

An Inquiry into the Role of Interfirm Relationships in Recent Organizational Change Initiatives in Japanese Automobile Firms

Daniel Arturo Heller

Abstract

Faced with the difficult challenge of large-scale organizational change, many firms in Japan are struggling. To better understand the change process, this paper examines the long history in the automobile industry of interfirm relationships facilitating (i.e., assisting the occurrence of) organizational change. Two case studies undertaken in this paper suggest that some recent interfirm relationships have gone beyond facilitating to catalyzing (i.e., speeding the occurrence of) organizational change. A preliminary discussion of how this catalyzing effect may function is undertaken.

Introduction

Firms around the world are facing unprecedented environmental change as globalization and technology revolutionize the way business is done (Shapiro, 1996). Firms in Japan face the added challenges of a prolonged period of economic stagnation together with deflationary pressures. The need for change in firms is clear and prescriptions abound as to how Japanese firms should change to cope with these environmental disruptions.¹ Nevertheless, while there are some examples of successful change initiatives, even a cursory survey of the Japanese press shows that there is also a great deal of dissatisfaction with the extent to which firms are making the necessary adjustments to remain competitive.

Indeed, research has shown that most large-scale change efforts fail (Beer and Nohria, 2000).² That is, despite even the best efforts of managers, firms are often unable to build up their resource and capability portfolios such that these meet the demands of an altered environment. In such cases, change efforts either end up changing little or produce inappropriate organizational change that is at best irrelevant or at worst an obstacle to solving the problems facing a firm. There remains a pressing need for additional research on how better to achieve useful organizational change in firms.

This paper uses the auto industry as its field of inquiry. Throughout the history of the world auto industry there have been many examples of organizational change taking place in firms. Attempts by firms to shift their productive systems have been the primary cause of these changes, but changes have also been strongly influenced by shifting consumer tastes and competitive environments.³ To better understand how firms in this industry have coped and are continuing to cope with the need for change, this paper undertakes a preliminary investigation into the role interfirm relationships have played in the organizational change that has happened in firms. Recent organizational change initiatives in two Japanese automakers are examined in detail.

The paper is organized as follows. First, the literature is reviewed to obtain a working

definition of organizational change and see what past studies have said about the role played by interfirm relationships in change efforts. Second, a brief overview of the development of the world automobile industry is given to show how interfirm relationships have a long history of contributing to change efforts within firms. Next, two case studies are presented, and discussion follows.

Organizational Change Initiatives

This paper is concerned with what Senge et al. (1999) call change that "combines 'inner' shifts in people's values, aspirations, and behaviors with 'outer changes' in processes, strategies, and systems" (p. 15). While organizations are always changing in some way (Gilley and Maycunich, 2000), organizational changes as referred to by Senge et al. can be said to have occurred when observation can reveal that the characteristics of a firm that they mention are different than before. This is different from organizational learning which may only involve a change in the potential actions of an organization (cf., Huber, 1991).

The type of change is also relevant. To survive in the long-term, firms must develop the capability to change both incrementally and discontinuously (Tushman et al., 1986). Incremental change is evolutionary and refers to efficiency refinements to an established and stable product concept or process. Whereas discontinuous change is revolutionary or "frame-breaking" in that it involves the development of a new dominant design or the implementation of a system-wide shift in firm strategy, internal power relations, structure, and control (Tushman and Romanelli, 1985; Tushman and O'Reilly, 1996). The large-scale change of Senge et al. (1999) generally refers to cases of discontinuous change.

Research has tended to conclude that large-scale organizational change can be hazardous to a firm's survival, as it disrupts routines that are the foundation of reliable performance in an organization and may also disrupt a firm's critical external linkages (Amburgey, Kelly, and Barnett 1993). Strong structural inertia in organizations makes them resistant to change (Hannan and Freeman, 1984). Even when the need to change is accepted, organizations typically still have difficulty changing due to numerous "fatal myths" permeating change activities in organizations (Gilley and Maycuvich, 2000). Nevertheless, while it may be difficult and hazardous for a firm to undergo large-scale change, there are times when not changing entails greater risk. Significant environmental disruption, such as shifts in customer preferences or the competitive behavior of rivals, pressure firms to change their organizational characteristics so that they can respond to new demands and perform well in the altered environment. While eschewing an environmental deterministic perspective, this paper takes the view that some fit between an organization and its particular industrial environment is needed (cf., Pfeffer and Salancik, 1978, Lawrence and Lorsch, 1967).

Although the literature categorizes organizational change in a number of useful ways, an integrative framework for understanding change in large under-performing organizations has been elusive (Beer and Nohria, 2000). Beer and Nohria break down change into two ideal types, which they term, Theory E and Theory O. As shown in Table 1, Theory E refers to change efforts by firms that put economic results first and foremost. In its ideal form it is top-down, focused on structure and systems, programmatic, incentives lead, and

often assisted by large, knowledge driven consultants. Theory O refers to change efforts that put changing organizational capabilities as the primary objective. In its ideal form it is participative, focused on culture, emergent, incentives lag, and often assisted by small, process-driven consultants. Sequential and concurrent mixing of the two theories, while difficult, is also possible. However, the authors recommend only the E to O sequence, arguing that the O to E sequence would likely destroy the trust and commitment that underlie any Theory O changes that may have already been made.

The Beer and Nohria paper is atypical of the literature stream in that it focuses most of its attention on the change process, and not just a desired end state, whereas research on organizational change had tended to concentrate primarily on the latter (MacDonald, 1995). As in Beer and Nohria's work, when the change process is considered, generally attention is centered on a firm's top executive, who leads a change effort and his immediate subordinates. This focus of the literature has produced much fruitful work on effective leadership methods to guide change initiatives. However, the process by which the rest of the organization must change has not been examined in equal detail. As a result, the literature tends to stress the importance of achieving

widespread and deeply rooted change within a firm for a change initiative to be lasting (e.g., Kotter, 1995), yet does not give much guidance as to how people in a firm can alter their specific "inner" and "outer" characteristics referred to by Senge et al. such that they are consistent with those of top management. While effective means by which a person alters his or her specific characteristics may be unknowable ex-ante, requiring followers to discover them in a learning-by-doing manner, another possible source is that people in another firm possess this knowledge. In such cases, one way by which this knowledge could be accessed is if a cooperative relationship, or alliance, existed between the firms.⁴ The literature on strategic alliances is surveyed next to see what has been said about the role alliances can play in assisting organizational change in a firm.⁵ Particular attention is paid to strategic alliances as opposed to transactional alliances, as the former tend to be longer-term and involve both broader and deeper contact between firms (Harbison and Pekar, 1998), all of which are generally required for the transfer of the socially complex knowledge that is considered in this paper.

Beginning in the early 1980s, strategic alliances have rapidly become a widely used management tool (Hergert and Morris, 1988).

Table 1 : Theories E and O of Change

<u>Purpose and Means</u>	<u>Theory E</u>	<u>Theory O</u>
Purpose	Maximize economic value	Develop organizational capabilities
Leadership	Top-down	Participative
Focus	Structure and systems	Culture
Planning	Programmatic	Emergent
Motivation	Incentives lead	Incentives lag
Consultants	Large/knowledge-driven	Small/process-driven

Source: Beer and Nohria (2000), p. 4

Likewise, strategic alliances have been the subject of widespread attention in the field of management science in recent years (Yamakura, 2001). Strategic alliances come in a wide variety of forms and are employed to serve many different purposes.⁶ For example, researchers have shown how alliances are used to gain access to product, technology, and markets (Gomes-Casseres, 1996), and to co-opt potential competitors, co-specialize for superior value creation, and learn core competencies (Doz and Hamel, 1998). However, the subject of how alliances may influence organizational change is generally not directly considered in the literature.⁷

While direct treatment of organizational change, per say, is rare in the strategic alliance literature, the literature's inquiry into of alliance-enabled interfirm learning is quite helpful. Forming a strategic alliance with another firm for the purpose of learning organizational capabilities, also referred to as competences, is not uncommon and much research supports the contention that alliances are a viable means to acquire such knowledge (cf., Doz and Hamel, 1998; Yoshino and Rangan, 1995; Hamel, 1991).

Kogut and Zander (1992) suggest that a firm's capabilities reside in its higher-order principles that structure relationships among individuals, groups, and organizations within a firm. Such organizing principles are thus said to underlie a firm's capabilities and allow individuals and functional expertise to be structured, coordinated, and communicated (Zander and Kogut, 1995). Kogut (1988) argues that equity ownership by alliance partners in the form of a joint venture is best suited to learning capabilities, because this alliance form allows for organizational replication, which is the transfer of tacit knowledge

through the reproduction of experiential knowledge in another organization. Such replication permits the transfer of embedded knowledge, such as the higher-order organizing principles that make up organizational capabilities. Lending support to this view, Mowery, Oxley, and Silverman (1996) found that, *ceteris paribus*, equity arrangements outperformed other alliance forms in the transfer of technological capabilities.

The above discussion shows that interfirm learning is possible through alliances. Based on the argument of Kogut and Zander, as a firm learns capabilities from a partner the organizing principles of a firm will inevitably also change, contributing to the occurrence of "organizational change" as was described earlier. Nevertheless, as was the case in the organizational change literature, the process by which the many members of an organization might acquire these higher-order organizing principles has been left largely unexplored. This paper helps to fill this gap through its in-depth case-based investigation of two change efforts by firms in Japan.

Development of the World Automobile Industry

This section gives the setting of the world auto industry and historical context the recent changes undergone by Japanese automakers, two cases of which are examined in the following section. Since the majority of the world's automobile production and design occurs across the Triad region of Western Europe, North America, and Japan, this section concentrates its attention on the history of interfirm relationships across these regions.⁸

In the early years of the development of

the European and U.S. automobile industries at the turn of the 20th Century, close relationships between firms were quite common and played an important role in the emergence of the dominant design of the automobile.⁹ A typical example is the cooperation between the Dodge brothers and Henry Ford in the creation of Ford's first automobiles (cf., Collier and Horowitz, 1987). After its origination in the U.S., interfirm relationships also played a role, albeit limited, in the transfer of the mass production system for automobiles to Europe and Japan in the first half of the 20th Century (Womack et al., 1990). For example, Cusumano (1985) and Fujimoto (1999) show the different means by which Toyota and Nissan learned from Western automakers in the pre- and post-WWII years. Over the past twenty to thirty years, interfirm relationships have again played a role in the transfer of lean production methods from Japan to the West.

After Japanese automakers demonstrated that they had achieved global competitiveness in the 1970s, a prolonged burst of international learning has induced widespread organizational change in firms. Productive methods found in the Japanese automakers (e.g., heavyweight product managers, early close cooperation with suppliers, overlapping stages of product development, just-in-time practices, etc.) diffused into U.S. and European automakers (Womack and Jones, 1996; Clark and Fujimoto, 1996). Interfirm relationships have been responsible in part in bringing about this diffusion (Clark and Fujimoto, 1996; Fujimoto and Takeishi, 1997). Learning-orientated joint ventures (e.g., GM and Toyota at NUMMI¹⁰) and various learning efforts within broader based alliances (e.g., Ford and Mazda¹¹) have been important means by which the interfirm relationship have been

exploited, but so have less formal and indirect contacts between industrial players (e.g., Renault's learning of Japanese productive methods in the 1980s and 1990s¹²). The transplant production facilities opened by Japanese automakers in the U.S. and Europe in the 1980s have created additional opportunities for both direct and indirect contacts between automakers. These various types of interfirm relationships consist largely of project-based contacts between firms, generally with some sponsorship-style involvement by the upper management. Midler, Neffa, and Monnet (2002) give an example of the high degree of influence that projects can exert within a firm and its organization.

The 1990s saw many changes in the competitive environment facing Japanese automakers. Firstly, a resurgence of Western volume producers, in part caused by the learning outlined above, sparked an intensification of the industry's competition. A greater need for differentiation of products and product lines (i.e., improved integrity) became necessary. As such, branding has become more important for all automakers, not just luxury end manufacturers. Secondly, significant growth by the Japanese automakers in Europe did not materialize, despite large investments in production facilities in the region. In the U. S., quality improvements by the Big Three diminished the competitive advantage of the Japanese automakers in this area. In addition, a major shift in consumer tastes toward light trucks depressed the performance of the Japanese automakers as they had few products to offer in the U. S. in this market segment. Thirdly, Japanese automakers were faced with the domestic environmental disruptions of Japan's economic bubble, its collapse, severe currency appreciation, and

prolonged economic stagnation. By the early to mid 1990s, it became clear that Japanese automakers needed to change just as many Western automakers had needed to change a decade earlier (Clark and Fujimoto, 1996). Productive capabilities were not the problem, as these remained strong, but rather a combination of the slowdown in domestic growth rates, increased competition in overseas markets, and negative exchange rate movements revealed strategic weaknesses in the Japanese firms. Some Japanese automakers undertook successful change efforts on their own and managed to accelerate their capability-building efforts, enabling them to continue to prosper.¹³ Other Japanese automakers, however, were either unable to perceive or implement the needed changes, and were forced to turn to Europe and U.S. counterparts for assistance with their change efforts. Two examples of which are examined next.

Case Studies

This section examines the Ford-Mazda and Renault-Nissan tie-ups. Attention is directed to the recent large-scale change initiatives that were begun in Mazda and Nissan under the guidance of their respective partner firms. The section draws on Fujimoto and Heller (2001) and is based on a review of current and archival published articles in the popular press, academic literature, and publicly available firm material (e.g., annual reports, press releases, etc.) The author has also conducted fieldwork at all four of the firms in question between 1999 and 2003.

It is important to note that the cases investigated here remain ongoing processes. Nevertheless, sufficient time has elapsed in each for a fruitful interim review to be done. A more complete evaluation of the change ini-

tiatives will only be possible, however, once more time has passed. Allowance for the passage of time is especially critical in the automobile industry as products generally undergo complete renewals only once every three to five years.¹⁴

The presentation of the case studies is as follows. The background of the case is briefly presented, followed by a description of the development of the interfirm contacts between the firms. Next, the context of the need for change in the Japanese automaker is described. Finally, the change initiative is examined. Attempts are made to emphasize changes in the higher-order organizing principles within the firm. At this stage of the research, performance is only considered implicitly as the change initiatives are reviewed. An explicit investigation of performance is an important subject for further research.¹⁵

Ford-Mazda Case

Background. The interfirm relationship between Ford and Mazda has a long history. The automakers first engaged in cooperative relations in 1969 when they formed a joint venture in Japan.¹⁶ This joint venture resulted in the establishment of various interfirm contacts at the project-level. This initial cooperation was followed by a number of other projects between Ford and Mazda, such as OEM and parts supply agreements. Subsequently, Ford acquired a minority equity stake in Mazda in 1979.¹⁷

Interfirm Contacts. As a result of its acquisition of an equity position, in January 1980 Ford dispatched three executives to sit on the Mazda Board of Directors (BOD), including one senior managing director.¹⁸ These directors were sent to represent the

interests of Ford and ensure that Ford had a voice in Mazda's corporate-level decision making process. However, Their primary role was monitoring and reporting to Ford rather than engaging in actual managerial activities at Mazda. For example, in contrast to all of the other managing directors (including external directors) and some of the regular directors at Mazda, the Ford appointed directors were not assigned any specific responsibilities to oversee managerial functions within Mazda.

Ford's appointment of directors to Mazda's BOD established a second level of interfirm contacts, on top of the various contacts that were continuing to take place at the project level. This new form of interfirm contact on the BOD, however, was initially somewhat limited as the Ford appointed directors were not active in the daily managing of Mazda. This constraint was removed in 1994, when a third level of interfirm contact, namely that of active Ford participation in the middle and upper management of Mazda began.

This third level of contact came into existence due to an agreement signed by Ford and Mazda in December of 1993 to strengthen the strategic nature of their relationship. The number of Ford appointed directors on Mazda's Board was doubled to six. The newly dispatched directors were also given specific functional responsibilities at Mazda. Ford was also given the right to appoint an Executive Vice President with the responsibility of assisting the President. Henry Wallace, who had formerly been Finance Director of Ford of Europe, Inc. and subsequently President of Ford's Venezuelan subsidiary, was dispatched to assume this position.

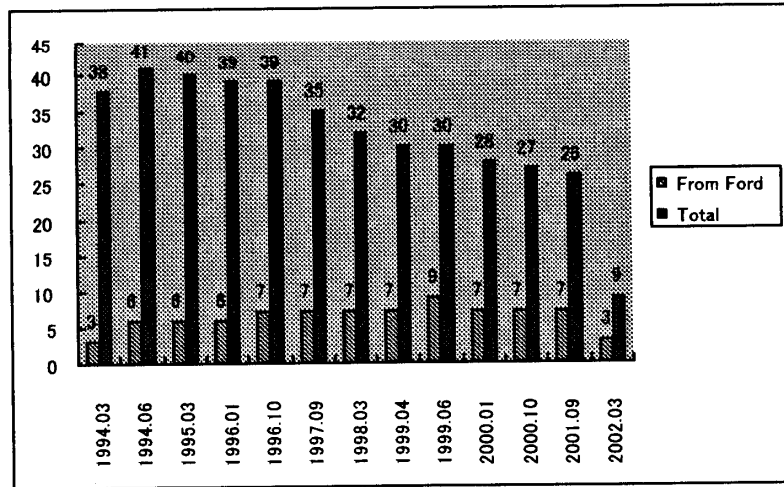
As Tables 2 and 3 demonstrate, the participation of the Ford-dispatched directors in

Mazda's managerial decision-making process increased throughout the 1990s. Ford's influence within Mazda reached a dominant degree in April 1996 when Ford increased its equity stake in Mazda from 25% to 33.4% and was given the right to appoint Mazda's president.¹⁹ A high level of trust between the companies allowed the management of both companies to feel comfortable with such an arrangement.²⁰

Wallace was promoted to the post of Mazda's president in June 1996. His tenure in the position was unexpectedly short, as he left Mazda in November 1997 to become the CFO of Ford. James Miller, who had been head a Ford Joint Venture in South Africa was selected by Ford to become the next president of Mazda. His tenure was also surprising short, as he resigned from the post in December 1999 citing health reasons. Shortly thereafter in May 2000, the Ford-dispatched Mazda CFO, Gary Hexter, who had been at Mazda since February 1994, also unexpectedly left the company.

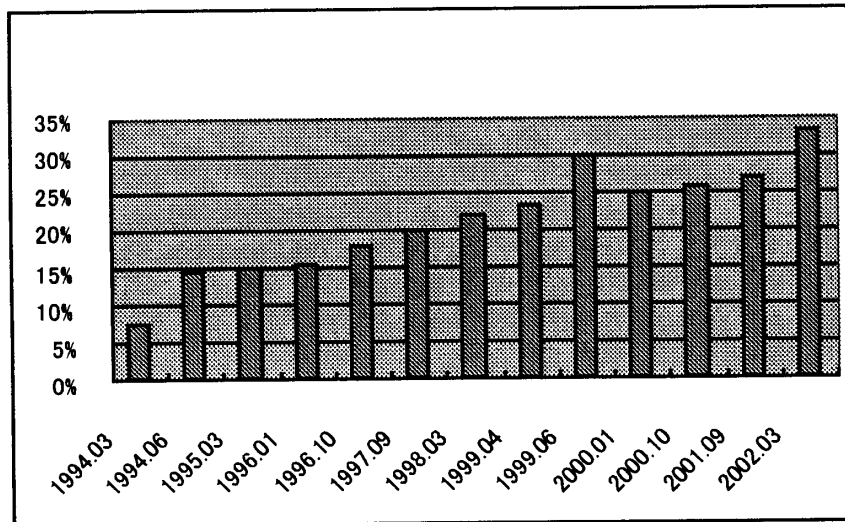
Ford's selection to succeed Miller as President was Mark Fields, who had been at Mazda since August 1998 in charge of restructuring the automaker's sales outlets. Prior to coming to Mazda, Fields had been the president of Ford's Argentina operations. Fields' selection to head a company the size of Mazda was especially noted in Japan, as he was only 38 years old at the time. Like Wallace and Miller before him, Fields departure from Mazda came somewhat unexpectedly. In February 2002, the Japanese press reported Fields would be leaving Mazda. This was confirmed by Ford and Mazda in April, and Fields left Mazda in June 2002 to become head of Ford's Premium Auto Group (i.e., Ford's Jaguar, Volvo, Land Rover, and Aston

Table 2 : Size of Mazda BOD and Number of Ford-Dispatched Members



Source: Compiled by author from various editions of Mazda's *yuka shoken houkoku sho* (report of listed company).

Table 3 : Increasing Presence of Ford-Dispatched Members on Mazda BOD



Source: Compiled by author from various Mazda publications.

Martin brands.) Fields was succeeded at Mazda by Lewis Booth, who had been President of Ford Asia Pacific, Africa and Technical Staffs.

As with the succession of four Ford-dispatched presidents of Mazda in seven years, other Ford-dispatched directors generally

return to Ford after a spending a relatively short period of time, about two to three years, at Mazda. When they are sent to Mazda they are explicitly told to work for the sake of all Mazda's shareholders, not just Ford (Heller, 2001). Research interviews have revealed that managers at Mazda generally believe that the

Ford dispatchees do indeed work on behalf of Mazda while they are at Mazda (Nobeoka and Taniguchi, 2000; Heller and Orihashi, 2003). Appendix 1 lists all the Ford-dispatched directors who have sat on Mazda's BOD through June 2002 and various details, including their assigned managerial responsibilities.

From the latter half of the 1990s to the present, the interfirm contacts on joint projects has not only continued but deepened through the extensive development of product platforms that are shared by both firms and through close cooperation in some third countries (Heller and Orihashi, 2003). Ford's increased equity stake in Mazda also led to numerous middle managers from Ford being dispatched to Mazda, and the reverse, with some middle managers being dispatched from Mazda to work in Ford. Additional interfirm contact occurs on the Mazda Advisory Board, which meets a few times a year, and is made up of senior executive from the two firms.

Need for Change. These increases in the influence of Ford in Mazda coincide with the growing need for change at Mazda, which became evident from the early 1990s. Domestically, strategic missteps such as the highly leveraged pursuit of rapid domestic expansion of dealer channels, showrooms, and model variety from the mid to late 1980s failed to attract sufficient new customers.²¹ Even though much of Mazda's productive performance, notably its manufacturing performance and product development speed, largely remained strong, the firm had difficulty developing hit products following the Miata/Roadster/MX-5 in 1989 (Clark and Fujimoto, 1996). In Japan, many products were developed aiming for niche markets, with Mazda's lineup swelling dramatically to cover essentially the entire range of vehicles,

from micro cars to light trucks, under a variety of brands. However, Mazda lacked the resources to develop and market this many distinctive vehicles. Poor differentiation of vehicles resulted. As Japan's economic bubble began to recede, Mazda's sales began to drop as well.²² In addition, acute appreciation of the yen in the early 1990s was especially damaging for Mazda, which has a higher export ratio than most of the other Japanese automakers. Overseas, exports began falling during the early 1990s as well. Mazda also began experiencing labor problems at what was then its only major overseas plant in Flat Rock, Michigan (Fucici and Fucici, 1990). Sales overseas also began to fall. Most Mazda vehicles were largely unable to distinguish themselves in the marketplace vis-à-vis Toyota, Nissan, or Honda.

The domestic and overseas difficulties at Mazda combined to create an increasingly severe financial crisis at the company. Financial performance began to fall dramatically in the early 1990s and operating losses were incurred for three straight years from FY1993 to FY1996.²³

Change Initiative. Pushed by the crisis outlined above, Mazda's large-scale change initiative began to unfold in the early 1990s, with an increasingly strong influence being exerted by Ford. In fact, Ford dispatchees to Mazda were essentially charged with 'teaching' various managerial capabilities to Mazda (Heller, 2001).

Finance. The emphasis of Mazda's financial management has shifted from asset accumulation to asset utilization and cash flow orientated decision-making. A reduction of the number of Mazda subsidiaries and affiliated companies can be seen. In a one-year period from the end of 1999, the number of

Mazda subsidiaries was cut in half to 17. Financial control has also been improved, with a better use of financial and market data within product development to complement the firm's traditionally strong engineering orientation.

Cost cutting. According to press reports, expenses were reduced by the equivalent of \$3.5 bl dollars between 1994 and 1996,²⁴ with a cross-functional value analysis department being established in 1994 and 193 Japanese suppliers being asked to reduce prices by 10% in FY1994.²⁵ Workforce reductions were undertaken throughout the 1990s, primarily through attrition.

Mazda's high exchange rate exposure was also hedged. By the end of the 1990s, imported parts accounted for roughly 15% of components procured by Mazda, more than double the level of a few years earlier.²⁶ Increased overseas production capacity was achieved with the opening of a large-scale plant in Thailand in 1998 as a joint venture with Ford. Production of Mazda-designed vehicle was begun at a Ford facility in Spain in January 2003. However, capacity Utilization of AAI in the U. S., also a joint venture with Ford and Mazda's largest overseas plant, has decreased in recent years due to a less competitive product line-up, which has largely offset the other increases.

Marketing. One of the most noticeable changes at Mazda has been in marketing. Soon after Henry Wallace became president of Mazda in 1996, he appeared in a number of ads for the company in Japan, a move that attracted much attention. In the same year, a major domestic ad campaign was launched on the theme, "That's MAZDA." Internally, the new direction was marked by the creation of a marketing division in 1996. The badge of the

Mazda brand was completely redone in 1997. A comprehensive review of Mazda's heritage and brand image in the eyes of consumers was undertaken, and the results were then used as a starting point in a process that ultimately led to the definition in 1998 of a consistent World-Wide Brand Positioning (WWBP) or brand identity for Mazda: described as a brand personality of "stylish, insightful, and spirited;" with product attributes of "distinctive design, exceptional functionality, and responsive handling and performance;" and a brand message of "new ideas that stir your emotions."²⁷ Mazda committed itself to producing vehicles that support this brand identity. Mazda's Annual Report for FY1997 says, "...from design to engineering to manufacturing to sales and service, our goal is to deliver the fundamental attributes of the Mazda brand DNA in all our products and services."

It was decided that, unlike in the past, all products would carry the new Mazda badge, along with the name, Mazda. In the past the firm had also sold cars in Japan under the Efini, Eunos, and Autozam brands, along with the Mazda brand. The various brands all had distinctive badges as well. Domestic distribution changes were equally broad. Dealer channels were consolidated from five (Mazda, Efini, Eunos, Autozam, Autorama) to three (Mazda, Mazda Efini, Mazda Autozam), with management control of Autorama being transferred to Ford in 1994 and the Eunos channel being merged primarily with the Efini channel in 1996. With the changing of the Autozam name to Mazda Autozam in 1998, all channels and showrooms prominently carried the Mazda brand name. The number of showrooms has been reduced to under 1,300 by the end of FY2001, which was half of the peak level of about ten years

earlier. In 1998, the "One Operation" dealer restructuring program was launched and by the end of FY2002, 34 regional dealers were to be consolidated into 11. In the U.S. in the late 1990s, Mazda conducted dealer reorganization and pushed to increase the number of its showrooms that specialized in the Mazda brand, as most of Mazda's showrooms were co-located with other brands.

More recently, a "zoom zoom" ad campaign was launched worldwide that emphasized the sporty side of Mazda's heritage. This heritage builds on Mazda's extensive development of the rotary engine, which is lightweight, small, and powerful, making it well suited for sports cars. Mazda also has a racing heritage, as it was the first Japanese car to win the Le Mans, a French 24-hour endurance race, in 1991. This sporty side is not the only side of Mazda's history, nor is it the side that was most strongly emphasized before Ford's influence began to increase from 1994. However, this aspect of the brand may be considered the one that best fit under the Ford umbrella of international brands, namely Ford, Jaguar, Volvo, Aston Martin, and Land Rover. It may also be the part of the brand heritage that is most distinctive and able to produce added value in the marketplace. In keeping with the sporty tradition, after much deliberation and some efforts to end development of the rotary engine, development was continued resulting in a more advanced engine with improved fuel economy. Thus, a key part of the organizational identity of Mazda was preserved.²⁸ Also, consistent with this shift in brand image, the ratio of Mazda's commercial vehicles to total vehicle sales has decreased from over 30% in the mid-1980s to approximately 20% in the early and mid-1990s, to under 10% in the early 2000s.²⁹ In October

2002, Mazda announced that it would be closing its commercial vehicle plant, which is also its oldest domestic plant, by March 2005 and will outsource production.

Product Development. After the strategic strengthening of the Ford-Mazda relationship in 1993, one of the first things that happened was Mazda's product plans were temporarily stopped, while a Ford team reviewed them. Gradually, Mazda committed itself to selling vehicles that would support the new brand image. However, the nature of product development in the auto industry necessitated that vehicle changes would emerge slowly. The first major product release was the all-new Demio in 1996, which was awarded both of Japan's Car of the Year awards, and created a new small utility-car category. A major change to the Capella/626 came in 1997. Next came a major change of the MPV mini-van, which was also well received. A major change to the small car, Familia/323, followed in 1998, along with a major change to Roadster/Miata/MX-5. A small mini-van, the Premacy (based on the Capella/626 platform), was launched in 1999. An all-new Tribute, a small SUV co-developed with Ford's U.S. developers, was launched in 2000. Many minor changes to vehicles also occurred during this time. On the whole, the vehicles were generally perceived as competent but not particularly remarkable in styling and performance. However, the styling consistency of these Mazda vehicles gradually increased, exemplified by the 5-point front grill that is now a fixture of nearly all Mazda vehicles. However, the development projects for these products were either finished or well underway when the new theme of the Mazda brand was finalized in 1998.

After a period of about 18 months from

the end of calendar year 2000 to mid 2002 during which there were no major product launches of Mazda-developed vehicles, new vehicles that were largely developed after the new brand image was set have begun to be launched. In 2002, first came an all-new model, the Atenza/Mazda6, a replacement for the Capella/626. Then, came a major change of the Demio/Mazda2 (formerly 121), which was co-developed with Ford of Europe, that was also launched in 2002. In May 2003, an all-new rotary-engine sports car, the RX-8, was launched, and a replacement for the Familia/323, also co-developed with Ford of Europe, is scheduled to be launched later in 2003.

Advertising campaigns emphasizing a new brand image at Mazda were launched in Japan beginning from 1996; however, some have claimed that a mismatch gradually emerged between Mazda's advertising message and the message delivered by the Mazda product line-up.³⁰ On the other hand, a gradual increase in sales value per vehicle suggests that the Mazda brand has indeed been strengthening. The consistency between Mazda's marketing message and vehicles appears to be improving with the recent new vehicles that emphasize a sporty theme, such as the Atenza/Mazda6 and RX-8.

In addition, from the mid to late 1990s, Mazda pursued extensive integration of its product line with that of the Ford Group. Joint development of vehicles based on common platforms allows automakers to share the majority of the parts and components of a vehicle to lower costs, while still retaining a distinctive look and feel across brands. In May 1997 it was announced that the companies had come to a basic agreement on cycle plan coordination (timing of future product

introductions), platform sharing, and power train (engine and transmission) sharing. The first co-developed vehicle was the Mazda Tribute and the second co-developed vehicle was the Demio/Mazda2. The forthcoming replacement to the Familia/323 is also a jointly developed vehicle. While co-development of the vehicles can potentially result in faster and more efficient product development as work is shared between development organizations, this is dependant on smooth and inexpensive coordination being achieved between the organizations, which may be difficult especially in the first iterations of the process.

Manufacturing. In the Ford-dispatched restructuring at Mazda, manufacturing has not been dramatically affected, as can be expected from the lack of Ford-dispatchees assuming any managerial responsibilities in this function. While there was a major restructuring of manufacturing, notably the domestic plant closure in 2001, this can be seen as simply a rationalizing of production volumes and an attempt to better adhere to the principle of "make where you sell", which has been a trend in the world auto industry since its inception, and which was reaffirmed when Japanese automakers began to build large-scale facilities in the U.S. and Europe since the 1980s. The maintenance of a high influence of the manufacturing function within Mazda can be seen in the fact that the highest ranking (apart from the Chairman of the Board) Mazda-proper executive managing director (as of May 2003), Hisakazu Imaki, is from a manufacturing background.

Corporate Culture. Like manufacturing, Ford has not dispatched executives to the Human Resource function at Mazda. However, through the initiative of the president a wide-spread effort to change the corporate culture

of Mazda has been undertaken. In conjunction with Mazda's new "brand DNA" described above, a new "corporate DNA" initiative was launched as well. In December 1999 a new corporate vision was established. An extensive managerial education program called, Mazda Business Leadership Development, was instituted from July 2000, under the theme "Change or Die." Fields described the purpose of the initiative as explaining, "why Mazda has to change -- and how."³¹ Above all, Ford-dispatchees sought to diffuse into Mazda a logic-orientated decision making process based on explicit market and financial data (Nobeoka and Taniguchi, 2000).

Product development personnel were able to put their efforts into creating products that fit the new brand image leading to a boost in morale in this function, especially after Fields, with his emphasis on brand image, became president at the end of 1999. At the same time, the prolonged lack of new product released as these vehicles were developed led to drops in sales, production volume, and a delay in the movement toward financial growth after financial stability had been achieved. These factors seem to have negatively affected morale within the company, together with the numerous unexpected departures of Ford-dispatched personnel. Restructuring measures, including a reduction in the number of employees and production capacity in Japan, announced in November 2001 as part of a broad restructuring effort, the Millennium Plan, may have also been negative weights on firm morale. Hiroshima and surrounding areas are particularly sensitive to such measures as Mazda's economic influence in the region is very high. A target of 1,800 voluntary retirements in Mazda was surpassed within a minute of the start of the

acceptance of applications on March 19, 2001, reaching a total of 2,213. While this has typically been viewed highly negatively in Japan, research suggests that some level of employee turnover may actually assist large-scale change efforts, provided people are treated fairly (Kotter, 1995). Mazda's voluntary retirement package was generally viewed as generous.

Structure. Finally, there have been numerous structural changes that have been implemented at Mazda since Ford's increased involvement in Mazda's management in 1994. In the mid 1990s, the Cost Planning department was elevated to the status of a division. The Power Train Development Department was elevated to the status of a Development Center (equivalent to a division). The number of departments within the Product Development Center was more than doubled. The Design Division was changed to a department and subsumed under the Product Planning Division. The Environment and Safety Engineering Department was established. The Product Quality Division was established. The three Vehicle Centers, which had been established in 1993, were reduced to two in 1995 and completely phased out in 1996. Cusumano and Nobeoka (1998) describe the impact of some of these structural changes on product development at Mazda.

In 1997, Mazda's North American subsidiaries were integrated into a new company, Mazda North American Operations. In the late 1990s, the Sales and Marketing Affiliates Administration Division was established. The Program Managers Department, which had been a part of the Product Development Center, was elevated to the status of a division. The many departments in the Domestic Sales Division were consolidated into ten

departments, a reduction by almost half. In addition, a separate Customer Service Division was established. A Leadership Development Department was established in the Personnel and Human Development Division. The Internal Auditing Department was elevated to the status of a Division.

Renault-Nissan Case

Background. The history of relationship between Renault and Nissan is relatively short. It has developed very rapidly, however, and as is described below, the contacts between the firms are now as extensive as those found between Ford and Mazda. The relationship between Renault and Nissan formally began in March 1999 when Renault acquired a 37% equity-stake in Nissan, 100% of its European financial subsidiaries, and a 23% stake in its truck affiliate, Nissan Diesel.

Interfirm Contacts. With the purchase of the equity stake, Renault dispatched executives to sit on Nissan's BOD. Renault selected Carlos Ghosn, who was a key member of the Renault senior executive team, to assume the post of Chief Operating Officer (COO) at Nissan.³² In addition to Ghosn, two other Renault executives, Patrick Pelata and Thierry Moulounguet, joined the 10-member BOD of Nissan, assuming the responsibilities of product planning & design and finance, respectively.³³ Louis Schweitzer, Chairman of Renault, is quoted as saying, "We said to the people we were sending (to Nissan) that you aren't representing Renault. You are sent by Renault to work for Nissan."³⁴ Appendix 2 lists all the Renault dispatched directors who have sat of Nissan's BOD through June 2002 and various details, including their assigned managerial responsibilities.

Interfirm contact between the firms is

also achieved through an alliance governing body that is made up of an equal number of senior executives from the two firms, and which is responsible for the strategic management of the Renault-Nissan alliance.³⁵ Numerous cross company teams that seek to develop alliance synergies also provide a forum for interfirm contact, as do dispatchees at the non-executive level. Numerous joint projects in the firms' home countries and various third countries (e.g., Brazil, Mexico, Spain, Taiwan, Australia) afford other opportunities for contacts between the firms at the non-executive levels.

Need for Organizational Change. While productive capabilities at Nissan remained strong, strategic missteps from the latter 1980s, such as excessive product and dealer expansion in Japan, lease valuation miscalculations in the U.S., poor differentiation among products, and excessively high debt levels, combined with acute yen appreciation and the emergence and bursting of the Japanese economic bubble, created increasingly severe market and financial difficulties at Nissan. Nissan recorded losses in six out of seven fiscal years, culminating in a 684 bl yen net loss in FY 1998.

In the years leading up to the alliance with Renault, various organizational change efforts had been pushed at Nissan, including globalization drives, product line and dealer channel rationalizations, purchasing cost reduction efforts, plant closings, workforce reductions, and other consolidations.³⁶ In each case, however, the plans and their implementation were insufficient to solve Nissan's problems.

Change Initiative.³⁷ After arriving at Nissan in June 1999, Ghosn and his core management team spent the first few months

assessing Nissan's situation in detail and formulating a recovery plan, together with the Nissan proper management. Special effort was made to include the views of front-line (*genba*) managers and employees. Cross-functional teams were formed to develop aggressive ideas that could be incorporated into the overall recovery plan. Such close cross-functional cooperation was essentially new to Nissan's headquarters, even though it had been long practiced at the firm's product development level.

Other managerial dispatchees from Renault later joined Nissan in September, and the Nissan Revival Plan (NRP) was presented in October 1999, as a three year plan that would start from April 2000, the beginning of the next fiscal year in Japan. A large number of targets and specific actions made up the plan, and it included various drastic structural measures, such as numerous plant and dealer closures, a 10% reduction in the firm's global work force, a 50% reduction in the number of car platforms. In addition to these Nissan-specific items, much of the plan focused on realizing synergies with Renault. The plan also pledged to result in restoring Nissan to profitability on a consolidated basis from FY2000, an operating margin (profit to sales) ratio of 4.5% by FY2002, and a reduction of corporate debt by half to 700 bl yen by the end of FY2002. Ghosn committed to these targets, saying he would resign if any one of them was not met. This statement of commitment complemented other trust-building efforts engaged in by the Renault dispatchees. In addition, the Renault dispatchees on the Nissan's BOD each hold stock in Nissan.

After implementation of the NRP was begun, Ghosn was promoted to president of Nissan in June 2000 and CEO in June 2001.

Renault increased its equity stake in Nissan to 44% in March 2001 and shortly thereafter Nissan purchased a non-voting 15% share of Renault. The stock purchases were viewed by some industry analysts as a negative show of power on the part of Renault, as they were of disproportional financial benefit to Renault.³⁸ However, there do not seem to be any significant changes in the management of the relationship or additional blurring of the separate identities of the firms as a result of these transactions.

Nissan was able to achieve or surpass all three of the primary targets of NRP by the end of FY2001, one year ahead of schedule. From the start of FY2002, a new plan, Nissan 180, which had been made public in October 2001, was initiated. Nissan said it would launch 22 new models between April 2003 and March 2006 and aimed to increase global sales by one million vehicles over the three-year period. Nissan also said it intended to completely eliminate automotive-related debt by March 2006.

Examples of changes in Nissan as a result of NRP and Nissan 180 are outlined below.

Product Development. In January 2001, Ghosn said that the companies ultimately plan to share 10 vehicle platforms that would account for 90% of their combined volume. Ghosn has said that "there will be one powertrain strategy for the alliance."³⁹ Nissan designers have been told to produce more distinctive vehicles. The first vehicles to receive much influence from Pelata began reaching the market in 2001. Nissan also recruited Shiro Nakamura from Isuzu to improve Nissan's styling. Nakamura became the first designer to be promoted at Nissan to as high a post as Senior Vice President in 2001.

Nissan's brand badge was also refined.

Purchasing. The 20% reduction of purchasing costs at Nissan has been the subject of much attention. In addition, in 2001 the Renault Nissan Purchasing Organization (RNPO) was formed as a joint venture in which each firm holds an equal share. RNPO is headquartered in Paris, with offices in Japan and U.S. The company handles the negotiations with car parts manufacturers and other suppliers on behalf of Renault and Nissan teams. The combining of purchasing allows cost savings through higher volume orders and reductions in administrative cost. As the firms begin producing car models that share the same platform, the companies have said the percentage of the companies' global purchasing that is conducted through RNPO will eventually rise to 70%.

Production Facility Utilization. In addition to the plant closures in Japan, plant sharing with Renault has been pursued outside of Japan. Ghosn has said that "Sunderland (Nissan's plant in the U.K.) in the future will be part of a larger manufacturing system including Renault plants."⁴⁰ Renault and Nissan also jointly produce a compact van at Nissan's Barcelona factory. Increases have been achieved in Nissan's production capacity utilization rate in Japan to over 70% at the end of NRP from approximately 50% before the Renault team arrived. A new large-truck plant in the U.S. has also been established.

Marketing. In April 2000, a marketing department was established in Japan and a stronger voice was given to regional marketing executives. Prior to this, Ghosn is quoted as having said there was a lack of systematic analysis of the Japanese market at Nissan.⁴¹ Brand management has been strongly pursued both domestically and in overseas mar-

kets.

Finance. Asset utilization has been greatly improved at Nissan. Large sales of land holdings and shares in other companies have been sold off. Automotive debt was eliminated by the end of FY2002.

Domestic Market. Attention has been redirected to the domestic market, which had long been in decline for Nissan vehicles. Nissan's domestic market share decreased for 8 of 10 years, falling from 19% in 1989 to 13% in 1999. Ghosn put a high priority on reviving Nissan's domestic sales and took personal charge of the domestic sales operation in March 2001, saying, "The president of the company should be always on the hottest front," Extensive dealer restructuring was undertaken.

Structural changes. In 2001, Nissan streamlined its executive committee to eight members and a created a global sales and marketing organization. There has been much misunderstanding in popular press about Nissan's relationship with its "keiretsu" suppliers as a result of NRP. While much of the relational side of keiretsu (i.e., the cross shareholding, dispatching of senior executives) has been reduced, the functional side (i.e., the long-term business relationships, dense interfirm communication, early cooperation in product development) has remained intact or may have even been strengthened.⁴²

Corporate Culture: In addition to the tangible changes outlined above, there has been much intangible change at Nissan as well. Nissan's corporate culture has come to strongly emphasize speed and commitment and these are expected of personnel at both Nissan and its suppliers. In addition to promising to step down if NRP failed to achieve any of its major goals, Ghosn also demonstrated

his own commitment to Nissan saying in the first year of NRP, "You can expect me to stay after March 2003. I'm not going to leave before the Nissan Revival Plan, no way. And there will probably be more to be done after the Nissan Revival Plan... I will be here as long as it is necessary to ensure that Nissan is on track for solid, credible and lasting profitable growth."⁴³

Other corporate culture changes at Nissan have been summarized as: a newfound focused on the front line view (plant, test course, sales outlets), attention turned outward to learn from others, and a valuing bottom-up suggestions (Fujimoto, 2001a). Management at Nissan is also now done on a more global basis.

Summary

A simple comparison of the two cases would be misleading. Analysis is necessarily complicated when due consideration is given to the unique historical contexts of the cases and the large differences in firm sizes. These are considered first before some similarities and differences are noted.

Mazda began producing three-wheeled vehicles in 1931, but was a late-comer among Japanese automakers to the production of four-wheel passenger cars in 1960. Over the ensuing forty years, the company has experienced a number of difficult situations, most notably the sharp drops in the company's sales in the 1970s due to the two oil shocks and the firm's emphasis on the Rotary engine, with its high fuel consumption. In addition, the Hiroshima area is heavily dependant on Mazda, which creates political difficulties for the firm. Mazda's severe difficulties in the early 1990s must be viewed in the context of these longstanding issues.

Mazda's partner, Ford, has also experienced numerous crises since its founding one hundred years ago: the belated changeover from the Model T to the new Model A in the late 1920s; the WWII period organizational difficulties and more recently the deep financial troubles in the late 1970s and early 1980s due to the oil shocks and competition from Japanese automakers. From the late 1980s, Ford pursued a strategy of globalization and integration, as the Ford Group began to become a central element of the Ford Motor Company. Apart from the close ties with Mazda, specialty luxury automaker, Aston Martin was acquired in 1987, followed by the acquisition of Jaguar in 1989, Volvo cars in 1999, and Land Rover in 2000. Emphasizing the change was the removal of the Ford blue oval from the Ford World Headquarters' building in Dearborn, Michigan. It was replaced with the scripted Ford Motor Company name. By monetary sales, Ford is about ten times larger than Mazda.

Nissan's problems of the 1990s while also very severe can be described as more acute than chronic in nature, as the firm started from a position of relative strength, Nissan experienced steady profits and growth from its founding in 1933 through the mid-1980s. Nissan also had a well established manufacturing and sales networks both domestically and overseas. Nissan's partner, Renault, experienced a gradual turnaround of its own from the mid-1980s that changed it from a low performing national car company to an innovative top performer by the late 1990s. Renault global presence remained quite limited, however, with major operations only in Europe and South America. Depending on the measure used Renault is approximately the same size as Nissan.

Despite the distinct historical contexts and differences in firm sizes, clearly the two cases also have numerous similarities. In each, the failure of a Japanese firm to adapt on its own to an altered environment, led it to cede control of its leadership to an allied firm. The allied firm then dispatched a senior executive and managerial team to lead a large-scale organizational change initiative in the Japanese firm. Ford's level of influence in Mazda was increased twice, in 1994 and 1996. Renault's influence in Nissan came all at once, in 1999. The role played by the interfirm relationship is easier to ascertain in the Nissan case due to the clear demarcation of when the interfirm relationship began. Tables 4 and 5 show the timing and functional placement in Mazda and Nissan of the dispatched executives from Ford and Renault respectively.

In both cases, there has been a notable change in the higher-order organizing principles of the Japanese firms. At Mazda, strict logical financial-data based decision making has been introduced throughout the firm, as has a unified brand-orientation. At Nissan, cross-functionalism and commitment to targets in management has become common, as has a global and speedy approach to business decision-making.

Apart from seeking to introduce new business, marketing, and product development principles in its Japanese partner, the conduct of foreign firm has been somewhat different in the two cases. At times, Ford's conduct has given the impression that it views Mazda as a subsidiary rather than an equal partner. To a degree, such an impression may be inevitable due to the vast differences in the sizes of the companies. In the Renault-Nissan case, while there has been at least one indication that Renault may have

arbitrarily exercised its power when Nissan purchased a non-voting equity stake of Renault, the relationship has largely been viewed as one of equal partners. This can also be seen in the relative ranks of the positions held by the dispatched executives prior to coming to Japan.

Table 6 gives a comparison of the Nissan Revival Plan and the Mazda Millennium Plan. At first glance they look quite similar, but their timing within each alliance is quite different. Nissan's plan was the first major announcement following the arrival of Ghosn in June 1999. Mazda's plan on the other hand came over four years after Wallace became president of Mazda and nearly seven years after the alliance relationship between Ford and Mazda was first made more strategic. The belated introduction in the case of Mazda may have given the impression to employees and others of a transition from an O-type change to E-type change, which may have produced human resource difficulties within the firm, as Beer and Nohria (2000) predict would happen with a change from O to E.

In general, at Nissan there has been a product-led change in brand message. The first few models released after the tie-up with Renault were regarded as rather traditional designs. However, once sufficient time had passed for Renault's influence to be manifested in new products, a number of models with aggressive styling changes were launched. These vehicles were initially somewhat poorly received, with sales below targets.⁴⁴ Gradually such models have been gaining acceptance. A new version of the Nissan Fairlady Z, a popular sports car of the 1980s that had been discontinued, was introduced. Nissan seemed to purposefully be letting its vehicles speak for

Table 4 : Responsibilities of Ford-dispatched BOD members within Mazda.

	1994	1995	1996	1997	1998	1999	2000	2001
President			Wallace	Wallace	Miller	Miller	Fields	Fields
Vice President	Wallace	Wallace		Miller				
Finance					Hexter	Hexter	Shanks	Shanks
Corporate Planning/ Strategy	Hexter	Hexter	Hexter (Shanks)	Hexter	Shanks	Shanks	Kent	Wolthers
Information Systems			Hexter					
Affiliated Companies					Hexter	Hexter	Shanks	Shanks
Product Planning/Strategy	Witschonke	Witschonke	Witschonke	Shanks	Leach	Leach	Martens	Martens
Cost Planning			(Shanks)	Hexter (Shanks)	Shanks (Kent)	Shanks (Kent)	Kent	Wolthers
R&D/ Technology Development	Witschonke	Witschonke	Witschonke					
Development Promotion/ Product Development					Leach	Leach	Martens	Martens
Program Managers					Leach	Leach		
Design					Leach	Leach	Martens	Martens
Purchasing				(Stokes)	(Stokes)	Stokes	Stokes	Stokes
Marketing		Leicht	Leicht	Leicht		Fields	Thomas	Thomas
Sales/Parts			Leicht	Leicht		Fields	Thomas	Thomas
Customer Service						Fields	Thomas	Thomas
North America					Beattie	Beattie	Beattie	
Europe						Bretebraten	Bretebraten	Bretebraten

Based on Nobeoka and Taniguchi (2000). Data source: various editions of Mazda's *Yuka shoken houkokusho*.

Note: Parenthesis indicate assistant to director in charge of this function.

Table 5 : Responsibilities of Renault-dispatched BOD members within Nissan.

	1999	2000	2001
President/CEO		Ghosn	Ghosn
COO		Ghosn	
Vice-President	Pelata	Pelata/ Moulonguet	Pelata/ Moulonguet
Finance	(Moulonguet)	Moulonguet	Moulonguet
TQM Promotion	Ghosn		
PR and Legal Office	Ghosn		
Corporate Planning	Pelata	Pelata	Pelata
Product Planning		Pelata	Pelata
Product Profit Management	Moulonguet		
Design	Pelata	Pelata	Pelata
Internal Auditing	Moulonguet		
Japan			Ghosn
HRM		Ghosn	Ghosn
Affiliated Companies		Ghosn	Ghosn
Alliance Coordination			Ghosn
Organization and Process Reform			Ghosn
Program Directors Office		Pelata	
Global Information Systems		Moulonguet	Moulonguet

Data source: Various editions of Nissan Fact File.

Note: Parenthesis indicate assistant to director in charge of this function.

themselves. For example, Nissan's area at the 2001 Tokyo Motor Show was all white, causing colorful cars, such as a bright orange prototype of the new subcompact, March, to stand out.

At Mazda the remaking of the brand has been led with a new advertising message. For example, in Japan the "That's Mazda" campaign was launched to coincide with the release of the Demio, which while a highly successful and innovative product, was not a close match with the sporty image that Mazda began to emphasize in the later 1990s. Recent Mazda product introductions have been a closer match with the firm's advertising message. In an industry where the life of a product is long, with infrequent product renewals, it may be more efficient to achieve change in brand image with a product-led

change in brand message, rather than a marketing-led change.

The relative timing of the two cases also warrants examination. The fact that the Renault-Nissan tie-up came after Wallace had become the first non-Japanese to head a major Japanese auto assembler may have allowed Ghosn additional freedom as he led Nissan. Likewise the success of Nissan's specific target setting in the NRP may have pushed Mazda to do likewise when it released the Millennium Plan in 2000.

Discussion

What does the foregoing section have to say about the original inquiry of this paper? That is, what role have interfirm relationships played in the recent large-scale organizational change that has happened in Japanese

Table 6 : Size of Mazda BOD and Number of Fond-Dispatched Members

	Nissan "Revival Plan" announced Oct. 1999	Mazda "Millennium Plan" announced Nov. 2000
Partner	Renault (37% equity stake acquired in March 1999; raised to 44% in March 2001)	Ford (25% equity stake acquired in 1979; raised to 33.4% in April 1996)
Job cuts ⁴⁵	14% (21,000 jobs) ⁴⁶	8% (1,800 jobs) ⁴⁷
Parts cost cuts	20% (over three years)	15% (over three years)
Capacity cuts	31% by April 2001	25% by September 2001 ⁴⁸
Overseas Production	Build new plant in Canton, Mississippi (U.S.A.)	Begin production in Europe by shifting 10% of Japanese production
Debt reduction	50% by March 2003	More than 50% by 2005
Platform cuts	From 24 to 12	None announced
New products	"Product Blitz" 310 bil yen/year	Japan: 16, N. America: 11, Europe: 9 ⁴⁹
Profit plans ⁵³	Profitable by FY2000	Break even by FY2001

Source: Based on Zwun, Todd, "Mitsubishi's Quest to Restructure Faces Major Hurdles Under Daimler Chrysler," *Wall Street Journal*, On-line Edition, March 6, 2001. Supplemented with publicly available announcements and documents of Nissan Motor Corp. and Mazda Motor Corp.

automakers? First, it was noted that interfirm relationships, primarily project-based initiatives, have a long history of facilitating (i.e., assisting the occurrence of) organizational change in the world auto industry. Second, a detailed examination of Ford-Mazda and Renault-Nissan cases showed that direct involvement of dispatched managerial personnel from a partner firm, together with numerous project-level initiatives and BOD contacts, exerted a powerful force for change within the Japanese firm. The cases suggest that interfirm relationships in the auto industry, as exemplified by these cases, may have the potential to go beyond simply facilitating change to actually catalyzing (i.e., speeding the occurrence of) organizational change within firms.

In the two cases, managerial personnel from one automaker were dispatched to set the overall strategic direction of a partner and assist in its management. These transplanted personnel were thus grafted (Huber, 1991) into the partner firm, bringing with them knowledge that they had gained from their experience in the sending firm. This knowledge was introduced into the receiving firm in the form of new higher-order organizing principles of business and product development. For example, in the Renault-Nissan case, the dispatchees from Renault can be seen introducing systematized Japanese supplier management techniques into Nissan, in a form of reverse-importation. In the Ford-Mazda case, the dispatchees from Ford can be seen introducing logic-based financial control into Mazda's product development system. These actions, where higher-order organizing principles of one firm are then recreated within another firm, can be considered a form of the organizational replication that Kogut

(1988) argues is possible within a joint venture, except that in these cases it occurs within ongoing concerns. The grafting of managerial personnel into a firm is the mechanism that allows the organizational replication to happen in an existing concern. This grafting-enabled organizational replication appears to allow "sticky" capabilities, that is, capabilities that are difficult to replicate in another organization, to be transferred from one firm to another. A similar mechanism may be at work when, for example, an entire managerial team is recruited to work in a new firm.

Why might organizational replication as observed in these cases allow the transfer of sticky knowledge? The cases suggest that the placement of the dispatchees within the receiving firm allows the people who embody the interfirm contacts to interact with their colleagues in the receiving firm on a daily basis. As they work together over extended periods of time, knowledge and methods of work can be exchanged. Informal lines of communication also often open up. Such informal routes have been found to be of critical importance in the transfer of knowledge (von Hippel, 1988). The grafting mechanism may assist in the acquisition of the external knowledge that must be obtained for members of an organization to be able to make shifts in values, aspirations, and behaviors (MacDonald, 1995).

The placement of the dispatchees within a partner firm may also serve as a means to overcome distance, cultural differences, and other factors that Gulati (1996) argues are obstacles to interfirm learning. The presence of dispatchees on a daily basis in the receiving firms obviously eliminates distance, and given sufficient time, sensitivity, and skillful conduct, it also has the strong potential to increase cul-

tural understanding. Thus, the grafting in of dispatchees may be considered a means of borrowing from the asset stock (Dierickx and Cool, 1989) of another firm to overcome the inimitability of organizational routines (cf. Khanna, et al, 1998).

Multiple Levels of Contact: The cases suggest that multiple levels of interfirm contacts contributed to the apparent catalyzing of the organizational changes. Since capabilities are a social phenomenon, it is not surprising that in the cases examined here, a team of executives was dispatched, rather than just one person. In addition, other forms of project-based contacts between the cooperating firms exist at many different hierarchical layers.

This close project-level interaction, consisting of mid-level dispatchees and mid-level managers working closely with managers in the partner firm, existed concurrently with the presence of high-ranking dispatchees who set basic vision and work with their subordinates to institute processes that are consistent with these principles. These multiple levels of interactions can mutually reinforce each other to achieve consistency in the introduction of new principles throughout an organization. Thus, multiple levels of interaction may permit the firm that is trying to make the changes do so in a more thorough way, that is, not localized only to particular levels, such as lower-, mid-, or upper-management levels or particular functions. Interfirm contacts provide a firm with a working model of higher-order organizing principles, and assistance from counterparts who possess knowledge gained in a partner firm can catalyze individual efforts to change. In short, less time needs to be spent re-inventing what has already been shown to work. Learning-by-doing can be quickened as an already effective model need

only be borrowed and adapted rather than built completely in-house. A high level of trust between partner firms, due to a long history of interaction or a strong commitment by partners, may be necessary for this more rapid (catalyzed) change to be possible.

Consistency: For multiple contacts to catalyze change as described above, a key condition would seem to be that there be a high degree of consistency in the higher-order organizing principles held by the executives and managers of the assisting firm. If the people dispatched to a firm and those who work with a firm do not show some consistency in their behavior (i.e., actions based on certain higher-order organizing principles), it is difficult to expect consistent change in the receiving firm.

Experience: Change in the Japanese firm would appear to be going best where the partner firm is strongest; that is, where it has the most experience. The Renault-dispatchee led change at Nissan has been described as a compressed version of Renault's own recovery that began in the 1980s (Fujimoto, 2001a). Ford also had a major turnaround experience in the early 1980s, which some of the dispatchees experienced first hand. Ford's strength in Finance would seem to be quite consistent with the changes made in Mazda. In brand management, Renault has more experience than Ford, which was just itself learning how to use the brand concept throughout the latter 1990s, as it sought to "teach" brand management to Mazda.

Independence and equality: Maintenance of a unique identities as equal partners, each with some degree of self determination, would seem to be important in allowing the catalyzing mechanism to function, as these characteristics are consistent with the

assumptions of the adult learner (Knowles et al., 1998). For example, in the 1980s and 90s, widespread learning efforts within Western automakers appear to have been fueled in part by the high evaluation of Japanese automakers given by neutral third-parties, such as academics and consultants, which helped prove to managers that Japanese automakers' high productive performance was not due simply to lower wages and favorable exchange rates, but rather superior productive capabilities. Only when Western automakers recognized that their Japanese counterparts were at least their equals could learning happen. Likewise, successful change initiatives undertaken by Western automakers which were modeled on the practices of Japanese automakers showed to Japanese automakers that Western automakers could still be formidable competitors in the long term.

Mutual Learning Orientation: Forcing another to learn is not possible in most circumstances (MacDonald, 1995), but clearly it is true in a relationship of equals. In place of "control," internal motivation may provide an effective means for obtaining widespread change in an organization. The attitude of the firms is key; a learning orientation is needed on both sides. Additional discussion of this point can be found in Heller (2002).

Open questions: As mentioned earlier, an explicit and balanced investigation of the performance changes achieved by the Japanese automakers is needed. Also, rigorous consideration should be given to the effect of the difference in the development of interfirm contacts; at Ford-Mazda the contacts developed gradually; whereas at Renault-Nissan, they developed essentially all together. Finally, the open question remains as to how

lasting change will be when it has been accomplished through grafting of dispatchees, as the primary driver of the change. Will changes disappear when dispatchees leave? Additional investigation of this point is needed.

Concluding remarks

This paper's preliminary investigation of the role played by interfirm relationship in organizational change in the world automobile industry has explored a topic that is of keen interest to managers and researchers of business. Findings suggest that in a time of firm crisis, forming or tapping existent interfirm relationships could be a potential catalyst for change efforts in firms struggling to remake themselves.

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- 1 It is not uncommon to hear top executives publicly outline the pressing need for change in Japanese corporations and give various prescriptions for achieving it. For example, Uichiro Niwa (2001), President and CEO of ITOCHU Corporation, a large general trading company in Japan, emphatically calls for drastic changes in the organizational systems and culture of Japanese firms that are faced with the ongoing globalization of the Japanese market.
- 2 The authors state that only a third of change initiatives "achieve any success at all" (p. 2). Further support for the validity of this assertion can be found in Kotter (1995) and Senge et al. (1999).
- 3 The traditional view of the past one hundred plus years of the world auto industry holds that the industry's dominant productive system has evolved from craft production, to mass production (i.e., Fordism), to differentiated mass production (i.e., Sloanism), to lean production (i.e., Toyota-ism) (Womack et al., 1990). An alternative view holds that many different productive models have always coexisted in the industry with no definite trend. Rather, each automaker's selection of its productive system has depended instead on its particular profit strategy and the growth mode of its market(s) (Boyer and Freyssenet, 2002). Neither view, however, denies that a firm may attempt to change its productive model (many have) nor that doing so would require much organizational change.
- 4 Von Hippel (1988) shows that, under certain conditions, the trading of knowledge of this type may occur between members of different firms in the absence of an cooperative agreement between the firms.
- 5 The literature on knowledge management (e.g., Dixon, 2000) discusses the interorganizational transfer of knowledge within a single firm, which is beyond the scope of this paper's concern with the interorganizational transfer of knowledge between separate firms.
- 6 Various definitions of what constitutes a strategic alliance exist in the literature (Kuwashima, 1996; Yamakura, 2001). Here, the term is used to mean a cooperative relationship between organizations that have independent identities (cf., Albert and Whetten, 1985) and which aims for their long-term survival.
- 7 For example, none of the leading texts on strategic alliances (e.g., Doz and Hamel, 1998; Gomes-Casseres, 1996; and Yoshino and Rangan, 1995) have an index listing of "change" or "organizational change."
- 8 In 2001, production in the Triad region accounted for 69.7% of the 56.0 million autos produced in the world (Ward's Automotive Yearbook, 2002).
- 9 A comprehensive overview of the development of the world automobile industry is clearly beyond the scope of this paper. For additional information on this subject, see the references of this section. Abernathy (1978), Houndshell (1985) are notable in their breadth and depth of analysis of the industry's early years in the U. S.
- 10 Pascale (1990) gives a fascinating account of NUMMI, in the context of organizational stagnation and the beginnings of renewal at GM.
- 11 See, Yoshino and Rangan (1995) and Heller (2001).
- 12 Fujimoto (2001a).
- 13 For example, Fujimoto (1999) describes the tackling of the "fat design" problem at Toyota, where the over-designing of automobiles had caused high costs. Cusumano and Nobeoka (1998) discuss Honda's more systematic sharing of components and technologies across models in the 1990s.
- 14 Product renewal tends to be faster in Japan than the U.S. and Europe, but still typically requires at least two to three years, if the initial generation of product concept is included.
- 15 An explicit and balanced examination of firm performance in the auto industry would include a variety of measures: productive processes (e.g., lead time, productivity, defect ratio, inventory turn-over ratio), product characteristics (e.g., price, time to delivery, product appeal), market evaluation (e.g., sales volume, market share), and financial indexes (e.g., profit, ROE, stock price). Data for the latter two of these measures are obtainable from public sources and have received much attention in the press, as is the case for much of the second measure, product characteristics. Data on the productive processes of firms are the most useful for analyzing the long-term competitiveness of firms (Fujimoto 1998), however, they are also the most difficult to obtain as they represent sensitive corporate information.
- 16 Nissan was also a participant in this joint venture.
- 17 See, Heller (2001), for additional details.
- 18 Ford's level of representation on Mazda's 39-member BOD was disproportionately below its equity stake of approximately 25%.
- 19 The Japanese Commercial Code states in Article 256-2: "The Articles of Incorporation may specify the number of voting rights to be owned by the shareholders present at a general meeting

- for a resolution appointing a director, but such number shall be no less than one-third of the total number of shareholder's voting rights."
- 20 For additional discussion of this point, see Heller (2001).
- 21 In 1989, the Eunos and Autozam dealer channels were opened, bringing Mazda's total number of channels to 5-the same as Toyota and Nissan. Domestic sales outlets (showrooms) were increased from 1,600 in 1987 to 3,000 in 1993. A 10% market share (800,000 vehicles/year) was targeted. ("A strategic update on Mazda: moving closer to Ford," *Japanese Motor Business* The Economist Intelligence Unit Limited, 3rd quarter 1994.)
- 22 Domestic auto production in Japan peaked in 1990 at 13.4 million vehicles.
- 23 In this paper a fiscal year (FY) is counted as the year that ends on the following March 31. That is, FY1994 indicates the year that begins April 1, 1994 and ends March 31, 1995.
- 24 Brennan, Mike, "Mazda-Ford Alliance to Build Low-cost 'Asia Car,' Knight-Ridder/Tribune Business News, April 13, 1996.
- 25 "A strategic update on Mazda: moving closer to Ford," *Japanese Motor Business*, The Economist Intelligence Unit Limited, 3rd quarter, 1994.
- 26 Dawson, Chester, "Mazda's Dilemma: Its turnaround stalling, Japan's No. 5 car maker is struggling to boost profits and honour its commitment to Hiroshima," *Far Eastern Economic Review*, July 27, 2000.
- 27 Mazda in Brief, July 2000.
- 28 Albert and Whetten (1985) propose that a full statement of organizational identity should meet the criterion of claimed central character, distinctiveness, and temporal continuity. It is difficult to imagine a full definition of the organizational identity of Mazda without the rotary engine, which has been called the soul of Mazda (Hiroshima Television, 2002).
- 29 Calculated by the author from various editions of Mazda in Brief.
- 30 See, for example, various editions of Aritsune Tokudaiji's *Machigae darake no kuruma erabi*, [Best Selection for Automobile Users] (in Japanese) among others.
- 31 Dawson, Chester, "Mazda's Dilemma: Its turnaround stalling, Japan's No. 5 car maker is struggling to boost profits and honour its commitment to Hiroshima," *Far Eastern Economic Review*, July 27, 2000.
- 32 Louis Schweitzer, Chairman of Renault, is quoted as saying, "If I didn't have Mr. Ghosn, I would not have done the deal with Nissan. That means I sent him in because I had absolute confidence in his ability." (Miller, Scott, "Renault Manages to Steer Forward After Failed Marriage to Volvo," *Wall Street Journal*; Personalized E-Mail, February 15, 2001). Prior to joining Nissan, Ghosn helped lead a successful turnaround at Renault. He joined Renault as an Executive Vice President in 1996 after he led a successful turnaround at French tire-maker Michelin's U.S. operations.
- 33 The size of Nissan's BOD was reduced from over 40 to 10 to coincide with the appointment of the Renault executives.
- 34 Miller, Scott, "Renault Manages to Steer Forward After Failed Marriage to Volvo," *Wall Street Journal*, Personalized E-Mail, February 15, 2001.
- 35 Initially the governing body was the Global Alliance Committee. However, in 2002 it became the Renault-Nissan BV, a 50:50 joint venture established in the Netherlands.
- 36 See Hanada (1998) for additional details.
- 37 Yoshino and Egawa (2002) provide a review of the overall restructuring plan at Nissan, including numerous quotations of Nissan executives and managers.
- 38 *Nikkei Business*, Nov. 19, 2000, p. 30-47 (in Japanese).
- 39 Burt, Tim, "New engines strategy for Nissan, Renault," *Financial Times*, February 28, 2001.
- 40 Burt, Tim, "New engines strategy for Nissan, Renault," *Financial Times*, February 28, 2001.
- 41 Ghosn: "(Prior to the establishment of the division) we had no substantial analysis, segment by segment, [of] what was going on." (Shirouzu, Norihiko, Joseph B. White, and Todd, Zaun, "A Revival at Nissan Shows There's Hope for Japan Inc." *Wall Street Journal*, Personalized E-Mail, November 16, 2000).
- 42 See Fujimoto (2001b) for a detailed explanation of these two sides, relational and functional, of a supplier keiretsu.
- 43 Zaun, Todd and Michael Williams, "Ghosn to Stay With Nissan Motor After His Three-Year Turnaround," *Wall Street Journal* Personal E-mail, March 23, 2001.
- 44 Takahashi, Takeji, Takahiro Hosoda, and Kazuyoshi, Kodaira, "Nissan wa hontou ni fukkatsu shita ka? gon wo nayamaseru mittsu no fuan" [Has Nissan Really Come Back to Life? The 3 Worries of Ghosn], *Nikkei Business*, November 19, 2001 (in Japanese).
- 45 Percentages are of total worldwide workforces of the firms.

46 The Nissan figure is a target to be met within 3 years.

47 The Mazda figure is a target to be met by the end FY2000. The actual number of job cuts through a voluntary retirement plan instituted at Mazda in March, 2001, came to 9.6% of Mazda's

total worldwide workforce.

48 The figure is a percentage of total capacity in Japan.

49 Mazda's announced introductions of new model or major changes over the next 4 years.

Appendix 1 : Ford Dispatchees to Mazda BOD

Name	DOB	City of Residence	Date and Title of Pre-dispatched Position	When joined Mazda BOD & position	When promoted & position	Responsibilities	Stock Holdings, if any (date) and Last Listing
Gordon B. Riggs	Mar 8, 1931	Kobe; Hiroshima (1981)	Nov 1979 Executive Director, Toyo Kogyo Affairs, Ford (Japan)	Nov 1979 Advisor	Jan 1980 Sr. Managing Director		1982
Edson P. Williams	Jul 31, 1923	Melbourne, Australia	Jan 1979 President, Ford Asia Pacific Inc.	Jan 1980 Director			1981
William L. Dix	Jul 11, 1926	Tokyo	Nov 1979 President and BOD Member, Ford (Japan)	Jan 1980 Director			1980

John T. Eby	Mar 27, 1938	Tokyo	Jul 1981 President and BOD Member, Ford (Japan)	Jan 1982 Director	Jan 1983	1983	
Sir Brian Inglis	Jan 1, 1924	Balwyn, Victoria, Australia	Aug 1982 President, Ford Asia Pacific, Inc.	Jan 1983 Director	1983		
Richard A. Place	Jun 29, 1934	Hiroshima	Oct 1983 In charge of International Strategy, International Automotive Division	Jan 1984 Advisor	Jan 1984 Sr. Managing Director	3000 shares (1985) 1986	

Mervyn H. Manning	Sep 19, 1932	Michigan, U.S.A. (1984); Victoria, Australia (1985)	Oct 1984 President and Member of BOD, Ford Asia Pacific, Inc.	Jan 1985 Director			<u>1989</u>
Frank E. Macher	Mar 1, 1941	Tokyo	Aug 1984 Vice President in charge of Northern Pacific Division, Ford Asia Pacific, Inc.	Jan 1985 Director			<u>1984</u>
John M. Devine	May 13, 1944	Tokyo	May 1985 Vice President in charge of Northern Pacific Division, Ford Asia Pacific, Inc.	Jan 1986 Director			<u>1987</u>

William L. Kath	Jul 24, 1941	Hirosh ima	Oct 1987 Director, Business Operations, Northern Pacific Business Development, Strategic Management Staff, Ford Motor Company	Jan 1988 Advisor	Jan 1988 Sr. Managing Director	<u>1990</u>
Ben R. Lever III	Jul 28, 1947	NA	Mar 1988 President and BOD Member, Ford (Japan)	Jan 1989 Director		<u>1990</u>
W. Wayne Booker	Aug 28, 1934	NA	Mar 1989 President, Automotive Division, Ford Asia Pacific	Jun 1990 Director		<u>1990</u>

David R. Gunderson	Mar 29, 1938	NA	Jan 1991 Special Assistant, Asia Pacific Automotive Department, Ford Motor Company	Jun 1991 Advisor	Jun 1991 Sr. Managing Director	<u>1994</u>
Paul W. Drenkow	Oct 23, 1942	NA	Mar 1991 Executive Director, Product and Business Strategy, Asia Pacific Automotive Department, Ford Motor Company	Jun 1991 Director		<u>1993</u>
Terry J. Emrick	Nov 19, 1940	NA	Oct 1988 Director, Sales and Marketing, Asia Pacific Automotive Department, Ford Motor Company	Jun 1991 Director		<u>1995</u>

Henry D. G. Wallace	Oct 20, 1945	NA	April 1992 President, Ford Motor de Venezuela, S.A.	Feb 1994 Advisor	<p>● Jun 1994, Representative Director, Vice President</p> <p>● Jun 1996, Representative Director, President</p>	Assistant to the President (1994 and 1995)	1997
Gary K. Hexter	Jul 29, 1944	NA	June 1991 Director, Financial Analysis, International Automotive Division, Financial Staff, Ford Motor Company	Feb 1994 Advisor	<p>● Jun 1994, Managing Director</p> <p>● Jun 1995, Sr. Managing Director</p> <p>● Jun 1996, Representative Director and Sr. Managing Director</p>	Assistant to Officer in Charge of Corporate Planning (1994 and 1995) In charge of Corporate Planning and Information Systems (1996) In charge of Corporate Planning and Cost Planning (1997) In charge of Finance and Affiliated Companies (1998) In Charge of Financial Control	1999

Ross P. Witschonke	Aug 17, 1949	NA	Jun 1992 Director, Technical Affairs, Product and Business Strategy, Asia Pacific Automotive Department, International Automotive Division, Ford Motor Company	Feb 1994 Advisor	<ul style="list-style-type: none"> ● Jun 1994, Managing Director ● Jun 1996, Sr. Managing Director 	Product Planning, Assistant to Officer in Charge of R&D (1994 and 1995) Product Planning, In charge of Technology Development (1996)	1996
Leo K. Shedden	Nov 13, 1944	NA	Jun 1994 Director, Technical Affairs, Asia Pacific Automotive Department, International Automotive Division, Ford Motor Company	Jun 1994 Director			1995

Ronald J. Leicht	Aug 10, 1946	NA	Jan 1995 Field Operations Manager, General Sales and Service Operations, Ford Division, Marketing and Sales, Automotive Department, Ford Motor Company	Jun 1995 Sr. Managing Director	Jun 1997, Representative Director and President, Mazda Rentlease, Inc.	In Charge of Marketing (1995 and 1996) In Charge of Marketing, Sales, and Parts Business (1997 and 1998)	1998
Robert L. Shanks	Jan 11, 1953	NA	April 1994 Director, Finance Office, Ford Lio Hu (Taiwan)	Jun 1996 Director	<ul style="list-style-type: none"> ● Sep 1996, Product Management Division Head ● Oct 1996, Cost Planning General Manager and Product Planning General Manager ● Jun 1998, Managing Director ● Apr 1999, Corporate Planning General Manager ● Jun 2000, Representative Director and Sr. 	Assistant to Officer in Charge of Corporate Planning and Cost Planning (1996) Cost Planning General Manager and Product Planning Department Head (1997) In Charge of Corporate Planning and Cost Planning	

	<p>Feb 18, 1957</p>	<p>NA</p>	<p>Oct 1994 Director, Business Planning, Light Truck Vehicle Center, Ford Automotive Division Product Development, Ford Motor Company</p>	<p>Jun 1996 Director</p>	<p>● Managing Director Jun 2002, Representative Director and CFO</p>	<p>(1998 and 1999) CFO and in Charge of Affiliated Companies (2000 and 2001) Sr. Managing Executive Officer and CFO in Charge of Corporate Strategy and Subsidiary & Affiliated Companies (2002)</p>	
<p>Martin R. Leach</p>				<p>● Jun 1996, Product Planning Division, Vice-General Manager ● Jun 1997, Managing Director ● Jun 1997, General Manager, Program</p>		<p>In Charge of Product Planning, Design, Development Promotion (kaihatsu suishin), General Manager of Program Managers</p>	

James E. Miller	May 15 1946	NA	Nov 1994 Managing Director, South African Motor Corporation (SAMCOR, a Ford JV)	Jun 1997 Representative Director and Vice-President	Nov 1997 Representative Director and President	<p>Manager Division ● Apr 1998, General Manager, European R&D Representative Office</p> <p>Division (1998) In Charge of Product Planning, Design, Development Promotion (kaihatsu suishin) (1999)</p>	<p>2,000 shares (1998) 5,000 shares (1999) <u>1999</u></p>	
Richard N. Beattie	Oct 13, 1954	NA	April 1996 Executive Director, Canada, Latin America, and Worldwide Export Operations, Marketing and Sales, Ford Automotive Division, Ford Motor Company	Mar 1997 Advisor	Jun 1997 Managing Director and President of Mazda Motors of America	<p>In Charge of North American Division (1998, 1999, and 2000)</p>	2000	

<p>Paul R Stokes</p>	<p>Sep 10, 1947</p>	<p>NA</p>	<p>December 1994 Purchasing Director, Production Purchasing Vehicle Center 3, Ford Automotive Division, Ford Motor Company</p>	<p>Jan 1997 Vice-General Manager, Purchasing Division</p>	<ul style="list-style-type: none"> ● Jan 1997 Director ● Jun 1998 Vice-General Manager (Operations), Purchasing Division ● Apr 1999 General Manager, Purchasing Division 	<p>Vice-General Manager, Purchasing Division (1997) Vice-General Manager (Operations), Purchasing Division (1998) General Manager, Purchasing Division (1999, 2000, and 2001)</p>	<p>1,000shares(1997) 3,000shares(1998) 5,000shares(1999) 8,000shares(2000) 10,000shares(2001)</p>
<p>Kenneth R. Kent</p>	<p>Dec 6, 1963</p>	<p>NA</p>	<p>Sep 1997 Finance Manager, Chassis (sharyo) Operations, Ford Automotive Division, Ford Motor Company</p>	<p>Jun 1998 Director</p>	<ul style="list-style-type: none"> ● Jun 1998, General Manager, Cost Planning ● Jun 2000, Managing Director 	<p>General Manager, Cost Planning (1998 and 1999) In Charge of Corporate Planning and Cost Planning, and General Manager, Cost</p>	<p>2000</p>

Mark Fields	Jan 24, 1961	NA	May 1997 Managing Director, Ford Argentina, S.A.	Aug 1998 Advisor	<ul style="list-style-type: none"> ● Oct 1998, Representative Director and President, Mazda Rentlease, Inc. ● Jun 1999, Sr. Managing Director ● Dec 1999, Representative Director and President 	In Charge of Marketing, Sales, and Customer Service (1999)	2001
Jan Bretebren	May 10, 1953	NA	Jan 1995 Managing Director, Ford Netherlands BV	Jun 1999 Director	<ul style="list-style-type: none"> ● Sep 1996, Director, Mazda Motors (Germany) ● Jan 1997, Director and President, Mazda Motors (Germany) ● Jan 1998, Executive and Vice-President, Mazda Motor 	In Charge of European Division (1999, 2000, and 2001)	2001

David G. Thomas	Sep 24, 1957	NA	May 1998 Orlando Regional Sales Manager, Ford Division, Ford Motor Company	Jan 2000 Advisor	<ul style="list-style-type: none"> ● Europe S.A./N.V. May 1998, Director and President, Mazda Motor Europe S.A./N.V. August 1998, Director and President, Mazda Motor Logistics Europe GmbH ● Jun 2000, Sr. Managing Director ● Jun 2002, Director and Sr. Managing Executive Officer 	In Charge of Marketing, Sales, and Customer Service (2000 and 2001)	
Philip R Martens	Apr 13, 1960	NA	Jan 1998 Chief Engineer, Vehicle and Chassis Engineering, Small/Medium Vehicle Center, Product Development, Ford Motor Company	Nov 1999 Advisor	<ul style="list-style-type: none"> ● Jun 2000, Director ● Mar 2001, General Manager, Design Division 	In Charge of Product Planning, Design, Development Promotion (kaihatsu suishin) (2000) In Charge of	2001

Gideon Wolthers	Jun 3 1955	NA	Jan 1999 Controller, Small/Medium Vehicle Center, Product Development, Ford Motor Company	Jun 2001, Managing Director	Jun 2001 General Manager, Corporate Planning	In Charge of Corporate Planning, Cost Planning, and General Manager, Corporate Planning Division (2001)	Product Strategy, Design, Product Development, and General Manager Design Division (2001)
Lewis Booth	Nov 7, 1948	NA	Jan 2000 President, Ford Asia Pacific, Africa and Technical Staff, Ford Motor Company	Mar 2002 Advisor	Jun 2002 Representative Director, President, and CEO		

Source : Compiled from various yearly editions of Mazda's *Yuuka shouken houkokush* (statement of listed companies) and other publicly available documents. Some items were translated from Japanese by the author, and thus the actual wording of some positions and titles may differ from what is listed here.

Appendix 2: Renault Dispatchees to Nissan BOD

Name	DOB	When Joined Renault & pre-dispatched position	When joined Nissan & position	When promoted & position	Responsibilities	Stock Holdings
Carlos Ghosn	Mar 9 1954	October 1996 Executive Vice President	June 1999 Representative Board Member, Operating (COO)	<ul style="list-style-type: none"> ● June 2000, Representative Board Member, President COO ● June 2001, Representative Board Member, President, CEO 	<ul style="list-style-type: none"> ● TQM promotion, public relations, legal affairs (99.07.01) ● HRM, affiliated companies (FY 2000) ● domestic operations, HRM, affiliated companies management, alliance coordination, organization and process reform (01.10.01) 	<ul style="list-style-type: none"> ● 10,000 (2000.03) ● 19,000 (2001.03) ● 28,000 (2002.03)
Thierry Moulonget	Feb 27, 1951	Jan 1976 Top Executive (jyokyu kanbu) for IR and Investment Management	June 1999 Executive Managing BOD Member (jyoseki jyomu)	Apr 2000 Executive Vice-President, Chief Financial Officer (CFO)	<ul style="list-style-type: none"> ● finance, treasury, product profit management, internal auditing (99.07.01) ● finance, treasury, global information systems (01.10.01) 	2,000 (2002.03)
Patrick Pelata	Aug 24 1955	Jul 1984 Top Executive (jyokyu kanbu) for Chassis and Vehicle Development	June 1999 Executive Vice-President		<ul style="list-style-type: none"> ● planning, design (1999.07) product planning, program directors office, design (2001.10) ● planning, design (2002.06) 	18,000 (2002.03)

Shemaya Levy	Nov 11 1947	Jan 1972 Executive Vice-President of Renault s.a.s. and Chairman of Company Financial Renault (current)	June 2002 Board Member			
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Source: Compiled from various yearly editions of Nissan's *Yuuka shouken houkokusho*, *Kaisha Gaiyou*, Fact File and press releases. Translated from Japanese by the author.