKF

The two figures above (III-8 and III-9) show projected net and operating income figures for the industry's main players. This type of projection is a necessary part of every structural analysis. This can generate assumptions about the competitors possible future capital investments and profitability margins, and how the competitors may react in other markets. (Please note that the two figures are showing projected trends).

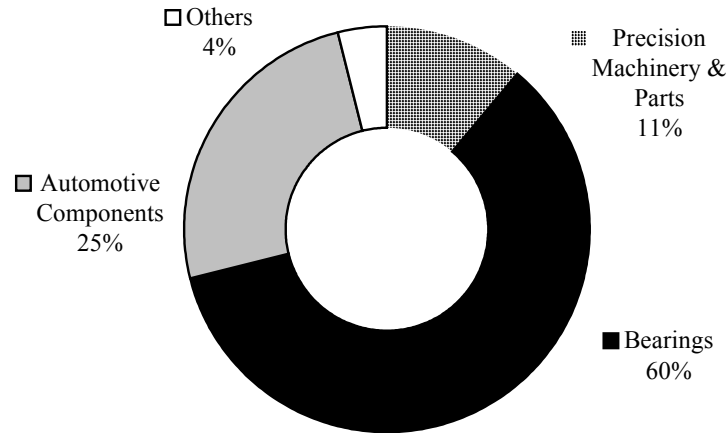
(1) NSK

NSK was established in 1916 and was the first Japanese ball bearing producer. The company is the largest producer of bearings in Japan and the second largest in the world. It employs more than 23,000 people operating in 26 countries. The company is inextricably linked with Japan's industrial development and prosperity. NSK has been a global player since the 60s. The company has gained considerable experience through the long years of operation and, as the second leading bearing manufacturer in the world, managed to achieve economies of scale. NSK in Japan serves domestic client demands, as well as supports the company's overseas bases as its global headquarters. The company carries three main categories of products and a fourth supplementary category: Automotive Products; Bearing Products; Precision Machine Parts & Mechatronics Products; and Other related products.

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Figure III-10.

Percentage of Category Sales For fiscal year ended March 2001



Source: NSK Annual report

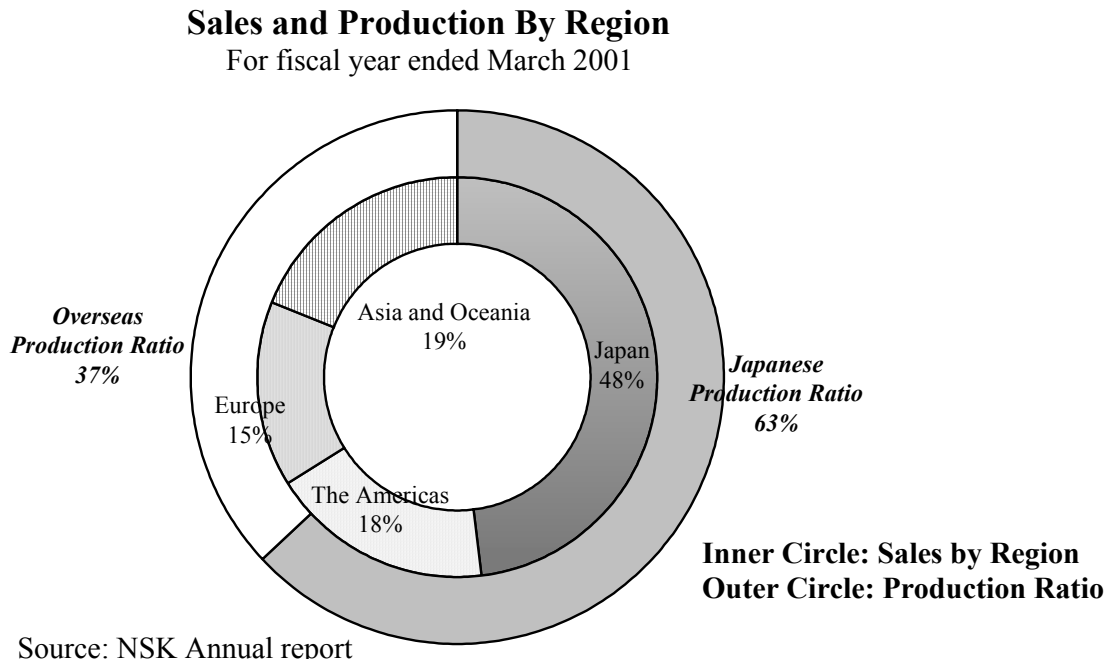
The downturn in domestic demand which still continues has had an impact on the company's performance. NSK's domestic operations posted a slight increase in sales (only in a few segments such as the growth of sales of profitable precision machinery and parts), due to improvements in the production level of manufacturing plants, an increase in export sales, but mainly because of continued restructuring efforts. Recent events have forced the company to pursue a policy of restraint shifting towards production reduction, including slashing labour costs and postponing investments. Many of the company's customers are transferring their production sites overseas, so they have to reinforce their domestic plants' functions as mother plants for their overseas production bases.

The company was hit hard by the Japanese economic meltdown and it had to retrench by closing a domestic ball bearing plant and take other bold measures to cut costs by 20 billion yen and return to profitability. It was especially hit by sluggish sales to automakers and general machinery producers. While closing plants, NSK intends to shift output to such countries as Indonesia, South Korea and China. NSK has also drawn up restructuring plans shaped by sluggishness in its information technology-related divisions, which were once sources of growth alongside their mainstay machinery operations. While IT-related products, including miniature bearings for hard-disk drives, provided a cash cow until the previous fiscal year ended in March, the business environment changed dramatically from the end of 2000. With the IT division now losing money, the company was forced to postpone the building of a key plant in Fukushima Prefecture. From the beginning of this year, NSK has also seen orders decline from automakers, among its major customers. The terrorist

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outrages in the U.S. are also blamed for further declines in construction machinery sales.

Figure III-11.

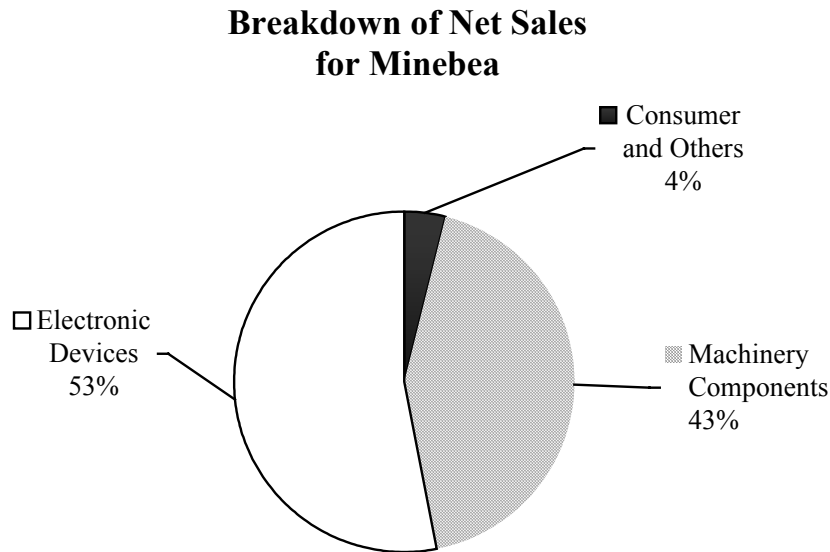


The company is also operating through a network of joint ventures, which is a standard practice in the industry. As an example, they have agreed with Timken, the U.S. company, to jointly supply roller bearing products and services to Toyota Motor Corp. and its affiliates.

(2) Minebea

I found Minebea to be uncharacteristically Japanese. This company is an example of an underdog who turned the scales and became a leader in its market. Minebea began as Japan's first specialized manufacturer of miniature ball bearings. Today, the company produces a wide variety of ultra precision industrial products, ranging from machinery components to electronic devices. From the company's extensive production base in Asia, Minebea supplies its products to manufacturers around the world. Today, less than 3 percent of Minebea's global production is in Japan, a sharp contrast with the three market leaders, with the main sources being in Singapore and Thailand. Some 65 percent of production from these bases is shipped to back to Japan, 20 percent to the U.S., 10 percent to Europe and 5 percent to Southeast Asia, Brazil and other markets.

Figure III-12.



Source: Minebea's Annual report

Unlike other Japanese companies, which began flocking to other Asian countries in the past year or so after the yen climbed sharply, Minebea went overseas for manufacturing 25 years ago (Metalworking News, 1987). Minebea was transformed into a global competitor through diversification and other bold strategies. The miniature ball-bearing manufacturer has plants in lower-wage countries and makes computer components, motors, cosmetics and furniture.

By 1960, Minebea was the biggest manufacturer of miniature ball-bearings in Japan and the sixth-largest in the world. A decade later it was the world's biggest producer, with 70% of the market; a title that still retains today. Minebea first dominated and then grew beyond its niche market. The company did not restrained itself within the relatively small miniature ball bearing market, which at the time was expected to only grow modestly. The company was facing its options: first, to expand its market share still further, with little growth prospects, or second, to move into the market for larger ball-bearings but that would require particular manufacturing expertise and heavy machine-tools, not to mention dealing with different customer base. Instead, the company chose three other strategies: "vertical integration" into markets where its customers operated; diversification into other markets where it could exploit its engineering skills; and shifting production offshore, both to enter new foreign markets and to lower manufacturing costs in its original ball-bearing business.

C. SKF in Japan - the past and the present

SKF bearings were first introduced to Japan in 1910 in the form of samples. There was an immediate interest for the company's products, as the infant Japanese industry was absorbing all industrial subcomponents it could find. On June 29th, 1932, SKF Japan Ltd was established in Tokyo, Japan with the capital of 0.75 million Japanese Yen. In 1940, SKF's first overseas branch office was formed in Manchuria, China, as this was the place of significant industrial activity. The company's sales grew steadily, being supported by military demands. The military not only boosted growth in sales but generated higher profit margins as well. The company's market share was more than 70%, which was the highest ever achieved in Japan.

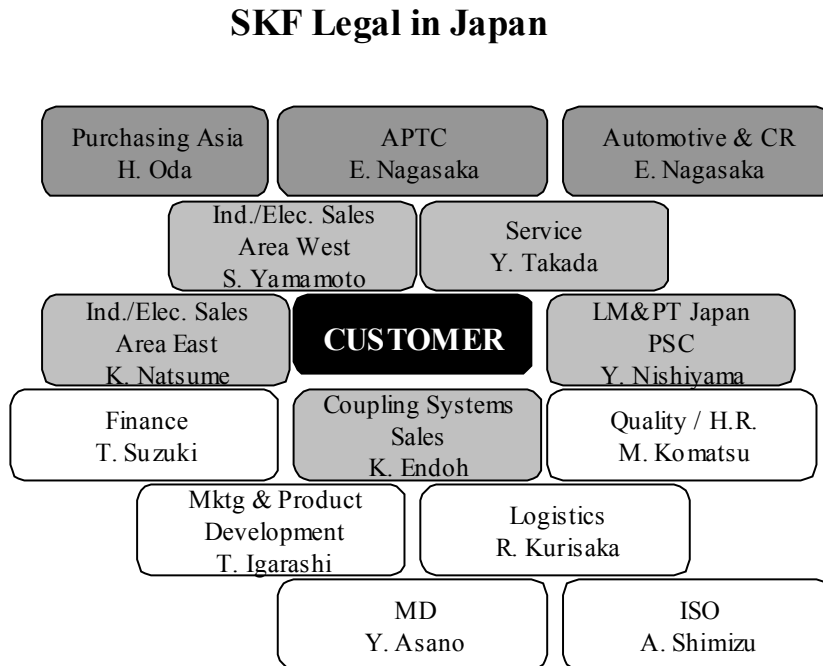
The company at the time had ten branch offices, not only in Japan but also in Taiwan and China, and employed about 450 employees. It was, by all accounts, the most prosperous period in SKF's Japan history. The company did not have any production facilities in Japan or China, but was importing bearings from SKF factories outside Japan. In 1941 World War II, severely disrupted the company's operations as it could not continue import products via the Siberian railway any more and had to close all branch offices except the Tokyo headquarters. Most of the company's inventory was bought by the Japanese Navy as military demand.

When the war ended in 1946, private trade that had been banned during the war was reinstated. The company, nevertheless, encountered the most difficult period of its history under the severe controls by the Japanese Government, which imposed restrictions in operations, and the allocation system of foreign currency, etc. The Japanese government, in its effort to reconstruct its ruined economy, imposed strict measures on all foreign companies operating in Japan. In fact, it was nearly impossible to operate the business with only two salesmen under the circumstance. The market share dropped to almost 0%. Sluggish sales continued for years.

However, as the post-war Japanese economy begun to revitalise, so did the company's sales. In 1963, the company opened branch offices in Osaka and in 1987 in Chubu. In 1990, the company established the Product Service Centre in Chino, Nagano Prefecture. Furthermore, in 1998 the Asia Pacific Technical Centre was also built in Chino, too. At present, the company's capital is 486 Million Japanese Yen, the number of employees is 74, and the market share is approximately 1%.

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Figure III-13.



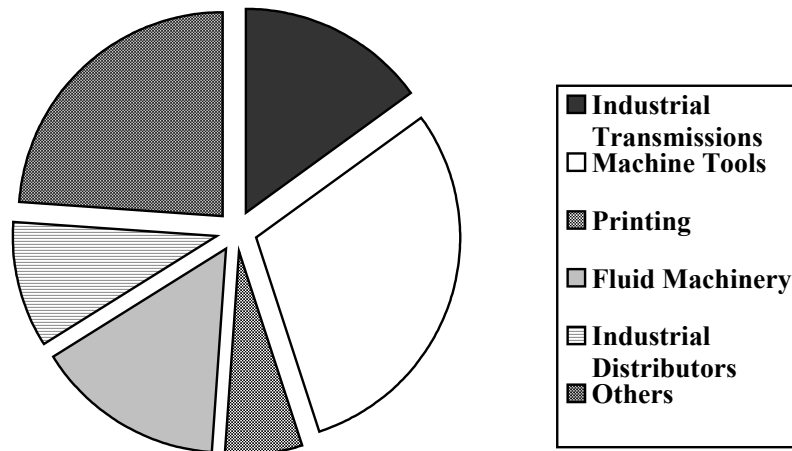
Source: SKF

The graphic representation of the company's flat structure denotes the shift in direction; the epicentre of all activities is the customer. The company's focus is to achieve higher customer value which in turn will yield higher profitability.

SKF Japan cannot be viewed as a Japanese company. Its structure and corporate culture are products of its mother company. Even though SKF's policy is not to interfere with divisions in the tactical level, it has managed to instil SKF Japan with its corporate spirit. The company's managing director, for instance, is unusually young for his position (only 42 years old) something like that would have never happened in a regular industrial Japanese company. Also, the company's liberal policy towards female employees is certainly something to be frowned upon by domestic conservative firms.

Figure III-14.

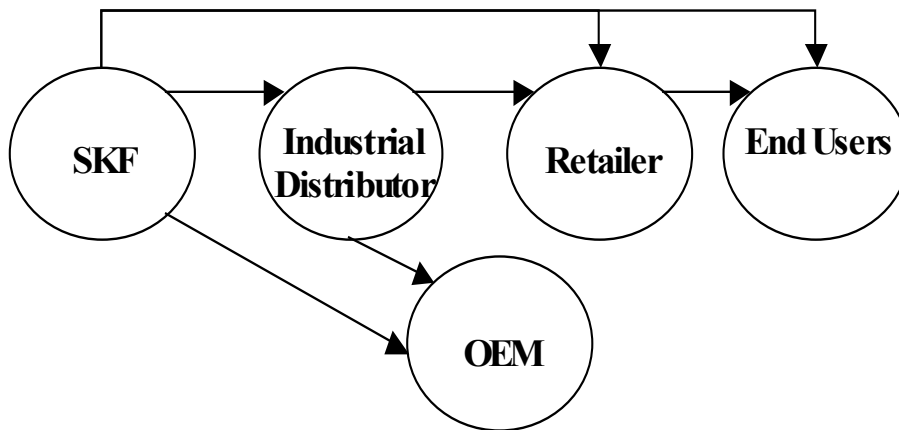
Sales by Customer Segment YTD 0107



Source: SKF

Figure III-15.

Supply Chain



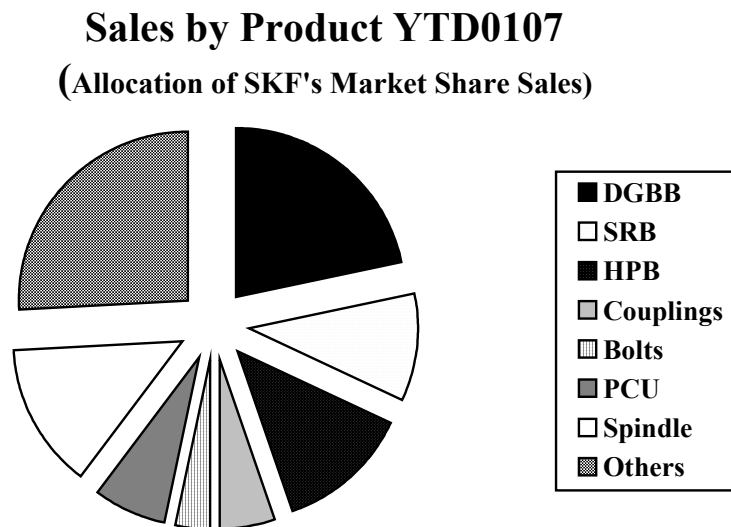
Source: SKF

SKF Japan has a distribution network but does not employ its own distributors. All of them are independent distributors. Distribution sales, are important but not critical for SKF Japan, as it encompasses approximately 10% of its total sales. The company used to employ wholesalers, but not at this moment, as the company is trying to establish a closer relation with its customers. However,

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there are a number of retailers who are focusing on certain specific segments of the market, such as the Pulp & Paper and Metal Industries. The effect of such retailers is, nevertheless, negligible in the company's overall performance (300 to 400 million JBY compared to 3 billion through sales by phone). The company, in effect, applies sales in two levels; the first level involves direct sales to OEM⁹, and the second level involves distributors. The company employs a number of application engineers and a number of salesmen to support direct sales.

Figure III-16.



Source: SKF

The company currently carries 52 product lines in the Japanese market. The figure above displays sales of SKF's Japan main products:

Deep Groove Ball Bearing – Ball bearing where the balls run in grooves in the inner and outer ring. The bearing is a radial bearing but can also take a certain axial load. Used in such applications as electric motors.

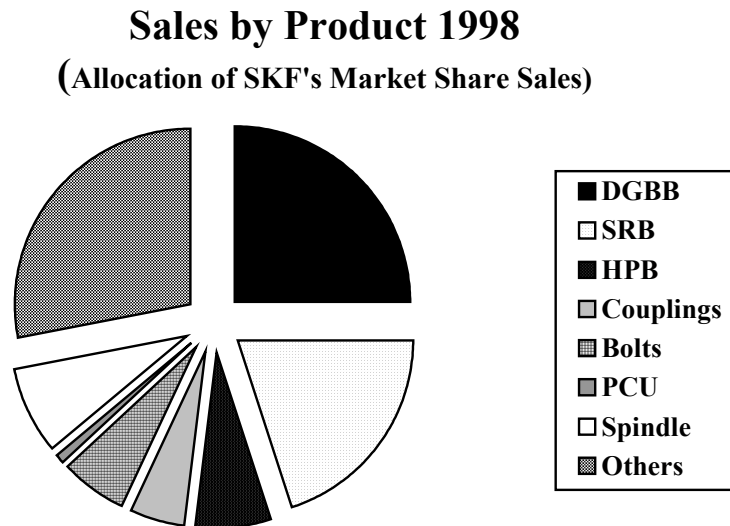
Spindle Unit – Complete bearing unit with precision bearings for machine tools.

High Precision Bearing – Bearing for machine tools with very high rotating speed. Used in such applications as spindle units.

Precision Bearing – Bearing for machine tools with very high rotating speed. Used in such applications as spindle units.

⁹ OEM customers (Original Equipment Manufacturers) are those customers who buy bearings to use them in their own products; for example, manufacturers of cars, household appliances, machines, etc.

Figure III-17.



Source: SKF

One can notice the shift in the company's sales direction when sales in 2001 are compared to 1998 sales. There is a sharp increase in the sales of products with higher profit margins noticeably HPB, PCU and Spindle units. On the other hand the company has reduced sales in standardised products with low profit margins and where it enjoys no competitive advantage.

The current focus of the company is to provide encompassing solutions which will solve its customers' needs. SKF Japan has access to SKF's products, knowledge and technology and this will allow for optimisation of solutions in customized applications¹⁰. SKF's competitive advantage relies on its better understanding of mechanisms that affect bearing performance, and computer power. The company will facilitate its growth for the future on this premise. The main challenge for the company is to deliver these solutions at a price that provides value to the customer and to SKF. The secondary challenge will be to convince its customers that it is cost efficient to apply solutions that might seem expensive initially.

In terms of advertising and promotion, only custom and competitive products like MaPro and CoMo (computer monitoring) are worthwhile of any promotional activity. The company, nevertheless, participates in the JIMTOF (Japan International Machine Tool Fair), which is the biggest exhibition in Japan and is held every two years. By displaying its main products at the exhibition, the company can receive many enquiries and orders, and promote

¹⁰ Source: SKF

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its SKF name value. However, as for standard bearing business, advertisement is not worthwhile and has no value merely costs. Therefore, the company bases its sales on value-added products or special products based on its technology.

SKF is currently providing bearings and friction free solutions for the following industries:

- Industrial transmission
- Machine tools
- Material handling
- Office machinery
- Printing machinery
- Pulp and paper
- Racing
- Two wheelers
- Aerospace
- Auto-electrical appliances
- Automotive aftermarket
- Cars
- Electrical motors
- Electrical power tools
- Fluid machinery
- Household appliances
- Industrial electrical

IV. Analysis

The following part is the analytical array of the thesis. On one hand it is based on Porter's models and theories on competitive strategies, and on the other hand it is based on empirical data. By employing Porter I accept his opinion concerning industries in terms of competition. He assumes that even within oligopolistic industries firms will pursue a purely competitive strategy, even though such a move might not be the most profitable route to follow, and that because of lack of trust within the industry. This should be the case in terms of industry conditions which include governmental regulation in terms of fair play and price fixing policies. The fact is, that in most mature industries there is a silent understanding of the established status-quo, which usually remains relatively unaltered, until a major shift occurs that modifies the industry's nature.

The bearing industry as a whole is a difficult industry to compete in. Growth has been marginal ever since the Gulf War, and profit margins are eroding as the industry experiences overcapacity and price competitions. The industry is closely dependent with the overall economic situation, and recession equals to non utilization of existing production capacity. Fixed costs are high and so production capacity is important to achieve. The situation in the Japanese market is even more critical as the global slump is compounded by a prolonged national recession which has put the industry in the brink of crisis.

The following analysis will hopefully give a clear picture of the conditions governing the bearing market in Japan, SKF and its competitors.

A. On the Generic Strategies

Businesses and individuals are said to be playing in a game, with a complex set of rules, in which they can adopt defensive or offensive strategies, according to the relative costs, risks and rewards (Burke et al., 1987).

1. On Cost Leadership and Companies following it

All major Japanese companies in the bearing industry in Japan have adopted this strategy. This low-cost position is in fact the basis of competition in Japan. Prior to Japan's recession, this strategic position was used to place the firms in a favourable position in respect to competitors as it provided the necessary flexibility to adjust to input cost increases.

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Cost leadership imposes burdens on the firm to keep up its position, which means reinvesting in modern equipment, ruthlessly scrapping obsolete assets, avoiding product line proliferation, and being alert for technological improvements. Cost declines due to cumulative volume may sometimes lead into a trap. The drive to create economies of scale will ignite the need for production volume increases, which will eventually lead the industry to experience overcapacity (Porter, 1998). This is exactly what happened in the bearing industry. There has been a slow growth rate for the bearing industry which had almost constant world wide sales volume growth for the last 30 years. The Gulf war was a milestone for the bearing industry worldwide as the industry witnessed a series of decreases in factories' utilization and overcapacity. For example, Sumitomo heavy industry bearing supplier compensates with volume and its efficient productivity, but real growth is gone.

Achieving a low overall cost position often requires a relatively high market share or other advantages, such as access to raw materials. In the Japanese bearing industry, all major players have been building their position based on low-cost positioning. All major players have designed their production lines to minimize costs, serving all major customer groups in order to build volume, and maintaining a wide line of related materials to spread costs. In turn, this strategy requires heavy capital investment in advanced machinery and equipment, and aggressive pricing, which is a standard practice in Japan. High market shares allow economies of scale in purchasing materials and reduction in production processes costs. Once achieved, the low cost position provides high margins that can be reinvested in new equipment and modern facilities in order to maintain cost leadership.

Cost leadership in the Japanese bearing industry can be especially vulnerable to technological changes that nullifies past investment or learning, and also to an inability to see required product change mainly because of the attention placed on cost. Recent events have clearly demonstrated this point; companies that are concentrated in producing standardised products have to incur significant costs to add the capability of producing customised products. Bearing companies in Japan may prove unable to accomplish a required product change, mainly because of their attention placed on cost. The classic example of the risks of cost leadership is NSK. NSK has achieved an unchallenged cost leadership through a highly automated production line and the aggressive pursuit of lower costs. NSK now faces enormous costs for strategic readjustment given the rigidities created by heavy investments in cost minimization.

2. On Differentiation

Differentiation in Japan can be an attainable strategy. Minebea's story is a confirmation of this. The company concentrated its production in miniature bearings acquiring through the years technological skills and knowledge that impose great entry barriers to any competitor. On the other hand, a company like Minebea cannot afford to ignore costs. In the bearing industry differentiation ought not be desirable concerning standard bearings where the relatively low costs and comparable prices to those of competitors prevent any such positioning. Customers are not willing to pay a premium price for standard bearings – this alone should be sufficient deterrent for providing standardised products with unique attributes.

On the other hand, differentiation involves a series of risks. The cost differential between low-cost competitors and the differentiated firm becomes too great for differentiation to hold brand loyalty. A characteristic example of this situation was described by SKF. Ten years of research and development was the time needed to develop a relatively standard bearing product. It cost the company a serious amount of time and resources. At any event, customers were not willing to pay the premium price associated with this product even though it performed excellently. Competitors' products were only marginally inferior to the SKF product and the customers were not willing to incur the extra price. The company was not entirely at a loss, however, as it gained in learning techniques and manufacturing experience that are utilized in other the company's products. The financial return on the investment, however, was a different matter. Furthermore, imitation narrows perceived differentiation; a common occurrence as industries mature.

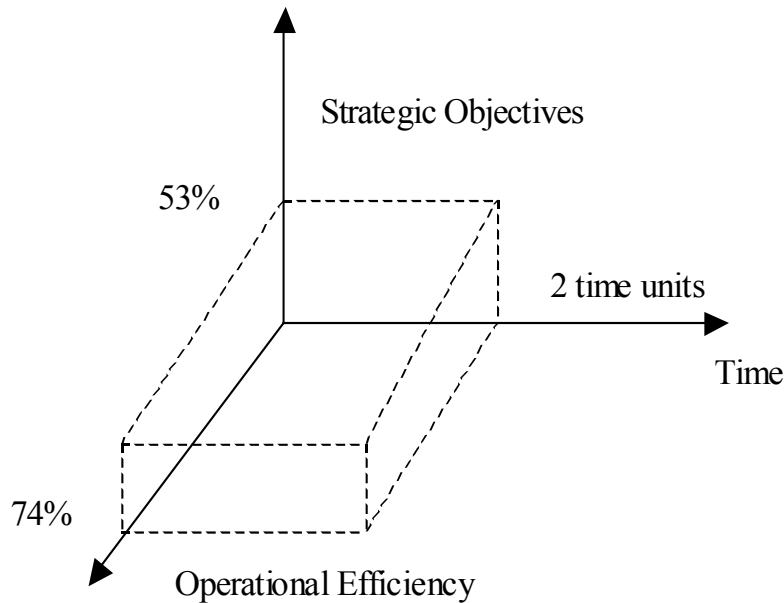
3. On Focus

SKF Japan has focused on specialty bearings, monitoring devices and maintenance and advisory services where it can design products for particular buyer needs and create reliable solution packages. It avoids standard products with low margins where competitors can cover with ease. In order for competitors to enter these highly specialized market segments, they have to engage in high capital investments in start-up facilities or acquisitions. Either case will result in high costs, and SKF is already ahead in both technical knowledge and has already acquired vital companies in such sectors. SKF's strategy is based on meeting the specialised needs of the customers, stocking only their narrow product lines, order taking procedures geared to their purchasing needs and intensely controlling and computerizing the sales and maintenance sectors.

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Focus involves a different sets of risks. The cost of differential between broad-range competitors and the focused firm widens to eliminate the cost advantages of serving a narrow target or to offset the differentiation achieved by focus. The differences in desired products or services between the strategic target and the market as a whole narrows. Competitors find sub-markets within the strategic target and out-focus the focuser.

Figure IV-5. Model of Strategic Coverage



This model exhibits the level of strategic coverage accomplished within a given time period. An organization has to assess the level of operational efficiency of the divisions involved and the level of its strategic objectives attainment. An example of a strategic objective could be for division A to attain a 2 percent market share of market segment X within a year. Even though it could be simplistic, it could be linked with financial performance of the division (ROI) and view the direct effectiveness of the project.

In a time unit of two an organization has been able to achieve 74% operational efficiency and 53% of its strategic objectives. The company then has managed to cover 40% per time unit of its overall strategic direction (calculating the covered area in respect to the total area). Timely respond is of essence in strategy and that is why the variable is added. The other two variables are operational effectiveness and the level strategic objectives achieved.

B. Applying Porter's Five Competitive Forces

Structural analysis gives the analyst a framework for understanding the competitive forces operating in an industry that are crucial for the development of a competitive strategy. It is clear, however, that industry structures often change, in fundamental ways (Porter, 1998). The protracted economic slump in Japan for instance, has begun to force consumers of bearing products to rethink their logic in rating bearing products: initial bearing costs vs. maintenance costs, the way keiretsu mechanisms force intra-group behaviour, and so on.

Industry evolution therefore, takes on critical importance for the formulation of strategy. Understanding the process of industry evolution and being able to predict change are important because the cost of reacting strategically usually increases as the need for change becomes more obvious and the benefit from the best strategy is the highest for the firm first to select it (Porter, 1998). For example, nowadays industry evolution has dictated the need for network connection in terms of sales and monitoring maintenance and stock. The firms that recognized this change first, have expanded their customer networks and established strong relationships with their customers.

1. Buyer group

The prospects of the bearing industry is closely linked by the prospects of manufacturing and the business cycles of the two are closely related. Buyers' bargaining position in the bearing industry is relative to the size and type of the customer. Honda automotive for instance, will have a far greater bargaining power than a small clothing manufacturer. Honda's purchase of bearings in large volumes creates a significant leverage over manufacturers. Manufacturers' high fixed costs raise the incentives to utilize capacity, thus large customers become far more attractive but accordingly gain high bargaining position.

Bearing buyers consider various factors when selecting a producer. For most types of bearings the four major considerations are price, delivery, quality, and maintenance costs. The relative weight placed on each factor varies by the type of bearing and the buyer. As a general rule price is more important when buying standardized bearings in high volumes. Quality is important when buying heavy duty high precision products custom made. Delivery day is important especially for customers who employ Just In Time (and in Japan that is almost everyone).

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Customers in Japan constantly demand price reductions, high quality, service and on time delivery; but they mainly insist on lower prices. This is an expected response from customers who built their manufacturing basis upon lean management. There is always constant pressure from subcontractors to OEMs, and manufacturers for ever more price reductions, and SKF soon realized that it could not compete with Japanese firms on such terms. A different position had to be sought. In cases where customers had to buy large volumes of products, the situation became even more critical, since the buyer in such case yields higher power to demand price concessions. SKF's main competitors in Japan are probably influenced the most by the force of buyers since their heavy fixed costs raise the stakes to keep capacity filled. This is especially true in cases where the products are standard or undifferentiated. SKF's experience concerning standardised products were that customers in Japan tend to shop selectively and constantly bargain for a favourable price. As the products tend to be standardised, quality becomes of secondary importance as all manufacturers' products tend to be more or less the same.

2. Substitutes

Some substitute products are provided by existing competitors, but SKF is the company most likely to present an innovative product to subsidise existing ones. SKF is leading in technological innovation and product development and in this case (considering the nature of the mature bearing industry) is most unlikely to be seconded by any of its current competitors. The prospect of a company within a different sector of the industry providing friction free solutions for industrial applications is also remote but ought not to be discarded.

3. Potential Entrants

Barrier costs are high for producing large bearings where heavy duty machinery is needed and special knowledge is necessary. The reaction of existing companies in the Japanese bearing market in the face of a possible entrant is expected to be intense. Any new coming company can expect sharp retaliation from entrenched competitors. There is, however, a form of new entry that carries high threat of entry. Any existing company diversifying through acquisition into the industry from other bearing markets. All major Japanese competitors are trying to built their position in special bearing manufacturing not only through acquisitions and alliances, but also through their own divisions. In respect of acquisitions, SKF has already acquired most of the most

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important small independent players. Even though, entry in the specialized and high precision bearing market segment is potentially hazardous for SKF, the time and effort needed by competitors to acquire the knowledge and the machinery necessary for this type of manufacturing will give the company plenty of time to form appropriate defensive measures. Another form of possible entry, is in the form of customers vertical integration.

4. Rivalry

Rivalry among the Japanese bearing industry is intense, mostly in the form of price competition. Structural factors leading to vigorous competition are the high fixed cost and the excess capacity of the market. Main competitors have similar strategies and structures, they could however, set diverse strategic objectives concerning different market segments. The high exit barriers of the industry compound existing rivalry. Bearing facilities are highly specialized and costly to liquidate or convert to other uses. Competitors tend to assimilate successful strategies and new products, even though this is becoming increasingly difficult when highly customised products are concerned.

5. Supplier Group

Long term relationships are of essence in Japan. The supplier-buyer relationship is a product of a long period of interaction based on mutual trust. In the bearing industry the constant pressure for reduction in bearing prices eventually reaches suppliers. SKF has no problem in this sector as it currently lacks any manufacturing base in the country.

C. Of the Bearing Industry

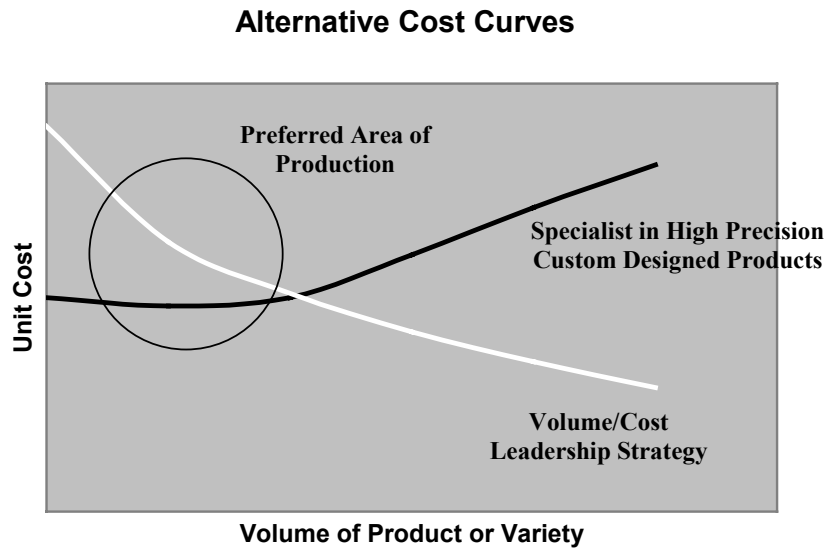
1. Bearing Industry - A Mature Industry

The bearing industry is mature and slow growth means more competition for market share. Buyers shift their orientation to lower cost and higher quality products, while competition shifts toward greater emphasis on cost and service. Outbreaks of price, service, and promotional warfare are common. Dumping charges against Japanese firms in the US are a recurring event. The added pressure on costs also increases requirements for capital by forcing firms to acquire the most modern facilities and equipment. There is a topping-out problem in adding industry capacity and personnel. As the industry adjusts to slower growth, the rate of capacity addition in the industry is also slow down as well, as overcapacity began to occur.

Japanese companies now began to feel the effects of international competition in their home market as the recession has intensified price battles and stagnant growth. Declining profits have send stock prices of publicly held companies down, and as a result companies have to employ retrenchment strategies to improve their financial position and attractiveness.

Rapid growth within an industry tends to mask strategic errors and allow most, if not all companies in an industry to survive and even prosper financially. Strategic experimentation is high, and a wide variety of strategies can coexist. Strategic errors however, tend to be exposed by mature industries and companies are forced to choose among the three generic strategies as it becomes a matter of survival (Porter, 1998). The bearing industry has long past its growth stage. The margin for strategic errors is becoming minimal for competitive firms within the industry.

Figure IV-1.



Source: Adopted from Porter's Competitive Strategy, 1998 ed. page 245

There is more than one cost curve possible in an industry. The firm that is not the overall cost leader in a mature market can sometimes find new cost curves which may actually make it a lower cost producer for certain types of buyers, product varieties, or order sizes. A firm that explicitly design its manufacturing process for flexibility, rapid set-ups, and short lots may well enjoy cost advantages over the high volume producer for servicing custom orders or small lots. A viable strategy in such a situation is to focus (as shown in figure IV-1), on orders in the circled area. Cost curve differences allowing such a strategy may be based on small orders, custom orders, particular small volume product varieties and others.

2. Of the Evolution of the Industry

Firms in all industries search for products and market segments of high growth and high profit margins constantly. In the bearing industry the problem is compounded since the growth of the industry is closely depended on overall economic growth – whenever a recession occurs – the industry is in trouble. On the other hand, whenever a booming occurs, demand is frantic. The greater the size of efficient increments of capacity in an industry the more difficult the topping out problem (Porter, 1998). It is also more difficult if the personnel to be added is highly skilled and require long periods to locate and train. The strategic shifts required to compete successfully in the industry should be attempted at all in view of the substantial and perhaps new types of resources and skills that may be required. The choice depends not only on resources but

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also on the number of other firms in the industry in this case SKF has the capability to keep this kind of positioning. The expected duration of the turmoil in the industry and future prospects for industry profits will determine the viability of current positions within the industry.

Manufacturing, marketing, distributing, selling, and research methods are often undergoing change. These changes are caused by increased competition for market share, technological maturity, and buyer sophistication. Bearing firms in Japan are faced with the need for either a fundamental reorientation like Minebea (redirecting its functional policies), or some strategic action that will make reorientation unnecessary. All the main bearing firms in Japan have shifted their focus in high precision products with a high degree of customisation since this area is a source of high profit margins and sales growth.

Nevertheless, in order for the firms to respond effectively to such changes in functional policy, allocation of considerable capital resources and new skills are required. In effect Japanese companies are in a serious disadvantage compared to SKF, in this sector, as SKF has been focusing in this market segment for some time and has acquired the technology and the expertise needed to provide such solutions. Japanese companies have to begin almost from scratch. The new products and applications require new research centres and new production development. Adoption of new manufacturing methods may require new production facilities, or the acquisition of companies specialised in such production. Either alternative is costly. And besides, SKF has already acquired all significant acquisition targets of this market segment.

On the other hand, giving up market share too easily in favour of short-run profits is a dangerous game to play. Firms within the industry seem to be too eager to divest into high growth segments related to the bearing. In the face of the profit and cost pressures there seems to be a tendency for companies in the industry to try to maintain the profitability of the recent past – which is done at the expense of market share or by cutting Research & Development and other needed investments which in turn hurt future positions. A period of lower profits may be inevitable while industry rationalization is taking place. There might be an overemphasis on creative and new products rather than improving existing ones.

In effect, capital should be invested in a new project only with the expectation of being able to harvest a higher or at least an equal return later. In a mature, slow growing industry like the bearing industry, the assumptions required to justify investing new cash in order to built market share should be more than convincing. Maturity of the industry works against increasing or maintaining

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margins long enough to recoup cash investments in the future by making the present value of cash inflows justify the outflows, thus business in maturity can be what Porter describes as “cash traps”, particularly when a firm is not in a strong position but is attempting to build a large market share in a maturing market.

A final note on the mature nature of the industry is the tendency sometimes of clinging to higher quality as an excuse for not meeting pricing and marketing aggressive moves of competitors. High quality can be a crucial company strength, but quality differentials have a tendency to erode as an industry matures (Porter, 1998). Even if they remain, customers may be willing to trade quality over lower prices. A company must make its existing competitive advantage obsolete, even when it is still an advantage or a competitor will do it for them (Porter 76, page 139). Innovation and change are tied together. But change is an unnatural act particularly in successful companies. Past approaches became institutionalised in standard operating procedures and management controls.

D. Grouping Competitors

Strategic groups often differ in their product or marketing approach. In the bearing industry, some of the products are the same, and different companies employ similar processes and approaches for their production. Strategic groups tend to have similar market shares and be affected by similar external and internal to the industry events due to their similar strategic paths. This is why Porter suggests that it is important to use a strategic group as an analytical tool.

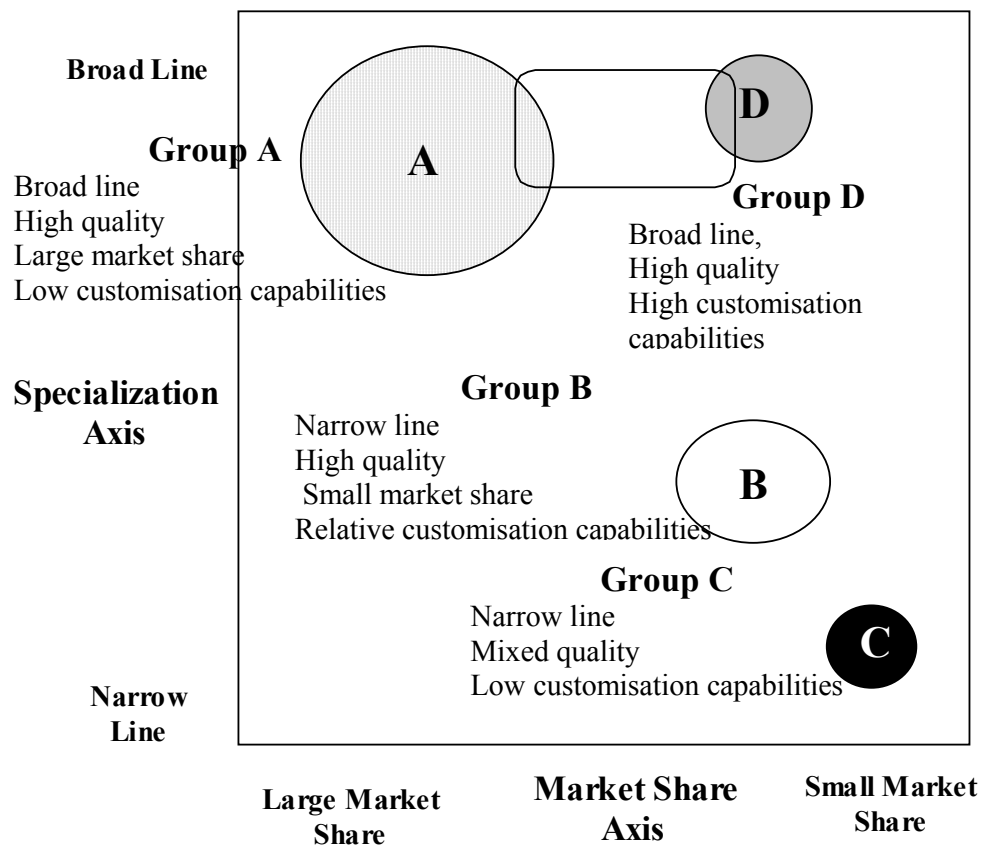
In this paper the various companies in the bearing industry in Japan will be categorised according to their product line and their market share. The reason for doing so is almost 90% of the distribution of market share is confined to three companies making this certain factor an important aspect of grouping behaviour. Product line is the second factor as this factor will distinguish behaviour of companies sharing the remaining 10% of the market. In effect there are four main groups in the industry:

- A. The three big ones – NSK, NTN and KOYO. These firms have similar, broad, fairly standardised product lines, serve similar customers, and have similar cost structures.
- B. Specialised firms like Minebea, Nippon Thompson, Daido Kogyo, Oiles Corp etc. These firms have a narrow product line, serving particular market segments.

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- C. Smaller subcontracting firms with an even more narrow product line specialised in particular market segments. It is very hard to obtain information about these companies. Most of them are small private companies.
- D. SKF constitutes a different grouping as it offers a broad spectrum of products specialised and standardised but has a small market share. SKF has a broad spectre of products but is not to its advantage to compete in standardised products.

Figure IV-2.



Source: Adopted from Porter's Competitive Strategy 1998

Japanese rivals have suffered a severe blow from increased demand for customized bearings and support services, which has reduced the advantages of mass production. Japanese competitors are not considered to be effective in creating new and innovative products. Or if they are, they have not yet chosen

to exhibit such an adequacy. What the Japanese have proven to be efficient at, is the optimisation of existing products and processes and mass production. NSK for example, has aggressively taken labour content out of its products; it pushed hard albeit at a considerable expense, toward full automation and unmanned operations. Even though this effort resulted in totally flexible manufacturing systems in terms of existing products, the company is unable to shift its production to a new market segment such as highly specialised bearings. Another example is that of Nikon Seiko which has virtually removed its work force through an extensive use of computer integrated manufacturing linked directly with the market place. This productivity route is one way to go; the constant upgrading of operational effectiveness. Once a company start walking this path it cannot go back – productivity through automation. High volumes are essential to cover low profit margins. In such cases capacity is critical. In times of recession such companies are hit hard.

Market share is a meaningless number unless a company defines the market in terms of the boundaries separating it from its rivals. These boundaries are the points at which the company and a particular competitor are equivalent in a potential customer's eyes. The problem lies in moving the boundary of advantage into the potential competitor's market and keeping that competitor from doing the same. The competitor that truly has an advantage can give potential customers more for their money and still have a larger margin between its cost and its selling price. Any competitor's failure to react and then deploy and commit its own resources against the strategic move of a rival can turn existing competitive relationships upside down. By committing resources strategy seeks to make sweeping changes in competitive relationships (Henderson, 1989).

E. The Current Position of SKF

Before 1999, the focus of the Japanese division was on market share. Even though sales were increasing, profitability was decreasing. The company could not compete with the Japanese firms in terms of price and volume. Any attempt to secure customers from competitors was doomed to fail due to lack of competitive advantage. The company was carrying a wide variety of bearing products but was also carrying many non-profitable businesses. This affected profitability in a negative way.

In 1999, Sune Carlsson, the new CEO appointed at SKF, instituted a new policy for the Japanese division (which was part of a global policy for the entire SKF); the company would be trimmed, all business that were generating loss would be terminated and be replaced by more profitable ones. Part of the

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deal was to let go of all unnecessary assets and the SKF Japan in compliance with this sold its headquarters building in Tokyo. The company in Sweden made similar sales. This move was partly initiated as a move to increase ROI and to improve the stock exchange factor and become more appealing to investors. It was also a move to finance ongoing reconstruction movements. Cost efficiency was the new battle cry of SKF the ongoing effort within SKF to eliminate non-value added activities and to standardize remaining activities to achieve high profitability and efficiency.

Any attempt for broad market growth in the Japanese division was discarded since the company lacked a manufacturing base in Japan, which is a prerequisite for such a move. The cost for such a move was and still remains inhibiting and unnecessary. At a time where most Japanese manufacturing companies are establishing offshore production facilities, it would not make much sense for SKF to establish one in Japan by itself. An array of reasons such as excessively high labour costs, unknown suppliers, and non sufficient customer base to support such a move (estimate approximately two to three percent of the total market share is necessary). Besides that, such a move would initiate a considerable reaction from competitors (see Porter's new entrant barriers) who would consider it as a direct threat to their predominance. SKF would bring new capacity into an already saturated market and would have to invest considerable resources for a non viable position. Without a doubt, SKF ought to expect that competitors would rank such a move as potentially serious, and they would deal with it as a direct threat. The company should expect sharp retaliation from its entrenched competitors. Being involved in a price battle with a host of Japanese companies in their home turf is the last thing any firm would want. On the other hand, if the company succeeds in establishing a sufficient customer base and its main product demand consists of customised products, then such a move of establishing a manufacturing unit is required. Such a unit would concentrate in producing highly custom solutions and would be highly flexible and responsive in shifting demand. This is especially important since in Japan a company cannot claim price premium and not provide immediate availability.

1. Of SKF's Experiences

Even though the following discussion falls in the realm of the operational perspective, is nevertheless relevant in accessing the overall business environment. Undoubtedly some of the following factors will inevitably influence the outcome of strategic decisions and positions.

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A hard lesson learned was that the Japanese tend to do not jeopardise something that works, since they detest taking chances with products with which they are unfamiliar. In addition to that, they have to be 100 percent sure that the change will bring a better outcome than the one previously used. There is a contradictory quality in this phenomenon as Japanese businesses simultaneously exhibit a conservative stance and follow bold expansionary policies. In respect, one could say that most organizations in Japan tend to be conservative internally and bold in their external operations.

So how does a foreign company gains access to a Japanese company? A foreign company has to work hard to first establish a contact in order to gain the trust of the key people. A lot of patience is required at this stage, since most Japanese companies tend to assign low level and often non-relevant personnel to initial meetings and as a result precious time can be wasted. In order for a company to prove that it is a trustworthy supplier, it has to exhibit infinite patience and the willingness to explain the same concept numerous times to people who have no idea of what you are talking about.

A foreigner company such as SKF which often has to deploy non-Japanese personnel (i.e. engineers) faces a bigger challenge of how to establish a connection based on trust and being long term focused, while there is an obvious communication gap. Things are much easier if the company is well established in the global scene and among the market leaders. Having products which are proven and reliable could be a major advantage. Even then, the company's products have to be superior in most aspects when compared to similar Japanese products. Japanese prefer domestic products if all things held equal or even if the foreigner firm's product is marginally better. This is natural reaction considering the long term connection established with local companies and the level of service, on-time delivery and continuous quality of products. The Japanese also tend to mistrust any non-Japanese industrial components unless of course the product's superiority in performance is well established.

In the event that a foreign company employs local employees then a different series of problems may emerge. The idiosyncrasies of a manufacturing company oblige the firm to employ specialized and well qualified personnel, in this case engineers, so as to be able to communicate the various utilities of an application. Furthermore, in the case of providing customised solutions an engineer should be able to exhibit a higher degree knowledge so as to be able of assessing the particular needs of a customer and interpreting them in viable solutions. In other words, a company has to have highly qualified personnel.

Unfortunately a foreign company operating in Japan is most of the times the last choice in every graduate's application list. Japanese mentality, at least until

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recently, condemned working for a foreigner company as diminutive and inappropriate. It was my impression however, that such a behaviour was not universal but most likely exhibited by an elite minority which included good prospects nevertheless. If a company however, is restricted from recruiting from a pool of well connected prospects with the most promising qualifications then it is certainly in a disadvantage.

Keiretsu connections inevitably come into play despite the fact that this effect is subsiding if compared to past practices and experiences. Many large Japanese manufacturers have found a middle ground between purchasing from few suppliers and vertical integration. These manufacturers are often financial supporters of suppliers through ownership or loans. The supplier then becomes part of a coalition known as keiretsu. Members of the keiretsu are assured long-term relationships and are therefore expected to function as partners, providing technical expertise and stable quality production to the manufacturer. Members of the keiretsu can also operate as suppliers further down the chain, making second-and even third-tier suppliers part of the coalition (Heizer and Render 1999, p. 423)

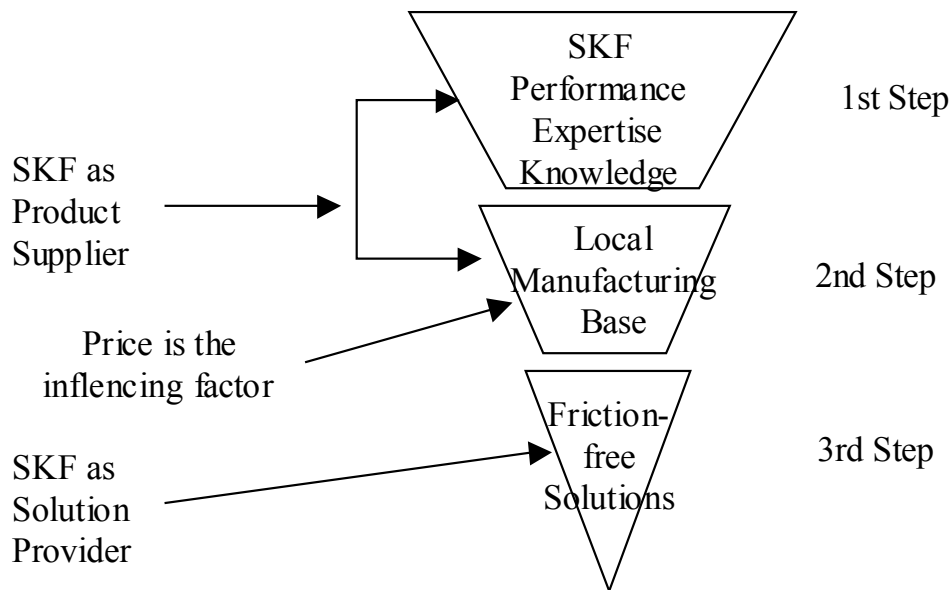
As an unwritten rule of thumb is that aftermarket business money always stays within a keiretsu. This places any outsider supplier firm with the task of penetrating an almost invincible obstacle. The company has to demonstrate beyond any doubt that its products are the best the market can offer and the most suitable for the application at hand (always talking from an industrial perspective always).

SKF has been able to do so in a degree but the similarity in processes and quality concerning standardised products render the slight superiority of the company obsolete since customers are not willing to pay a premium for such products. Most often the only measure of Japanese acquisition officers of choosing among products is a list of the various manufacturers' product prices. If the company's price is higher than a competitor's then you are out. You may try in vain to explain the virtues of your product and the reasons for charging a premium price, but nobody will listen. An answer to this predicament is the introduction of niche products where cost is not the primary consideration. All companies, including Japanese are willing to learn and are aware of technological advancements. They are also willing to adopt new processes and products that facilitate such an advancement. The market could be divided into conservative late followers and open minded front line companies which do not hesitate to try new products. A policy on concentrating on early adopters could be initiated.

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Things are changing in Japan. The protracted economic slowdown is a sufficient reason for a shift in thinking. The process of change is slow though. Japanese firms are slow starters and late adopters. Being the industry leader does help a company to establish contacts. As SKF learned, initial contact is not always enough to ensure close relations with a customer. Careful follow-up is essential to monitor products, processes and customers reactions. Special attention is particularly needed for all new projects.

Figure IV-3. How to Maintain Market Position?



Source: Adopted by SKF

The aim of the company is to move to the 3rd next step which is beyond the bearing level. SKF being a solution provider and not a bearing supplier. This shift in strategic positioning was not an abrupt move however, but the product of a long period of product development and innovation. In order to further differentiate its position the company concentrates in providing systems – full packages unique in the industry. This would render any comparison against competitors almost impossible. The customer has got to analyse the package's application benefits by itself and then decide.

The company in order to achieve this nouveau positioning focuses on core competences unique to SKF:

- Application Engineering
 - Assessing the need and
 - Providing appropriate solutions

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- Root Cause Failure Analysis
 - This is how a bearing behaves under an application. The question of why and how a failure occurred must be answered.
 - Simply changing the bearing is not going to solve the problem.
 - First and second root cause elimination provide for a better design (how the product failed).
 - An example of this is Condition Monitoring CoMo a computer software that monitors how well an application is running. It detect failure performance monitoring .

The new concept has not yet being fully used in the Japanese market but it has reported good results in other markets. For example in Brazil a steel mill producer was experiencing problems with its production line. The company was suffering huge losses because of bearing failing. The company claimed that the failure was due to faulty design of the machine while the machine designer claimed wrong usage. The total losses in lost production and replacement cost reached 5 million SEK losses per year. SKF offered a one million SEK solution package paid only if the solution change proved to be successful.

2. Of the Japanese Customer

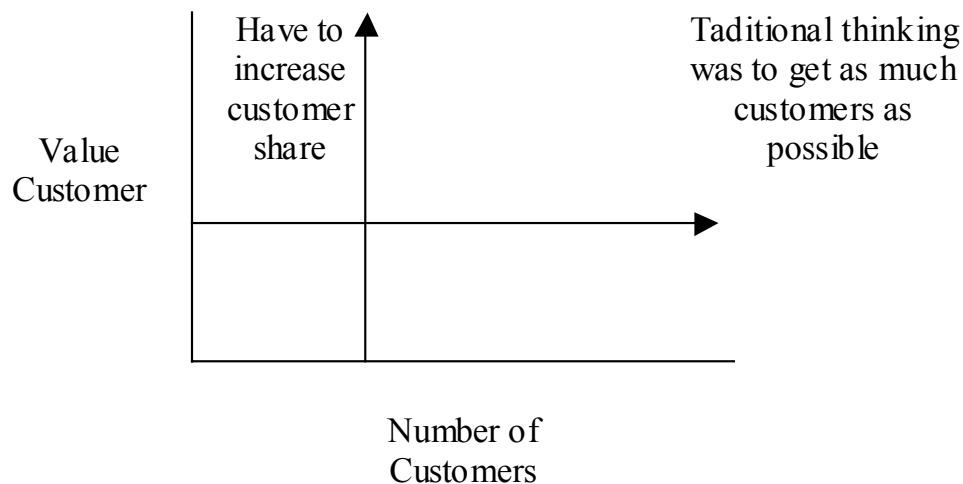
Customers in Japan are extremely demanding. Customer demand stretches from quality, to appearance, and paperwork. This obliges the company to constantly upgrade quality and push for improvement. The company also seeks to avoid administrative problems due to customers' high expectations. Japan is considered as the proving ground in terms of quality.

The question for SKF is whether the customer is ready to make the big step or not. The big step would be for the customer to stop rating bearings in terms of price but think about his real needs. The customer, in effect, does not need a bearing grease, tool or machinery. The customer needs the part of his machine to rotate. Friction free solutions that SKF with the customer's input can provide. The customer most of the times does not explain perfectly what the problem is. That is why essential for SKF to assess the situation at the spot. Sometimes the end user of the application is the customer's customer. In such cases the gap of misinformation and lost opportunities in providing the most suitable solutions are even greater. The company aims to increase customer value by offering the kind of solutions that will satisfy any customer's needs in the long-run.

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An example of what is described above occurred recently in Japan. Maintaining trains can be a costly business. The life expectancy of a certain SRB bearing used in the Japanese railway is 3 months, and is very costly to change. When SKF exhibited interest in providing the bearing for that specific function, a thorough assessment of the application revealed that the problem could be solved if a different kind of bearing could be applied. The solution called for SPB (Spherical Plain Bearing) which is produced in the U.K. for the aerospace industry. This bearing is highly specialised, and when used in Japanese railway it would reduce significantly maintenance costs. The product is currently undergoing extensive product trial. The point is, that in order for SKF to be able to provide the optimum solution, it has to examine the application and understand what the customer really needs. If it just provided what the customer wanted the optimum solution would still evade the customer.

Figure IV-4. The Need to Increase the Value of Customers



Source: SKF

V. Synopsis

A. For SKF Japan

SKF is presently competing on the basis of a unique positioning involving the offering of high niche products and services. While SKF strives continually to improve its operational effectiveness, it also has a clear strategy. The company has focused on manufacturing and designing custom bearings, and monitoring and maintenance devices. It has also upgraded its advisory and consulting functions. SKF Japan avoids standard bearing products with low margins as Japanese competitors can compete with unfavourable terms. Competitors have to engage in extensive investments in production facilities or proceed with acquisitions in order to enter the highly specialized market segments. Either case is expensive, and SKF is already ahead in both technical knowledge and expertise. SKF has already acquired most vital companies in such sectors. SKF's strategy is based on meeting the specialised needs of the customers, stocking only their narrow product lines. The company's order taking procedures are in align with the customers' purchasing needs. The company in an effort to improve its sales has began to controlling and computerizing the sales and maintenance sectors. The company can thus provide continuous service and ensure a problem free solution.

Operational effectiveness is concerned with performing the same or similar activities better than competitors. As Porter says, "the essence of strategy is to perform the activities involved in competing in the business differently from rivals". SKF lacks an onshore production base in Japan. First of all, the company lacks a sufficient market share to cover a minimum supply of products. The costs of committing in such an investment are disproportionately high relative to the expected rate of return. The company is constantly under pressure from competitors. The recent growth of high niche market segments have boosted the company's profitability. The company has a clear advantage compared to competitors in terms of technology and knowledge of customised products. Competitors have realised the potentiality of the segment and are pursuing to gain market share.

Emphasis is also given to building a strong line of connection between Japan and the rest of SKF. Interaction between divisions is highly promoted. SKF has considerable experience of internationally dispersed manufacturing and sales units. They have managed to achieve synergies among manufacturing facilities. Through time and experimentation the company gained experience and realized the immense value in coordinating among dispersed plants and sales units.

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Sharing information technologies and processes is paramount as the company could apply technology and knowledge achieved in other SKF divisions.

In effect, the strategic positioning of the company in Japan is sound and seems to be the most suitable under the circumstances. The decision to concentrate in high niche products coincided with the economic recession in the Japanese market. The company's aspirations in the Japanese market do not exceed its capabilities. In general, foreign companies find it difficult to enter Japan. Internal networks involving suppliers, wholesalers, and retailers keep foreign firms from competing on an equal footing with Japanese counterparts. Japanese manufacturers ever since the Second World War, have traditionally relied almost exclusively on domestic bearing makers. SKF Japan is a minor player in the overall market. The weak position of the company does not permit any head-on competition. The major players in the Japanese market have similar structures and strategic positions. Until recently all major players in Japan were focused on cost. Only after the economic slowdown have the Japanese companies realised that shift in demand in more customised products cannot be accommodated by their existing structures. A shift in production requires significant capital investment.

Japanese customers have a unique mentality when it comes to suppliers. They are obsessed with minimizing cost. Since most of their attention is directed towards this singular aspect of a product, it can be hard for a company with an original positioning to present its case. This is a hard time for bearing firms, the company has realised that it can no longer afford activities that are not profitable. Gaining market share in products with low profit margin results in a loss-making division.

B. In General

The company has a long history in Japan. Governmental intervention is what caused the company to lose its significant market share in pre-war years. Such an event is most likely not going to happen again. The liberalization of the global economy is progressive and not regressive. At any case, in Japan, the company has learned a lot of valuable lessons the hard way. Japanese companies tend to prefer compatriot companies in doing business. Foreign companies are still outsiders in Japan. It will take more time for things to change significantly. Companies wishing to enter or expand their market share in Japan have to exhibit a tremendous amount of patience in dealing with local companies. Sales personnel has to explain time after time the attributes of its products to different people in the same company, until the right person eventually decides to try the product. The same level of commitment should be

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exhibited in controlling the after sale stage. Constant checking is required to ensure that the local company is pleased with the product and that no problems have emerged. Manufacturing companies have to prove beyond any doubt that their products are dependable, and of the highest quality and that their products can be delivered in time. Companies with consumer products have to also prove the superiority of their products unless they are well known firms like Gucci or Levis and the local customers are hysterical about them. Coca Cola for instance, had to establish its own distribution network, in order to become the predominant beverage supplier in Japan. Coca Cola did not enjoy its overwhelming superiority in Japan simply by its reputation. Access to markets was not assured from day one. This was achieved after Coca Cola studied the Japanese market and realised what was needed to make its products more accessible to the market. The company had to built up a complete local infrastructure and do the groundwork to establish local demand.

C. Critical Factors and Areas of Importance

In effect, Porter's five competitive forces encompass most of the aspects a firm should examine when it wishes to penetrate the Japanese market. Porter's model of structural analysis has proven to be a solid tool for analysing the Japanese market. A summary of the critical factors and areas that influence the strategic positioning of SKF or any other foreign company that wish to penetrate the market would include Porter's five competitive forces; competition, suppliers, customers, substitutes and the threat of new entrants.

Beyond Porter's model, a company should pay extra attention to its customers' specific needs; the quality and the quantity of local employees; the distribution network; and the need for local manufacturing base. Any manufacturing company wishing to enter the Japanese market has to first, examine the needs of its customers carefully, and then present its products. Presenting products to potential customers can be an arduous process for a foreign company in Japan. The obvious problem is the language barrier. If a company's salesmen are not able to explain a product's attributes, to potential buyers then there is a serious problem. This lead to the local employees; any company wishing to establish itself in Japan has to hire local personnel. A firm has to be willing to spend a great amount of time and money to find and train the appropriate personnel. The tendency of Japanese to discard foreign companies is an extra problem.

It is crucial for any company to have an efficient distribution network. Delivering products on time is as crucial as the quality of a company's products; this is especially true in the Japanese market. Any company should carefully study its needs and decide whether to employ local distributors or set

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up its own network. The complexity of the Japanese distributional network is surely a factor that any company should seriously take into consideration.

Local manufacturing base is a prerequisite for attaining a study foothold within a market. This aspect is fundamental for any manufacturing company. SKF could have never enjoyed its leading global market share if it had no manufacturing units scattered around the world. This is why Japanese bearing companies are striving to build production facilities in the European market. Europe is in fact, the reverse situation of what Japan is. SKF has an overwhelming 60% of the European market share, and still the major Japanese companies are trying to restructure their European loss making divisions every few years. At first glance the high operating costs in Japan render such a move prohibitive. A company nevertheless might have to commit in such an investment if it wishes to achieve a breakthrough in the market.

The need for a company to focus on technological breakthroughs will be of even higher importance in the future. As time has shown competition based on operational effectiveness alone is not an effective strategic position. The Japanese companies exhibited lack of strategic perception that proved to be costly. Absolute improvement in operational effectiveness doesn't translate into a viable strategic position. If every company offers more or less the same products, then customers are forced to choose solely on price. This inevitably undermines price levels and devastates profitability. SKF has skilfully avoided this trap.

The individualities of the Japanese market are eroding as time is progressing. Japanese companies tend to be more Westernised by time. In effect, companies are affected directly and indirectly by globalisation by becoming more similar in processes and strategic concepts. The companies that hesitate to advance risk of becoming terminal. Nevertheless, time is needed for drastic changes to take place. Things are changing slowly for the Japanese business environment.

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