

Motives, Partner Selection and Productivity Effects of M&As

– The Pattern of Japanese
Mergers and Acquisitions

H. Richard Nakamura



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H. Richard Nakamura



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To Helena and Erik (Shinchan)

Preface

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Chapter 1

1 Introduction and the research purpose

Mergers and acquisitions (M&As) is a topic that has increasingly become an object of major attention in the world economy. In this era of globalization and transnational operations of major corporations, M&As have become a world-wide catch-phrase. Japan is no different from other industrialized countries, and stands out in this context by having transformed from being a low volume, domestic M&A country into a country where the M&A volume has seen a tremendous increase in only a few years time. After an introduction to Japanese M&As, this chapter will outline the research question and give a definition of M&As. The chapter will conclude with a description of the organization of the thesis.

1.1 Introduction to M&As in Japan

In 1999, the Japanese corporate world experienced a completely new phenomenon of great symbolic value that was anticipated with both fear and hope. An unknown foreign manager took complete control of a large, established, and from a cultural point of view, a very Japanese firm. Nissan had throughout the 1990's struggled with negative profitability, shrinking market shares and a heavy debt burden after several bad investment decisions. At the edge of disaster, and after unsuccessful talks with unwilling domestic investors, the management disbanded attempts to find a domestic strategic alliance partner and was forced to choose the alternative of letting foreign capital save the company. Nissan found a partner in Renault. For the French car manufacturer, the investment in Nissan was long-term, and Renault anticipated positive spin-offs in terms of technology exchange and sharing of distribution channels. For Nissan, the money for survival was the primary aim of the partnership. Eventually, this M&A turned out to be a success (including cost cuts, increased sales, and the elimination of the huge debts), and received a considerable amount of attention in the Japanese media. The Ren-

aault-Nissan partnership became a symbol, not only for the winds of change in the Japanese corporate world, but also a symbol for a successful introduction of Western management into a Japanese company. However, there was a tendency to generalize the implication of this success story in the Japanese media and the popular management literature to encompass *all* inward FDIs and the general superiority of Western management practices. Is it true that the Renault-Nissan partnership represented a real paradigm shift in the Japanese corporate world?

Although the outflows of foreign direct investment (FDI) from Japan have been discussed at length in both the theoretical and the empirical literature¹, there is much less focus on *inflows* of FDI to Japan. The reason is, quite obviously, that inward FDI has not played a significant role in the Japanese economy during most of the post-war period. The institutional environment in Japan has historically been very unfavorable to FDI. A hard-to-penetrate bureaucracy, tight-knit business networks, extensive cross-ownership, legislation biased against new entrants, and difficulties in obtaining funds in Japan have discouraged most potential foreign investors from entering the Japanese market. Still, a small number of foreign companies have chosen to face these difficulties, clearly driven by two very persuasive objectives: the Japanese market with 128 million consumers, and the advanced technology know-how of the Japanese firms. The Japanese economy is the second largest in the world, and the average Japanese household is wealthier and has higher purchasing power than the average US household. Also the technology know-how at Japanese firms and the highly educated labor force provide further incentives for foreign firms to enter the Japanese market and do M&As with Japanese firms.

In recent years, the obstacles to FDI in Japan have gradually begun to diminish. The ongoing problems in the Japanese economy, coinciding with pressure from the US and the EU to liberalize the Japanese market, have necessitated deregulation initiatives on a larger scale, and updated legislation more fitting to foreign investors' needs, which has been launched by the LDP coalition governments in the late 1990's. These institutional changes have coincided with significant increases in the inflow of FDI. The structural pattern of FDI has also changed, as most FDI is now organized in the form of mergers and acquisitions or strategic alliances, instead of greenfield ventures and joint ventures with local partners. While these organizational solutions

¹ See Blomström et al. (2001).

have been common among Japanese companies during several episodes of structural rationalization since the 1950's, cross-shareholding or outright M&As between Japanese and foreign companies have been rare.

Thus, Japan has become an interesting case for analyzing how the deregulations and liberalizations have influenced Japanese firms' M&A behavior and their efficiency, in addition to the influence the reforms have had on changes in the cooperative and competitive relations between Japanese companies and foreign investors in the Japanese domestic market. Having said that, the choice of a foreign firm as an M&A partner is still not an easy choice in Japan. There are relatively few earlier examples of cross-border mergers and strategic partnerships between domestic and foreign companies in Japan, and the level of inward M&As is still very low compared to domestic M&As. Also, some parts of the media and popular management literature characterizes M&As in general, and inward M&As in particular, as a threat to traditional employment practices (an interesting example is Yoshida, 2000). Another problem for Japanese firms is that until recently, the costs involved outweighed the potential gains from collaboration with foreigners. However, the increasing frequency of inward M&As suggests that this cost-benefit assessment has changed since the mid-1990s, at least for those Japanese firms that have chosen foreign M&A counterparts.

As an aspect of FDI, M&A is an important feature of the new trend in increased internationalization of Japanese firms. However, M&As are not a new phenomenon in Japanese business. Waves of mergers have occurred from time to time in the country, like the bank merger wave of the 1920's and the reconsolidation merger wave of former *zaibatsu* groups in the 1950's and 1960's. Furthermore, during the 1960's and 1970's, M&As between non-*keiretsu* firms became increasingly common, but still the merger motives were not particularly different from the *keiretsu* M&A in the sense that they seldom were used as a tool for strategic business development (i.e. that these M&As were more of a business consolidation or the financial rescue of companies rather than for improved efficiency and increased profitability).

In addition to this non-strategic pattern, Japanese M&As have also been *de facto* synonymous with domestic M&As. For a long time, the main strategy for foreigners entering the Japanese market was through joint ventures and greenfield investments, which were entry modes that suited two purposes. Firstly, it was the fastest way for foreign firms to enter the Japanese market. Secondly, this arm's-length relationship was a collaboration mode that suited most Japanese firms. However, these entry strategies lowered potential gains

by being costly and inflexible alternatives to M&As. Other factors impeding investments in Japan have also been distance in corporate and geographical culture, as well as language (so-called *psychic distance*)². Therefore, the costs outweighed the benefits of using M&As as an entry mode. Along with the Japanese investors, the foreign investors' interest in doing M&As in Japan increased only in the 1990s, when the deregulation process in various industries gained momentum and the professional attitude towards M&As and foreign ownership of Japanese firms started to change in a more favorable way.

The change in attitudes has not only concerned cross-border M&As, but has also affected domestic M&As. Increasingly, managers and owners of Japanese firms seemed to understand the potential benefits of M&As, and that there existed strategic business dimensions in doing M&As. However, the skepticism of M&As is still very deep-rooted, and as in many other countries, most M&A talks fail.

In discussing the current pattern of Japanese M&As, the difference between the large companies in the industrial groups and the small- and medium-sized enterprises (SMEs) has to be emphasized. It is important to bear in mind that pre-M&A corporate valuation, that is standard procedure in North America and Europe (i.e. due diligence and the use of M&As as a strategic tool for business development, restructuring and efficiency), is to a large degree, confined to the *keiretsu* sphere of companies. In contrast, a large part of M&As among SMEs still have motives that deviate considerably from purely financial or market strategic reasons, such as honoring long-term trust relationships or reputation by rescuing suppliers or customer firms that are in acute financial trouble or have difficulties finding suitable successors to current owner-managers.

1.1.1 Waves of M&As in Japan

As in the US and Europe, Japan has also experienced waves of mergers during the 20th century. The most notable periods of increased M&A activity were the 1920's, in the late 1940's to 1950's and from the late 1960's to 1970's. The early mergers were exclusively domestic, and the post-war mergers were, to an overwhelming extent, domestic. In other words, inward FDI

² The difficulty of merging different cultures is a well-known problem in the literature (cf. Ring and Van de Ven, 1994), and the problem applies to all forms of organizational mergers, not only cross-border or domestic M&As. Although the psychic distance is important, it will not be the focus of this thesis and will be used in the analysis only for discussion purposes.

through M&As was almost non-existent. Another interesting feature of these waves of M&As has been the role of the small- and medium sized firms (SMEs), which have been on the frontline of M&A activities throughout the century³. Furthermore, when discussing wave patterns of Japanese M&As, it is also interesting to study the industrial distribution of firms that engaged in M&As during the 20th century. During the merger wave of the 1920's, many banks formed larger entities in the wake of several bank bankruptcies. During the M&A wave of the 1950's and 1960's, many large firms were engaged in consolidation of the former *zaibatsu* groups, forming the industrial giants of today, especially in the steel and chemical industries. In the 1970's, this pattern continued, while the number of SME M&As steadily increased.

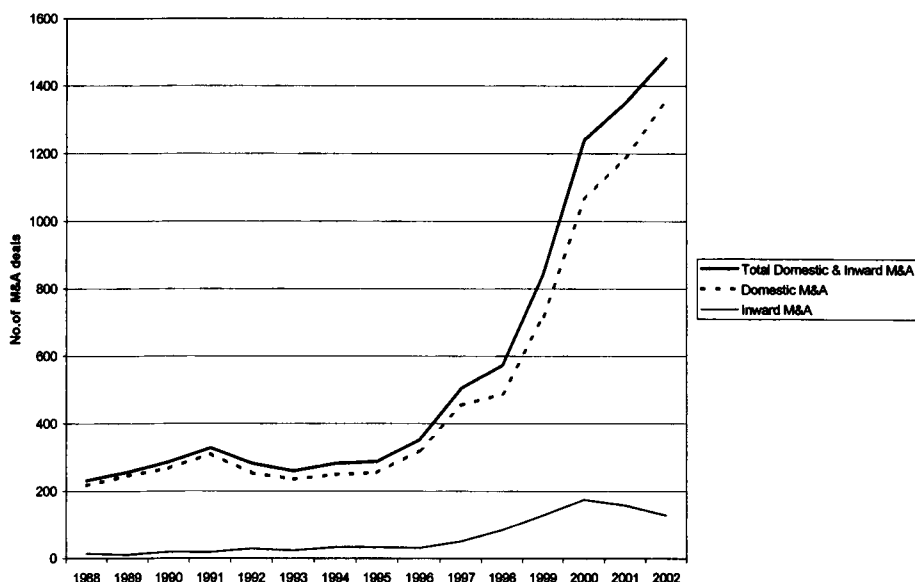


Figure 1.1. The level of M&As in Japan between 1988 and 2002. The figures are the non-cumulative year-to-year change in the absolute number of inward and domestic M&As. Data source: Recof (2003). Author's calculations.

The M&A wave of the 1990's is characterized by an overall increase in both domestic and inward M&As, where financial and chemical firms again have been prominent actors on the M&A scene, together with firms in other crisis industries such as electrical machinery, wholesale, and services, espe-

³ Doi and Ikeda, p. 19.

cially IT and tourist firms. Also, the SMEs still account for a large part of Japanese M&As, either as M&A investors or as target firms (not shown in Figure 1.1). Yet another feature of the M&A wave of the 1990's is that the number of inward M&As increased sharply over the period in absolute terms. However, in relative terms, the level has been on average only 9.6% of the domestic M&As between 1988 and 2002⁴. It is obvious from Figure 1.1 that the domestic M&As overwhelmingly dominate the Japanese M&A market, and to a degree that by far exceeds what has been observed in Europe or in North America. The overall number of M&As increased sharply after the start of the deregulation process of the Japanese economy in 1998. For example, in an earlier study by the author⁵ using macro data on M&As between 1988 and 2002, it was found that the number of M&As had increased on average by 166% compared to the pre-1998 period. However, inward M&As experienced a drop after 2000. Looking at M&A data records, the drop corresponds to lower inward M&A activity in the manufacturing and service industries, and most notably in the sectors *directly* related to the IT sector. This is a reflection of the global trend (i.e. the end of the so-called "IT bubble"), but the worldwide fall in stock prices also seems to have affected the will of foreign firms in all sectors to invest abroad (in this case, Japan). Their risk avert behavior, due to low returns for the stockowners, was caused by the depressed stock markets in the foreign firms' home countries. As support for this interpretation, the level of domestic M&As in the same sectors was hardly affected at all; rather, the trend continued to increase after 2000.

The relationship between institutional change and the increase in M&As is not an isolated Japanese phenomenon. Internationally, exogenous factors, such as technology change, macroeconomic shocks, deregulations of rules governing foreign ownership and capital movements, and relaxation of restrictions concerning M&As (in terms of merger form and size of the post-M&A entity) have been important triggers for changing M&A behavior among firms. The Japanese M&A wave of the 1990's was indeed helped by several exogenous factors:

- Break-up of the old order, which hindered M&As (such as cross-ownership, main bank system, and employee-centered corporate governance)

⁴ Ibid.

⁵ Nakamura (2004).

- General deregulation and reforms of the regulatory system concerning M&As
- Periods of rapid depreciation of the yen versus the dollar
- Stock prices at historically low levels

In order to put these factors into context, the next section will briefly discuss the institutional structure of the Japanese business environment.

1.1.2 Regulations and industrial structures

Structurally, the organization of Japanese industry has features that have made strategic and dynamic M&As, in the "western" sense very difficult to perform. One is the extensive cross-shareholding that has tied up firms within *keiretsu* groups or firms in horizontal and/or vertical relationships. The prime reasons for this extensive and complicated cross-ownership structure have been in-group solidarity and control. By having such an ownership structure, the *keiretsu* groups were able to discourage any takeover attempts and secure the stability and predictability of network relationships⁶. The drawbacks with the cross-shareholding were, however, obvious. Besides hindering an efficient reallocation of inefficiently used resources through possible M&As, it forced subcontractors and suppliers into a rigid structure of business relationships with the *keiretsu* parent company⁷. Moreover, since the owner-managers of the subcontractors could not turn to other customers or sell their firms outside the *keiretsu* network, they were often locked into the relationship with their *keiretsu* parent. A consequence of this was that, during recessions, the *keiretsu* firms forced subcontractors to restructure and make drastic cuts in costs and labor, instead of restructuring and cutting down within their own firms.

Another hurdle was the bank-financed financial system with main banks. As in Northern Europe, Japan was, until the financial deregulation at the end of 1990's, mainly an institutionally financed economy, different from the Anglo-American type of market-financed economies. Companies held a close relationship with their main banks, which provided the firms with capital and credit in return for stocks in the firms. This system had its pros and cons. While the firms were sure to get access to capital in time of expansion and credit in time of recession, they were bound to their main banks through the

⁶ Argy and Stein, p. 108.

⁷ Op. cit., pp. 128-131.

banks' shareholdings in the client firms, and the firms had difficulties switching banks as their credit costs increased.

A third hindrance to M&As was the Japanese style corporate governance. It can be best called "employee-centered", where the welfare of the employees was the focus, rather than the welfare of the shareholders. Concrete expressions of this were the so-called "life-time employment" (which actually applied only to a minority of the total labor force in Japan), the pension system, the seniority system and, especially among SMEs, the concern about the continued employment of the labor force even during recessions.

Finally, the regulations of M&As, which were introduced to control the industrial structures so that no monopolies were formed, have directly influenced the willingness to do M&As. The Anti-monopoly Law and the Commercial Law have extensively regulated M&As, by requiring a *prior* notification of M&A deals of all sizes and forms (which in effect hindered all hostile takeovers), and forbidding certain forms of financing (such as payment with shares in the acquiring firm). In addition, the Foreign Exchange and Foreign Trade Control Law regulated the in- and outflow of capital, which in effect allowed the government to regulate the number and type of foreign investors entering the Japanese market.

Thus, the low number of M&As in Japanese post-war industrial history can to a large degree be explained by institutional structures. These structures have started to be dismantled, however, and the question is if and how these changes have affected the M&A behavior of Japanese firms. There is therefore a need to look into the "black box" of the M&A process in order to fully understand Japanese M&As.

1.2 Research purpose

To marry or not to marry? Do Japanese firms gain from choosing a Japanese bride or a foreign bride? What type of "personality" do the Japanese firms look for when searching for M&A brides? The purpose of this thesis is to examine the determining factors of the domestic and inward M&A process in Japan, and their consequences in terms of productivity efficiency in three industries that have recorded the most M&A cases. In other words this thesis explores both the Japanese M&A process and the effects these M&As have had on firm performance. The first research question is how the M&A process itself has been influenced by various firm characteristics in terms of

unique resources and capabilities of the investing or target firm. The underlying purpose is to identify the mechanisms behind the M&A process. Thus, the first research purpose is:

- *To describe systematic differences in firm characteristics and M&A motives between inward and purely domestic M&As in Japan.*

After giving the M&A process a framework, it is obvious to ask whether there are any differences in the effects and outcomes in terms of productivity efficiency between inward and domestic M&As. From a Japanese perspective, can the additional costs, if any, related to inward M&As, both in monetary and non-monetary terms, be justified by the benefits of choosing a foreign partner? In other words, the question is whether the inward M&As have performed differently from the domestic ones. The second research purpose is therefore:

- *To analyze systematic post-M&A differences in efficiency between inward and purely domestic M&As in Japan.*

Japan is an exception among the industrialized countries by having a low share of M&As in relation to GDP compared to other OECD economies. The purpose of this analysis is therefore not to use Japan as a general test of differences between international and domestic M&As⁸, but rather to investigate whether the recent wave of M&As in the country has had any significant effect on the Japanese firms involved; firms which generally have not been known for strategic behavior in domestic M&As or in inward M&As.

In this thesis, the research questions are pursued first by qualitatively exploring the *M&A motives* and the *partner selection* through an investigation of attitudes towards M&As, positioning of networks actors that have been important for Japanese firms' M&A processes, and identification of resources that have been sought by Japanese firms. At the second stage, the quantitative analysis will estimate the *productivity changes* after an M&A.

⁸ If the purpose was to study performance effects from M&As, the US or the UK would have been better examples.

1.3 The organization of the thesis

After this introductory chapter, the theoretical framework of the analysis is presented. In Chapter 3, the methods used and the methodological issues will be discussed. Chapter 4 reviews the past and current research connecting to the present thesis, with focus on the research on Japanese M&As. The main analysis and the results will be presented in Chapters 5 and 6. Chapter 5 concerns the M&A process, by investigating the determinants and the M&A partner selection of Japanese firms, while Chapter 6 presents the analysis on the pre- and post-M&A performance issues. The thesis will conclude with Chapter 7, where the results from the analysis chapters will be synthesized.

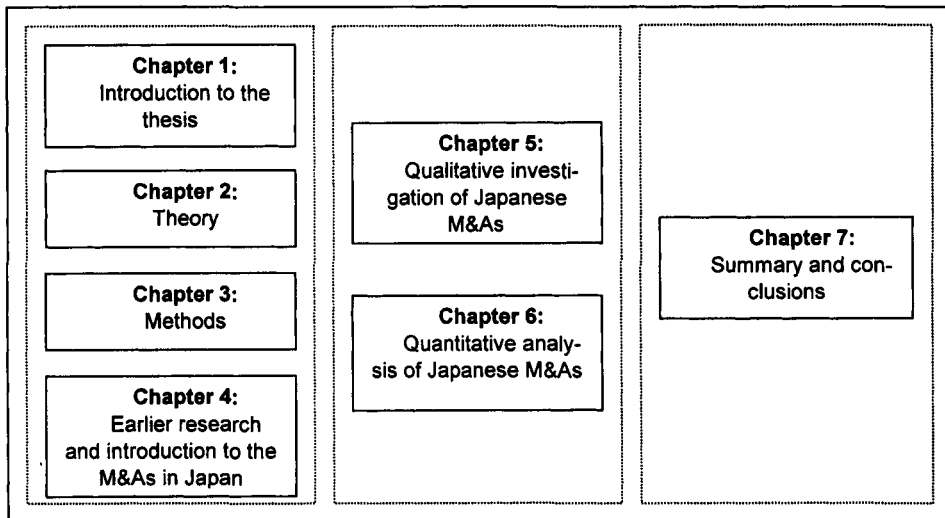


Figure 1.2. Organization chart for this thesis.

1.4 The definition of M&A

M&A is a broad concept commonly used to embrace everything from pure mergers to strategic alliances. The word "M&A" is often used in the broad sense (see Figure 1.3), which usually leads to confusion and even misunderstandings when M&As are discussed in M&A literature. To be fair to its original meaning and the type of phenomena it describes, this term should be used in a *narrow* sense, as it is in this thesis. Throughout the thesis, "M&A"

denotes mergers, acquisitions and capital injections, and only when necessary a specific M&A is described as "merger", "acquisition" or "capital injection". Thus, this thesis follows the general practice in M&A literature.

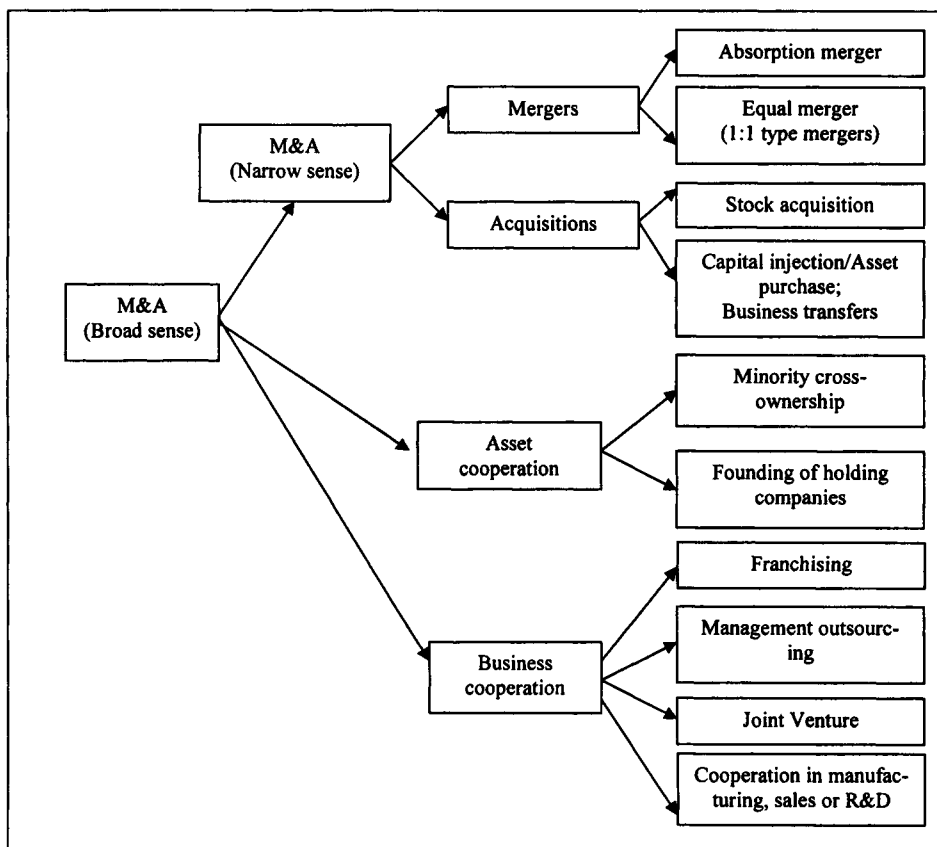


Figure 1.3. Scheme of terms that often are included in the popular concept of M&A (adapted after Economic Planning Agency, 1996).

The word "M&A" is often used interchangeably in M&A literature. However, "mergers" and "acquisitions" are actually strictly separated in meaning. *Mergers* denote the cases of M&As, where two or more firms merge (this could be done equally and in mutual agreement or by force). Technically, this can be done through a number of ways, such as stock mergers (for example, 1:1 ratio) or by establishing holding companies. In contrast, "acquisition" is, as the word indicates, a takeover of a company by another company.

This can also be done in a number of ways, such as cash deals (where the stockowners receive a cash offer for each stock held), new issues of shares, swaps (where one or more stocks in the acquired firm is changeable for one or more stocks in the acquiring firm), or mixtures of both cash offer and stock swapping, just to mention a few examples. An acquisition is also when a company acquires a business unit or assets from another company through piecemeal transfers (cf. Brealey and Myers, 1991, for details).

An *acquirer* is defined as a firm which has acquired a significant share of stocks in another company. This includes three situations:

1. Complete takeover (100% of the issued shares)
2. Majority position (less than 100% but 50% or more of the issued shares)
3. Minority position (less than 50% of the issued shares)

The two former situations are assumed to imply a significant voting power within the acquired company, or in other words, that the acquirer has a substantial say in, among other issues, appointments of executives and the business strategy of the acquired firm. The latter case, which is also called *capital injection* (cf. Figure 1.3) in this thesis, denotes a situation where a firm has acquired a significant minority position in a company and through that power can influence the target firm's business strategy.

Therefore, the discussion in this thesis follows the tradition within Western M&A literature, where the term "M&A" interchangeably denotes both mergers and acquisitions, and then *only* in the *narrow* sense (see Figure 1.3). Furthermore, when discussing mergers and acquisitions as a purely societal phenomenon (as we do here), the use of the word "merger" rather than "acquisition" (or vice versa) is less important, since the final outcome is *de facto* that two or more firms combine their business efforts. Thus, it is more useful in this thesis, given its scope, to specify whether "M&A" is used in the broad or narrow sense.

In Japanese M&A literature, mergers (*gappei*) are usually separated from acquisitions (*baishū*). In addition, there is a distinct division in terms of the *type* of merger, which is also made in Western M&A literature. Mergers are commonly referred to as either "equal merger" (*taito gappei*; can also be called "new entity merger") or "absorption merger" (*kyūshū gappei*). The former term refers to mergers where two or more firms merge on equal terms, often meaning the creation of a new entity or the formation of a holding company. While "equal merger" is a relatively straightforward concept, "absorption

mergers" can actually be branded as a *de facto* acquisition, since "absorption" means that all the stocks of the acquired firms are bought and units of the acquired firm are transformed to subsidiaries and/or sold off. The latter type of mergers⁹ occurred most frequently in Japan before the 1990's and were conducted in all directions and forms: horizontally, vertically, conglomerate and for product line expansion¹⁰. This division stems originally from the Japanese commercial code¹¹, whose merger definition seems somewhat unnecessary and it is doubtful whether it contributes in a meaningful way to the present analysis.

In some parts of Western M&A literature, mergers and acquisitions are also categorized differently depending on the purpose. Pfeffer (1972) has suggested three types of M&As: horizontal, vertical and diversifying¹². Horizontal M&As denote, as the word suggests, mergers or acquisitions of firms (competitors) within the same industry. The motives for horizontal M&As are primarily strengthening of market share or acquiring dominance in a particular market by merging with or acquiring a competitor or a firm with a strong (local) market position. In contrast, a vertical M&A aims for forward integration (e.g. bind a wholesaler to the firm) or backward integration (e.g. by taking formal control over a subcontractor or a supplier). Apart from these intra-industrial M&A strategies, the diversifying M&A represents a philosophy of using M&As as a portfolio management tool (cf. GE Capital's world-wide business strategy; see also Salter and Weinhold, 1979).

The categorization like the one made by Pfeffer has over the years won general acceptance in M&A research. Meanwhile, the US Federal Trade Commission (FTC) has defined types of M&As in an even more detailed manner¹³. In addition to the common definitions of M&As as horizontal and vertical, the FTC defines M&As aiming for product and market extensions separately. The purpose of product extension M&As are to acquire firms whose products are closely related to the acquiring firm's existing product lines. A secondary purpose, not to be forgotten, is also to expand capacity to

⁹ Many of these M&As were cosmetically called "*taito gappai*", even though they *de facto* were absorption mergers. This is a reflection of the concern Japanese firms had for a bad reputation by being involved in M&As.

¹⁰ Hayashi, pp. 39-42.

¹¹ Shimizu, pp. 2-3; pp. 86-87.

¹² Pfeffer, p. 392.

¹³ Galbraith and Stiles, p. 520.

fend off new entrants¹⁴. On the other hand, market extension M&As aim for, as the word implies, expanding the market for the acquirer's products or tapping into markets of locally or regionally well-positioned firms. As a fifth form of M&A, the FTC specifies "conglomerate mergers", which essentially is another name for diversification M&As as it is defined by Pfeffer. In the analysis and the discussion of this thesis, the FTC definition of M&As is used.

1.4.1 Due diligence and TOBs

Recently, so-called *due diligence* has attracted much attention in Japan. The word itself has been around in US merger literature for many years, and means a total review of a potential seller's business, finances and future cash flow, preferably made by an outside consultant. Basically, it is divided into three parts. First, a financial audit is executed, including a financial audit of the target firm, and other information relating to its financial status, and is then analyzed together with interviews. Secondly, a legal audit is conducted to analyze the legal implications of the possible M&A. Thirdly, the business audit aims to scrutinize the target company's current and future business prospects in order to verify the possibility of the acquirer to reach the short-term business objectives. Although seemingly self-evident when it comes to an M&A, application of due diligence has been extremely unusual in Japanese domestic M&As, and has mostly been applied to inward M&As¹⁵. Together with what will be discussed about TOBs and MBOs below, the "irrationality" characterizing many domestic Japanese M&As, both historical and current ones, might be easier to understand.

Another issue connected to Japanese M&As is the so-called *takeover bids* (TOB)¹⁶. TOBs are either friendly or hostile. A *friendly* TOB is technically synonymous with "ordinary" acquisitions, where the target company board receives a stock acquisition offer. In Japan, TOBs have also been used by acquirers as a tool to sweep the market of minority holdings in order to gain a majority ownership¹⁷. For this discussion *hostile* TOBs, which have been extremely rare in the Japanese corporate world, are more interesting. Con-

¹⁴ This situation has been discussed in a number of studies regarding mergers in Cournot models; for example, see Salant et al. (1983).

¹⁵ Onogi and Torikai, p. 193.

¹⁶ An alternative and frequently used term (especially in the US) is *tender offer*.

¹⁷ One example is Ono Sōko's acquisition of Royal Denki in 1996, where TOB was used to gain the last 10% of the issued shares (Muramatsu and Miyamoto, pp. 181-186).

trary to a friendly TOB, the hostile TOBs are made directly to the shareholders of a firm. For a long time, TOBs have been regarded as bad business conduct, and seen as a method to disturb or even paralyze the business of the target firm. In this regard (and also for M&As in general), a common view is that it is all about "hijacking"¹⁸. Apart from this view on hostile TOBs, legal restrictions have also hindered a wider use of TOB as a means to gain control over a company. TOBs were not allowed until 1971, when the Securities Exchange Law was amended. However, the regulations remained strict in order to protect firms, and during the twenty years following the 1971 amendment, only 3 cases of TOBs were recorded¹⁹. In 1990, the law was amended once more to facilitate TOBs, but it was first in 1997 that the number of TOBs, nearly all friendly, reached double-digit levels²⁰ following the overall increase of M&As.

Bundō (2001) points out two particular features which distinguish Japanese TOBs from those in other countries. First, the bids are on average *lower* than the stock price on the day before the announcement of the TOB. Second, nearly all TOBs are preceded by an agreement between the bidder and the large stockowners (such that the TOBs are friendly)²¹. The first feature may seem peculiar at first glance, but it could be a result of the high degree of "friendliness" in connection with the TOBs. This in turn raises the question whether TOBs really are used in a way that is common in Europe and North America. Bundō suggests that TOBs are used in Japan merely as a vehicle to transfer the ownership of a firm (such as transfer of a subsidiary from one parent company to another) or as an M&A defense measure, by cutting off speculators²².

In connection with TOBs, another issue that has recently attracted much attention in Japan is management buyouts (MBOs). Actually, MBO is just another form of so-called leveraged buyout (LBO). Before elaborating further on MBOs in Japan, LBOs need a short description. Technically, LBO is a way to finance an acquisition of a firm with debts and then to withdraw publicly listed stocks, if any, to make the acquired firm a fully owned entity with the ownership limited to a small circle of investors. When management organ-

¹⁸ Interview with Osamu Yasuda on 26 October 2001, and Yoshihiko Wakumoto on 12 November 2001.

¹⁹ Bundō, p. 44.

²⁰ Op. cit., p. 45.

²¹ Op. cit., p. 55.

²² Op. cit., p. 76.

izes an acquisition of its own firm through an LBO, it is called an MBO. Meanwhile, in the UK, another type of MBO has emerged, where the main concern is the continuity of business. By separating a subsidiary or a division and making it an independent company under the ownership of the management, sometimes together with the employees of that subsidiary or division, the hope is to avoid a potential closing-down of business. The main differences between US LBOs and UK LBOs are the scale and the purpose.

In Japan, "UK style" MBOs have occurred more frequently than "ordinary" LBOs²³. Therefore, compared to the large-scale and sometimes spectacular MBOs in the US during 1980's²⁴, the Japanese MBOs have been smaller in scale. From 1999 on, and in absolute numbers, MBOs have occurred more frequently, especially in the service industries. In all cases, these MBOs have been backed by larger financiers²⁵. One important explanation for the increased awareness of MBOs and the potential benefits is the higher pressure on Japanese companies to restructure their organizations. However, it should still be remembered that cash deals, even today, are the most common form of M&As in Japan, making LBOs, in general, a marginal form of acquisition.

1.5 Why do M&As? The neoclassical explanation

Why do firms engage in mergers and acquisitions, or M&As? We start from the neoclassic baseline assumption of value maximization. The simplest answer to the question is that the firms, at the end of the day, hope to improve their performance in terms of organizational efficiency and profitability. More formally, the rationale for an M&A is that the net present value (NPV) of two or more firms are *worth more together* than separately. Thus,

$$NPV = PV_M - \left(PV_J + \sum_{i \neq J}^n PV_i \right) - \left(\sum_{i \neq J}^n [cash_i - PV_i] \right) \quad (1.1)$$

²³ Karasuno and Kitachi, p. 174.

²⁴ E.g. RJR Nabisco in 1988 (Brealy and Myers, p. 843).

²⁵ Recof (2003) M&A data.

where

PV = the firm present value

$cash_i$ = the amount of the cash payment for firm i

M = the merged firm

j = the initiating firm

i = the i 'th firm

Basically, if the NPV of the relation²⁶ is *positive* for firm 1 when it acquires firms 2, 3, etc. in cash (i.e. that a synergy effect exist), then an M&A is a strategic tool for corporate growth for firm 1. Equation (1.1) represents the simplest case of M&As, where the NPV is the present value of the hypothetical merged firm M *minus* the present values for *all* firms involved separately and the net cost of the M&A for the initiating firm. In practice, the relation is more complicated, since NPV calculations of M&A deals are usually burdened with additional costs, such as taxes and consultant fees. Many M&As are also debt-financed (for example, a leveraged buyout, or so-called LBO), which makes real-life NPV calculations more complicated than represented by the equation above.

However, since the valuation issue is not the focus of the analysis, equation (1.1) serves only as a formal economic definition of an M&A. It is only given here, and for the remainder of the thesis the issue of corporate valuation in connection with an M&A will not explicitly be discussed.

1.5.1 Using productivity vs. profitability in M&A studies

What is performance? In a number of case studies, M&As are said to be successful. The weaknesses in such postulates are obvious. The case study approach suffers from biases in terms of accessibility and choice of "success stories", mostly because there is a tendency to only make cases from successful M&As. Therefore, it is hard to generalize the outcome of M&As from *only* case studies. An equally poor measure, which has been used in both case studies and quantitative studies of post-M&A performance, is profit. The reason for the inferiority of this performance measurement is also obvious. A bad performance from the core business can be "hidden", for example, by profits from financial transactions or extraordinary gains. In Japan, losses could be transferred to subsidiaries, which were not obliged under the former Japanese accounting rules to be included in the parent firm's accounts

²⁶ This is a generalized version of the NPV equation in Brealey and Myers, pp. 817-818.

(such as consolidated accounting standards). A final method, employed mostly in quantitative studies, is to analyze stock price performance pre- and post the M&A event. The obvious weakness here is the influence of short-term psychological factors on stock prices. For example it is difficult at the time of an M&A announcement to derive how much of the change in the stock price stems from a change in productivity – if the productivity will change at all as a result of the M&A.

1.6 Limitations and notes on the terminology used in the thesis

Limitations of the study

Being different in nature and varying in partner ownership structure, strategic alliances and joint ventures (JV) (which are treated here as a form of strategic alliance) are not included in the econometric part of the study. This distinction is made since strategic alliances and JVs can be formed without an M&A. Another argument for excluding the JVs and strategic alliances is that their characteristics and effects are very hard to capture in secondary data, while the performance effects from M&As can be derived more easily from firm-level financial data. Finally, the Japanese firms' *outward* M&A will not be addressed at all in this thesis, since it addresses only M&As occurring in Japan.

Terminology

Throughout the thesis, the following terms are used to distinguish the two parties of an M&A. On one side, "investor" or "acquirer" is used to denote the "buying" side. On the other side is the "target" or "acquired", which is the "selling" party in this thesis. These terms are chosen because not all M&A deals involve acquisitions, and because an M&A can be initiated by both acquiring and target firms. In M&A literature (especially within management, economics and finance), the question of which firm initiates an M&A is implicitly assumed to be the acquiring side (relationship of type A in Figure 1.4). Mainly this is the case, but as we will see later in the thesis, there are a substantial number of target firms that also initiate M&As (relationship B in Figure 1.4). Therefore, the use of the terms "investor", "acquirer" and "target" was judged as more neutral, rather than the terms "initiator firm" versus "target firm".

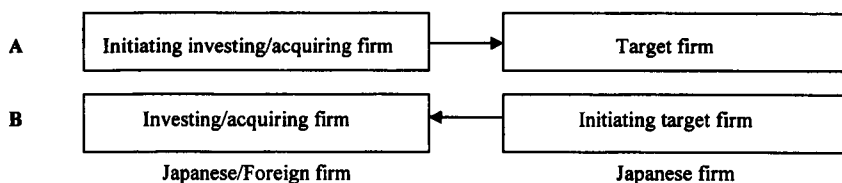


Figure 1.4. Schematic view of M&A initiator relationship flows in this thesis.

Some confusion can also arise regarding the definition of *cross-border* and *domestic* M&As. In this thesis, the terms “inward” (or cross-border) and “domestic” are used to define the nationality of investors or acquirers. “Inward” or “cross-border” M&As denote mergers and acquisitions where one part of the deal is foreign and enters into or expands within the Japanese market through an M&A, while “domestic” M&As are defined as purely domestic M&As, where all firms involved have Japanese origin.

By broad definition, the term “industrial structure” means the characteristics of an industry. This includes the actual firms, the ownership structure of the firms, and the institutional characteristics affecting the firms, such as network relations and linkages, governmental regulations and the competition within an industry. Furthermore, the word “industry” is used in an aggregate sense (one-digit level), while “sectors” and “industrial sectors” denotes subsectors within an industry (two-digit level industries). Therefore the electrical machinery, the chemical and the pharmaceutical industries are called “sectors” in this thesis (particularly in the discussion in Chapter 6) as they all are part of the manufacturing industry.

In the discussion, the terms “cross-ownership” and “cross-shareholding” are used interchangeably, as is the convention in the literature.

Finally, the term “sector” is used synonymously with “industrial sector”, as well as “MNC” (Multinational corporation) being synonymous with “MNE” (Multinational enterprise).

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Chapter 2

2 Theory

The research purpose of this thesis is to investigate the differences between inward and domestic M&As in Japan, in terms of motives, partner selection and firm performance (defined as technical efficiency). In other words, is the partner selection process the same between domestic and foreign firms? Furthermore, do any performance differences exist between the Japanese firms that are engaged in inward M&As, compared to those that do M&As with domestic partners? Given the research questions, this chapter will concentrate on the theories of how inward foreign direct investments (FDIs) effect the host country economies *and* its firms, in addition to the theories that focus on the motives behind the M&A behavior of the Japanese firms.

Theoretically, M&As are possible to be analyzed from an array of theories, each highlighting its special aspect of the phenomenon. Of those more related to the analytical approach of this study, are the Johanson and Vahlne (1977, 1990) model for internationalization of the firm and Dunning's (1980, 1981, 1988, 1998, 2000) OLI framework notable. However, these theories have the perspective of the firm entering foreign markets, and do not consider the target side position. Likewise takes the theoretical literature concerning firm strategy (e.g. Porter, 1980) a strong perspective of the investing firm. In the analytical framework of this thesis, the ambition is to encompass also the *target* firm's M&A behavior, which is something that falls completely outside the theoretical framework of Johanson and Vahlne and Dunning, and not treated satisfactory in the works of e.g. Porter. Therefore, alternative theoretical approaches to the standard strategy and internationalization theories were chosen in order to realize the research purposes of this thesis, namely the resource-based perspective for the M&A process analysis and the FDI spillover theories for the post-M&A performance effect analysis.

2.1 M&A motives and the resource-based theory²⁷

In order to analyze FDI in Japan it is also necessary to understand to the organizational structure of Japanese industry. A common deficiency of quantitative studies is the treatment of firms as a "black box". If these studies do not consider the possibility that firms might also have non-profit maximizing reasons for their particular choices in an M&A, there is the risk that a quantitative analysis generates more questions than answers. The intention of this thesis is to investigate the M&A issue in a broader perspective that the one offered by the traditional neoclassical theory, which explains the phenomenon of M&As as an expression of the firm's drive to obtain attractive resources to maintain a competitive advantage position, and, in the long run, to "stay in business". Furthermore, not only the investing firms' perspective, but also the target firms' considerations have to be taken into account in order to complete the picture. Thus, the resource-based perspective constitutes a central concept in the qualitative part of this thesis. Closely related to the organizational theory and the transaction cost economics, the resource-based view complements the neo-classical economic theory in order to better understand and explain certain firm behaviors that cannot be captured in the quantitative analysis.

Generally a firm's resources are broadly defined as "all assets, capabilities, organizational processes, firm attributes, information, knowledge [...] that enables the firm to conceive of and implement strategies that improve its efficiency and effectiveness"²⁸. Partner selection in M&As is arguably a drive for unilateral, bilateral or even multilateral exchange of resources which firms lack, thus using M&As as a means to obtain them. Since the seminal theoretical work by Penrose (1959) on the modes of firm growth, the theoretical literature resource-based perspective for inter-firm analysis has grown large and has taken various directions. Important contributors are e.g. Lippman and Rumelt (1982), Teece (1982), Rumelt (1984), Wernerfelt (1984), Barney (1986; 1991), Dierickx and Cool (1989), Conner (1991), Mahoney and Pandian (1992), Peteraf (1993), Hunt (1997), Foss and Knudsen (2003), and Peteraf and Barney (2003). Thus, the theoretical literature is rather abundant, but less in volume when explicitly analyzing and explaining M&As. How-

²⁷ As in the resource-based theory literature, the terms "resource-based theory", "resource-based perspective", and "resource-based view" are used interchangeably.

²⁸ Barney (1991), p. 101.

ever, the relevance of the resource-based perspective to M&As is obvious – especially when analyzing the partner selection issue. According to Wernerfelt (1984), a firm's M&A behavior from the viewpoint of the resource-based theory, is “a purchase of a bundle of resources in a highly imperfect market”²⁹. He means that M&As are an expression of and a means to acquire a strategic resource: “By basing the purchase on a rare resource, one can *ceteris paribus* maximize this imperfection and one's chances of buying cheap and getting good returns”³⁰. Wernerfelt regards the M&A market as imperfect, since it consists of relatively few possible buyers and sellers. There is a considerable number of firms that are in the M&A market at any given moment, but admittedly, a limited number of firms is available for each “matching”. One must remember that even though a group of firms can use the same resource, firms might not necessarily have identical characteristics, preferences, or needs, and can therefore have widely disparate motives for entering the M&A market. Wernerfelt's view on M&As is somewhat simplistic and traditional, as he views it as a buyers' market, where financially weak firms have to sell under conditions set by the acquiring firm, at the buyer's discretion, since there are few other buyers. Is this picture necessarily true? Before answering this question, we have to examine the resource-based theory and what it has to say about M&As.

Market imperfections

The imperfections of resource markets constitute a connection between the resource-based perspective and the reasoning within the transaction cost theory and the OLI paradigm of Dunning (1980, 1981, 1988, 1998, 2000) – especially the notions of ownership advantage and internalization of resources³¹. However, the main difference between the theories is that the resource-based perspective explains M&As as the *individual* firm's struggle to achieve sustained competitive advantage by securing certain (scarce) resources, while the transaction cost theory takes a more aggregate position by explaining the firm's observed action from imperfections in resource markets that are a *result* of certain structural and institutional characteristics of the *industrial* environment. In addition, the resource-based view does not make

²⁹ Wernerfelt (1984), p. 172.

³⁰ Ibid.

³¹ Langlois (1997) has even attempted to merge the resource-based view and the transaction cost theory by introducing the concept of *dynamic transaction cost*, primarily addressing the costs for integration of resources that are outside the firm boundaries.

the *explicit* assumption of profit maximization, as does the transaction cost theory, but rather assumes that firms have heterogeneous resource bundles and capabilities, and strive to have the most superior bundles of resources in order to maximize *rents*.

Ravencraft and Scherer (1987) and UNCTAD (2000) list a number of motives for M&As³², which are based on the neo-classic assumptions of rationality and opportunism. Although valid for many M&As in Japan, there is still a substantial number of M&As that appear to have motives very different from traditional neo-classical explanations, based, for example, on game theory or financial economics. Looking at the reports on individual deals in Japanese M&A data (Recof, 2003), there are reasons to believe that one of the characteristics of the most recent wave of Japanese M&As is a clear aim to secure strategic assets in some form, and this is also what is usually stated in the news reports. Again, the relation is evident between Dunning's (2000) notion of "dynamic advantages" of firms - that is, firms' strive to sustain and increase income-generating assets over time, familiar from the OLI paradigm discussion - and the concept of sustained competitive advantage from the resource-based perspective, as formulated by e.g. Wernerfelt (1984, 1989) and Barney (1991). Viewing the M&As as a means to secure and maintain a firm's long-term development and growth is indeed an explanation frequently given by Japanese firms that have engaged in domestic and inward M&As.

First-mover advantages and heterogeneity of firm resources

Porter's (1980) original framework of the five competitive forces has been influential in the literature (cf. Barney, 1986; 1991; Mahoney and Pandian, 1992; Peteraf, 1993; Markides and Williamson, 1994), and has constituted the analytical framework for some resource-based studies (e.g. Wernerfelt, 1984). Wernerfelt uses the Porter model for his analysis of how critical resources give firms the ability to maintain their market positions and certain advantages vis-à-vis exiting and potential future competitors. To summarize his arguments, firms that seize strategic resources, for example, by obtaining a resource at a lower price than coming entrants, or by having developed contacts in the government, have *first mover advantages* and are thus in a stronger position to hinder new entrants. By limiting compatibility, substitutability, or creating a uniqueness of the resource, a firm can establish a monopoly-like position. Thus a firm holding unique assets can influence the price tag for

³² Ravencraft and Scherer, pp. 2-12; UNCTAD, pp. 140-144.

that particular resource, and can either "cash in" at a premium via M&As, or hinder takeover bids altogether.

Barney (1986, 1991) has also been influential in the theoretical debate with an elaborate discussion on the heterogeneity of firm resources. As said earlier, the core assumption of the resource-based view is that firms strive to acquire a competitive advantage and keep that position. Here, the heterogeneity in resources connects back to the first-mover advantages discussion of e.g. Wernerfelt (1984). Barney (1991) also underlines the advantages a firm can have by being the first to implement a strategy (for example, building distribution channels or creating a positive reputation) based on first-mover access to and development of a specific resource, while preventing competitors from gaining to it. This in turn creates incentives for the first-mover firm to create entry or resource mobility barriers. Thus, heterogeneity and first-mover advantage and entry/mobility barriers are interconnected when we discuss firms that have resources which enable them to pursue a strategy that gives them a competitive advantage.

Competitive advantage

Before elaborating further on entry and mobility barriers, we need to define the competitive advantage concept. Barney (1991) defines *competitive advantage* as the implementation of a "value creating strategy not simultaneously being implemented by any current or potential competitors"³³, such as strategies that need or use the firm's resources. However, a competitive advantage has no value if it is not sustainable over the long run. Obviously, if the strategy using some specific resource is impossible for competitors to imitate, then the prospects of the firm to sustain its competitive advantage for a longer periods of time is far better. This is called *sustained* competitive advantage, and by definition is an extension of the competitive advantage concept in which no current or future competitor is able to imitate the benefits that the value-creating strategy creates for the firm implementing the strategy. The exact time dimension for a "sustained" competitive advantage is somewhat vague³⁴, yet the important issue is the

³³ Barney (1991), p. 102.

³⁴ The meaning of "sustained" has been a subject for discussion in the literature, and it has been suggested that sustained competitive advantage denotes an advantage that lasts for a long period of calendar time (i.e. medium to long term periods; see e.g. Porter, 1985). A time-neutral definition found in the literature (cf. Barney, 1991) is that "sustained" means the time period after the competitive advantage has ceased to be the object of duplication

duration of the advantage to the firm possessing the resource, before competitors are able to duplicate the competitive strategy – if ever. Having said this, it should be recognized that most competitive advantages will erode sooner or later by some external shock, such as technological progress, institutional conditions, and market structure changes.

In his discussion, Barney (1991) also specified the attributes of or criteria for resources that to provide a sustained competitive advantage³⁵.

- Valuable
 - The resource must be of strategic value to the firm, such that it enables the firm to implement strategies that improve its performance and efficiency. A firm must use the resource to exploit opportunities and neutralize threats before it becomes valuable.
- Rare
 - The resource has to be rare or unique, such that no other firm in the industry has access to the resource, enabling the firm to pursue a strategy of sustained competitive advantage.
- Imperfectly imitable
 - Directly connecting to the notion of rareness, the strategy that is based on the resource has to be imperfectly imitable or replicable by current or future competitors. In this setting, Barney also discusses so-called *causal ambiguity*, that is, the possibility that the firm possessing the resource is unaware of or unable to identify the link between a resource and a sustained competitive advantage. In such a situation, it is hard or even impossible for any firm on the market to duplicate the strategy, even the firm that controls the resource.

efforts by competitors, and ends when the resource has become obsolete. Thus, such a time period can be long or short, depending on the market conditions and the pace of technological progress.

³⁵ Barney (1991), pp. 105-112.

- Substitutability

- The resource itself has to be unique and impossible to substitute with alternative resources. In other words, no "strategically equivalent valuable resources that are themselves either not rare or imitable"³⁶ can exist if the aim of the firm is to achieve a sustained competitive advantage.

A number of empirical studies have integrated Barney's definitions into the analysis, such as Rangone (1999) and Caldeira and Ward (2003). For M&A studies, these definitions are relevant when studying motives and partner selection issues which will be discussed further below.

Entry and resource mobility barriers

In order to maintain a competitive advantage or a sustained competitive advantage, the firm builds entry or/and mobility barriers to secure its market position. *Entry barriers* are often created by incumbents (that is, first-mover firms), but can also be the result of production characteristics (such as economies of scale in mass production, marketing, and/or administration) and institutional factors (such as governmental policy or rigid ownership structures)³⁷. However, in some instances these barriers are only efficient in fending off *new entrants*, and affect not the position of firms that already operate in the market. Therefore, *barriers to mobility of resources* are more relevant when analyzing industrial structures that are homogenous in nature, since resource immobility can be an equally powerful means of fending off existing and future attempts by competitors to imitate one's strategy (Porter, 1980; Barney, 1991).

The conditions required for the existence of entry barriers and resource immobility have been debated in the resource-based theory literature. While e.g. Porter (1980) argued that barriers also enable firms in homogenous industries to obtain a sustained competitive advantage, other authors such as Barney (1991) have argued that entry or mobility barriers are possible only if heterogeneity in resources and resource immobility exists between the firms within an industry. To be a source of sustained competitive advantage, the resource cannot be perfectly mobile within and homogeneously distributed among all firms in an industry. Lieberman and Montgomery (1988) have con-

³⁶ Op. cit., p. 111.

³⁷ Examples of entry barriers are discussed at length in Porter (1980).

tributed to this discussion by pointing out that the *possession of unique information* is a means to obtain a sustained competitive advantage for firms in homogenous industries, where all firms possess the same bundle of resources and entry barriers are therefore hard to create. Lieberman and Montgomery stress that it is not first-mover advantages per se, but information as a unique firm resource that enables firms to obtain a sustained competitive advantage. This is also valid for entry and resource mobility barriers as well. The important point in Lieberman and Montgomery's discussion is that, irrespective of the firm being a first-mover or whether it operates in a heterogeneous or homogenous industry, information is a resource that can lead to a competitive advantage.

Resource-based theory and M&A motives

Generally, barriers to entry are important factors in industrial analysis, but are of particular interest when explaining the motives of firms that engage in M&As. Mobility barriers provide an equally good explanation as to why M&As exists in some countries or industries, and are non-existent in others. Obviously entry and mobility barriers are important motivational factors when doing M&As, as they provide a means to circumvent such barriers raised by firms already established in a market. But what else does the resource-based view have to say about motives for M&As? As implied above, the literature *explicitly* dealing with the M&A process and the post-M&A performance from this perspective is only a minor part of the resource-based theory literature. As e.g. Salter and Weinhold (1979) and Peteraf (1993) are examples of, does this part of the resource-based theory literature mainly dwell on the question of *diversification* of firms. However, there are other modes of M&As, other than for diversification, that have resource-based motives. In order to develop and maintain a competitive market position, firms also acquire other firms in transactions that can be labeled more as a concentration and strengthening of core competencies rather than for diversification. In fact, this argument was proposed in an early article by Wernerfelt (1984), where he argues that acquisitions can be seen as purchases of resource bundles in markets that are highly imperfect. By acquiring a rare resource, a firm maximizes the market imperfection and creates rents. This reasoning is somewhat extreme, and there are few real-world examples of firms that are able to freely maximize rents, as firms are typically constrained by governmental regulations. But for the sake of theoretical reasoning, let us accept Wernerfelt's words and notice that at least structures *reminding* of

monopolies and oligopolies exist in resource markets. If we follow Barney's (1991) definition of resources, and extend the concept to encompass not only physical resources, but also intangible resources like patents and brand names, the relevance of this theoretical perspective to M&A studies becomes even clearer. Capron et al. (1998) have reviewed the theoretical literature and have identified five categories of resources from the theoretical discourse: R&D, manufacturing, marketing, managerial, and financial resources. A large part of the discussion in the resource-based theory literature also concerns intangible business resources, including human capital and know-how. The international M&A trend is an increasing tendency for the acquisition of know-how, and in this sense, the recent wave of M&As in Japan is not unique to the world. However, when compared to earlier waves of M&As in Japan, the wave of the 1990's can be characterized as resource seeking to obtain leverage in maintaining a current market position and securing future growth in markets that have been deregulated.

Even though we have already touched upon the position of M&As in the resource-based theory a number of times in this discussion, the question remains as to how this theoretical perspective explains the *motives* and *partner selection* in M&As. As implied above, possession of a unique resource can provoke takeover bids as well as hinder new entrants to the market. The M&A market is an arena in which firms trade resources that are otherwise hard to obtain in resource markets, in particular firm-specific resources that give the possessing firm a competitive advantage. A recent example of this is the global M&A activity that has taken place in the IT sector, where firm owners have frequently "cashed in" on value increases due to some firm-specific knowledge asset, such as a software application. Salter and Weinhold (1979) specify an M&A strategy as resource-based when a firm acquires more of the strategic resource, and when a firm acquires resources that create synergy effect with the resources already under the control of the acquiring firm³⁸. From a resource-based perspective Wernerfelt (1984) discusses the implications of the first of Salter and Weinhold's strategy propositions, by pointing out that a firm which aims to strengthen its market position by acquiring more of the unique resource it already owns, can acquire target firms more cheaply because it is one of the few potential buyers in the market. However, such a view of M&As is too simplistic, and it is impossible to postulate that a firm can acquire a resource for less money just because there are

³⁸ Salter and Weinhold, pp. 5-9.

no opportunity costs for it. Wernerfelt's view of M&As requires that the target firm is willing to sell the resource to the bidder, in other words, that it is a *friendly takeover bid* (TOB). Viewing M&As in such a manner, regardless of the resource-based perspective, can lead to problems when studying M&A processes because, implicitly, such a view has to assume that target firms are "victims" left with no other choice than to sell to another firm. In fact a target firm, which faces for example a hostile TOB attempt, can launch a number of defensive measures (cf. Brealey and Myers, 1991). Furthermore, as seen later in Chapter 5, there is evidence that some Japanese target firms have actually chosen their acquirers.

As seen in the discussion about first-mover advantages, the control of physical inputs for production is obviously a source of competitive advantage. It is equally important to consider intangible resources, such as skills, know-how, and market knowledge, as resources for building a competitive advantage. Barney (1991) discusses in depth the implications of these factors for firms, which want to implement strategies to obtain sustained competitive advantages. *Trust* and *reputation* are frequently discussed in the resource-based theory literature as unique resources for a sustained competitive advantage, especially in connection with M&As. Obviously, resource characteristics of this kind adhere to the *imperfect imitability* and *non-substitutability* criteria, since they are path dependent, that is, extremely firm-specific factors that have been built up over many years. Trust and reputation can also be the result of market structure conditions and general brand knowledge and preference among suppliers, wholesalers, and consumers, and are difficult for new entrants to challenge.

Dierickx and Cool (1989) caution against carelessness when making the assumption that *all* resources³⁹ are tradable. In fact, immobility of resources creates a competitive advantage that gives above-normal returns (Porter, 1980; Barney, 1991). As an extension of Barney's (1991) criteria for resources that providing a sustained competitive advantage, Dierickx and Cool define a number of factors that hinder the imitation of valuable, immobile, resources, such as nontradability, nonimitability and nonsubstitutability. New entrants and competitors that need a resource are basically forced to build it or accumulate it, and in either case, it involves shorter or longer time dimen-

³⁹ Dierickx and Cool denote resources as "assets", but in their discussion the meaning of these two terms is, to a large extent, interchangeable. For conformity with the previous sections, the discussion here uses the term "resources".

sions. Dierickx and Cool introduce five characteristics that determine the speed at which firms can accumulate unique resources similar to the resources held by the firms that have a competitive advantage:⁴⁰

- Time compression diseconomies (the building of resource quality as a function of time, such as reputation and trust)
- Asset mass efficiencies (new resources built on the quality of existing resources, such as the invention of new technology from the existing stock of R&D know-how)
- Interconnectedness of asset stocks (complementary between new and existing resources⁴¹)
- Asset erosion (the "decay" in quality of existing resources, such as technological shocks making R&D results and know-how obsolete)
- Causal ambiguity (inability to identify causal relation between a certain resource and firm performance, for example, a firm that experiences an extraordinary business performance without knowing exactly which resource contributed to it)

Clearly, the article of Dierickx and Cool is a serious attempt to construct an endogenous resource creation model. However, there are alternatives to accumulating immobile resources. M&As can circumvent many of these situations, thus considerably shortening the time span of the resource building and the resource accumulation process (cf. James, 2002), even though sometimes at considerable cost. On the other hand, acquirers often buy "the whole package" of resources instead of picking those of the best quality, thus making M&As an imperfect substitute for endogenous resource creation (that is, in addition to the risk of information asymmetries between seller and buyers).

Although this resource-based view is less often applied to M&A studies compared to the abundant volume of strategic management research on corporate strategy planning, the theory forms a suitable framework for analyzing the M&A process in terms of motives and decisions. In the next section, we will see how the theory is applied empirically.

⁴⁰ Diericksx and Cool, pp. 1507-1509.

⁴¹ Dierickx and Cools specify this criterion: "accumulating increments in an existing stock may depend not just on the level of that stock, but also on the level of *other* stocks." (Diericksx and Cool, pp. 1508).

2.1.1 Empirical evidence

In the past, general empirical performance studies on strategic planning that employed the resource-based theory have been criticized on both theoretical and methodological grounds, and less surprisingly, have also produced contradictory results⁴². There are, however, a number of studies that explicitly use a resource-based view when analyzing M&As, primarily for analyses of M&A processes of firms. The intention here is not to summarize the extensive empirical literature⁴³, but rather to focus on recent contributions that are relevant to studying M&As. The empirical literature on M&As that uses a resource-based perspective mainly concerns three issues: motivation, partner selection and post-M&A profitability (e.g. for the existence of rents from diversification strategies in Montgomery and Wernerfelt, 1988; partner selection and strategic fit between acquired firms in Shelton, 1988; partner selection, technological resource appropriation and growth through acquisition of small technology-based firms in Grandstrand and Sjölander, 1990; partner selection synergies and post-acquisition performance in Singh and Montgomery, 1987; and Harrison et al., 1991; resource redeployment in horizontal acquisitions in Capron et al., 1998; TNCs and FDIs as a result of endogenous growth processes in Pitelis, 2001; capability transfers and post-M&A managerial challenges in James, 2002).

Authors	Object of study	Dependent variable	Effects
Singh and Montgomery (1987)	The existence of abnormal returns in acquisitions of firms with related and unrelated resource fits of US firms	Daily stock returns	Acquired firms in related acquisitions yielded higher returns than in unrelated acquisitions (i.e. the stock market valued related acquisitions higher than unrelated, due to resource transfer from acquiring to target firm)
Montgomery and Wernerfelt (1988)	Existence of rents from diversification strategies of US firms	Tobins q (defined as the ratio of market and book values)	Rents decrease as firms increasingly diversify into more and more unrelated areas (i.e. acquisition of firms with increasingly unrelated resource fits)

Table 1.1. *Continued.*

⁴² Powell, p. 551.

⁴³ A good general overview of the empirical literature using the resource-based view is given in e.g. Mahoney and Pandian (1992) and Peteraf (1993).

Authors	Object of study	Dependent variable	Effects
Shelton (1988)	Partner selection and strategic fit between acquired firms in US	Abnormal returns to acquiring and target firm stockholders	Unrelated fits yield low value creation; Related supplementary fits in resources created largest values. Auction-type bidding increased gains to shareholders.
Granstrand and Sjölander (1990)	Partner selection, technological resource appropriation and growth through acquisition of STBFs by large Japanese and Swedish firms	1) Direction of resource appropriation 2) Pre- and post-acquisition growth of acquired STBFs	1) Post-acquisition failure connected to speed of the transactions, the price tag, and the completion level of technology developed by the STBF 2) Significant higher growth post-M&A among the STBFs; no evidence that targets were better performers compared to non-M&A STBFs <i>prior</i> to the M&A.
Harrison et al. (1991)	Partner selection synergies and post-acquisition performance of US firms	Return on assets (ROA)	Differing resource allocations (unrelated fits) between acquiring and target firms lead to higher post-acquisition performance
Capron et al. (1998)	Resource redeployment in horizontal acquisitions taking place in Europe and the US	Magnitude of resource redeployment from target to acquiring firm and from acquiring to target firm	The greater the asymmetries in relative resource strength between acquiring and target firms, the greater is the magnitude of resource deployment; resource redeployment concerned mainly similar resources
James (2002)	Capability transfers and managerial challenge of the post-M&A organization of three merged pharmaceutical MNCs	Post-M&A resource deployment management	The causal ambiguity and integration of tacit capabilities creates serious challenges for the acquiring firm's management; the better the integration flexibility of acquirers, the higher the value created from the M&A

Table 2.1. Summary of empirical studies of M&A effects using resource-based perspective.
STBF = Small technology-based firms.

It is difficult to generalize the direction of M&A effects from the empirical resource-based view literature because the *operationalization* of the research

question is diverse and hard to compare in a fair manner. However, there are recurring themes in the M&A studies that use the resource-based perspective. A major topic has been whether the most successful M&As have been those between firms with similar resource bundles, or between firms with differing resource bundles, and the empirical literature has produced differing results. For example has Shelton (1988) found the best post-M&A performance among firms that had a related fit in resources, while Harrison et al. (1991) found significantly better post-M&A performance among firms that had differing resource bundles. Of the empirical studies that treat synergy effects of M&As, Harrison et al. have studied the issue more in depth. Value-creating effects (that is, synergies) from M&As is the most common explanation given by managers, Japanese managers included, as to why M&As have been executed. In their study, Harrison et al. identify three types of synergies. The first synergy type is associated with the differences in resources between the acquiring firm and the target firm that are uniquely valuable (cf. Barney's [1991] criteria for resources that give a sustained competitive advantage). The second type of synergy is created through asymmetric information, and the third synergy type produces "lucky gains" (cf. causal ambiguity notion of Dierickx and Cool, 1989; for empirical examples, see also James, 2002)⁴⁴. However, rather than discussing which of these causes for synergies have been valid for their data, Harrison et al. extract sources for the synergies, and conclude that analyses with focus on specific resources rather than on M&A strategies whether there should be a related or an unrelated overall fit between acquiring and target firms yield more meaningful explanations as to firm performance.

This also connects to the question of partner selection and motives for M&As. Like Harrison et al. (1991), Shelton (1988), Granstrand and Sjölander (1990), and Capron et al. (1998) explicitly analyze the M&A partner selection issue from both acquiring *and* target firm perspectives. By examining their results, the underlying explanation as to why managers make a specific M&A target firm selection seems to be biased by the *a priori* assumptions held by the managers as to whether the similarities in resources (related fit) between the acquiring and target firms or dissimilarities in resources (unrelated fit) create a positive post-M&A value. As reported above, Harrison et al. (1991) suggest that analyses should focus on the performance effects from specific resources. Shelton (1988) and Capron et al. (1998) also take into re-

⁴⁴ Harrison et al., p. 178.

gard the *target firm* perspective, which is relatively rare in the general M&A literature. Both studies show that there exists strategic reasons for target firms to engage in M&As other than having other firms "bail them out". The results of these studies show that the motives for a target firm to pursue an M&A include the identification of resources necessary for the continued development of the firm.

The view of target firms as more active and having more choices than traditionally assumed in the M&A literature connects to other topics that have often been discussed in the empirical resource-based M&A literature, namely the existence of rents through asymmetric information. Overall the studies in Table 2.1 suggest – contrary to mainstream M&A literature and Wernerfelt's (1984) view – that the M&A market can be characterized as a *seller's* market (see e.g. Granstrand and Sjölander, 1990). Support for such an argument is the common accrual of abnormal gains for target firm stockholders (e.g. Singh and Montgomery, 1987; Shelton, 1988; Harrison et al., 1991). If the markets were perfect, all future gains would be included in the agreed price and no excess gains would be realized by any party involved in the deal. Also by looking at the disappointing success rate of many M&As, there are arguably factors that buyers have not foreseen (disregarding the possibility of the buyer incompetence), and information that sellers have not disclosed to buyers (Granstrand and Sjölander, 1990). Thus, asymmetric information connects back to the question whether post-M&A abnormal returns accrue to new owners, that is, if synergy effects exist, and if they do, the reasons for the synergies (cf. the synergy definitions of Harrison et al., 1991).

In summary, the empirical literature on M&As supports Barney's (1991) and Dierickx and Cool's (1989) theses on sustained competitive advantage and resource immobility as sources for above normal returns, as found in resource characteristics, and implicitly, in the manager's ability to manage, identify, and employ resources that are potential sources of sustained competitive advantage (cf. Granstrand and Sjölander, 1990; Harrison et al., 1991; James, 2002).

2.1.2 Critical notes on the Resource-based theory

As the review in 2.1 indicates, the community of researchers using the resource-based theory has grown impressively since the 1980's. This has led to criticism of the diversity of the theory application, and that the resource-based view has been used for a number of purposes to which the perspective is not suited (Foss and Knudsen, 2003). This critique has two themes vital for

any theory, the clarity of the underlying assumptions and the definition of the concepts. Regnér (1999) also points out the difficulties of defining the resources, capabilities or competencies from the resource-based perspective discourse. By broadly defining the resource concept, the generality of the theory risks becoming a tautological reasoning that "the firm is the resources, and the resources are the firm"⁴⁵. Other inconsistencies within the theory discourse exist, and depending on the preferred perspective, authors tend to view the resource-based theory as either one that primarily concerns competitive advantage or one that concerns the theory of rents. As Foss and Knudsen (2003) point out, the cause for this confusion rests in the concept of sustained competitive advantage, to which there is no universally agreed definition⁴⁶. Also, on a general level, the underlying assumptions are unclear, and superficially treated in the resource-based theory literature⁴⁷.

Another possible source of this problem is whether firms are substitutes or complements. As noted above, firm heterogeneity, as a source for earning rents, is a core assumption of the theory, thus implying that the heterogeneity assumption may be violated in a situation where firms are complements. Foss and Knudsen (2003) spotlight this problem by giving examples of two possible situations. One situation is when an industry is characterized by network externalities⁴⁸, where two or more incumbents earn profits by implementing identical strategies. One firm's increase in returns from implementing a strategy is dependent on another firm's implementation of the same strategy *and* that the converse relation holds true, everything else remaining constant. The second situation is oligopolies, where two or more firms in collusion earn rents by implementing identical strategies. Obviously, there are also strategies to earn rents in homogenous industries. In other words, does the resource-based theory address market structures and the subsequent implications of sustained competitive advantage in a satisfying manner.

Regnér (1999) also points to a conflict between the basic assumptions of the resource-based theory. Wernerfelt (1984), Barney (1986, and 1991), and

⁴⁵ Regnér, p. 123.

⁴⁶ However, the definition of Barney (1991) is adopted for the analysis of this thesis.

⁴⁷ Foss and Knudsen, p. 292.

⁴⁸ A recent example is third generation cellphone networks, as the profitability of manufacturers, network infrastructure constructors, and operators all depend on the level of adoption of a certain technology, i.e. a caller has to have another person to call before anyone is prepared to adopt the new technology.

Peteraf (1993) assume that competitive markets are efficient, and their analytical focus is on heterogeneous resources that prevail also in a state of equilibrium. Yet, the theoretical discussion of Penrose (1959) – the “mother in spirit” of the resource-based school – does not recognize any state of equilibrium. According to Regnér, the efficiency assumption is too strong and neglects essential aspects of strategy creation. Despite the contribution of Dierickx and Cool (1989), the neglect of resource creation and development creates a void in the resource-based theory⁴⁹. These deficiencies combined cause problems in analyzing and explaining strategy creation processes.

Finally, when tested empirically⁵⁰, other conceptual weaknesses with the theory have emerged. Barney (1991) points out the difficulty in defining the *time perspective* when discussing sustained competitive advantage. The resource-based theory literature lacks consensus regarding the time period after which a competitive advantage actually becomes a *sustained* competitive advantage. Some resources keep their uniqueness longer than others, but eventually, all resources are subject to changed conditions within the industry (that is, various forms of shocks). The time frame of a sustained competitive advantage is therefore not uniform. In some industries, a given time period of sustained competitive advantage can be considered as short, while in other industries, the same time period can be regarded as long.

As seen earlier, Barney (1991) attempted to provide structured definitions of competitive advantage, and despite the criticism, these definitions still appear to have been widely adopted in the empirical literature. Peteraf (1993) has also contributed to the literature by attempting to give the resource-based theory a more rigid structure. These authors (Barney and Peteraf, 2003) have also co-authored an article in response to the documented critique of the resource-based perspective, as was also discussed in this section. In summary, the weaknesses of the resource-based theory are more conceptual than the actual relevance of theory itself. For example, if we examine motives and partner selection of M&As – as we do in this thesis – the theoretical perspective still has substantial explanatory power to address the process inside the “black box”. The debate is ongoing in the resource-based theory literature, and considering that this theoretical stream is relatively novel, we can safely conclude that the debate will continue for many years to come.

⁴⁹ Regnér, pp. 123-125; p. 129.

⁵⁰ Not reported here.

2.2.3 Conclusions of the Resource-based theory

The resource-based perspective is a relatively new theoretical position, and as such, the theoretical discourse is characterized by discussions about concepts and definitions. However, the emphasis on resources as sources for sustained competitive advantage and the explanation of profits and above normal returns has given inspiration to new analyses of the processes inside the "black box". So far the empirical literature has produced a number of studies that employ this theory, however, the number of studies is still limited regarding M&As. The few studies that exist have mainly tested the validity of the theory on M&As, by focusing on determinants and the magnitude of above normal returns, motives, partner selection, and post-M&A performance.

Compared to the earlier contributions that used cruder measurements of firm performance and post-M&A effects, the overall quality of M&A studies using the resource-based perspective has increased in recent years (see in particular Capron et al., 1998; and James, 2002). The empirical literature has yielded results that support the theoretical framework as defined by Wernerfelt (1984), Dierickx and Cool (1989), Barney (1986; 1991), and Peteraf (1993), by suggesting the existence of both tangible and intangible firm-specific resources (however broadly defined). In addition, empirical results have supported the existence of above-normal returns or profits for firms that possess resources that are difficult for competitors to imitate (cf. the definitions by Dierickx and Cool, 1989). Thus, the resource-based perspective has succeeded in penetrating the walls of the "black box", even though there is an ongoing debate whether the theory has succeeded in reaching the core of the box.

This thesis concerns the M&A process of Japanese firms, and when investigating the changing behavior of M&As, the motives become an integrated part of the analysis. As motives often are stated as "strategic" by Japanese firms, an analysis must verify whether such statements are true using the definitions provided by Dierickx and Cool (1989), and Barney (1986, 1991). In other words, the question is whether the firms involved in M&As have been aiming for specific resources or not, and if they were, what type of resources have they needed (that is, motives) and how have they satisfied the resource need (that is, partner selection). In this way the resource-based theory constitutes the basis for analyzing the M&A behavior of Japanese firms. Another argument for using the resource-based view when examining M&A behavior is that it is more rewarding to investigate the *motives* for the firms' *resource*

procurement when deciding on the M&A partner firm, rather than their product management strategies, especially during the *pre-M&A* phase of the M&A process (cf. Porter, 1980; 1990).

From the resource-based perspective, Japanese firms seem, at first glance, to have adapted to the changing business environment by gaining and maintaining competitive advantages. But an M&A process is a long and complicated path for the management of a company to follow, and few attain the goals they originally aimed for (if they had any goals at all), while others are "lucky" and succeed without knowing exactly why. In addition to the analytical structure that the resource-based view offers when examining the M&A process, it is also necessary to analyze the outcome of the M&As. Here, the theories on FDI and spillover effects, together with the econometric methodology employed in this thesis, complement the resource-based view of the M&A process by explaining the magnitude and characteristics of post-M&A performance. The next section will discuss the theories on FDI and spillover effects.

2.2 M&As and spillovers

When reviewing the literature on FDI spillovers and host country effects, it is more evident that the bulk of the discussion is based on empirical findings rather than on theoretical reasoning. As a number of scholars have pointed out (e.g. Blomström and Wang, 1989; Blomström and Sjöholm, 1999; Blomström et al., 2001; Bjorvatn et al., 2001), examples of theory formulation within FDI studies are relatively few, and the theories regarding FDIs are not a coherent group of theories, but exist in various forms. The variation results from the diversity of schools to which the respective theorists belong⁵¹. Also, a major part of the FDI literature deals with the determinants of the individual firm's decision to go abroad (see e.g. Hymer, [1960] 1976; Aharoni, 1966; Dunning 1980, 1981, 1988, 1998, 2000; Porter, 1990; Wilska, 2002).

An inward M&A is, by definition, an FDI, albeit one of many FDI modes. As implied earlier, the question of how inward FDIs through M&As contribute to the host country is a central issue of this thesis. Do inward foreign direct investments only utilize existing resources in the host country, as is suggested in the popular debate of recent decades. Furthermore, what are "host country effects"?

⁵¹ Wilska (2002) details the main theoretical straits within the FDI literature.

2.2.1 Towards an explanation of FDI spillover effects

Generally, theories on FDI start by examining the various kinds of distortions found in perfectly competitive markets. From these distortions, various incentives emerge making international transactions of resources desirable. One of the first to introduce distortions to the traditional neo-classical models was Hymer ([1960] 1976), who underlined that firms do not operate on equal terms, but compete with different sets of endowments. Since traditional trade theory cannot explain multinational corporations (MNCs)⁵², other factors must explain MNCs. Hymer suggested that firms already established in foreign markets have competitive advantages over domestic firms, and this has since become the main theme of FDI theory.

MacDougall (1960), who was the first to systematically include productivity spillovers in FDI analysis, uses a neo-classic welfare model to detail the gains for home country capital owners when capital is transferred from the home country to the host country, and the gains that the host country production factors earn in the form of higher returns⁵³. After gradually relaxing the assumptions of perfect competition, MacDougall eventually identifies at least two "externalities" to the host country economy that FDI will bring about: elimination of bottlenecks and introduction of know-how⁵⁴. The bottlenecks will disappear as an effect of the technological transfer and the increase in the total flow of production in the host economy (given that the foreign investing firm is on a higher technological level than its competitors in the host country). These benefits depend, however, on the institutional framework enforced in the host country. This is also one of the major results of the empirical studies, where host country conditions have direct impact on the outcome of spillovers, besides the investment decision by the firm. The capital intensity of the goods produced also heavily influence the outcome of the host country benefits from the inward FDI. *Imports* of capital-intensive goods (such as sophisticated production equipment) improve the terms-of-trade for the host country, and can offset the negative effects from repatriations of profits by MNCs. On the other hand, *exports* of capital-intensive goods have the opposite effect on the terms-of-trade, and will enforce the

⁵² Traditional trade theory says that in a world with perfect competition, factor contents embedded in goods traded can substitute for factor immobility; therefore, there is no need for firms to operate transnationally as in the case of MNCs - international trade in goods and services between countries is sufficient.

⁵³ This model is technically similar to ordinary trade models.

⁵⁴ Parry, pp. 62-63.

effects profit repatriation has on it. This effect is commonly called immiserizing growth, where the gains for the host country from the FDI will be lower than it otherwise would have been.

The main conclusions of MacDougall's theoretical discussion⁵⁵ are that FDIs yield a positive externality to the host country's firms by transfer (or diffusion) of knowledge and create a competitive pressure on the domestic firms to become more efficient. These theoretical arguments – in particular the one about competitive pressure – by MacDougall have since been widely confirmed in a number of empirical studies.

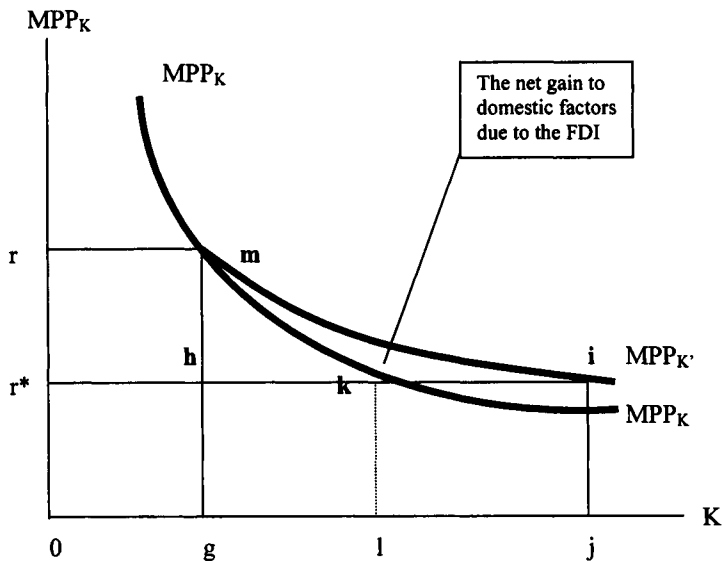


Figure 2.2. Direct efficiency gains for the host country industry through MNC FDIs utilizing know-how discrepancies (after Parry, p. 78).

Similar to technology gaps, have know-how discrepancies between nations have also been considered as a major driving force for FDIs. The accruing gains, holding other things constant, for the host economy is most easily explained by the graph in Figure 2.2. Following the traditional neo-classical reasoning, assuming that the foreign firm has higher productivity compared

⁵⁵ Besides taxing profit repatriations and hindering labor redistribution from the foreign-owned industry to other industries (which have lower social value of marginal labor product) in order to minimize potential macroeconomic losses.

to the domestic firms and that no other distortions are present in the host industry (such that both foreign and domestic firms are facing the same social value of marginal product), the inward investment creates a shift in capital stock K from point g to j . The knowledge advantage of the foreign firm means that it follows the marginal physical product (MPP) curve MPP_K , while the domestic firms still face the same MPP curve as before the FDI. The distance between the MPP curves beyond point g represents the technology or know-how gap. The accruing gains will then be distributed as follows: the area $gmij$ represents the industry output (given that the foreign firm receives higher returns on its host country production than in its home country), where $ghij$ is the returns on the foreign firm's capital and hmi for the domestic capital. In contrast to this, a scenario where only domestic firms had increased the capital stock would only yield $gmkl$ (given the MPP curve for the domestic firms, only an increase of the capital stock from g to l would have paid off), where the net factor returns are represented by the area hmk . Thus, it is obvious that - given this simple theoretical model - an FDI can yield a leverage to the host country productivity and wealth compared to a situation where it relies only on domestic investors. Obviously, the situation here describes a greenfield investment. However, the same reasoning is applicable to the short-term perspective for *inward* M&As, where the foreign firm adds to investments already made by *transferring technology* (including superior know-how).

Negative indirect spillover effects through losses in efficiency due to *inappropriate technology* use are also factors influencing the total host country benefits. Naturally, the optimal amount of technology for the MNC to transfer to its subsidiaries abroad does not necessarily need to be identical to what is optimal for the host country. Since the prime concern for the individual MNC is production and business development in the foreign market, the factor proportions that are optimal for the development of the host country economy may be ignored by the MNC. Parry lists two arguments for how inappropriate technology transfers can be inefficient for the host country. First, the factor proportions of the transferred technology can be biased away from the factor that is abundant in the host country. An example would be to place an aluminum plant in a developing country that is relative factor abundant in labor. Second, the scale of the production unit - a factory for example - might be unsuitable and inappropriate for the size of the host country (given that the location of the production unit is to serve the host country market). Here again, the aluminum plant serves as an example, as

such a plant would not be especially beneficial if placed in a country like Mongolia⁵⁶.

The problem of inappropriate technology transfers within MNCs stems from a mismatch between the factor costs under which the technology is originally developed, and the relative factor costs prevalent in the host country market (this is particularly evident in MNCs operating in developing countries; see e.g. Skinner, 1968). The MNC might be aware of the inefficient installation of advanced technology in the host country subsidiary, but needs it for "conceptual" reasons⁵⁷ or to secure quality control. This need to install advanced technology may in turn be required by the scarcity of *skilled* labor. Institutional factors determined outside the boundaries of a firm, such as governmental decisions regarding technology requirements, trade policies, investment policies, R&D location, etc. also greatly influences an individual firm's suboptimal technology transfer decisions.

The scale of production may create inefficiency effects for the host country, regardless of whether it is a developed or a developing economy. Here, the key point is the *size* of the market. If the market size is limited and the necessary scale of the production facilities has to be large, this mismatch leads to an overcapacity and inefficient use of input factors⁵⁸. Parry (1980) notes that host countries seldom recognize that a "second-best" choice of letting the investing MNC use somewhat dated technology in order to fully employ the factors abundant in the host country (thus having a competitive advantage), leads to better factor utilization and host country spillovers. Otherwise MNCs are forced to introduce state-of-the-art technology for which few have the skills to use, and is unnecessary for the local market⁵⁹. In other words, the long-term perspective of the host country is sacrificed to its

⁵⁶ This example is not far from the real conditions during the communist era. In Choybal-san, a steel mill complex was built in a city constructed exclusively to serve the steel production facilities. The only endogenous input was labor; everything else, including energy, was imported from the Soviet Union. Needless to say, the local demand was limited, and the bulk of the production output was exported back to the Soviet Union.

⁵⁷ Such as franchising, brand name, and patented production processes.

⁵⁸ There are exceptions to this pattern. In some capital-intensive production such as shipbuilding, overcapacity on purpose is common in order to shut out possible competitors. The shipbuilding market is however highly international, and the created overcapacity is aimed at hindering new entrants on a *global scale*. The effects on the economy where the shipyard facilities are located can therefore be different than if the shipbuilding market would have been national.

⁵⁹ Parry, p. 84.

eagerness to catch up quickly with more developed countries. The inappropriate technical transfers, called *fragmentation*, are the result of tariff protection and a limited number of foreign MNCs entering the host country market. This leads to inefficiencies since the factor use cannot be optimized by the appropriate industries. Thus, institutional factors (that is, tariff protection and market structures) of the host country lead to inappropriate technical transfers by MNCs, and by doing so, support an inefficient production structure.

So far, the discussion has primarily concerned tariff distortions to host country gains. Japan is not a country known for high tariff barriers⁶⁰ – on average 6.5% in 2000⁶¹ – but still, distortions with similar effects can arise. The inefficiency effects, as a result of fragmentation, is, all other things held constant, that the expected gains from *inward* M&As are negative or even unapparent. On the country level, the distribution of social benefits from FDI depends on the institutional setting of the host nation. On the industry level, the gains from inward FDI depend on the market structure – the status of the domestic firms – and the distribution of consumer and producer surpluses, and how much the foreign investor can capture (and repatriate). Again, this depends on the industrial and taxation policies of the host nation.

2.2.2 Direct and indirect gains

Direct gains from FDI are fairly straightforward to measure, and will also be measured as part of this thesis' econometrical analysis⁶². Often, the *indirect* effects are more interesting to consider when gains from FDI are measured on a *macro* level. The indirect effects can be described graphically, as shown in Figure 2.3. As a result of the spillover effects (such as technology diffusion, competitive pressure or demonstration effects) from an MNC FDI, the *existing* domestic firms also raise their productivity level in such way that the marginal physical product curve is shifted outwards from MPP_K to MPP'_K left of point m , leading to an increase in the capital (and factor) rate of return from r to r_p . Obviously, this shift is conditional to the total increase in the capital stock due to the MNC investment, or in other words, this effect would not have taken place if the MNC had not invested in the country. If the addi-

⁶⁰ However, the only country it has a free trade agreement with to date (Summer 2004) is Singapore.

⁶¹ WTO (2000).

⁶² The direct effects will be measured by the stochastic frontier production function model. Details are further discussed in Chapter 3.

tion to the capital stock is provided by domestic firms, the MPP curve would have remained along MPP_K .

So far, we have discussed the reaction of existing host-country firms to the establishment of a more efficient MNC. What happens then to possible *new* domestic entrants that are established after the MNC investment? They face two possibilities, each having a different implication. One possibility is when the additional domestic investment is affected by the spillover effects, and the second possibility is when it is not. If the indirect spillovers from the MNC establishment do *not* apply to new domestic entrants, the additional productivity of the new domestic entrant and the existing capital stock (that is, beyond point m) of the new domestic entrants will "only" continue to follow the MPP_K curve⁶³. If the spillovers apply to the new entrants, they will also benefit from a higher productivity along the MPP curve that has shifted outward (i.e. from MPP_K to MPP_K') as an effect of the spillovers.

In Figure 2.3, the two scenarios of capital stock increase, one by a domestic firm and one by an MNC, is illustrated. If an indigenous firm or a domestic new entrant expands the capital stock from g to j and no spillovers apply to the new domestic capital, the output expands only by the area $gmnlj$ (assuming that no taxes exist). Then, the gains that accrue to the domestic capital are represented by the area $ghnlj$, and to the domestic factors hmn . If the capital increase is made by a more efficient MNC, the output will increase by the area $gmij$. Then the gains for the domestic factors will be the area hmi , but the foreign capital owners will earn gains corresponding to the area $ghij$, since the MNC has invested in the extra capital stock up to point j . The distance between O and g the *indirect* effects from FDI, and the distance from g to j the *direct* effects summarize the effects of this scenario.

⁶³ The question then is how long the less efficient domestic new entrant will survive in the market, when competing with the existing firms and the MNC. However, this possibility is left here without further discussion.

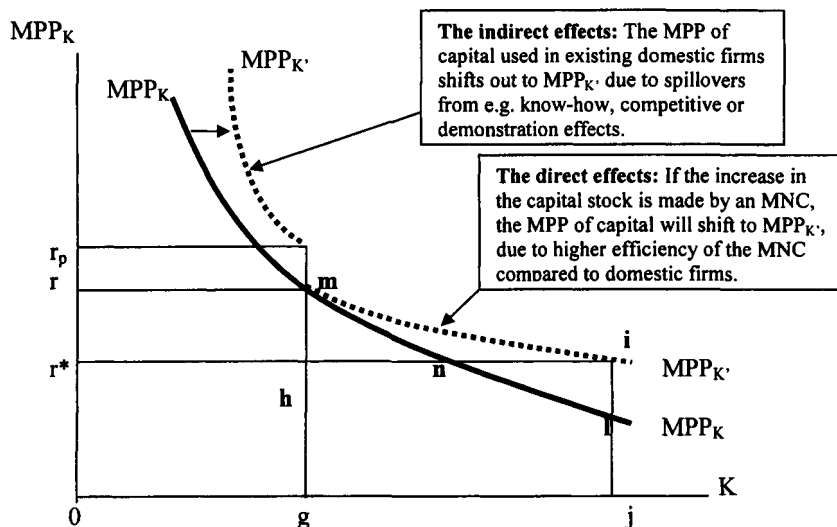


Figure 2.3. Indirect and direct efficiency gains for existing domestic firms from the inward FDI (after Parry, p. 81).

This discussion is directly applicable to a short-term situation where a foreign firm undertakes an M&A. The reasoning is simple. Instead of a capital expansion, regard the existing capital stock as given at point j in Figure 2.2. A foreign firm then acquires an indigenous firm, which possesses a capital stock corresponding to the distance g and j . Furthermore moves the pre-M&A productivity of the acquired firm along the MPP_K curve. After the acquisition, the short-term *direct* spillover effect on the acquired firm increases its marginal physical product from MPP_K to MPP_K' , making it produce an increased amount of output. The transfer of gains is then analogous to the FDI scenario described above. The *indirect* effects will also be similar to the FDI scenario, however with the difference that the indirect effects affects the capital stock of the *remaining non-M&A* firms (that is, left of point m).

2.2.3 Imperfect competition and the distribution of gains

So far, this theoretical discussion has been closely aligned with the simple neo-classical reasoning of perfect competition without any distortions. If the oligopolistic style of competition is considered, some interesting implications arise. In the "real" world, firms offer goods and services that are somewhat differentiated. This *product differentiation* creates niches for firms and few real

competitors, as these firms compete with *almost* same products, but never *exactly* the same.

In the presence of imperfect competition, positive and negative effects from FDIs appear. The positive effects include increase in know-how, introduction of new technology and management practices, and increased competition that spurs competitiveness and efficiency among the domestic firms. The adverse effects are actually closely connected to these gains, and *may* appear sooner or later in the form of inefficiency and distribution losses. The entry of a foreign MNC, which initially increases the competition, creates a situation in the host country market such that new entrants – both domestic and foreign – may have difficulties entering the market. Also – given that such activity is allowed in the host country – there is a possibility that foreign firms or the domestic firms initiate M&As, which then reduces the competition if the target firms are already established in the host market. However, is such a situation necessarily bad for the host country? The answer is yes, if compared to the situation where other competing firms are present in the market. On the other hand, given the possibility that the positive effects outweigh the negative effects, and other things remain constant, the argument is strong for allowing FDIs anyway. It is obvious from Figure 2.3 that the host country is better off with an FDI compared to a situation where only domestic firms are allowed to make investments. Therefore, the outcome depends completely on whether there are any *positive net efficiency gains* for the host country from the inward FDI, *regardless* of the post-FDI market structure. The domestic firm investment alternative is inferior in any case, even if there is only a minuscule positive net gain for the host country from FDIs.

2.2.4 Determinants of host country spillover effects

There are no reasons to believe that MNCs will provide technology for the host country without first considering what benefits it can gain and what risks that are present (such as spread of unique production processes and efficient internal routines) by transferring the firm-specific know-how. If technology transfers to the host country are regarded as a market where the MNC is the “supplier” and the host country (meaning both individual domestic firms and the host country government) is the “consumer” of a superior technology, the degree of the MNC’s willingness to transfer technology is easily understood. One major factor is the country characteristics whether it is an open or closed economy or whether it has a market structure with many or few companies. Blomström et al. (2001) have focused on the impor-

tant factors for investment in *developed* countries, which are often neglected in the traditional FDI literature. The location of the host country, the market size, the average real income level of the households in the host country, and possession of some sort of competence that the foreign investor lacks are all reasons that attract inward FDI, and the last three factors are especially important explanations as to why MNCs enter foreign markets with a rigid institutional structure. Yet another factor, often raised in the popular debate as important in promoting a country's attractiveness to foreign investors, is the role of governments as creators of an FDI-friendly industrial policy. Effects from such policies are however hard to verify in detail, but restrictions on foreign ownership and capital transfers are factors that can hamper the will to invest⁶⁴.

Thus, Blomström et al. have suggested a theoretical approach, explicitly identifying the *determinants* of spillover effects by using an ordinary supply and demand model. On the "supply" side, the foreign investor provides or makes available technology to the host country business, which receives economic rent from the foreign technology (here the "technology" is viewed as a tangible or intangible resource). The foreign investor weighs the costs of transferring firm-specific competitive advantages against the potential benefits (such as economy of scale or technology acquisition from domestic firms) achieved by setting up operations in the host country. The "demand" side, reasoning is quite similar to the "supply" side, as the domestic firm weighs the potential benefits of internalizing the foreign-developed technology (in the form of lower production costs and/or increased revenues) against the costs of diverting firm resources in order to use the technology. This model resembles the framework suggested by Parry (1980), but is seminal in the sense that it is the determinants of spillovers to the host country that are explicitly addressed.

2.2.5 Empirical evidence

Is there any empirical support for the possible host country effects stated above? There exist a number of studies with varying results. Numerous studies have shown that there exist, direct and indirect, positive spillover effects from FDIs to host countries. Empirical studies (e.g. Blomström and Kokko, 1994; Kokko et al., 1996; Blomström and Kokko, 1998; Blomström and

⁶⁴ This postulate is rather intuitive, and at least in the case of Japan, the evidence from this thesis supports it.

Sjöholm, 1999; Sjöholm, 1999; see also Table 2.2 below) have shown substantial externality effects on host country economies and local firms as the result of foreign presence in a local market. The empirical literature primarily discusses technological spillovers, often denoted as "broadly defined"⁶⁵, from MNC affiliates to local firms, either by local firms being suppliers or by the presence of foreign firms in the local host market. In the previous section, we discussed the two modes of spillover effects, direct and indirect. As Blomström et al. (2001) point out, most studies on host country spillovers of *developing* countries examine the *direct* effects, which can limit the ability to apply those empirical results to *industrialized* economies.

Spillover effects from FDIs were first considered in the 1960's and the early 1970's in the theoretical and empirical literature of economics, using standard neo-classical models. However, in these studies, the spillover effects were only discussed as possible side effects⁶⁶. Direct tests for spillover effects were not done in empirical studies until the 1970's⁶⁷, and there were no serious attempts to theorize the findings. During the latter half of 1970's, more elaborate theoretical models started to appear in the theoretical literature, such as the work of Koizumi and Kopecky (1977) and Findlay (1978). The empirical literature lists three modes through which spillovers occur, and how the host country economy benefits.

Technology transfer effects

Pure transfers of technology to MNC affiliates can have direct effects for host country firms that are either suppliers of the MNC affiliates or licensees of the MNC. The supplier of the MNC directly accesses the foreign technology through licenses, manufacturing process requirements or quality control requirements. Another important source of technology transfer is staff training. Training of local employees, who later move on to local firms or start a business of their own, eventually spreads technology and management practices throughout the economy. In studies from the 1980's (Mansfield and Romeo, 1980; Mansfield, 1982), evidence for such technology leakage was found between US MNC affiliates and host country competitors. Later studies (e.g.

⁶⁵ Authors then suggest a definition of the word both in terms of tangible and intangible assets, covering a wide range from production technologies and processes to management practices.

⁶⁶ Blomström (1990); Blomström and Kokko (1998).

⁶⁷ Blomström (1990), pp. 7-11.

Feinberg and Majumdar, 2001; Benfratello, 2002) have also confirmed these findings.

On the other hand, imperfect markets for certain technology often forces MNCs to choose technology transfers over licensing. This possibility is well known from the OLI (cf. Dunning, 1988) and transaction cost theory literature (cf. Hennart, 1991), where *internalization* is a strategy for an MNC to circumvent imperfect host country resource markets. In the literature, internalization is primarily concerned with acquisition of key resources, but it also works in the other direction, where the key resource is provided by the MNC to the local affiliate or supplier. The difference between these two types of internalization is the purpose for entry into the foreign market. A concrete example of the former strategy is an MNC that acquires a host country firm in order to obtain knowledge about an unknown local market, while the latter strategy is exemplified by an MNC that wishes to upgrade a subcontractor's production process in order to satisfy the quality requirements of the MNC's final products.

Competition effects

By entering a new market, an MNC can spur increased competition within the host country home market. If a host country market, which previously had been protected by regulations, is opened up to foreign firms, new entrants can create a competitive environment where local firms either have to improve their performance (by, for example, introducing foreign technology) or go out of business.

The outcome is then twofold. First, the technology level and overall competence among the domestic firms rises due to the increased competition, thus contributing to growth of the host economy. This type of spillover effect was noted early on by Dunning (1958) among British firms after US firms entered the UK market. Productivity gains from FDI can be illustrated exactly in the same manner as efficiency gains from know-how gaps in Figure 2.3. Competition spurs productivity among the domestic firms in the host country industry, leading to a general increase in efficiency in the industry and higher returns on the domestically employed factors or lower product prices. The second outcome is that the technology gap between the foreign and the domestic firms is so large that the domestic firms gradually go out of business. Blomström and Kokko (1998) also note that this process can go so far that the foreign firm becomes the only actor in the market, thus replacing a badly functioning market with an even worse outcome, a monopoly.

Clearly, if such a market structure appears as a result of the FDI, the host country gains are reduced due to the misallocation of resources. However, the eventual outcome depends on the market structure and the level of regulation and other distortions that exist in the host country.

Having said this, liberalizations of FDI policies are not a prerequisite for an MNC to enter a foreign market. While recognizing the presence of foreign firm disadvantages in the host country, such as less knowledge about the host country markets, Blomström (1990) points out that MNC new entrants can still utilize their technological advantages, scale efficiencies and financial strength to enter markets with high entry barriers and obtain a leading position in the market.

Demonstration effects

Spillover effects resulting from the presence of foreign firms in a market can also take form as an "externality" from the technology that foreign firms introduce to the local market. Local firms, which are not included in the network of the MNC in the host country, can, through observation or backward engineering, try to emulate or copy the technology or management practices of the foreign firm. The triggering factor for this type of spillover is obviously the competitive pressure from the MNC and its affiliated firms in the host country market. This type of spillover is therefore related to the previous point regarding efficiency enhancement due to increased competition.

2.2.6 Measurement of magnitude and the directions of host country benefits: Support and critique

The *measurement* of spillover effects from FDIs has often been based on empirical *ad hoc* models rather than on widely accepted theoretical frameworks. In addition, there are differing views as to the *magnitude* of the different modes of FDI spillovers. Blomström and Kokko (1998) discuss the problem extensively, and conclude that a possible reason for this deficiency in the empirical literature is the lack of detailed data appropriate for the level of analysis in the existing studies. In addition, possible difficulties in operationalization may also be a reason for varying results. Despite the weaknesses in some empirical results, it is still useful to investigate the direction of the host country effects in the literature.

The question is whether or not an MNC establishment abroad always involves local production. In other words, could there be any other reasons for new market entry, such as exploitation of a large consumer market in which

the households have significant purchasing power? The answer is yes, but the empirical literature has mostly dealt with the effects of production locations in developing countries, and how gains from such FDIs benefit the host country. Table 2.2 summarizes the findings of a number of relevant empirical studies on host country spillover effects from FDIs, and the direction of the spillover effects. The table does not include the entire literature, and encompasses only more recent studies⁶⁸.

Authors	Object of study	Direction of host country effects
Direct effects		
Blomström (1986)	Spillovers and structural efficiency in face of foreign presence in the Mexican manufacturing industry	Positive
Haddad and Harrison (1993)	FDI spillovers under tariff and quota regime in the Moroccan manufacturing industry	Indecisive
Kokko (1994)	Spillover effects from MNCs with superior technology vs. domestic firms in the Mexican manufacturing industry	Indecisive
Kokko, Tasini and Zejan (1996)	Intraindustry spillovers in the presence of large technological gap in Uruguay	Indecisive
Imbriani and Reganati (1997)	Determinants of spillovers from FDI in Italian manufacturing sector	Positive
Baldwin (1998)	Post-M&A productivity effects of Canadian manufacturing firms, measured by the nationality of acquirer	Indecisive
Aitken and Harrison (1999)	Direct and indirect measures of FDI productivity spillovers in Venezuelan plants	Positive
Blomström and Sjöholm (1999)	Technology spillover effect from FDIs on local participants and non-FDI domestic firms in Indonesia	Indecisive ¹ Positive
Sjöholm (1999)	Productivity growth and intra-/inter-industrial spillovers from FDIs in Indonesia	Positive
Driffield and Taylor (2000)	Impact of inward FDIs and technology transfers on the UK labor market	Positive
Zukowska-Gagelmann (2000)	Spillover effect on local firms from foreign MNCs in Poland	Positive ² Negative
Hsu and Chen (2000)	Effects on labor productivity from export intensity level and inward FDIs in Taiwan	Positive ³ Negative
Bosco (2001)	Spillover from MNC affiliates to domestic firms in Hungary	Indecisive
Egger and Pfeiffermayr (2001)	FDI labor productivity spillovers in the Austrian manufacturing industry	Positive

Table 2.2. *Continued.*

⁶⁸ The list is not intended to be exhaustive. Also, the studies focusing on spillovers from MNC R&D activities are omitted here, since the present thesis treats ownership, technical productivity and host country effects.

Authors	Object of study	Direction of host country effects
Indirect effects		
Feinberg and Majumdar (2001)	Spillover effects from technology and know-how transfers from foreign MNCs to domestic firms in the Indian pharmaceutical industry	Positive ⁴ Indecisive
Hu and Jefferson (2002)	Productivity change from FDI spillovers in the textile and electronics industries in China	Positive ⁵ Negative
Kathuria (2001)	Spillover effects in the Indian manufacturing industry	
Buckley et al. (2002)	Spillover effects from inward FDI on the Chinese manufacturing industry	Positive ⁶ Negative
Benfratello (2002)	Productivity effects after domestic and inward M&As in the Italian pasta industry	Positive
McVicar (2002)	Spillovers from FDI in the UK manufacturing industry measured by TFP	Negative
Damijan et al. (2003)	Technology transfer spillovers effects from the TFP growth of host country firms in eight transition economies	Positive ⁷ Indecisive
Kokko (1992)	Spillover effects in 33 countries from US MNC overseas operations	Positive ⁸
Zhang (1999)	The significance of FDI spillovers on long- and short-term economic growth in six host countries	Positive
Kokko, Zejan and Tasini (2001)	Spillover effects from FDI under changing trade regimes in Uruguay	Positive ⁹
Li, Liu and Parker (2001)	Competition and demonstration effect spillovers from the presence of foreign firms in the Chinese manufacturing sector	Positive
Barrios and Strobl (2002)	Spillover effects from FDI under changing trade regimes and EC accession in Spain	Positive ¹⁰
Bjorvatn, Kind and Nordås (2002)	Existence of spillover effects in five host countries (1 industrialized, 3 semi-industrialized and 1 developing) from FDI	Positive ¹¹ Negative
Haskel, Pereira and Slaughter (2002)	FDI spillovers in the UK manufacturing industry , measured by domestic firm TFP and foreign affiliate share of industry activity	Positive
Castellani and Zanfei (2003)	Spillover effects from FDI on the manufacturing industry in Spain, Italy and France	Positive ¹² Negative ¹³ Indecisive ¹⁴
Keller and Yeaple (2003)	FDI spillover effects from imports and technology transfers on domestically owned firms in the US manufacturing industry	Positive
Harris and Robinson (2004)	Intra- and inter-industrial spillover effects on the TFP of the British manufacturing industry	Negative
Cheung and Lin (2004)	Innovation growth from FDI spillovers in China	Positive

Table 2.2. Summary of the direction of the spillover effects found in a selection of empirical studies. 1 = Indecisive effects on the plants with direct foreign capital participation, but FDI had positive competition effects on the *non-exporting* domestically owned firms in the same industry. 2 = Positive effects were found in industries with little competition, whereas negative effects were found in industries with a higher concentration of foreign-owned firms due to a substantial technology gap

between domestic and foreign firms. 3 = Productivity increased in the SMEs where FDIs occurred, but other firms in the industry experienced negative indirect spillover effects from FDIs. 4 = The only positive effect was between MNC affiliates. There existed **no spillovers to the domestic firms**. 5 = Short-run productivity gains in the electronics industry; negative for the textile industry. In the long run, the gap between the domestic firms receiving FDIs and *surviving* non-receiving firms was narrowed. 6 = Positive spillovers for the *non-state owned enterprises* (SOEs) from non-Chinese and overseas Chinese FDIs; *negative* spillovers for the SOEs. 7 = Positive spillovers only when directly linked to foreign firms; no intra-industrial effects; indecisive spillover effects among domestic firms without any linkages to foreign firms. 8 = On the condition that host country firms are able to absorb technology, and that the MNC affiliate is not operating as the sole actor on the market (i.e. having a monopoly position in the host country). 9 = Under import-substitution regime, technology transfers from MNCs to domestic firms occurred, while under export promotion regime, younger domestic firms increased their productivity from export spillovers (i.e. increased propensity to export in the new business environment with export-oriented MNCs present in the host country industry). 10 = Positive spillovers from technology transfers leading to increased productivity only for domestic firms with *appropriate technology level*. 11 = Positive effects for the *open* industrialized and semi-industrialized countries in the study; negative effects for the *closed* semi-industrialized and developing countries in the study. 12 = For Italy. 13 = For Spain. 14 = For France.

Overall, the investigated countries were mainly developing or transitional economies. For the studies measuring *direct* effects, the host country spillovers from FDIs were generally positive or indecisive. The same pattern is also found also in studies focusing on *indirect* effects from FDIs. Although the literature list in Table 2.2 is not exhaustive, a conservative assessment of the empirical results shows that the direction of host country effects depends on the level of industrial development in the host country. Furthermore, the empirical evidence suggests that local firms are able to absorb foreign technology. Finally, the level of openness in the economy is also an important determinant for the direction of host country gains. In short, the results of the studies suggest the following:

1. There must be competition in the domestic market in order for host countries to enjoy spillover effects – no gains from foreign investment will occur if the foreign firm is the sole actor in the host country market.
2. The host country firms must have attained some degree of development before they can appropriate any foreign technology (i.e. *direct* effects).
3. The economy must be open (low or no tariffs) in order to benefit from spillover gains (i.e. *indirect* effects).

In other words, the picture given here largely agrees with what is found in the literature surveys previously done by Blomström and Kokko (1998) and Blomström et al. (2001).

Related to this, Kokko et al. (2001) provide interesting results from Uruguay, where the year the domestic firms were established influenced the type of spillover benefit experienced by the host country. Under the import-substitution regime, technology transfers from MNCs to existing domestic firms occurred, as the foreign firms were focused on entering a closed domestic market. After the trade policy change in 1973/74 and the introduction of an export-oriented regime, newly established domestic firms increased their productivity as a result of export spillovers, or in other words, the propensity to export increased as the business environment changed with export-oriented MNCs present in the host country industry⁶⁹. Barrios and Strobl (2002) also report similar results from Spain by studying the situation before and after the country's accession to the EC in 1986. Before becoming a member of the EC, Spanish trade policy was characterized by high levels of protection and low productivity in its industries. After the accession, the trade regime changed, and Spain experienced a large influx of capital leading to a significant increase in productivity among its domestic firms. Thus, immediate effects from institutional changes should not be underestimated.

A parallel can be made between these findings and the situation in Japan, by considering the significant change in the FDI policy that took place during the 1990's, when the control of investment flows were relaxed. From the very beginning, Japan has provided a large consumer and producer market, where the potential for doing business has been considerable. The aim of the foreign firms' establishment has therefore been to sell products in Japan rather than to use Japan as a base for export production. However, the foreign firms soon discovered additional incentives for increasing their cooperation with Japanese firms, and used this relationship as a means of market entry into a country with tedious capital import controls and hindrances to quick investments, such as M&A takeover bids. After the large-scale reforms of 1998, the introduction of post-investment notation to the Japanese authorities and permission to share payments in M&A deals paved the way for an increased number of inward M&As.

⁶⁹ Compare this finding with the theoretical discussion of the section 2.2.2 and Figure 2.2.

2.2.7 Conclusion of FDI and spillover theory

It is evident that FDI cannot be explained by one single factor. The theories suggest that FDI is the result of market imperfections or distortions, which create incentives for firms to invest abroad. Furthermore, the gains that accrue for the host country and the level of these gains are decided by the tariff and industry policy regimes, imperfect competition between national and international markets, and know-how and technology gaps. The *direct* gains from FDI are immediate increases in productivity from the FDI. However, in order to calculate the total gains the host country has acquired through the FDI, it is also necessary to take the *indirect* gains, or spillover effects, into account, since they decide the level and the distribution of the total gains. An obvious expression of distortions from institutional factors, besides any monopoly control of tangible and intangible resources, is the use of inappropriate technology and underutilization of the host country's comparative abundance in some production factor.

The introduction of imperfect competition into the FDI theory makes the analysis of its presence and influence on the host country benefits from FDI more realistic. As said earlier, efficiency and inefficiency effects strive in opposite directions, and the eventual result depends on which effect has the largest influence due to the imperfect competition. This is also what other authors emphasize, and especially Kokko (1992) points out that it is likely that the overall level of distortions in a host economy is a major determinant of MNC technology transfers. Thus, there are arguments for governments to formulate an industrial policy that facilitates FDI in order to be able to enjoy spillovers. However, in order to do this, the host country firms have to be advanced enough to absorb a certain technology. In other words, a sufficient degree of industrial development is a necessary condition for spillover appropriation. For example, within the pharmaceutical or the financial sectors spillover effects for the host country are more likely to occur in Japan than in a developing country, whereas we have seen, for example, location of labor-intensive light manufacturing in China rather than in Japan, which as a country probably would obtain less gains from such new-establishment than China⁷⁰. Overall, the evidence in the literature suggests that the FDI policy, conformity in technology, the market size and the average real income of consumers makes an *industrialized* country attractive for an MNC.

⁷⁰ China has in fact started to enter high-technology manufacturing by learning from international JVs (Sigurdson, 2004a; 2004b).

Thus, the notion of imperfect competition in FDI theories connects closely to the imperfect market assumption of the resource-based view. Also internalization/acquisition of strategic resources/assets are common themes of both disciplines. In the next section, the application of the discussed theories on Japanese M&As will be examined more closely.

2.3 M&As and theories of FDI and Resource-based view

As a phenomenon, M&As can be – and have been – analyzed from a multitude of theoretical angles. The analysis in this section concerns the M&A process, starting from the identification of needs to the post-M&A performance outcome. In short, the purpose is to investigate the determinants of M&A behavior *and* to estimate the outcome of the M&As. This thesis makes use of two theoretical perspectives in its analysis. The theoretical approach that is applied in Chapter 5 is the resource-based perspective, while the interpretation of the results in Chapter 6 mainly employs theories on FDIs and spillover effects. As detailed above, it is the fundamental assumption of the resource-based theory that firms possess *heterogeneous* bundles of resources, allowing firms to maintain profitability over long periods of time. Moreover, the resource-based theory has a firm-level perspective. In comparison, the theory of host country and host industry spillovers, which is the theoretical base for the econometric analysis, takes by definition an aggregated perspective by having country and industry level perspectives. From the methodological viewpoint, the econometric method (discussed in Chapter 3) used for the performance analysis estimates the average trend in a data set, implicitly meaning that the firms are comparable. Therefore, there is a potential problem in making synthesized inferences from analytical results that have such different levels of analysis. However, given the research purpose and the research design of this thesis, there is no such conflict. Admittedly, the level of analysis shifts from the pre-M&A event stages of the M&A process (Chapter 5) to the analysis of the post-M&A outcome (Chapter 6). However, apart from the obvious linkages between the two theories⁷¹, each analytical part is guided by its own research question. Since the purpose of the thesis does not

⁷¹ Seen from M&A viewpoint do both theories concern direct effects on the firms involved in an M&A event. The discussions on direct spillover effects and synergy effects are also basically two sides of the same coin.

include an estimation of the outcome of a *specific* competitive strategy (i.e. no comparison between possible strategies), but rather estimates the total outcome in the form of the efficiency effects from the M&A event itself on the post-M&A industrial performance (in addition to the focus on different stages and levels in the analyses), the theories serves as complements to and not as substitutes for each other.

The next question is the validity of this thesis, which is the connection between the research question and the applicability of the theories. Reviewing the theories on host country spillover benefits and the firm's drive for acquiring unique resources, one can conclude that Japan has many features that, at first sight, seem to work against a foreign establishment, such as high entry barriers and costs, rigid industrial networks and high exchange rates. However, looking at the size of the economy and the large consumer market, the potential gains for foreign firms succeeding in establishing operations in Japan are substantial. In addition, the highly educated labor force and the high level of technical know-how possessed by some Japanese firms are equally attractive features for foreign firms. This is also found in the literature on firms entering new markets that do so not because of low production costs, but rather due to the size of the consumer market and the quality of certain resources. Thus the resource-based theory and the theories on spillover effects are relevant to the study of Japanese M&As. An example is the pharmaceutical industry, which has benefited from inward M&As in recent years by gaining access to the vastly greater R&D resources of the foreign chemical and pharmaceutical firms. Another example is the Renault-Nissan story, which is an obvious case of how the resource concept of e.g. Barney (1991) and the technology concept of e.g. Blomström et al. (2001) can be extended to transfer of management practices and restructuring of host country firms.

Thus, the resource-based view offers explanations of M&As from a firm-level perspective, compared to the FDI theories of host country spillover effects, which address both micro and macro levels depending on the type of spillovers (i.e. direct or indirect effects). However, the resource-based theory also explains how and why the M&A behavioral pattern among Japanese firms has changed compared to earlier M&A waves, through analysis of the early stages of an M&A process. FDI spillover models, on the other hand, are based on neo-classical theory and focus more on *ex post* outcome of an FDI. In other words, these two theoretical approaches are closely related to and complement each other by considering the pre- and post-M&A process respectively. An example is for example managerial skills, which can be

viewed as a vital resource, and indeed, some M&As are aiming for acquisition of unique managerial "material" or production processes in order to create a competitive advantage. On the other hand, managers and production processes are also typical assets that are hard to retain long-term within an organization; eventually, managerial practices and production processes will spread to other firms in the industry as an effect of spillovers. Thus, the existence of discrepancies between the aims and the outcome of M&As have to be recognized and addressed from different theoretical angles, which is also something that the existing theoretical and empirical literature implicitly suggest when studying the effects and mechanisms of inward and domestic M&As.

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3 Methodology of the study

The methodological structure is designed after the conditions under which it is possible to conduct empirical research in Japan about M&As. As it has been pointed out earlier in the introductory chapter, the topic of this research is sensitive and even regarded as "shameful" by some managers. In other instances, information about both past and current M&A activities are regarded by firms as confidential, and closed to outsiders – including academic researchers. The result is that first-hand description of M&A activities, both historical and ongoing, are surrounded by discretion and confidentiality, making empirical research using interview and case study methodology tedious, difficult, or – in some cases – even impossible to execute. Therefore, the weight of the empirical analysis is carried out by applying econometric methods to quantitative data. However, a number of relevant case studies have been available, as well as the opportunity to meet a handful of key people with experience from Japanese M&A processes, which has yielded primary data that has been analyzed through comparative research methods (see e.g. Warwick and Osherson, 1973).

Hence, the thesis can methodologically be divided into two main parts. The first part of the analysis aims to investigate the broader aspects and qualities of the Japanese M&A process. It is obvious *a priori* that statistical data is not sufficiently detailed to capture the qualitative aspects behind the M&A process itself, especially in terms of firm characteristics and firm selection choices. There is also the risk of missing the qualitative differences between Japanese firms that have done M&As with foreign partners and those that have not. Here, the collection of primary data through interviews, and secondary data in the form of news articles and case studies, has been valuable and constituted a necessary complement to the quantitative analysis in order to explore the historical M&A behavior of the industries under study, and the role corporate and personal networks have played in establishing contacts between Japanese and foreign companies.

While some aspects of partner selection issues can be extracted through qualitative analysis methods, pure performance comparisons – e.g. comparisons between M&A cases where all parties are Japanese legal entities and cases where at least one party is a foreign legal entity, or comparisons between industries – are mainly based on quantitative analysis of Japanese survey and census data. The purpose here is to measure the outcome of the M&A process in terms of factor utilization efficiency. The main quantitative method that will be employed is parametrical panel data analysis, using the maximum likelihood (ML) estimations of the stochastic frontier production (SFP) function.

3.1 Interviews

While quantitative analysis is a powerful method for finding systematic patterns in large quantity of data, interviews can capture subtleties that are easy to miss in questionnaires and macro data. The drawback of this method, however, is the time spent interviewing, and the identification of key people to interview.

Interviews can be conducted in several ways, and the choice often depends on the amount of time that each the researcher and the interviewee have available. The most thorough interview method is the semi-structured interview, where the interviewer has prepared main question topics in advance, and where the actual content of the interview is decided by the conversation during the interview itself. The advantage of this approach is the amount of data that a researcher can extract from the interviewee, as he or she feels more comfortable with the situation and the interviewer gains the interviewee's confidence. Another aspect in favor of the semi-structured form of interviews is that they may yield data that is unexpected and that can form the basis of new hypotheses and aspects of the original research questions. The drawback is, apart from the difficulty to generalize from individual cases, the time consumed, as it is difficult even for the most ambitious interviewer to ask more than a limited number of interviewees. Naturally, there exist also "lighter" versions of interviews, which follow a stricter protocol, where the interviewer has designed a questionnaire type of interview. The advantage is less time spent, and a faster pace at which the interviewer can conduct his interviews. The disadvantage is the limited amount of data

that can be extracted, as the interviewee only answers the questions posed and cannot add anything more.

Regarding data and sampling description, the reader is referred to Chapter 5.

3.1.1 Critical aspects of interview methodology

Not uncommonly, interviews have been conducted more or less as a “necessary evil” to justify a specific research. Again— as we will see later in the following section on content analysis method – the criticism has been directed towards studies that have conducted interviews without a clear research design that guides the interviews. Mostly, and if well-prepared, interviews can yield information that is hard to capture in a standardized format such as surveys. If an interview is done without structure, an interviewer can only hope for the “luck” that an informant (interviewee) happens to say something useful. In any case, the obvious necessity is structure and preparedness. Another critical aspect is the quality of the interviewees’ information. A pitfall can be that the interviewee has no clue of the topics for the interview. In other words, the interviewer can interview a person who simply cannot give useful answers to the questions. The obvious result is that the information given cannot be used in an analysis. Therefore, the quality of the interviewee, i.e. that the “right” person is interviewed, is crucial for any research using interview methodology. As previously mentioned, another weakness with the interview method is the time that is required. The overall time constraints put on the research process – from the initial search for interviewees to the final transcription of the interviews – makes it difficult to generate a larger volume of interviews⁷² compared to e.g. surveys. The tradeoff is the level of quality in answers and the number of people you can interview.

3.2 Content analysis

In Japan, many things are said and written from official sources, but other things are understood without being said or written at all. Content analysis is a convenient tool to reveal what is said and not said. Like semi-structured interviews, this method is sometimes criticized, due to a more or less unstructured use of it in the empirical literature as Holsti (1969) calls “fishing

⁷² In most research, time, money and research assistance resources are limited.

expeditions", i.e. research without a clear theory and specified aim of what to look for⁷³. A successful use of this method depends therefore on *why* it is used, and *how* it is used. Holsti (1969), Strauss (1987) and Taylor and Bogdan (1998) describe the method and suggest how to use it structurally for both interview transcripts as well as texts. Overall, and in line with the interview methodology, content analysis needs a structure that systematically follows a scheme designed after *how* the research question is operationalized⁷⁴. Technically, the content analysis method can be executed in two ways. One is "impressionistic", that is, to read a selection of texts and juxtapose the contents (i.e. "fishing expedition" approach). A more systematic approach of text analysis method, which is commonly used for qualitative analysis in social sciences, is to code the contents of a text systematically after a scheme that is specified beforehand, such as making strict categories of topics that are of interest for the research and subsequently analyzing the text and list key passages under each category. For larger amounts of text, computer software is preferably used to categorize the text contents.

When content analysis is employed, three key criteria are important⁷⁵. One is *objectivity*, which in this context basically means that categorization should be made in such way that other researchers would be able to arrive to the same conclusions if they had used the same material. Holsti explains this as to "minimize [...] the possibility that the findings reflect the analyst's subjective predispositions rather than the content of the documents under analysis"⁷⁶. The second criterion is *systematic*, which means that inclusion and exclusion of content or categories is done in a consistent manner, strictly following the predefined scheme. As a result of this definition, it follows that the (coding) categories must reflect the research question, be exhaustive, be mutually exclusive, independent, and derived from a single classification principle⁷⁷. These criteria are to a large part self-explanatory. However, the exhaustiveness and the single classification principle of the categories to be defined have to be explained somewhat more closely. The notion that the categories should be exhaustive means that all relevant factors found in interviews and texts have a coding category into which they can be placed. The more complex an issue, the more difficult this criterion. An example would

⁷³ Holsti, Ch 2; p. 94.

⁷⁴ The analysis, or coding, scheme for the analysis of this thesis, see Table 5.2, Chapter 5.

⁷⁵ Holsti, pp. 3-5.

⁷⁶ Op. cit., p. 4.

⁷⁷ Op. cit., p. 95.

be how each individual in a population perceives a certain taste or like and dislikes; it is hard to categorize all imaginable alternatives. For practical reasons, the researcher has to settle on a set of categories (especially when using survey methodology). Still in other objects of study, categorization is simpler, such as the topic of M&As in Japan. Here, we have made a category scheme guided by the research question, to define the borders of what is relevant and irrelevant when interviewing people or analyzing case studies⁷⁸. The single classification principle means that conceptually different levels of analysis must be kept apart, i.e. regarding the issue of managerial attitudes towards M&As and motives for M&As, it is wrong to have source (large firm managers vs. SME managers) and attitude (positive or negative) on the same level (see Table 3.1). Instead, the design of a coding scheme should strive to be as mutually exclusive as possible (see Table 3.2).

Category	Large firm managers	SME managers	Positive	Negative
Managerial attitudes towards M&As	I	II	III	IV
Motives for M&As	V	VI	VII	VIII

Table 3.1. Example of a bad coding scheme.

Category	Large firm managers	SME managers
Positive managerial attitudes towards M&As	I	II
Negative managerial attitudes towards M&As	III	IV
Strategic motives for M&As	V	VI
Non-strategic motives for M&As	VII	VIII

Table 3.2. Better example of a coding scheme.

The last criterion is *generality*, which means the necessity of theoretic relevance of the findings. Purely descriptive reports on the contents of a text have no meaning alone, and it is only when compared with other accounts or studies, and linked by a theory, that the information in the texts (or the cases) generates useful findings.

If these three criteria are attained (which it should be if a proper operationalization is made), content analysis is a useful method, and helps identify

⁷⁸ E.g. was a Japanese interviewee's experience of Swedish food irrelevant for this research topic, even though it was mentioned in an interview.

relevant constructs. The key concept of content analysis is *comparison*, held together with a theory, which makes it a useful tool in an analysis making inferences from primary data and codified secondary data.

3.2.1 Critical aspects on content analysis method

As mentioned above, content analysis as a method has been heavily criticized in the literature. This criticism has, however, been directed mainly towards how individual researchers have used the method rather than the method itself. Unstructured use of content analysis seldom yields results that are meaningful in a broader context, such as when synthesized with other results in order to make generalized conclusions. The design and the structure of the content analysis method has to be guided by the research question and held together by a theory. Otherwise there is a risk that the results become useless from an analytical point of view.

One should also take into account that routine-like categorizations without reflection, such as "because the handbooks tell you to do so" attitude, can be as bad as "fishing expeditions". In most research "perfect" categorization based on the criteria for "good" content analysis depends on the quality of the data. Like quantitative data sampling, some qualitative data sets are better than others – but never "perfect". Holsti marks that "even the most carefully designed study is likely to fall short of completely satisfying this [to rigidly follow the methodological] requirement"⁷⁹. Even when the methodology of context analysis is employed systematically (as it has to be in order to yield meaningful results), *the outcome is restricted by the quality of the data*. This is, according to this author, a weakness in most research within the social sciences as compared with, say, natural sciences: there are no absolute truths – just estimations of it. At some point, a researcher has to make one or several decisions, which might not at first glance appear to follow the "recipe", but still is necessary in order to get meaningful results. In other words, is the point to find a position between the "fishing expedition" and methodological ultraorthodoxy⁸⁰ – but naturally, it is more serious and preferable to choose a point close to methodological orthodoxy.

⁷⁹ Holsti, p. 99.

⁸⁰ E.g. in his thesis, Brytting (1991) even went beyond Glaser and Strauss (1967) and developed the "Grounded Theory" method by consistently sticking to this method.

3.3 Stochastic Frontier Production Function analysis

For a long time, empirical productivity studies relying on standard econometric methodology have suffered from shortcomings when it came to explaining the residuals. Often the *whole* deviation from a production frontier was assumed to be a result of an inefficient allocation of input factors, that is, *all* observed production inefficiencies was a result of the firm managements' sub-optimal allocation of inputs. Furthermore, it was impossible to break down the inefficiency to firm level; the econometric methodology used in the early productivity efficiency studies (see e.g. Aigner and Chu, 1968; Afriat, 1972; Schmidt, 1976) merely showed that inefficiency existed on the *industrial* level⁸¹.

An alternative approach to address the efficiency measurement problem in connection with M&A performance issues is to employ models, which are influenced by random factors. One method is to use the so-called stochastic frontier production function (SFP) model, first proposed by Aigner et al. (1977) and Meeusen and van den Broeck (1977). The starting point of this model is the production possibility frontier, which is estimated with an e.g. panel dataset. The advantage of this model over other efficiency effect models is the possibility to measure and estimate efficiency effects on a *firm level*. Furthermore, the SFP model allows the use of all common production functions, and therefore, it also allows for estimations of both production and cost functions.

A parametric SFP model can be estimated in two ways. One approach is to use fixed values of inefficiency, using the most efficient company in the sample as a benchmark. The results from this type of SFP estimation are *within the sample space* and the *whole* inefficiency is addressed as firm-dependent (i.e. a fixed effects model⁸²). Another approach is to take the random component in the inefficiency parameter into account and use the estimation for measuring the variance of firm *i*'s output around the deterministic part of the production frontier (i.e. a random effects model)⁸³. Obviously, there are advantages and drawbacks to both approaches. The *advantage* with the former method is that the predictions obtained for the group of firms in the sample is based on their *observed values* of performance. On the other hand,

⁸¹ Coelli et al., pp. 183-185.

⁸² An alternative name is *deterministic model*.

⁸³ Simar, p. 175; Coelli et al., pp. 185-187.

the strength of the latter model is that it indicates the *marginal rate of efficiency change* between firms in the particular industry, which generally gives stronger results because the output y_i is bounded above by $\exp(\beta x_i + v_i)$ rather than the non-stochastic $\exp(\beta x_i)$ as for the deterministic model⁸⁴. The *drawback* of the former model (i.e. the fixed effects model) is that it gives a prediction *only for the sample group firms*; for the random effects model, the downsides are that the results are just *estimations* of the real relationship between productivity and inefficiency, since we do not know the (true) population mean μ or variance σ . The advantages and the drawbacks of each approach are summarized in Table 3.3.

SFP model	Advantages	Weaknesses
The fixed effects (Deterministic) model	Predictions based on the observed values; needs a benchmark (reference) group.	Predictions <i>only</i> of the firms included in the sample group (i.e. no estimation of the <i>population</i> mean and variance).
The random effects model	Estimations the marginal rate of efficiency change between the sample firms.	Only estimations of <i>sample</i> mean and variance, since true μ and σ of the population unknown.

Table 3.3. Scheme of advantages and weaknesses with the fixed effects (deterministic) and the random effects SFP models.

Different from the fixed effects model, the basic idea of the random effects model is the assumption that the error terms of the estimations consist of an exogenous random component v and a firm-specific inefficiency component u . The exogenous v is assumed to be a random error that affects an entire industry such as the weather, natural disasters, demographic conditions etc., while the firm specific error u is a variable supposedly under the control of the firm's management. Therefore, this econometric method "allocates" the "right" error components for each firm (i.e. the exogenous and the endogenous factors influencing the firm's efficiency) in order to decide whether a firm is purely "unlucky" or inefficient due to input factor misallocation or cost inefficiency.

The following figure illustrates graphically the relation between the stochastic frontier production function and the technical efficiency (TE). The

⁸⁴ Observe that the error variable u is omitted here since it is firm-dependent, while the shape of the frontier itself is bounded by $\exp(\beta x_i + v_i)$.

stochastic frontier production function, $y = \exp(\beta x')$ ⁸⁵, represents the estimated optimal output combination at every point, given the observed inputs of the sample firms. The estimated error term ($v-u$) is the actual output deviation from the stochastic frontier; the larger the distance to the optimal output, the more inefficient is the firm.

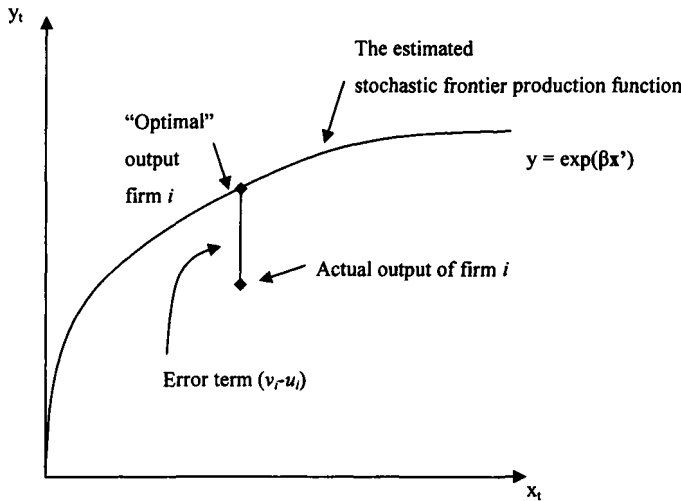


Figure 3.1. Graphical representation of the stochastic production frontier function and the error term. The distance between the optimal output and the actual output is the error term ($v_i - u_i$), which represents the technical inefficiency of the firm i . This distance can be broken down to two parts; v_{it} is the random error, and u_{it} (i.e. the TE) is the inefficiency stemming from the firm i 's inefficient input allocation at time t . The stochastic production frontier is the continuous function of the optimal outputs of all firms in the industry.

The TE effects parameter estimations from the Cobb-Douglas and the translog models usually diverge somewhat, but taking the methodological literature on SFP function models into account (cf. Battese and Broca, 1997; Coelli et al., 1998), the translog model has been used in most applications due to its properties: it has no *a priori* restrictions on the shape of the SFP function. An example of a translog model for a production function $y_{it} = f(k, l) + (v_{it} - u_{it})$, where the variables are transformed in natural logarithms, is:

⁸⁵ Actually, this is the deterministic, or non-stochastic, component of the frontier model, which is similar to the frontier models used by Aigner and Chu (1968), Afriat (1972), and Schmidt (1976). β are the parameters to be estimated, and x' the input variables.

$$\ln VA_{it} = \beta_0 + \beta_1 \ln K_{it} + \beta_2 \ln L_{it} + \beta_{11} (\ln K_{it})^2 + \beta_{22} (\ln L_{it})^2 + \beta_{12} \ln K_{it} \ln L_{it} + (v_{it} - u_{it}) \quad (3.1)$$

where

VA_{it} = Value added of firm i in year t

K_{it} = Net book value of assets for firm i in year t

L_{it} = Number of employees of firm i in year t

v_{it} = Random disturbance ("luck-bad luck") of firm i in year t

u_{it} = Technical efficiency of firm i in year t

i = firm i

t = year t .

As mentioned above, the SFP function model split the error term into two components, v and u . v_{it} represents a random influence that affects firm i 's operations at time t . It is most easily described in a setting where e.g. operation of a farm is analyzed. The v_{it} is then the influence on the output random events such as weather, natural disasters etc. have on each farm i at time t . Technically, v_{it} is analogous to the "ordinary" error of the usual regression models⁸⁶, i.e. by being individually and independently normally distributed

$$v_{it} \sim \text{i.i.d. } N(0, \sigma_v^2). \quad (3.2)$$

The other error component, $\exp(-u_{it})$, is the part of the error term that derives from technical efficiency, as specified in Aigner et al. (1977). Compared to the fixed effect (deterministic) model, predicted by using methods such as OLS or GLS⁸⁷, the special features of the Maximum Likelihood (ML) method estimation SFP function are the treatment of the error term (where random effects are taken into account) and the explicit estimation of the TE for firm i .

⁸⁶ Although in the deterministic models the whole error is interpreted as the firm-specific inefficiency, distributed independently and identically (i.i.d.).

⁸⁷ GLS = General Least Squares

TE for firm i is generally defined as⁸⁸

$$TE_i = \frac{y_i}{\exp(x_i\beta)} = \frac{\exp(x_i\beta - u_i)}{\exp(x_i\beta)} = \exp(-u_i) \quad (3.3)$$

where the numerator is the stochastic frontier and the denominator represents the (deterministic) production function. In other words, the technical efficiency is defined as the observed output of the firm i relative to what a fully efficient firm using the same input vector would have produced, given the specification of the production function.

The TE term is assumed to be individually distributed (truncated normal at zero (TN) in the translog model in order to obtain non-negative values) such as

$$u_{it} \sim \text{i.d. } TN(\mu_{it}, \sigma^2_u), \quad (3.4)$$

where μ_{it} has a linear function

$$\mu_{it} = \delta_0 + \delta z', \quad (3.5)$$

where δ is the inefficiency coefficients and z' the vectors of inefficiency variables or inefficiency dummy variables. The subscripts i and t are the same as in the models above.

Similarly to the parameters in translog models, the parameters of the inefficiency model μ_{it} are non-linear estimations of the marginal effects. They indicate direction of the effect of the variables on the inefficiency and the relative size of the effect in comparison with other inefficiency variables. Further, a *negative* coefficient here implies a *positive* effect on efficiency (and vice versa).

3.3.1 The use of the SFP function model in M&A research in the literature

Because of the limited number of M&A studies using the method employed here in this thesis, the empirical literature using SFP function estimations on M&A performance will only be discussed briefly (cf. the related discussion in Chapters 4 and 6).

⁸⁸ Coelli et al., p. 184. Observe that the variable v is not included in the TE equation, since TE refers to the firm-specific inefficiency.

While performance and efficiency, in general, are a recurrent theme in the merger literature (see e.g. Berger et al., 1993; Allen and Rai, 1996; Akhavein et al., 1997), the methodology of this paper, ML estimation of the SFP function – well established primarily within production economics – is much less used in studies on M&As despite its appropriateness in such analyses. As previously mentioned, efficiency studies based on the SFP function model have been most common in analyses of agricultural production (cf. Battese and Coelli, 1992; Audibert, 1997; Battese and Broca, 1997; Bakhshoodeh and Thomson, 2001). This methodology has also been applied in other settings such as efficiency studies on publicly held companies in the U.S. (Dhawan and Gerdes, 1997), on Turkish manufacturing industries (Taymaz and Saatçi, 1997) and on the spillover effects in Indian manufacturing industry (Kathuria, 2001).

For studies of M&A efficiency effects using the SFP function model, the literature shows surprisingly few attempts. To the best of the author's knowledge, only Benfratello (2002), on the efficiency effects from acquisitions within the Italian pasta industry, and Amess (2003), on the effects from MBOs in the U.K. manufacturing sector, have used the method employed here on M&As. Thus, the use of the SFP function model in an M&A setting is quite novel, making the present thesis an exception to the mainstream in the SFP literature. However, the few studies where M&A and firm-level technical efficiency have been taken to account, two main results have been found. Firstly, consistent with other studies using other methods (e.g. Baldwin, 1998), the nationality of the acquirer does not matter in post-efficiency performance. Secondly, also consistent with other studies (e.g. Hu and Jefferson, 2001), the immediate effects from M&As on firm efficiency is positive, but in the long run, these effects diminish. The methodology used here is therefore a viable alternative to the more conventional approaches mentioned in the introduction of this chapter, and the strength of SFP function model estimation is the efficiency estimations made on the firm level rather than on industry level.

3.3.2 Critical aspects of using econometric method and the SFP function model

Evidently, the use of this particular econometrical method is not without problems⁸⁹. Some of these problems have already been addressed in the previous section, but still there are other considerations. The method rests on a set of assumptions, and the estimation results depends on the chosen production function⁹⁰. Furthermore, as Coelli et al. (1998) points out, there are no *ex ante* reasons for choosing a particular distributional form of the u_i s, making the estimations of TE sensitive to biases stemming from the distribution form choice. However, these weaknesses have been addressed by Stevenson (1980) and Greene (1990), who have respectively suggested the use of general distributional forms such as the truncated-normal and the two-parameter gamma distributions. In the present analysis, the distributional form of the u_i s is assumed to be truncated-normal at zero, which is also the default setting in the software FRONTIER 4.1 used for the analysis.

A related issue is weaknesses in data, such as measurement and sampling biases. A part of the research operationalization that completely depends on the researcher himself, data sampling has to be carefully monitored by the researcher in order to obtain best data material possible. Ideally, and in its simplest form, this means a large random sample. However, few empirical studies in social sciences fulfill this ideal state, since a researcher often depends on other sources to collect data and comply a dataset. Still, the ideal is to obtain the best possible quality in data (naturally, this accounts also for qualitative data) and that the researcher carefully monitors its quality, so that the validity and reliability of the end results is secured.

The issue of data sampling for this particular research is discussed more in Chapter 6.

⁸⁹ Regarding the general discussions about strengths and weaknesses of econometric methodology, the reader is referred to e.g. Gujarati (1995).

⁹⁰ Although this particular weakness is easily tested with the one-sided Generalized Likelihood-ratio test; see further section 6.5.3.

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Chapter 4

4 M&As in Japan

As stated in the introductory chapters, the basic purpose of this thesis is to present M&As in Japan, not only as an example *unlike* the US and UK – which historically have constituted the bulk of M&A studies – but also as a phenomenon which has very much become a symbol of the post-bubble era changes in Japan's corporate environment. The literature overview in Chapter 2 summarizes the recent developments within the theoretical fields and the empirical literature used to test the theories. In this chapter, the literature survey starts with a broader review of the literature directly relevant to this thesis, followed by a review of studies that explicitly treat M&As in Japan⁹¹. After the review of the empirical research, the wave of M&As in Japan during the 1990's and the industries treated in the analysis of this thesis will be described in detail.

4.1 Brief overview of M&A research and its development

Historically, the discourse on M&As has followed the current trends. For example, early comparative studies of M&As in the 1940's and 1950's quantitatively analyzed the US merger waves during the first half of the 20th century⁹². However, one of the first and more comprehensive *theoretical* discussions about M&As and their logic was undertaken by Penrose (1959) in her seminal work *A Theory of the Growth of the Firm*. Among other things, she reviewed the studies made on M&As done so far, and found that all research up until that time had only two foci: the implication of market structures and taxes on M&As⁹³. Clearly, only concentrating on these viewpoints was rather

⁹¹ Some overlap with the literature discussion in Chapter 2 is, however, inevitable.

⁹² Town, pp. S87-S88.

⁹³ Penrose, pp. 153-161.

crude and not the best approach for capturing the driving forces behind corporate M&As. The prime target group for the game theoretical reasoning has been legislators, and the discussion has influenced monopoly legislation, especially the US anti-monopoly laws, which in turn have shaped, for example, the post-war anti-monopoly legislation of Japan. In the latter case, the addressees of the studies were managers, with their obvious concern for taxes in connection with M&As. Penrose pointed out other topics of M&As that the contemporary research had totally ignore, such as the transfer of business units, due diligence (as it was later named) and changes in M&A behavior in the face of institutional changes⁹⁴. In later decades, as the structure of M&As has grown more sophisticated, the scholarly interest in describing and analyzing the M&A process in a more diverse manner has grown even stronger.

Over the years, M&A literature has grown substantially, and there exist several analytical approaches. The literature can be roughly labeled as research within organizational theory, internationalization theory, financial economics, and economics, where industrial organization economics and game theory are the main theoretical approaches. The main themes in the literature can be summarized in six large categories:

- Motives for M&As (e.g. M&As and growth of the firm in Penrose, 1959; determinants of and motives for M&As, Hughes et al., 1980; and Mueller, 1980; resource-based motives in Richardson, 1972; and Capron et al., 1998; M&As induced by internalization needs and network affiliations in Forsgren, 1989a and 1989b; partner selection motives in Shelton, 1988; and Granstrand and Sjölander, 1990; and Harrison et al., 1991; and Gulati, 1995; and Gulati and Gargiulo, 1997; and Stiles, 2001; and Cartwright and Price, 2003)
- Post-M&A performance of firms (acquiring and/or target firms) (e.g. profitability and growth rate, Kumps and Wtterwulghé, 1980; and Jenny and Weber, 1980; effects on ROA in Harrison et al., 1991; measurement of banking X-inefficiency in Berger et al., 1993; and Shaffer, 1993; cost and revenue efficiency effects in Rhoades, 1993; and Vander Vennet, 1996; productivity performance in Baldwin, 1998; and Benfratello, 2002; and Amess, 2003; pre- and post acquisition profitability in Ravenscraft and Scherer, 1987 and 1989;

⁹⁴ Op. cit., pp. 155-157.

and Alberts and Varaiya, 1989; post-M&A resource deployment management in James, 2002)

- Macroeconomic effects from M&As (e.g. *indirect* spillover effects, see Table 2.2 in Chapter 2; the wave-like pattern of M&A occurrence in Mucchielli and Kohler, 2000; and Barkoulas et al., 2001; industrial structural changes from M&As in Chapman and Edmond, 2000)
- Shareholder wealth and corporate governance (e.g. Singh and Montgomery, 1987; Shelton, 1988; Gonzales et al., 1997; Franks and Mayer, 1998; Hadlock et al., 1999; Milbourn et al., 1999; Kohers and Kohers, 2004)
- Firm valuation in M&As (e.g. Le Baron and Spidell, 1988; Bild, 1998; Muramatsu, 2001a; Muramatsu 2001b; Yamamoto, 2002; Hunt, 2003)
- Game theoretical analyses on market effects from M&As (e.g. Teall, 1992; Persson and Horn, 1996; Aoki, 2000; Espinosa ad Inarra, 2000; Fauli-Oller, 2002)

The studies *directly* relevant to this thesis will be discussed below.

4.1.1 Characteristics of firms involved in M&As

Gonzales et al. (1997) have studied the characteristics of firms that acquire foreign firms. Using a logit model from Tobin's q ratios of market values of stocks, preferred stocks, and debt, the authors found that the acquisition decision was based on maximizing shareholders' wealth. Especially for US firms looking to acquire foreign firms, support was found for the hypothesis that they were often "mature" firms with large amounts of assets and free cash flow, seeking new markets after experiencing low growth rates. In a second article, Gonzales et al. (1998) followed up this theme by studying what type of US firms have been targets for foreign takeovers. Using the same methodology as in the 1997 article, the authors tested the hypothesis whether a US firm's market valuation had any connection to its attractiveness as a target for a foreign bid. The authors found support for an inverse relationship between US firms being targets for foreign bids and their Tobin's q ratio, and, in addition, found that the undervaluation of the sample target firms often stemmed from low returns on equity and low growth rates, implying that *bad performers tended to become targets for takeover*.

Clark and Ofek (1994) also found firm characteristics similar to those found by Gonzales et al. by analyzing the M&A pattern and firm characteris-

tics of 38 domestic acquisitions in the US, where the acquirer had attempted to restructure an acquired and financially distressed target firm. Besides a general tendency for firms to bid on other firms in the same industry, Clark and Ofek found fewer *hostile* takeovers of financially distressed firms than would be otherwise expected as compared to the general M&A pattern. After testing the post-merger development using various performance measures, the authors found continued negative performance for the acquired firms and loss incurred by the acquirer's shareholders.

In M&A studies analyzed from a resource-based perspective, firm characteristics are of central importance by examining a firm's resources and the target firm's resources that can help the acquiring firm achieve a sustained competitive advantage vis-à-vis other firms in the industry. In connection with the observations of Clark and Ofek (1994), Singh and Montgomery (1987) found by analyzing daily stock returns, that firms with *similar* or related resources tended to perform better than M&As between firms with unrelated resource fit, thus implying that M&As between firms within the same industry are more successful. Shelton (1988) arrived at the same conclusion by analyzing stock return data from domestic US acquisitions. Finding results that contradict these studies, Harrison et al. (1991) measured return-on-assets (ROA) and found higher post-acquisition performance when resource fit was *unrelated* between acquirers and targets in domestic US acquisitions. Also from a resource-based perspective, Capron et al. (1998) argue that firm characteristics of the companies involved in M&As mainly depend on the industrial structure (e.g. excess capacity or existence of scale economy in some part of the production) of the industry to which the M&A firms belong. In other words, there are no universal attributes of a "typical" M&A firm. This conclusion is also supported by James' (2002) case studies on mergers in the global pharmaceutical industry, where the M&As were determined by a combination of various industry characteristics such as patent expiry, high R&D costs and globalization of the markets for pharmaceuticals. Thus, the findings here are in line with what would be expected, given the basic assumptions of firm heterogeneity in the resource-based theory.

4.1.2 Partner choice in M&As and inward FDIs

Firm characteristics are a natural determinant of partner choice. The issue of partner choice is a topic that has not been discussed at length in the M&A literature, even though the organizational aspects of M&As have been well highlighted. Thus it is necessary to search the joint venture (JV) literature to

find significant discussions regarding the partner selection issue. As stated earlier, this thesis does not encompass JVs, but the partner choice mechanisms of JVs are relevant to this research, not only for inward M&As, but for domestic M&As as well. The argument here is that the access to various resources crucial for operations or production is a core factor in the M&A partner choice. In the end, the aim is for firms to gain competitive advantages, and ultimately to survive. Arguably, the rationale and the mechanisms of the M&A partner choice should be the same as for JVs, not only because of the "ultimate" level of integration and cooperation that mergers and acquisitions represent, but also in the sense that there exists a symbiotic relationship between firms that do M&As. Stiles (2001) reviews and summarizes the literature on strategic alliances and partner selection, and finds that the level of the *cooperative* intent and the level of the *competitive* intent defines the outcome of a certain partner relationship. Overall, the partner choice depended on⁹⁵

"[...] the extent to which the partner firm is allowed access to its skills and resources [...], the complexity, level and type of interlinkages between the two partners, national and corporate culture compatibility [...], and the prior experience of partnering."

Less surprisingly, some studies stopped the analyses after merely establishing that firms have different motives for their partner choices. However, one study has quantitatively analyzed partner choices in 151 JVs in the US. Mowery et al. (1998) found that the *level of technological overlaps* in terms of patents is a statistically significant factor in partner choice. However, the most interesting finding of this study is that the technological overlap between two firms seems to be higher for international strategic alliances than for the purely domestic ones. The implication of this result is that US firms have higher requirements on the capability features of a foreign partner than a domestic one, or in other words, that the foreign partner, to a greater extent, has to "fit" the features of the US firm in order to become an attractive alliance partner. Thus, the findings of Mowery et al. are similar to the findings of Singh and Montgomery (1987) and Shelton (1988).

Related to the discussion of Gonzales et al. (1998) about acquisition decisions based on low returns on equity and low growth rates, Mucchielli and

⁹⁵ Stiles, p. 48.

Kohler (2000) discuss the micro-related factors connected to the long-term growth of a firm. The necessity to change an organization is not only triggered by changed product cycles and market strategies, but also by the internal organization of a firm (cf. agent theory) or financial causes, such as low profitability. The authors examined the distributions of national and cross-national M&As in Europe between 1987 and 1998, and found that the large majority (over 60% on average) of M&As that took place during this period were national, which suggests that geographical proximity has a strong influence on the selection of an M&A partner firm⁹⁶. However, the authors suggest an explanation not based on cultural explanations, but rather on the idea that firms prefer national M&As to cross-border ones because of the *competition situation* within a country. For example, if one of the firms has a significant national market power and wants to deter the entry of foreign firms, it can increase its market share through an M&A. Furthermore, a reason for choosing domestic partners for M&As might lie in purely institutional factors, such as mutual knowledge among national firms of EC regulations regarding M&As. Thus, formal institutions, such as legislation and regulations, provide an alternative explanation to the preference for national M&A partners, as opposed to the cultural factors influencing this decision.

When discussing the partner selection issue, the role of formal markets for firm matching (that is, matching of firms without any prior contacts) cannot be ignored. Unfortunately, this aspect of the partner selection issue has not been very well analyzed in the M&A literature. Porter (1980) stresses the role of firm matchmaking markets, and uses the example of the US, where the M&A markets are well developed. Professional "finders", brokers, and investment bankers are very active in the US⁹⁷, making the selection process cheaper than in other countries, thus creating incentives for doing M&As. The role of social structures has also been discussed in the M&A literature, primarily in studies on strategic alliances. In his study on partner selection in strategic alliances, Gulati (1995) found that partner selections are made based on the level of strategic interdependence and the complexity and history of the social structures. As the basis for his discussion, he refers to Aiken and Hage's (1968) research of firms' resource interdependency and Granovetter's (1985, 1992) arguments that the role of social networks and the flow of in-

⁹⁶ Mucchielli and Kohler, p. 9.

⁹⁷ Porter (1980), pp. 350-351.

formation are shaped by the structure of the actors' social embeddedness (in other words, the closer relationship, the lower the risk of information asymmetries). Gulati also points to the importance of *indirect* connections made by firms through a common network member or a partner, i.e. a form of spin-offs from network membership.

In an attempt to find motives for and results of M&As, Ali-Yrkkö (2002) has analyzed, *inter alia*, the determinants of M&A "successes" and "failures"⁹⁸, which are issues that have been discussed at length in the popular management and M&A literature. Ali-Yrkkö finds a tendency in the literature to often define *failure* as ascribed *cultural differences*, whereas *successes* are often a *result of management actions*. This is an interesting result, which suggests a bias in the management literature that the cases fit *a priori* assumptions (i.e. data mining). By mainly analyzing the M&As of Finnish companies, Ali-Yrkkö concludes that the merger process is a complex phenomenon with multiple factors interacting to determine the outcome. As the a result of many actions, an outcome might be a unique combination of events, from which it is hard to make a generalization (cf. the path dependency discussion). This is also interesting from the partner selection point of view, where Ali-Yrkkö also finds that *experience* is an important factor influencing the outcome of an M&A, as well as the *degree of active involvement by M&A consultants*, hired either by the acquirers or the sellers.

As mentioned earlier, the number of M&A studies analyzed from a resource-based perspective is low and has produced differing results. The M&A partner choice is regarded here as the acquiring or target firm's conscious pursuit of resources that help the firm achieve a sustained competitive advantage which includes the studies of e.g. Shelton (1988) and Harrison et al. (1991). However, in Shelton (1988), the firms with *related* resources showed the best post-M&A performance, while the study of Harrison et al. (1991) found that *unrelated* fit in resources led to better post-M&A performance. Thus, it is hard to draw any firm and normative conclusions from the resource-based literature as to whether related or unrelated resource fit produces the largest synergy effects in M&As. Another study using the resource-based view of partner choice is Granstrand and Sjölander (1990), who suggest that the M&A market for small firms, based on their advanced technological competence, is actually a sellers' market because of their

⁹⁸ Defined as positive financial performance and successful organizational integration post-M&A.

attractiveness to large firms. Having many potential buyers allows SMEs with advanced technology to choose acquirers that offer the best growth opportunities and further develop their core competencies. The largest merit of the Granstrand and Sjölander study is to show that an M&A is not only determined by the acquiring firms' dictate, but also that target firms have real opportunities to choose their M&A partner.

4.1.3 Efficiency effects from M&As

Performance and efficiency effects from M&As have yielded a number of studies, including recent examples measuring performance in terms of productivity by Berger et al., (1993), Allen and Rai (1996), Akhavan et al., (1997), Baldwin (1998), and Focarelli and Pozzolo (2001). These studies have typically used a number of analytical approaches, where data on financial market performance, firm profitability, and production factor employment has been analyzed econometrically. Meanwhile, Granstrand and Sjölander (1990) examine another aspect of efficiency by investigating the pre-M&A performance of acquired technology-based SMEs in Sweden. While showing a significant positive post-acquisition growth of these firms, the growth of these firms was not significantly different from those technology-based SMEs that were not involved in M&As. This result suggests that the large firms did not systematically pick target firms that performed better than average for the group.

However, the literature shows very few examples of studies of M&A efficiency effects using the stochastic frontier production (SFP) function estimation. One seminal contribution by Benfratello (2002) already mentioned briefly in the previous chapter, uses the SFP function to analyze the efficiency effects from acquisitions within the Italian pasta industry. Using the same analytical approach as in this study, Benfratello finds that *acquisitions lead to higher technical efficiency* and that *national origin of acquiring firms does not matter* in terms of efficiency improvements. In other words, acquisitions by foreign firms and Italian firms both lead to increases in efficiency. A related study by Amess (2003) regarding the effects from management buyouts (MBOs) in the UK manufacturing sector, shows higher efficiency effects in the short run, but this effect diminished after about four years following the MBO event. Thus, the present thesis will methodologically tread somewhat on virgin soil when econometrically analyzing the efficiency effects of M&As.

4.2 Research on M&As in Japan⁹⁹

M&As, as a phenomenon, are not new to Japan, and merger waves have occurred since the beginning of the 20th century. Since the end of Second World War, there has been a number of M&As aiming for formation of extensive cross-shareholding structures, where two or more Japanese companies have been involved. These M&As can be seen as a response to the changing economic environment in Japan, following the end of the Allied occupation and the beginning of the extraordinary growth of the 1950's. The bulk of these structural changes were initiated by the Japanese government, but in industries such as car manufacturing, electrical appliances, and retailing, M&As and the formation of strategic alliances were actually self-initiated¹⁰⁰. During the same period, M&As and strategic alliances with foreign firms were extremely rare.

Despite this history, the international academic attention to and the non-Japanese empirical research of domestic M&As in Japan is rather passive. As implied earlier, the general academic attention paid to Japanese M&As has for a long time, been focused on *outward* M&As¹⁰¹ (e.g. Johansson and Nonaka, 1983; Hennart, 1991; Pettway, 1991; Oliver et al., 1992; Vasconcellos and Kish, 1993; Huallachain and Reid, 1997; Hennart and Reddy, 1998). When it comes to M&As occurring *in* Japan – especially the M&A literature treating the post-1990 period – the number of studies is easily counted. Therefore, the literature review here will be broader and more comprehensive than in the previous review.

Not surprisingly, the financial sector has captured the bulk of academic interest when it comes to Japanese M&As. The Japanese banking crisis after the debacle of the 1980's speculation economy, the profound restructuring moves by the Japanese banks and credit associations during the 1990's, and the effects of the financial reform package introduced by the Japanese government in 1998 have all contributed to the growing number of studies. Generally, the empirical research of Japanese M&As has been within financial economics, typically concerning the consequences for the stockholder welfare by analyzing the returns on stocks at the time of merger announcements (e.g.

⁹⁹ The Japanese *outward* M&A literature is excluded here since it is outside the scope of this study.

¹⁰⁰Ekonomisuto, pp. 32-33.

¹⁰¹ In particular those that took place in the US during the Japanese foreign investment boom of the 1980's.

Kang et al., 2000), or the implications of market structure from a game theoretical viewpoint (e.g. Aoki, 2000; Porter, 2001). Others have attempted to explain the low number of M&As in Japan from cultural aspects (e.g. Economic Planning Agency, 1996; Suzuki and Unno, 2002), or from institutional factors (Debroux, 1996).

4.2.1 Institutional factors and their relation to the number of M&A transactions

Noteworthy among the recent studies of M&As in Japan is Muramatsu's (2000) study. He finds a changing pattern of M&A activities in Japan, with a trend toward more "Western" behavior in takeover strategies among Japanese firms. Up until the 1990's, takeovers were regulated by the Securities and Exchange Law of 1971, which stipulated mandatory *a priori* disclosures of hostile takeover plans not only to the Ministry of Finance, but also to the target company *and* to the public via official announcements. Naturally, this¹⁰² made hostile takeovers a rare occurrence in Japan. During the 1990's, amendments to this law were made, and nowadays a bidder does not need to notify the Ministry of Finance before making its bid public. Thus, the institutional incentives to do M&As has improved considerably compared to the situation during the 1970's and 1980's, and has made the M&A market more dynamic. One of the more general observations Muramatsu makes is the need for corporate restructuring in Japan, which forces both politicians and companies to set aside negative cultural and social attitudes in order to accept more efficient forms of firm takeovers. The author continues by remarking that the traditional style of collusion and cross-ownership, which was common among major shareholders of Japanese companies, has declined, which is also a contributing factor to more M&A deals.

Another concept frequently discussed in this setting is "trust". Trust is not only defined as a result of the course of action firm A takes contingent upon choices made by firm B¹⁰³, but also as a result of the *reputation* firm B has and/or the historical relationship between firms A and B. Empirical studies and surveys (cf. JASMEC, 2001¹⁰⁴; Nakamura 2002) have shown that trust is an extremely important factor in Japanese M&As¹⁰⁵. This is not only true for

¹⁰² Apart from the high hurdle of the cross-ownership structure.

¹⁰³ Berger et al. (1995)

¹⁰⁴ Reported below in Appendix 4.

¹⁰⁵ This is in keeping with the results of Hofstede's (1980) studies, where Japan was labelled as a risk-avert culture compared to e.g. the US.

partner choices, but also important in explaining the aversion towards M&As in general and hostile M&As in particular.

Debroux' (1996) does not believe that general sociocultural explanations, such as negative attitudes, are sufficient to explain the low rate of M&As in Japan. Instead, he believes that other institutional factors and factors that relate more to the firm's structure, such as management characteristics, employment and organizational culture, are more fitting to the analysis. Using this framework, Debroux argues that traditional post-war institutions in Japan, such as labor market and employment practices and Japanese style corporate governance, have been the largest obstacles to an increased number of M&As rather than regulations. The traditional style of corporate governance and incentive structures embedded in the firm (such as the reluctance of managers to dismiss employees, and the pressure to remain in companies in order to benefit from accumulated social benefits), makes profound change more difficult. It is more likely that managers instead try to adopt certain aspects of the Anglo-American corporate model - higher returns on shares, transparency, and managerial accountability. Even though it is doubtful whether Japanese companies will ever fully adopt the Western corporate governance model, Debroux believes that greater deregulation and increased requirements on corporate efficiency will inspire more Japanese and foreign firms to make M&A deals in Japan.

4.2.2 Characteristics of Japanese firms involved in M&As at home

Odagiri and Hase (1989) analyzed 243 domestic M&As and cross-ownership relationships in Japan between 1980 and 1987. They found mainly two types of M&As: diversifying and defensive. *Diversifying* M&As occurred mostly in the technology, production or marketing areas, where the *initiating* firm *lacked internal resources or capabilities* (following a resource-based or an internalization strategy; see also Granstrand and Sjölander, 1990). On the other hand, *defensive* M&As tended to occur in *declining industries*. Furthermore, as in the studies of Japanese firm's foreign market operations (see e.g. Hennart, 1991; Hennart and Reddy, 1998), the Odagiri and Hase study found a preference among Japanese companies - as the initiating firm - for "weaker" forms of M&As (meaning acquisitions and cross-ownership) instead of pure mergers. The authors suggest firm-related institutional reasons for this pattern, such as employment practices and Japanese style corporate governance. Together, with what is observed about the operations of Japa-

nese firms abroad, this conclusion strengthens the hypothesis that Japanese firms are reluctant to engage in deeper integrations with foreign firms.

4.2.3 M&A partner choice in Japan

A number of studies exist regarding the *outward* establishment strategy of Japanese firms (e.g. Johansson and Nonaka, 1983; Hennart, 1991), but few studies of the M&A partner choice behavior in the Japanese market exist. One of the exceptions is Christelow (1995), who describes the pre- and post-World War II JVs in Japan between US and Japanese firms. The partner choice strategy of the Japanese firms - encouraged by the Japanese government - was simply to engage in JVs with foreign firms prepared to share their technology in return for access to the Japanese domestic market. The end purpose for the Japanese firms was to attain competitive advantage over the *domestic* competitors. This rationale for cooperation with foreign firms - preferably via arms-length relationships in the form of licenses and JVs - continued to be predominant even after the war. In addition, the Japanese government was heavily involved in the partner selection process of industries designated as strategic by the government. Thus, the partner choice of large Japanese firms during the post-war period can be described as path-dependent, as the pre-war partnership relations, in combination the Japanese government's designation of industries vital for the post-war reconstruction and development, ultimately decided the matchmaking.

However, this pattern has been changing over the last three decades, as government involvement in export industries has gradually decreased as a part of the liberalization of the Japanese economy, which started in the 1970's. The aim of partner choice for Japanese firms continues to be one of obtaining strategic knowledge and resources, but two different characteristics have emerged over time: technology appropriation via inward cross-border M&As and, very recently, strategic alliances with *domestic* competitors.

In another study, Granstrand and Sjölander (1990) investigated technology appropriation between large Japanese firms and small advanced technology-based firms. The major finding of the study was that the Japanese firms generally avoided takeovers, and for those large firms that still chose to do M&As, they did them in an *ad hoc manner* rather than as a result of a conscious plan.

4.2.4 Post-merger productivity performance

In the same study as discussed earlier, Odagiri and Hase (1989) also included a post-M&A performance estimation. Their results were consistent with results from other parts of the world (e.g. Clark and Ofek's, 1994) and they concluded that mergers do not improve performance *ex post*. In their sample, Odagiri and Hase did not find any significant improvements in profitability or growth after the mergers.

Except for a few examples, such as the study of Odagiri and Hase (1989), analyses on post-M&A performance of Japanese M&As and their causes have been virtually non-existent in the empirical literature. The rapid increase in the number of M&As has occurred only recently, which probably is reflected accordingly in the empirical literature. However, this also means that the number of studies analyzing the Japanese M&A process will increase in the future.

4.3 Concluding remarks on earlier research

The development of M&As and the M&A patterns in Europe and the United States have received most of the scholarly attention. Much less is published in international journals about Japanese domestic M&As, and there is a clear void in the research and literature regarding performance and the partner selection process. The reasons for this long-time ignorance are probably due first to the fact that, historically, the number of M&As in Japan has been very low compared to other industrialized countries. Secondly, research of domestic M&As in Japan is a sensitive issue¹⁰⁶. A third and weaker reason is the language barrier, which may have deterred foreign researchers from studying M&As in Japan. However, as it has been stated earlier and hopefully will be obvious at the conclusion of this thesis, Japan is now experiencing a period of profound structural change, where the M&A behavior of Japanese firms is changing at the same pace as, or faster than, the rest of the Japanese economy.

¹⁰⁶ It is hard to find references in the empirical literature about this, although a good reference is Suzuki and Unno, 2002. The reader is referred to the summary in Appendix 4 in order to get some idea about the sensitivity surrounding the M&A issue. This statement is founded in the actual field research work done by the author. Also, discussions with other scholars researching Japanese M&As have confirmed the author's experiences.

Regarding the issue of post-M&A *performance*, the limited evidence in the empirical literature shows that the Japanese pattern of M&As is very similar to Europe and the US. Also, the industrial structure and the legal framework – that is, country-specific structural patterns – heavily influence M&A behavior in both the Western countries and in Japan. In addition, there exists evidence of possible “mental” borders and social conventions that influence the action of Japanese firms and managers.

The partner selection issue has been the focus of a number of articles within the JV and the strategic alliance literature. For M&As, however, partner selection has been more or less disregarded. The reasons for this are not clear, but an *a priori* assumption of target firms being “taken over” in a more or less hostile manner in an M&A is probably one of the causes of this low interest. Possibly, the need to research this particular issue has not been adequately identified due to an assumption that the seller does not have any choice or say at all in an M&A partner selection. In other words, the possibility that target firms can actually choose an acquirer are, to a large extent, ignored in the M&A literature.

The M&A literature in general has grown exponentially over the last few decades, and the intention here has not been to cover everything written on this subject, but rather to concentrate on relevant research that has focused on Japanese conditions more in depth. This literature review has not been exhaustive, but the hope is that the reader has acquired the necessary background for the continued reading of this thesis.

4.4 The distribution of inward and domestic M&A deals 1991-2002

Turning to the current M&A wave in Japan, it is evident by simply looking at the annual increase in the number of M&A deals that a significant shift has occurred¹⁰⁷. While the overall picture of the recent Japanese M&A wave is already described in Chapter 1, the pattern of the M&As in Japan will be described here in more detail.

The data on M&As occurring in Japan between 1991 and 2002 is obtained from Recof (2003), which has recorded all M&A activity in Japan between 1988 and 2002. Of the four one-digit level industries included in the M&A

¹⁰⁷ See Figure 1.1.

dataset¹⁰⁸, the manufacturing industry accounted for the largest number of both domestic *and* inward M&As. As shown in Figures 4.1 and 4.2, the distribution of M&A deals among the other three industries diverges somewhat, depending on whether it is domestic or inward. With the lowest share of the total number of *inward* M&A deals, the trade industry's (where the general trading houses, or the *Sōgō Shōsha*, positions themselves as the most active M&A actors) share of *domestic* M&As is second to the manufacturing industry. This discrepancy is easily explained by the role the trading houses play in Japan, often acting as more of a venture capitalist than an acquirer seeking, for example, to expand physical production. Therefore, an M&A in this industry is often a portfolio investment type of M&A in other industries. Since the investment flows of the trade industry are directed outward and domestically, and at the same time very few foreign trading firms are investing in Japan, it is natural that the statistics show a discrepant pattern of domestic and inward M&As.

Another feature of the recent Japanese M&A pattern is represented by the M&As in the financial industry. A large share of the domestic financial M&As consists of the many mergers that occurred between the credit unions and credit associations as a result of the so-called convoy system¹⁰⁹. This is obvious in Figure 4.1, where the increase in M&A starts in 1995, that is, the very same year when the first *jūsen*, or housing loan association, went bankrupt and their assets were acquired by the large financial firms. For *inward* M&As, a major shift occurred in 1998, when the Tokyo Big Bang financial reform package facilitated foreign acquisition of the formerly protected financial institutions.

¹⁰⁸ The manufacturing, financial, services, and trade industries.

¹⁰⁹ The convoy system was a post-war practice, primarily in the financial sector, where firms were persuaded or forced by the Ministry of Finance to acquire whole or parts of defunct financial institutions. With the financial liberalization package of 1998, the convoy system has, in practice, been abandoned.

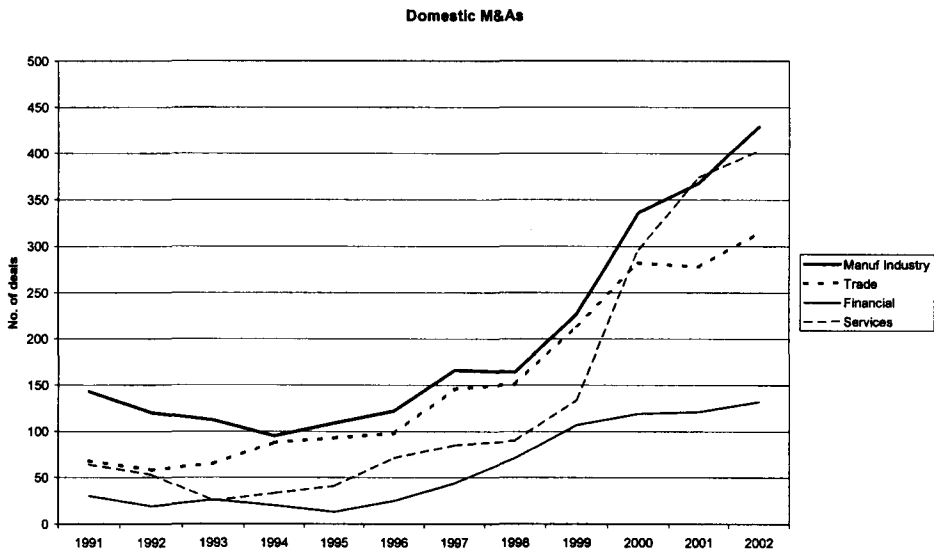


Figure 4.1. No. of domestic M&A deals in the manufacturing, trade, finance and services industries 1991-2002. (Author's calculations from Recof, 2003)

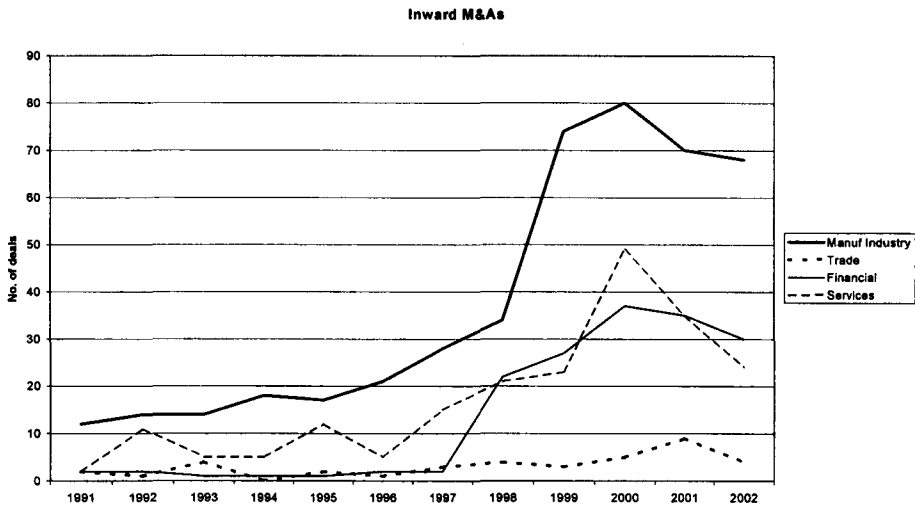


Figure 4.2. No. of inward M&A deals in the manufacturing, trade, finance and services industries 1991-2002. (Author's calculations from Recof, 2003)

The M&A wave in the service industry is largely a reflection of the global IT bubble, which peaked around 2000, and the crisis of the domestic tourism sector in Japan during the 1990's. The development in the IT sector is particularly obvious in Figure 4.2, where the flow of foreign investment into the service industry dropped rapidly after 2000. However, in Figure 4.1, the level of domestic M&As in the service industry has continued to rise after the turn of the century. The explanation for this pattern is the profound crisis in the domestic tourism and transport sectors following the burst of the speculation economy in the late 1980's, which has led to a wave of "fire sale" acquisitions in the service industry. Therefore, the reasons for doing M&As in the service industry has been dual, as the M&A pattern in the IT sector has been very similar to the one in other industrialized countries (acquiring firms have sought state-of-the-art technology, while IT entrepreneurs have cashed in on the value increase of the firms they created). At the same time, firms in the domestic tourism sector have been forced to sell off their bad businesses due to the sudden drop in demand after the burst of the "bubble" economy. Therefore, it can be said that the driving force of M&As has been resource-based or opportunistic for the IT-related firms, while it has been strongly crisis-driven for the firms in the tourism sector.

Thus, as the service industry shows, the motives for M&As between two-digit level industry subsectors can be very different. The manufacturing industry is no exception (see Tables 4.1 and 4.2), where particularly the chemical (to which the pharmaceutical industry also belongs) and electrical machinery industries stand out as the industries where *both* domestic and inward M&As have been most frequent. The concentration of M&As in these industries is a result of the 1990's recession and the efforts to consolidate large entities in order to meet increased competition both internationally and domestically. *Due to the M&A characteristics of the electrical machinery, the chemical, and the pharmaceutical industries, these industries were finally chosen for the analysis of this thesis.*

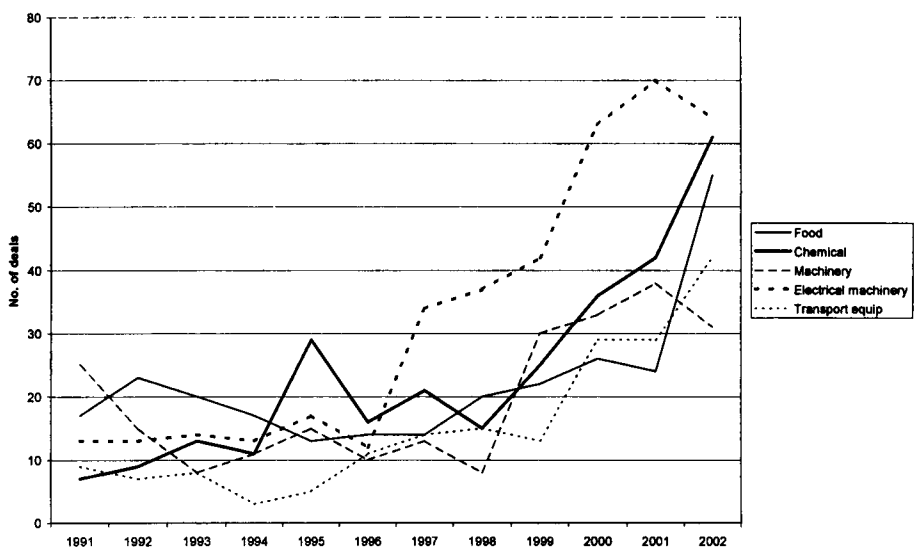


Figure 4.3. Top 5 domestic M&A sectors in the manufacturing industry 1991-2002. (Author's calculations from Recof, 2003)

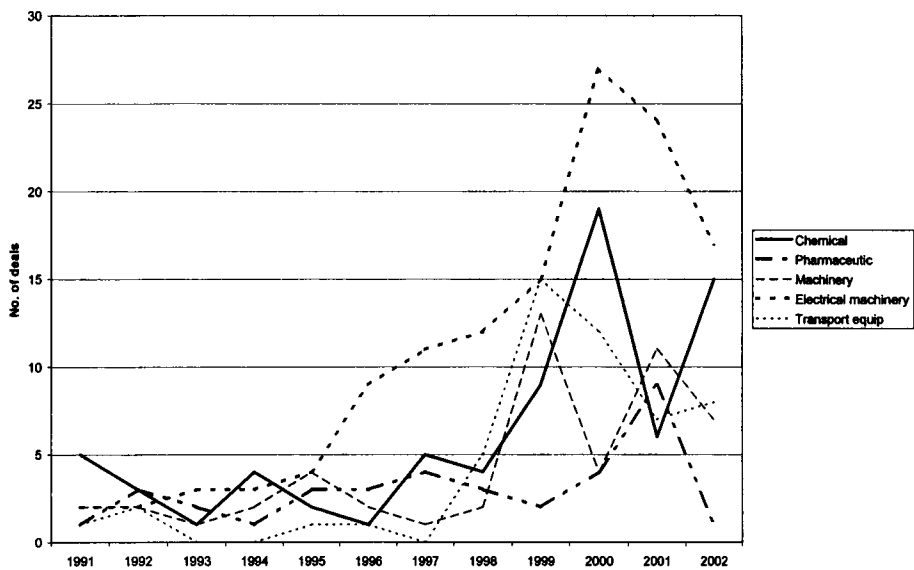


Figure 4.4. Top 5 inward M&A sectors in the manufacturing industry 1991-2002. (Author's calculations from Recof, 2003)

Dom M&A	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total
Agric/Forest/Fish	2	2	0	0	1	1	2	0	2	0	1	4	15
Mining	0	0	0	0	0	1	0	1	0	1	1	2	6
Construction	13	9	4	5	7	6	14	10	15	22	27	37	169
Food	17	23	20	17	13	14	14	20	22	26	24	55	285
Textile	3	3	3	4	4	6	4	11	6	7	16	15	82
Paper/Pulp	1	5	5	3	3	4	2	4	1	11	4	5	48
Chemical	7	9	13	11	28	18	21	15	25	36	42	61	265
Pharmaceutic	6	2	4	1	2	2	7	3	2	5	7	16	57
Coal/Oil	1	3	2	0	1	0	1	3	5	6	2	1	25
Rubber	1	3	1	0	0	3	0	0	1	3	0	1	13
Printing	4	3	4	3	2	3	9	9	9	24	18	16	104
Ceramics/Glass/Cement	6	4	6	3	2	7	10	6	10	10	11	9	84
Steel	11	2	6	4	0	2	4	7	11	12	15	15	89
Non-steel	12	4	8	8	2	10	8	6	21	21	30	26	158
Machinery	25	15	8	11	15	10	13	8	30	33	36	31	237
Electric machin	13	13	14	13	17	12	34	37	42	63	70	64	392
Transport equip	9	7	8	3	5	11	14	15	13	29	29	42	185
Precision equip	4	6	4	1	3	3	3	1	5	8	8	3	49
Others	8	7	2	8	3	11	6	8	6	19	25	24	127
	143	120	112	95	109	122	166	164	226	336	368	429	2360

Table 4.1. All domestic M&As between 1991 and 2002 in the manufacturing sector. (Author's calculations from Recof, 2003)

Inw M&A	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	Total
Agric/Forest/Fish	0	0	0	0	0	0	0	1	0	0	0	1	2
Mining	0	0	0	0	0	0	1	0	0	1	1	1	4
Construction	0	0	0	0	0	0	0	1	1	0	2	1	5
Food	0	0	3	1	0	2	0	0	4	4	2	5	21
Textile	0	0	0	1	0	0	1	0	0	0	1	3	6
Paper/Pulp	0	0	0	0	0	0	0	0	0	2	0	0	2
Chemical	5	3	1	4	2	1	5	4	9	19	6	15	74
Pharmaceutic	1	3	2	1	3	3	4	3	2	4	9	1	36
Coal/Oil	0	0	0	1	0	0	0	0	0	0	0	0	1
Rubber	1	0	0	0	0	0	0	1	1	0	0	0	3
Printing	0	0	0	0	0	0	0	1	2	0	2	0	5
Ceramics/Glass/Cement	0	0	0	0	0	0	0	0	1	0	3	1	5
Steel	0	0	0	1	0	1	0	0	3	0	1	3	9
Non-steel	0	0	1	1	0	1	0	1	2	1	0	2	9
Machinery	2	2	1	2	4	2	1	2	13	4	11	7	51
Electric machin	2	2	3	3	4	9	11	12	15	27	24	17	129
Transport equip	1	2	0	0	1	1	0	5	15	12	7	8	52
Precision equip	0	0	0	1	2	0	5	3	4	1	1	3	20
Others	0	2	3	2	1	1	0	0	2	5	0	0	16
	12	14	14	18	17	21	28	34	74	80	70	68	450

Table 4.2. All inward M&As between 1991 and 2002 in the manufacturing sector. (Author's calculations from Recof, 2003)

4.5 Short background of the industries selected for this study

4.5.1 The electrical machinery industry

The electrical machinery industry is representative of the industries that greatly benefited from the outbreak of the Korean War in 1950. The immediate priority was the revival of Japanese industry by manufacturing generators for electricity. However, the low domestic level of know-how in

combination with the urgent need for generators, led to an increased cooperation with foreign firms. For example, General Electric granted licenses to both Hitachi and Tōshiba to build generators of GE design, while Mitsubishi Electric cooperated with Westinghouse¹¹⁰.

Besides being representative of the production boom connected to the Korean War, the electrical machinery industry was also representative of industries with extremely high growth in the 1950's and 1960's. From 1955 to 1965, the electrical machinery industry grew a staggering 900%. The driving force behind this exceptional development was the rapidly growing demand for domestic appliances, which was a result of a higher average Japanese living standard *in combination* with the domestic producers' exploitation of scale efficiencies and the innovative skills they had developed to produce appliances at prices that the average household could afford. The high demand for heavy electrical machinery equipment also contributed to this exceptional growth. Three firms rose as giants in the domestic industrial market: Mitsubishi, Hitachi and Tōshiba. These firms continued their technical cooperation with the two US firms mentioned above, and their success was not purely coincidental. As for other industrialized countries, electric power was the most important energy source for the growth of the Japanese economy. However, the capacity of the older hydroelectric plants was insufficient, and thermoelectric plants were therefore built *en masse* to fill the production gap. The demand for thermoelectric generators was very high, but the level of technical know-how was still low in Japan compared to the US. Through licensing, Mitsubishi, Hitachi and Tōshiba managed to outpace other producers by manufacturing superior power generators based on foreign technology and internalizing that knowledge. However, in the domestic appliance sector, the foreign involvement in Japanese firms was minuscule. One of the extremely rare cases of a Japanese firm seeking cooperation with a foreign firm occurred around 1960, when Matsushita Electric Works was founded as a result of the cooperation between Matsushita and Philips¹¹¹.

During the 1960's, the markets for both appliances and heavy electrical machinery matured, and a new phase started where scale and scope efficiencies were the keys to survival. For example, the large manufacturers increased the share of home appliances to their total sales by about 30%, while

¹¹⁰ Okabe, p. 70.

¹¹¹ Tazoe, p. 196.

one-product SMEs failed to expand their product lines and went bankrupt¹¹². The solution to the decline in industry sales and production was cost cuts and, more importantly, promotion of exports. For the heavy electrical machinery industry, salvation was found in nuclear power generation, and the first nuclear power plant in Japan was completed in 1965. Again, the big three, Mitsubishi, Hitachi and Tōshiba, licensed technology from their respective US partners. Thus, the heavy electrical machinery industry was also revived by exports, where the major product was thermoelectric generators. At the end of 1970's, the continued modernization of the oil exporting countries in the Middle East opened up a whole new market for the manufacturers of power-generating equipment, and since the Japanese manufacturers offered so-called "turn-key" solutions, they were very successful in this region.

The manufacturers of electrical appliances successfully expanded the market in Japan, through the "second wave" of home appliances starting in 1965. The new products in demand were color television sets, air conditioners, stereo sets, and somewhat later, VCRs. The extraordinary boom of the Japanese economy, which lasted until 1971, increased the general demand for appliances. In the 1970's, the Japanese manufacturers survived the deep recessions, and even managed to grow, by riding the wave of increased international demand for Japanese electronic products.

The tale of the electrical machinery industry in the 1980's is well known. Exports increased to new heights, causing trade disputes with other major industrialized countries. On the FDI front, Japanese manufacturers started to pursue a more aggressive investment policy in the US, mainly through greenfield investments and acquisitions, in order to circumvent the import restrictions forced upon the Japanese industry by the US Government. However, inward M&As in Japan were still extremely rare. At home, Japanese manufacturers tried to increase sales by using microcomputers in new applications, and demand was sustained by marketing better-performing versions of basically mature products, such as television sets, refrigerators and washing machines.

The recession that followed the burst of the so-called "bubble" economy in 1991, hit the electrical machinery industry harder than other industries be-

¹¹² The only star that managed to rise from the SME ranks was Sony, which, through its ability to identify the usefulness of the transistor in ordinary electrical appliances at an early stage, managed to introduce a broad range of radios, tape recorders and television sets.

cause of the high share of domestic sales. The exports, which had served so well as an escape-hatch for the industry in times of low domestic demand, were also badly hurt by the sharp appreciation of the yen. The need for relocation of production to low-wage countries and downsizing of operations at home was finally obvious to the firms in the industry. *Risutora*, a Japanization of the English word "restructuring", became a common word in the Japanese vocabulary, and the number of M&As rose sharply in the industry during the 1990's. The bulk of these were, however, domestic *and* in-group, and the main purpose was to reduce the number of subsidiaries. This situation is still prevalent today.

4.5.2 The chemical industry

The catalysts for the post-war reconstruction of the Japanese chemical industry were fertilizers and petrochemicals. After the Second World War, both the Japanese Government and the SCAP¹¹³ prioritized the production of fertilizers, since the shortage of food was considered the major source of post-war social unrest¹¹⁴. At the expense of the production of other chemical products, fertilizer production was in high gear and reached the pre-war production level already in 1949. Thus, the fertilizer production nurtured the development of the Japanese chemical industry.

The production of petrochemicals was the second cornerstone of the post-war industry build-up. Realizing the need for petrochemical products in times of population growth and modernization of the country, the government encouraged the build-up of production capacity of oil derivatives such as petrol and gas, but above all focused on the production of naphthalene products. Petrochemical products were formally designated by the government as the key chemical products needed to rebuild the industry and the economy, and the national production capacity of petrochemicals was increased dramatically under the successive production plans of the 1950's and 1960's.

In order to launch such an ambitious expansion program for chemical production, the institutional framework was in need of change as Japan lacked modern chemical production technology and also lacked knowledge in certain fields of specialized chemical products. Technology imports from

¹¹³ SCAP = *Supreme Commander for the Allied Powers*, which was the official name of the Allied occupation administration in Japan between 1945 and 1952.

¹¹⁴ Other prioritized industries for post-war industrial reconstruction were electricity generation, coal mining and steel production (Watanabe, 1994a, p. 59).

foreign firms began in 1950, when a law that promoted the introduction of foreign technology to Japanese industry was passed by the Japanese parliament. This was an important step towards modernizing the Japanese chemical industry, and already that same year, several new companies were set up based on foreign production and product technology¹¹⁵. Yet, at the same time, the domestic market was closed to foreign firms that wanted to directly enter the Japanese market. Instead, these foreign firms were encouraged to form JVs with Japanese firms, which used this opportunity to acquire foreign technology and production process know-how. Also, imports of foreign technology via licensing to existing firms took place. The first four-year plan of the Ministry of International Trade and Industry (MITI), launched in 1957, had the explicit aim to transform the Japanese chemical industry following the US model¹¹⁶. The development of the industrial structure of the 1950's and 1960's is characterized by the introduction of new foreign chemical processes, in such a manner that completely new firms, under the wings of existing firms or *keiretsu* groups, were set up solely for a certain production process. This is one of the reasons for the large number and diversity of chemical firms that existed then and still exist today.

As an effect of this industrial expansion and the subsequent self-sufficiency in many products, the import of chemical products decreased. This was not only a result of the Japanese government's import substitution strategy for the chemical industry, but also a consequence of the very nature of chemical production. As a rule, chemical production plants, requiring substantial investment because these production facilities rarely have alternate uses, economic growth and access to international markets are crucial in order to fully employ production capacity. By 1970, the Japanese chemical industry was transformed into large entities, and the majority of the production was exported. The grandiose investment plans under the MITI guidance backfired, however, well before the first oil crisis in 1973. It was clear to the industry in 1971, when the first major recession occurred in the chemical industry, that the capacity expansion plans from the 1960's - which were considered reasonable at the time - would now yield extreme production overcapacity. The response to the recession was to diversify into high-engineered products such as pharmaceuticals and special plastics. Around 1975, the tide of technology import from the US and Europe had turned, and

¹¹⁵ Of these, most new firms belonged to a *keiretsu* like Mitsubishi and Mitsui.

¹¹⁶ Watanabe (1994b), p. 180.

it was now the Japanese production technology that was exported and the foreign firms that approached Japanese firms with JV proposals. The 1980's and 1990's have, however, been decades of struggle for profitability for the "traditional" part of the industry. This struggle has led to new thinking in the industry, including outward FDI, relocation of production to plants abroad and M&As with both domestic and foreign firms.

In conclusion, the chemical industry is one of the industries that was most closely guided by the Japanese government from the very beginning of the post-war period. There were two priorities. Firstly, the aim was to quickly build up production capacity. Secondly, active acquisition of new production technologies and licenses from abroad was identified as the key factor to gain domestic competence. Seen from the perspective of the M&A history of this industry, the M&As that occurred up until the 1990's were purely domestic and horizontal, and aimed for increased operational scale and heavy restructuring, while the foreign firms were limited to licensing and JVs.

4.5.3 The pharmaceutical industry

The bulk of the Japanese pharmaceutical industry reconstruction was supported by a small range of domestically well-known products, which were not very sophisticated in R&D content but had high sales volume. The products were aimed directly at the consumer market (so-called over-the-counter, or OTC, products) such as eye drops, liniments and treatment of digestion problems. However, already before the Second World War, a very small number of firms specialized in very sophisticated medical research. Therefore, soon after the war, there existed the competence to quickly absorb new foreign pharmaceutical innovations, such as antibiotics.

Japan was also an early target for foreign pharmaceutical firms. In contrast to other industrial sectors, the pharmaceutical industry already had, by 1945, much experience with foreign competition in the home market. However, after the war, foreign pharmaceutical firms preferred licensing and JVs (and in some cases greenfield investments) due to strict Japanese legal requirements, such as clinical testing in Japan (for example, tests done outside Japan were not accepted by the Japanese authorities). Also, the rigid medicine procurement practices and the closed distribution networks to hospitals and private clinics made the licensing and JVs an easier shortcut for foreign firms to enter or sell new products in Japan. Therefore, almost all major Japanese pharmaceutical firms had some prior experience with foreign drugs manufacturers well before the M&A wave of the 1990's.

Both foreign and domestic firms benefited from the symbiotic relationship of licensing and JVs, but it was first in the 1960's that any major investments in R&D were made by Japanese pharmaceutical firms. The reason for this change was the new health care insurance, introduced in 1961, which caused a surge in demand for prescribed medicine. At the same time, access to new foreign patents became increasingly limited as the foreign pharmaceutical manufacturers were more reluctant to give licenses, which caused the domestic firms to put more effort into R&D of new drugs. Having said this, licensing from foreign firms was still a common alternative to investing in what was perceived as expensive in-house R&D. Finally in 1968, imports of foreign pharmaceuticals were fully deregulated, which triggered a wave of JVs between foreign and Japanese pharmaceutical firms.

The great boost for the industry was, oddly enough, the two oil crises in the 1970's. The firms in the chemical industry saw their profitability decrease every month, and the international competition grew stiffer, as the developing countries in Asia entered the global market. The next step in the industrial development was therefore to increase the share of value-added and begin production of high margin products¹¹⁷. One way out of recession was, therefore, production of pharmaceuticals and other fine chemicals.

Amidst the crisis in the chemical industry during the 1970's, the pharmaceutical divisions of the chemical firms eventually arose as one of the most profitable parts of the chemical industry. This development continued into 1980's, when the pharmaceutical departments of the large chemical companies had grown so strong that they were diversified into legally independent entities. During the same decade, pharmaceutical production was revolutionized by the introduction of biotechnology, which again caused Japanese firms to cooperate closely with US and European pharmaceutical companies. In addition, the Japanese pharmaceutical firms were finally brave enough to go abroad, setting up production and sales organizations, primarily in antibiotics. However, the pharmaceutical SMEs, which did not have the funds for R&D like the larger firm, suffered. Besides diversifying into areas such as food and fibers, some were starting to engage in M&As as a way out of their troubles. The acquisition of the SME pharmaceutical firm Banyū by the US firm Merck in 1983, attracted considerable attention in the industry, begin-

¹¹⁷ This type of industrial development is typical for a mature industry. Another example is the modern shipbuilding industry, where the traditional shipbuilding countries have specialized in vessels with high technical content for specialized purposes, while new entrants, such as China, produce bulk vessels in high volume.

ning a new era of inward FDI in pharmaceuticals. This development, which increased the number of M&As and increased the market share of foreign pharmaceutical firms, has continued into the 1990's.

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Interviews

Muramatsu, Shinobu, Sōka University, 27 November, 2001.

Appendix 4

In 1999, the Japan Small and Medium Enterprise Corporation conducted a survey (JASMEC, 2000) that provided a broader picture of the issues related to M&As, particularly the attitudes among Japanese SMEs owners and managers. There are several design weaknesses in surveys such as this one, where the respondents choose among given statements. For example, two respondents might not perceive and value the alternatives in a uniform manner, where one person gives an answer from his personal view, another person might produce an answer conforming to how he thinks other respondents answered. This particular questionnaire was designed with only a four-grade scale, which often is regarded as too few alternatives in the methodological literature (cf. Eriksson, 1998). In addition, respondents in the capital area might not be representative of the whole population. Despite these weaknesses, some general conclusions can be drawn from this questionnaire due to the high response rate.

Of 2,054 firms asked, 623 answered the questionnaire¹¹⁸. The profile of the typical respondent was a manager, either the founder of the firm or his child, and the average age of the respondents was 50 years or older. 75% of the firms participating in the survey were founded before 1980. On the perceived competition situation in the industries in which the firms operated, about 80% of managers, both with and without experience doing M&As (586 firms), responded that they were doing business in an environment with high or rather high competition.

For questions with more direct relevance to the issue of M&As, the SME managers were asked how they assessed the possibility of further restructuring within the industries where the firms operated. Firms with M&A experience or firms having previously considered an M&A believed to a higher degree in continued restructuring compared to the group with no experience in M&As – a result that was rather expected. However, a more surprising result was the similarity in responses regarding what was considered by the managers to be the most important issue in business. One would expect statements like “importance of market share expansion and strong cash flows” to yield higher response rates in the group with M&A experience, while statements such as “profit dividend to the employees” and “protect the

¹¹⁸ Further details of the survey and selection method can be found in JASMEC, pp. 42-45.

employment of the workers" would yield a higher response rate among the firms in "non-M&A" group. To the contrary, the survey results showed both groups believed that market share expansion and strong cash flows were the most important issues, while issues concerning employee welfare were rated lower.

In a second part, JASMEC also surveyed the attitudes towards M&As. The overall attitude towards M&As was positive. However, the negative image M&As was not insignificant (see Table A4.1).

Statement		Agree	Agree somewhat	Do not entirely agree	Do not agree
Q1. M&A is a viable management strategy	N=597		37.7%	10.1%	6.2%
Q2. M&A is a viable way to solve successor problems	N=593	26.1%		22.4%	14.0%
Q3. M&A has a damaging image such as "selling your soul"	N=595	14.8%		25.2%	26.7%
Q4. M&A increases the risk of leakage of confidential company information that damages trust and triggers speculation about survival of the company	N=594	25.3%		24.2%	12.0%
Q5. M&A is a viable strategy for publicly listed companies, but does not fit SMEs	N=594	16.3%	24.6%	29.0%	
Q6. M&A does not fit into the Japanese corporate climate	N=594	8.1%	29.6%		27.4%
Q7. M&A is more efficient than bankruptcy and starting again from scratch	N=590		40.5%	8.5%	4.1%
Q8. There are few ways to raise funds for doing M&As	N=584	38.0%		15.2%	7.4%
Q9. There is too little information about other firms in order to do M&As	N=587		41.2%	9.5%	3.7%
Q10. Do not know how to value companies or business units	N=587	35.4%	41.6%	13.6%	9.4%
Q11. Even though an M&A is carried out, the effects would be unclear	N=587	16.7%	29.3%		21.5%
Q12. Lack of knowledge about handling and carrying out M&As	N=588	37.7%		11.1%	6.8%

Table A4.1. Distribution of answers in the JASMEC attitude survey (from JASMEC, pp. 79-80; translation by the author).

Of particular interest are the relatively high response rates given to the negative statements regarding the image of M&As. Statements Q3 and Q4 – regarding the fear of bad reputation and the fear of leakage of confidential

information – yielded high rates, accurately reflecting what is usually perceived as the traditional resistance towards M&As. This was also reiterated in the interviews conducted by the author (see Chapter 5), where the interviewees indicated that this particular phenomenon was also valid for some large firms. There is, however, a big difference between large firms and SMEs in terms of market power. Trust is generally an important factor in Japanese business, but the relatively vulnerable position of SMEs in the vertical supply chain or industrial networks makes them extremely sensitive to the issues that statements Q3 and Q4 touch upon. In Table A4.2, this becomes even more obvious, where we can see the distribution of the respondents, categorized by firm features, who answered positively to the same survey questions.

Statement	Response rate of SMEs that are		
	family-owned firms	high growth firms	firms that have M&A experience
Q1. M&A is a viable management strategy	83.7% (N=449)	85.0% (N=80)	98.0% (N=49)
Q2. M&A is a viable way to solve successor problems	63.9% (N=446)	68.8% (N=80)	69.4% (N=49)
Q3. M&A has a damaging image such as "selling your soul"	49.2% (N=447)	35.0% (N=80)	38.8% (N=49)
Q4. M&A increases the risk of leakage of confidential company information that damages trust and triggers speculation about survival of the company	64.1% (N=446)	53.8% (N=80)	63.3% (N=49)
Q5. M&A is a viable strategy for publicly listed companies, but does not fit SMEs	42.6% (N=446)	26.3% (N=80)	10.2% (N=49)
Q6. M&A does not fit into the Japanese corporate climate	39.0% (N=446)	15.0% (N=80)	28.6% (N=49)
Q7. M&A is more efficient than bankruptcy and starting again from scratch	87.6% (N=443)	76.3% (N=80)	93.8% (N=48)
Q8. There are few ways to raise funds for doing M&As	77.9% (N=439)	70.0% (N=80)	72.9% (N=48)
Q9. There is too little information about other firms in order to do M&As	86.7% (N=442)	80.0% (N=80)	85.7% (N=49)
Q10. Do not know how to value companies or business units	78.7% (N=442)	62.5% (N=80)	65.3% (N=49)

Table A4.2. *Continued.*

Statement	Response rate of SMEs that are		
	family-owned firms	high growth firms	firms that have M&A experience
Q11. Even though an M&A is carried out, the effects it would be unclear	48.9% (N=442)	26.3% (N=80)	22.4% (N=49)
Q12. Lack of knowledge about handling and carrying out M&As	84.7% (N=443)	73.8% (N=80)	71.4% (N=49)

Table A4.2. Distribution of "Agree" and "Agree somewhat" answers in the JASMEC attitude survey, categorized by firm features (from JASMEC, p. 80; translation by the author).

When listed by firm characteristics, statements Q3 and Q4 generated the highest rates of assent among the questions focusing on the *image* of M&As, emphasizing the importance of this issue to Japanese SME managers. In interviews conducted within the framework of the same JASMEC study, the fear of M&As as a potential channel for spreading confidential information was also expressed on several occasions¹¹⁹:

"The information diffusion that is connected with planning and carrying out M&As will lower the public trust in the company and the morale among the employees. Also, there is a great possibility that the value of the firm (or business unit) will rapidly be lowered." (author's translation)

The negative image of M&As is also understood from the response rates given to statements regarding the practical issues surrounding M&As. The response rates shown in Tables A4.1 and A4.2 indicate a connection between low knowledge level (statements Q9 to Q12) and negative M&A image (statements Q3, Q5, and Q6) among the respondents. Thus, a contributing factor to the negative perception of M&As might be fuelled by prejudices and a vague understanding of how an M&A deal is actually carried out.

The overall results from the JASMEC survey reveal two distinct groups regarding the attitudes towards M&As. The group with the most positive and knowledgeable view of M&As consists of firms that have previous experiences with M&As, while the group of firms with most negative view of

¹¹⁹ JASMEC, p. 104.

M&As and lowest practical knowledge of realization of M&As consists of those without any experience of M&As or those that would not consider M&As at all.

The JASMEC survey also includes other studies that examine perceptions of M&As among SME managers (The Tokyo Chamber of Commerce and Industry [TCCI], 1999; Tokyo Metropolitan Management Consultant Office, 1999). In the TCCI study, 313 SME managers in the Tokyo Metropolitan area were asked about their views on M&As in a multiple entry questionnaire¹²⁰. An overwhelming number of the respondents, by and large, viewed M&As positively, but 15% agreed to the statement "I prefer to be on the buying side than the selling side", and 9% agreed to the statement "Have bad image such as hijacking or selling your soul". 6% even agreed to the statement that "M&As are common in Europe and North America, but foreign to Japanese values". In the survey conducted by the Tokyo Metropolitan Government among 1,073 SME managers in the Tokyo Metropolitan area, 29% answered that M&As are a possible solution to successor problems. However, as many as 17% answered that they would rather liquidate their firms than sell the business to others¹²¹.

The pattern of M&As among SMEs is different in nature compared to large firm M&As, mainly because the SMEs lack in-house know-how and financial resources to conduct an aggressive business development strategy. However, before continuing, the business conditions for Japanese SME entrepreneurs must be looked at more closely. SMEs exist typically in the agricultural, manufacturing and service sectors, and are an important part of the Japanese economy. Furthermore, many SMEs are managed by their founders and their families, who often have extensive personal networks. The business horizon of these entrepreneurs seldom reaches beyond what is necessary to financially support their families, and the expansion of their business is often not even considered. Therefore, the three main problems facing a Japanese SME entrepreneur are:

1. find a suitable successor
2. find a way out of business troubles
3. succeed in finding necessary credits.

¹²⁰ Op. cit., p. 34.

¹²¹ Op. cit., p. 35.

However, as we have seen in the surveys summarized above, emotional reluctance to engage in M&As as a solution to such situations is quite strong¹²². Among many entrepreneurs, there is a pronounced image of M&As as indicative of failure, and the strong emotions connected to this concept are expressed in common views such as "selling one's firm is like selling your own son". The entrepreneur who engages in M&As can also be seen as a failure by fellow entrepreneurs in the local society. There are stories of entrepreneurs who, in order to save face, disguise the actual sale of a company as a "business transfer" and continuously sell off the firm piece by piece to the same buyer¹²³.

Still, SME M&As do exist and account for a substantial share of the total M&As in Japan. In order to find a suitable M&A partner, two approaches have often been used by most SMEs. The first and most common approach, has been that a firm registers with an M&A consultant (the main bank, the chamber of commerce in the home town or more specialized M&A consultants), who is then given the task of finding a suitable M&A partner. The second approach has been the use of personal and industrial networks. Through formal and informal networks, many owners of SMEs know each other very well, and often have a detailed picture of the financial situation of most members in its own business community. Through this direct contact with potential M&A partners, the SME owners have been able to hold discreet M&A talks and contacted a suitable M&A consultant only during the final stages for help with practical issues such as taxation and registration.

There have also been a number of SMEs that have pursued a more "western" approach to M&As, using them as a strategic business development tool. First the SME identifies a potential target and then approaches the target firm directly or through an M&A advisor. There are examples from the Kansai area, which traditionally has a reputation for entrepreneurs who are more prone to taking business risks compared to entrepreneurs in other regions. Although SME M&As with explicit strategic motives are still rare relative to the total number of SME M&As in the Kansai area, the influence of local business culture on the M&A attitudes can be an important factor when studying Japanese SME M&As.

¹²² The negative view of M&As is a general phenomenon for the whole Japanese society. This is reflected, for example by the routine-like use of the word *kyūshū gappei* (absorption merger), which has a strong negative tone, in reports on M&As in the Japanese media.

¹²³ Interview with Shinobu Muramatsu on 27 November 2001.

The overall picture of SME M&As is therefore mixed, where both old values and more pragmatic views coexist. Also, there are differences in views between industries, where firms producing high value-added products and services tend to be more involved in strategic M&As than small and local SMEs, especially those found in low-growth industries. Chapter 5 will elaborate further on Japanese SMEs and their M&A behavior.

5 The Context of Japanese M&As: Firm Behavior and Partner Selection

The purpose of this chapter is to draw a broad picture of the M&As occurring in Japan and investigate the attitudes, motives, M&A firm characteristics, and the environment in which they take place by using interviews and case studies. In addition, an overview of the media gives a background to the context in which the M&As have taken place. The aim of this part of the thesis is, from a resource-based perspective, to investigate the qualitative characteristics of the “black box” in order to detect any systematic behavior pattern of the Japanese firms’ in M&As.

5.1 The data¹²⁴

5.1.1 Data selection

In order to investigate the qualitative aspects of the Japanese M&As, the following scheme was constructed (see Table 5.1). Following the discussions on firm resource characteristics of Barney (1991) and Dierickx and Cool (1989)¹²⁵, this scheme was designed *firstly* to determine the character of the industries under study, then *secondly* to determine the resources that the M&A firms in the each of the three industries hold, and *thirdly* to determine what type of resources the firms aimed to acquire through M&As.

¹²⁴ The following discussion concerns the data collection and operationalization of the qualitative research questions. Regarding the data description, the reader is referred to each individual section.

¹²⁵ See also Chapter 2.

-
- Selection of industries
 - Special features related to firm size and industry
 - Features of inward and domestic M&As
 - Issues concerning M&As
 - Institutional structure
-

Table 5.1. The initial research guide scheme designed for the interviews and case study summary (and also partly for the news articles summary).

The *selection of industries* is simply the choice of industries to analyze; they are already given by taking the industries in the manufacturing sector that have recorded the highest frequency of domestic and inward M&As (calculated from Recof, 2003), namely the electrical machinery, the chemical, and the pharmaceutical industries. Central to the analysis is naturally to investigate the M&As, but in order to place the phenomenon in the proper context, we need to investigate the *special features related to firm size and industry*, such as the communalities and the differences in general characteristics and attitudes towards M&As between the large firms and the small- and medium-sized enterprises (SMEs), as earlier research suggests that there exists substantial differences in M&A behavior depending on firm size (e.g. Fuji Research Institute Corporation, 2001; Caldeira, 2003). In addition, the *special industrial* characteristics are, from a resource-based view, factors that differentiate the three industries from each other. Arguably the nature of the three industries is different, as for example, the pharmaceutical industry is more intensive in human capital resources than the electrical machinery industry. Given the firm characteristics, the *features of inward and domestic M&As* are defined to identify factors that characterize the large firms and SMEs in terms of the M&A direction, and what resources, if any, the involved firms are in search of. As we have seen in Chapter 4, the empirical literature shows diverse evidence as to whether domestic and cross-border M&As differ or not (e.g. Baldwin, 1998; Mucchielli and Kohler, 2000; Benfratello, 2002). The fourth category, *issues concerning M&As*, is somewhat broadly defined to capture the post-M&A results and organizational issues that emerge from the M&A events. These issues are e.g. those concerned with realization of synergies from M&As such as specific organizational problems in connection with

mergers. Finally, the category *institutional structure* is defined to categorize influences on the M&A behavior of the firms from institutional factors. In short, the categories of Table 5.1 are designed to determine the qualitative factors, seen from the resource-based view, that characterize the "beast" we are hunting. The interviews and the content analysis, and also to some extent the summary of news articles, have thereafter followed the structure of the scheme.

News articles summary

The review of news articles is not intended to be an integral part of the qualitative analysis – rather, it is included as a "quasi-analysis" in order to give an *assessment* of the general trend in the newspaper debate, and which topics have been discussed. The purpose is to give an idea of which M&A issues have been of immediate interest in Japan. Nevertheless, the news articles summary has been methodologically conducted similar to, but not as rigid as, the analysis of the interviews and the summary of the case studies. The investigation of editorials and news reports has been conducted by summarizing all relevant newspaper and magazine articles from the business press and all relevant editorials of all Japanese language media between January 1991 and September 2003. The Nikkei Telecon 21 database, which contains articles and editorials from all printed media in Japan, has been used for retrieving the articles. The article selection process was "iterative" in its nature, by gradually narrowing down the search criteria from broadly defined key words, such as "M&A", to specific key words (see section 5.2). The final selection was made via headlines, sorting out the articles that were assessed as irrelevant, leaving 560 articles that were systematically examined (for more details of data collection and coding procedures, see sections 5.2 and 5.3 below).

Interviews

The semi-structured interviews focused on the qualitative issues. Because of the difficulties in obtaining interviews with company representatives of the industries under study *who have actively been involved in M&A processes* or *were willing to talk about their firm's M&A activity and strategy*, the selection was not done randomly. These difficulties were caused by the perceived sensitivity of the M&A issue. Most often, the people contacted cited the problem of confidentiality in declining interviews. This reluctance to talk about details included both past and current M&A deals. The interviewee selection was

therefore made after considerable "networking", which meant that people were available for interviews only after an initial contact and introduction by a third or fourth party. However, the eventual group of interviewees consisted of people who had profound insights into Japanese M&A processes, such as academic researchers and M&A advisors.

Analysis of the case studies

For the cases in the summary, the very first step was to select industries identical to the ones used later for the econometric analysis in order to compare the qualitative and the quantitative aspects of the research questions. The second step was to select M&A deals with firms included in the panel data set used in the quantitative analysis. The third step was to include other M&A deals between 1991 and 2001, for which no financial data was available and therefore not included in the original panel data set, but for which case studies were available. Finally, after the interviews were done, some additional cases from the same sample period were selected. These cases were described in the archival material provided by the interviewees, denoted by them as cases which stepped outside the "typical pattern" of (SME) M&As. In order to verify their details (whether they really were "atypical" or not), all cases obtained from the interviewees were double-checked in newspaper material and the Recof (2003) dataset. Due to availability and its nature, the data selection was not done randomly (a more elaborate discussion is found below).

5.1.2 Data collection

The collection of the qualitative data was done in Japan during 2001 and 2002. The data material consists of semi-structured interviews and collection of case studies.

News articles summary

As already mentioned, the Nikkei Telecon 21 database has been used for retrieving articles related to M&As. The search in the database, using the key words "M&A" and "Japanese Firms", yielded about 1,700 news articles, 335 non-editorial debate articles and 203 editorials¹²⁶. All editorials and 357 other articles (news articles and non-editorial debate articles) were used in the

¹²⁶ In order to contain the vast amount of text, a summary of the headlines was first conducted, whereupon articles of special interest for this analysis were then sorted out.

summary. The categories, which have guided the summary, have been structured and are shown in the Table 5.2¹²⁷.

Interviews

Semi-structured interviews were conducted in Tokyo during September to November 2001, and in August 2002, where M&A advisors, academic researchers, and employees or former employees of the financial industry were interviewed. In total, 10 people were interviewed on 15 occasions during one to two hour sessions at a location chosen by the interviewees and the interviews were tape-recorded unless the interviewees objected. The semi-structured interviews concerned both concrete examples of M&As, which encompassed not only firms within the three industries under study but also cases from other industries, and qualitative issues related to M&As, such as motives and partner selection processes (see Table 5.3 below).

Cases analysis

The case studies consist of cases compiled within the framework of three separate studies on M&As (Miyamoto and Muramatsu, 1999; JASMEC, 2000; Suzuki and Unno, 2002), which were then verified and complemented by archival material (Recof, 2003; Osaka Chamber of Commerce and Industry; Nihon Keizai Shimbun; Nihon Kōgyō Shimbun; Kagaku Kōgyō Nippō; Nikkan Kōgyō Shimbun; Mokuzai Shimbun; Nikkei Sangyō Shimbun; Medical&Test; Nikkei Kinyū Shimbun). In total, the summary consists of 24 cases, distributed between the electrical machinery industry (9 cases), the chemical industry (10 cases) and the pharmaceutical industry (5 cases). Furthermore, of these 24 cases, 6 cases were M&As between SMEs. Finally, of the 21 M&A firms in the panel data set of the econometric analysis of Chapter 6, 13 are represented in the case study summary.

5.1.3 Data coding

News articles summary

The methodology of the summary of the news articles has not followed the same procedure as the cases analysis and interviews. The reason for this is simple, as the vast amount of printed material and the time given prohibited a systematic coding of all articles (about 2,240) generated by the search

¹²⁷ As the reader will see later, this scheme is *similar* in structure to the one for the content analysis of the case studies and the interviews.

in the Nikkei Telecon 21 database. The selection was made using headlines, and after sorting out the articles that were assessed as irrelevant, only the final selection of 560 articles was systematically examined. The articles were then sorted into categories following the scheme of Table 5.2, which basically is Table 5.1 in an expanded form. The result of this procedure constitutes the articles summary.

1. Special features related to firm size	<ul style="list-style-type: none"> • Large firms • SMEs
2. Features of inward and domestic M&As depending of the direction of the investment	<ul style="list-style-type: none"> • Domestic M&As • Inward FDI • Inward M&A
3. Issues concerning M&As	<ul style="list-style-type: none"> • M&As and strategic business development • Organizational restructuring • Post-merger effects • Profitability
4. Institutional structure	<ul style="list-style-type: none"> • Structural reforms • Regulatory system

Table 5.2. Two-level scheme guiding the news articles summary.

Interviews and cases analysis

The selected case studies and the interviews were coded according to the content analysis procedure suggested by Strauss (1987) and Taylor and Bogdan (1998), and outlined explicitly by Holsti (1969). The content analysis method concerns primarily the interviews, but in order to get a coherent format for the analysis, specific issues in the case studies considered interesting for this particular research were coded in a similar way as far as the coding scheme (Table 5.3) was applicable in the case studies. At first the data coding followed the five categories specified in Table 5.3: (1) special features depending on firm size, (2) features of inward and domestic M&As, (3) issues concerning M&As, and (4) the institutional structure. The second step was then to construct an intermediate level of categorization ("Second level categories"), which classified factors relevant to the qualitative issues concerning Japanese M&As. As a third step, a set of subcategories ("Third level categories") was developed to bring the coded data to a more detailed level, such as "firm level business conditions", "managerial attitudes", "networks", "role of mediators" and "organizational considerations". Finally, the coding results were compared in-group to verify the source of the information and the consistency of the information provided. In instances where the interviewees

gave insufficient information regarding certain cases due to confidentiality, complementary information necessary for this analysis was verified in the details of M&A deals given in Recof (2003).

First level categories	Second level categories	Third level categories
1. Special features related to firm size	<ul style="list-style-type: none"> • Large firms • SMEs 	<ul style="list-style-type: none"> • Industry level business conditions • Firm level business conditions • Managerial attitudes to M&As
2. Features of inward and domestic M&As	<ul style="list-style-type: none"> • Domestic M&As • Inward M&A 	<ul style="list-style-type: none"> • Motives for M&As • Role of network members • Role of mediators
3. Issues concerning M&As	<ul style="list-style-type: none"> • M&As and strategic business development • The post-merger organization 	<ul style="list-style-type: none"> • M&As as a tool for firm development • M&As as a tool for organizational restructuring • Post-M&A organizational harmonization
4. Institutional structure	<ul style="list-style-type: none"> • Structural reforms • Regulatory system 	<ul style="list-style-type: none"> • Corporate governance • Transparency • Legal and taxation incentives

Table 5.3. Three-level content analysis scheme for the interview and case summary analysis.

5.2 Overview of the M&A debate in the Japanese media during the 1990's

It is fairly easy to observe the main positions in the domestic debate regarding M&As in the media during the period which is the focus of this thesis. The debate during the 1990's can be divided in two major lines (see Figure 5.1).

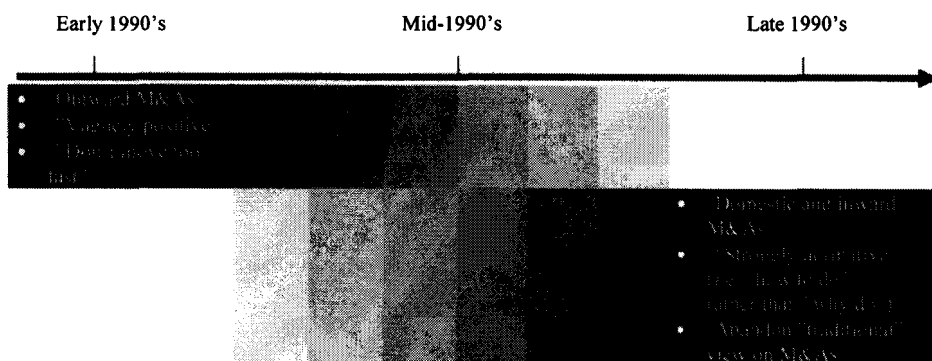


Figure 5.1. The emphasis put in the media debate concerning M&As.

Not surprisingly, *outward M&As* were the focus of the reports in the major newspapers and magazines in the beginning of the decade. However, in due course, the news reports shifted more and more towards *domestic and inward M&As*. Obviously, the proportion of reports regarding outward M&As on one hand and inward and domestic M&As on the other hand has followed the general M&A trend in Japan. Until the mid-1990's, news articles generally concerned Japanese establishments overseas, in particular those on the Asian mainland. Reflecting the general trend, few articles reported on closer cooperation between foreign and Japanese firms, and the news articles on the M&A deals overseas were characterized by reports on strategic acquisitions in order to enter a new market or to gain access to foreign technology. Further, there were reports on marginal acquisitions, such as acquisitions of overseas sales agents. The news reports were neutral in tone, and did not include deeper analyses concerning M&As as a phenomenon.

Meanwhile, in the editorials and the non-editorial debate articles, the discussions regarding M&As were somewhat more diverse compared to the "ordinary" news articles, which merely reported M&A events rather than analyzed them. From the very beginning of the 1990's, two main issues could be observed in the editorial debate, the pattern of inward FDI/M&As and M&As as a strategic development tool for the individual firm. However, the tone in the debate was not protectionist, since the majority of the Japanese press, and the business press in particular, generally espoused liberal views on reforms and corporate governance. Longitudinally, a distinct line of reasoning could be detected in the editorials, developing from being "vaguely positive" towards M&As (in particular as a tool for restructuring Japanese

firms) at the beginning of the decade, to “normatively positive” at the turn of the century, mostly telling “how to do it” and “who should do it”.

Concerns about the speed of accepting M&As and warnings against naivety

In early 1990's, there were moves toward relaxing regulations concerning the basic fundamentals of the Japanese business structure, such as laws regulating firm establishments (such as establishments of large-scale retailers outside city centers), financial transactions and firm ownership (for example, laws regulating takeover bids and M&As, and prohibition of forming holding companies). Especially in the case of M&As, there was both domestic and foreign pressure on the Japanese government to amend laws (in particular the Anti-Monopoly Law and the Commercial Law; see Appendix) to better reflect the changing needs of Japanese business in face of the deep recession after the burst of the speculation economy in the 1980's and to facilitate restructuring of Japanese firms. These views were also naturally reflected in the editorials. For example in the industrial newspapers¹²⁸, the view that the need for restructuring of the Japanese industry on all fronts – from business portfolio composition to employment practices – was written about on several occasions, as well as calls for structural reforms of the Japanese economy in general¹²⁹. However, at the time the debate was not only simplistic calls for reforms. Some editorials also emphasized the need for reforms to be accompanied by control mechanisms designed to enforce new rules and practices, and voiced concerns about the Japanese government giving in to pressures and introducing premature liberalizations before adequate control structures were implemented¹³⁰. One editorial went even further and stressed that the Japanese regulating system was not yet ready to accept the M&A practices of North America or Europe (i.e. heavy emphasis on pre-M&A target firm analysis)¹³¹:

“Restructuring and mergers are forceful tools to make the scale of firms larger in order to strengthen the international competitive power. But if

¹²⁸ “Industrial newspapers” refer to the specialized industrial daily newspapers that are published in Japan.

¹²⁹ Kagaku Kōgyō Nippō, 7 February 1991; 7 January 1994.

¹³⁰ E.g. Nihon Keizai Shimbun, 7 April 1992.

¹³¹ Kagaku Kōgyō Nippō, 22 June 1992

one looks at the general picture, comprising factors affecting the corporate activity such as Japanese corporate climate, culture and laws, it is hard to say that conditions exist which propel restructuring and mergers forward. We believe that particularly the discussion concerning the enforcement and the interpretation of the Anti-Monopoly Law is still faulty. In order to proceed with restructuring and mergers in a smooth way, it has become necessary to adjust such factors that affect such activity. [...] Japan differs from Europe and America in terms of corporate climate and culture. It is probably difficult to do restructuring in line with those in Europe and America." (author's translation)

Furthermore, concern for a too naïve view of M&As was also expressed, in particular the danger of simply seeing M&As as a means to grow bigger rather than to use M&As as a strategy to streamline the firm, make it more efficient and acquire long-term competitive advantages such as new technology and know-how¹³². This debate emerged once again after the big bank mergers at the end of 1990's, when the rationale for these "mega-mergers" was questioned. The background for this was the initial post-merger problems and negative publicity some of the banks suffered after incidents like system crashes, which severely damaged their reputation among customers and the general public, and organizational problems, told by anonymous bank employees, who testified on badly managed organizational integration and mergers without a clear mission¹³³. One editorial said¹³⁴:

"It is important that each [bank] group formulate a concrete strategy when they make giant mergers. [...] They cannot just be secure in becoming big and forget the [organizational] content, letting the restructuring plans vaporize. [...] [The banks] have to move on to plan the second stage [of restructuring], and not only cut the number of employees. Restructuring in its real sense is urgent." (author's translation)

¹³² Nihon Keizai Shimbun, 6 September 1995.

¹³³ Bungei Shunjū, pp. 178-187.

¹³⁴ Yomiuri Shimbun, 24 August 2000.

After the *jūsen* crisis and the Tokyo Big Bang

After a rather passive period following 1992, the M&A debate gained momentum again with the *jūsen* crisis, starting in 1995. While the main theme of the editorials was still calls for restructuring of firms and continued structural reforms by the government¹³⁵, voices for acceptance and facilitation of domestic M&As and inward FDI became increasingly louder in the debate. One editorial asserted¹³⁶:

"[...] it is obvious that the reason for the foreign firms' acquisitions of Japanese firms is the depreciation of the yen vs. the dollar. [...] The inward M&As will probably increase as the deregulation and the globalization proceed. On the other hand, it would cause problems if the Japanese market loses attraction and the [foreign] firms start to flee from the country or start to ignore Japan. The Hashimoto government must go back to the main course, promptly realize the announced reforms and sell Japan based on a correctly valued price." (author's translation)

The news reports and the editorial debate on inward FDI and M&As peaked around 1998, which was the year of the "Tokyo Big Bang" reform, and the inward M&A deals received attention in the domestic press as never before. As the editorials grew increasingly normative in tone, the M&A practices in North America and Europe were promoted as examples to follow. But, at the same time, the financial reforms in South Korea and South East Asia were pointed out in some editorials as more or less directly juxtaposing the Japanese efforts to reform the financial markets. The corporate restructuring in South Korea attracted much attention, and even though the restructuring of the *Chaebols* was not directly pointed out as *the* model for corporate restructuring, the events and efforts in Korea were commented on in connection with the events in Japan and certainly did not go unnoticed in the Japanese M&A debate.

¹³⁵ E.g. Mainichi Shimbun, 17 September 1996; Nikkan Kōgyō Shimbun, 12 January 1998; Nihon Keizai Shimbun, 8 February 1999; Kagaku Kōgyō Nippō, 27 August, 2003.

¹³⁶ Nikkan Kōgyō Shimbun, 12 January 1998.

M&As and the individual firm

Of the three industries included in the analysis of this thesis, the pharmaceutical industry received the most attention in the editorials, and the main debate from the mid-1990's and onward was about the survival of the Japanese pharmaceutical firms in the globalized market with unchanged levels of R&D and limited market scope (see the related discussion in section 6.4.3 of Chapter 6). These concerns were reflected in an editorial¹³⁷:

"The global reforms in the medical care systems will probably influence the foundations for the pharmaceutical industry in a significant way, and therefore M&As will continue to be a big issue [in this field]. However, the restructuring [of the Japanese pharmaceutical firms] does not progress. [...] The top firms in the world have moved towards M&As, [...] but in Japan, there are no noticeable moves [towards M&As] among Japanese pharmaceutical companies. [...] [Even in Japan,] it is obvious that there are problems of survival if one focuses on [serving only] the domestic market." (author's translation)

Still, in 2001, the debate in the industrial newspapers regarding the pharmaceutical industry revolved around the question of the implications of M&As for the firms' ability to conduct R&D on a level comparable with its international competitors¹³⁸. However, the underlying theme of later editorials concerned the domestic pharmaceutical industry's lack of speed in crucial decisions such as creating global alliances, and exploitation of their scale efficiency potentials.

The debate not only focused on large firms, as attention was also paid to SMEs in the industrial newspaper editorials, proposing M&As as a developmental tool for these small- and medium-sized companies¹³⁹. Attacking what the newspaper editors regarded as the negative view of M&As among SME managers, the editorial of an industrial newspaper¹⁴⁰ maintained that the merits not only rested on efficient reallocation of skillful personnel and efficient use of assets, but also raised the argument that M&As are treated more

¹³⁷ Kagaku Kōgyō Nippō, 12 April 1996.

¹³⁸ Kagaku Kōgyō Nippō, 5 January 2001; Kyoto Shimbun, 19 September 2001; Kagaku Kōgyō Nippō, 27 August 2002.

¹³⁹ Nikkan Kōgyō Shimbun, 31 March 1998; 26 September 2001.

¹⁴⁰ Nikkan Kōgyō Shimbun, 31 March 1998.

favorably from a taxation point of view compared to a firm liquidation, which benefits the seller¹⁴¹. This editorial is interesting in the sense that it addressed the SME managers in a more direct way than earlier examples by pointing out concrete examples of the benefits of M&As. Also, the increased efforts by government agencies and semi-official organizations to inform Japanese firms about M&As in general and the SMEs in particular, and to make M&As more common in the corporate world were praised in the debate¹⁴². As seen later in the interviews, one of the most common complaints among SME owners and managers has been that there is too little information about M&As in general and about the practical procedures of M&A deals in particular. In an effort to remedy this deficiency, the Ministry of Economy, Trade and Industry (METI) and the chambers of commerce in the largest urban areas (that is, the Tokyo, Osaka, Kobe, and Nagoya areas) set up entirely new bureaus to service interested SMEs, which was observed in the press as a significant step towards the spread of M&As within this group of firms.

Calls for new thinking

Yet another interesting line of debate which took off in the mid-1990's was the call for an increased "pragmatic" approach to M&As compared to the "traditional" domestic M&As carried out in the past, meaning that M&As between firms belonging to different *keiretsu* networks should be promoted¹⁴³. The reasoning is "when times change and no more money is available (such as the abandonment of the convoy system and no more in-group prop-up of bad-performing *keiretsu* group firms), sheer survival is more important than discriminating between buyers of 'right' and 'wrong' origin". In other words, a view on corporate management similar to the one in the US, where shareholder value is the focus, was promoted in the debate, stressing that measures fitting the current needs of the firm¹⁴⁴ should be taken rather than following dogmatic principles. An editorial exhorted its readers¹⁴⁵:

¹⁴¹ For details, see Appendix.

¹⁴² Nikkan Kōgyō Shimbun, 7 June 2000.

¹⁴³ Mainichi Shimbun, 17 September 1996; Nikkan Kōgyō Shimbun, 26 May 1998.

¹⁴⁴ Such as employee lay-offs, making M&As and forming alliances over traditional boundaries etc. in order to boost the firm profitability and long-term development.

¹⁴⁵ Nikkan Kōgyō Shimbun, 4 June 1998.

"[...] the business environment is changing very fast and the risks are increasing, and fast decisions are required. In these days, it is impossible to survive by managing a firm just by improving the employee morale and insisting on cooperation between firms in an industry. An inward M&A stimulates [...] the acquired firm and has a good influence on it, because the acquired firm takes in the superior management resources of the foreign firm and will be revived through new business strategies."
(translation and emphases made by the author)

Not all were so explicit and – as shown later in the analysis results of Chapter 6 – as somewhat naïve about inward M&A as this editorial, but it is interesting to see how some newspapers were very enthusiastic in promoting foreign management ideas. Still, in other newspaper editorials, warnings were issued against moving too fast in promoting inward FDIs without considering how an increased level of FDIs could contribute to the revival of the Japanese economy and increase employment¹⁴⁶. This line of reasoning might connect superficially to the "don't move too fast" debate of the early 1990's, but the main difference now is that the discussion does not simply ask whether M&A practices of North America or Europe (where the emphasis is on the shareholder wealth) fits Japanese corporate climate or not, but rather how FDIs can be used to revive the Japanese economy.

TOBs

Towards the turn of the century, a more aggressive form of M&A emerged, hostile takeover bids (TOBs). As explained earlier, TOBs have been extremely rare in the Japanese corporate world because of the inability to acquire a large enough stock of shares on the open market, primarily due to cross-shareholding, in order to make a bid on a company. Being a relatively new phenomenon, TOBs attracted considerable attention in the news reports during 2000, when one of the first *hostile* TOBs occurred. Also in the editorials the "shock wave" spread, but this "wave" was not expressed negatively, but rather established that the infrastructure to do hostile TOBs in Japan was now laid and that they had become a viable acquisition strategy in Japan. An editorial¹⁴⁷ warned the business world that "the carefree days of the entrepreneurs are over", meaning that the target for hostile TOBs were firms of

¹⁴⁶ Kagaku Kōgyō Nippō, 25 May 1999.

¹⁴⁷ Nishi Nippon Shimbun, 8 February 2000.

every size that have values of any sort that might interest other firms, and that an entrepreneur cannot rest on one's laurels just because the firm is "too small".

5.2.1 Issues absent in the M&A debate in the media

However, after this survey of the domestic M&A debate during the 1990's, the critical inquirer would ask what themes were *not* discussed in the editorials. The first and most obvious point is why the discussion mainly dealt with "how to" and "should do" questions rather than "why do", or in other words, questioning the efficiency of M&As. For example, the question of post-merger performance was hardly discussed, if at all¹⁴⁸. Whatever the reasons for this might have been, it is striking how normative the tone was in the editorials with little reflection on how the examples in the "real world" actually turned out. Not surprisingly, the successes were pointed out as good models, but there are strikingly few examples where failures were addressed in the M&A discussion. Instead of discussing "good and bad" aspects of M&As (in particular inward M&As), much of the discussion was only "good" M&As.

However, one major exception to this positive and normative tone in the M&A debate can be detected. Warnings against accepting any inward M&A investment without also considering how such deals contribute to Japanese society and the economy are voiced in some editorials. This is rather interesting, since the editorials are not against inward M&As *per se*, but rather warn against economic greed or naivety – in other words, appeal to the sellers' "morale" when considering an M&A with foreign firms.

Secondly and somewhat related to the first point, is that *comparisons* between domestic and inward M&As, either in terms of performance or organizational harmonization, were not part of the editorial debate. This point is particularly interesting, considering the sharp rise in the number of M&As, both domestic and inward, during the latter half of 1990's. One can ask why this potential issue was not discussed in order to voice approval or disapproval of government policies or industrial strategies.

¹⁴⁸ This pattern also applies to the popular M&A literature published in Japanese, where the overwhelming part only concerns the practical handling of M&As, valuation of firms and taxation issues.

5.2.2 Summary of the media debate overview

Summarizing the domestic media debate during the 1990's, the main themes were structural reform of the economy and the restructuring of Japanese companies. While the general attitude of the media towards M&As remained positive during this entire period, the focus of the editorials changed. At first, the editorials pointed out the dangers of being too eager in promoting M&As without prior establishment of proper control institutions. Closely related to this, the editorials also pointed out the risks of using an M&A strategy without first defining the goals and aims. In particular, the editorials turned against what they saw as the tendency among Japanese firms to use M&As without really understanding them. To merge or acquire firms just to become bigger, instead of for cost cutting and trimming, was not regarded as a beneficial growth strategy. During the latter half of the decade, the focus moved towards the perceived lack of information among managers, and the editorials called for greater efforts by the government to inform SME entrepreneurs, if the government wanted the number of M&As to increase. At the same time, the M&A activity of individual firms also drew editorial attention, especially in the pharmaceutical sector and among SMEs. The major theme was the need for breaking with traditions, such as to stop regarding the *keiretsu* borders as impassable when searching for suitable M&A partners and to select partners from the perspective of competitiveness and profitability. Attempting takeovers via the open market was also a theme that caught the attention of the editorial writers, viewed as a reflection of the changed regulatory structure and the end of the era of extensive cross-ownership.

To put the debate on M&As in context is fairly easy. First, there is the attention of the media and secondly, there is the debate that closely followed the development of the M&A wave in Japan. Most interesting is the overall positive attitude towards M&As, which is not that obvious, considering the rather negative, or at best neutral, attitude towards M&As among Japanese managers at that time (see Appendix 4 and JASMEC, 2000). The reasons for this are rather obvious however, since the business press holds liberal views on the contemporary development of the economy and business. Also, one should not forget that the debate was conducted primarily in the major industrial newspapers, which reach a more limited circle of the general public compared to the major morning newspapers, while the news reports – positive *and* negative – on M&A deals were more evenly distributed among all types of newspapers. In a governmental report, the negative picture given in the mass media was specifically mentioned as a hindrance to improving the

popular view of M&As¹⁴⁹. However, the intensity of the media debate in Japan reflects the societal development in this field and serves as a background to the continued analysis.

5.3 Interviews

The main purpose for this part of the analysis is to investigate the attitudes towards M&As and the involvement of network actors, and by doing so, identify typical and atypical patterns for Japanese M&As. Because of the selection of interviewees¹⁵⁰, the discussion here concerns not only the specific industries discussed in section 5.4 and Chapter 6, but also Japanese M&As on a general level. The coding of interviews has followed the scheme specified in Table 5.3.

5.3.1 Attitudes towards M&As

At the dawn of the M&A wave of the 1990's (and the wave of inward M&As in particular), signs of alarm started to appear here and there in the Japanese society. Popular magazine articles ran headlines such as "Is it your firm next?" and English conversation courses were advertised in the trains with captions such as "Suddenly one morning, when I arrived at my office, my company had been sold to a foreign firm"¹⁵¹. These signs might have been superficial, and certainly not long-lasting, but in a broad sense can be viewed as symptoms of a deeper-level antipathy towards having one's firm sold, especially among middle-aged and older people. This closely connects to the antipathy towards M&As among managers, especially the SME owner-managers, as reported above. In the case of an inward M&A, an interviewee believed that this phenomenon was an expression of "fear for the unknown", in terms of predictability – you don't know the foreigners' way of thinking, and cannot predict their next moves. This picture is also evident in a broad investigation made by the Economic Planning Agency (1996), which suggests a wide-spread fear among Japanese employees for foreign takeovers due to an association of foreign firms with job losses and tough human resource policies¹⁵². During the last few years, however, M&As have become more

¹⁴⁹ Economic Planning Agency, p. 78.

¹⁵⁰ Regarding the data selection, see section 5.1.1 above.

¹⁵¹ Advertisement for Geos Corporation fall 2001.

¹⁵² Economic Planning Agency, pp. 83-85; pp. 102-103; pp. 189-202.

and more known to the general public through the frequent reports in the media (see section 5.4). The volume of news reports that has followed the general trend of M&As is substantial, and the media has covered both "success" cases, such as the Renault acquisition of a major stake in Nissan Motor and the cross-border M&As in the pharmaceutical industry, and less successful cases from the financial sector and the chemical industry. Also, the popular management literature is overflowing with titles concerning "how-to-do-it", and Nissan CEO Carlos Ghosn's book was, for example, one of the most popular in Japan during 2001. However, from the summary of the surveys made in Appendix 4, it is clear that the general skepticism towards M&As is still a factor to reckon with. The resistance towards M&As is, by and large, an attitude that dominated the business world's pre-1998 reform, but the JASMEC (2000) survey suggests that such a sentiment still lingers among SME managers. The causes for the antipathy can be found in the traditional sense of loyalty, which is a strong factor in Japan. One interviewee verbalized this tradition as:

"[...] many Japanese [company founders] still think of a company as an eternal commitment – exactly as if it was your own child. And as when a child grows up and succeeds you, your employees will take over after your retirement. Those who don't follow this philosophy commit "O-ie no danzetsu", i.e. "extinction of the family"¹⁵³. [...] the image [of an acquirer] was "those who buy shares to take control over a firm is a bad person" or "someone who takes over someone else's property". It's not about looking at the firm as a "tradable" – it's more to regard it as a house you have built with your own hands. The firm is the family – it will continue for generations. [...] [We] don't have the view of the firm [...] as you have in Europe – that you start a firm and then sell it off. You don't have the thought of "selling" at all in Japan. The [future] successor is your child or your employees." (author's translation)

Therefore, M&As can be a large step for many firm owners to take. However changed the attitudes towards M&As might be, the surveys of the Economic Planning Agency (1996) and JASMEC (2000) suggest that many SME

¹⁵³ Usually a description of a *daimyō* (feudal lord) family that was exterminated by a conqueror as punishment after wars in the Middle Ages.

owners and entrepreneurs still harbor the idea of M&As as a failure, and there is no doubt that there exists very strong emotions connected to this concept. In addition, the results of a Nikkei survey among 623 publicly listed firms in 1990 is illustrative of the dual attitudes many Japanese managers still have towards M&As. While 65.8% were positive to M&As as a developmental strategy, 72.4% still answered that they would refuse an M&A – no matter the conditions – if his own firm was to be a target of an M&A¹⁵⁴. In other words, the surveyed CEOs responded positively to buying other firms, but responded negatively to the idea of selling his own firm. This is also an example of the view “selling one’s firm is like selling your own son”. In addition to personal perceptions of M&As, this attitude is also connected to the social status of the manager, since a sell-off might be seen as a failure by fellow entrepreneurs in the local society or business network. Thus, the concerns can also be extended to worries about how fellow entrepreneurs will regard the manager (such as societal esteem).

Loyalty, also expressed as an “us against them” mentality, that is, the common feeling of competition among firms and connectivity with fellow firms within the “family” or the same sphere of interest – from large *keiretsu* groups to local business-to-business relationships – is also a part of the explanation for the historically low number of M&As in Japan. Yet, the public’s attitude is an extension of this loyalty concept. Brand loyalty has a strong tradition in Japan, and one feature is the concern about how the manufacturer treats its employees. For instance, the large firms had to be careful when reducing the number of employees. An ex-Tōshiba interviewee said:

“This has [...] its background in the post-war situation, when there was pressure on the large firms to employ people and keep them – ‘the life-time employment system’ [...] For Tōshiba, this was a reality until the 1980’s. If there was a need for dismissals, it was necessary to do it ‘secretly’, by e.g. passing on the ‘cuts’ to the subcontractors. An ‘open’ dismissal of employees would cause boycotts of the firm – initiated by the consumers, not by the labor unions – and in the end, loss of public trust.” (author’s translation)

¹⁵⁴ Nikkei Kinyū Shimbun, January 12 1990 (reported in Economic Planning Agency, pp. 67-68).

The interviewees agreed that the public concern about the large firms' employment policy belongs to the past, as well as the influence of the labor unions. It was during the 1980's (in other words well before the recession in 1990's), that something happened to the public concerns. The ex-Tôshiba interviewee continued:

"The turning point was Nissan's closure of a factory [...] in the mid-1980's. Everybody in the manufacturing industry - including Tôshiba - was thinking 'How will it be now after such an announcement? Nobody will buy Nissan cars now!'. But nothing happened! [...] no [consumer] boycotts occurred at all [...]. From that time on the atmosphere changed, and the large firms started to think 'now you can announce employee cuts without fear of boycotts'. [...] It is an expression of group mentality - if he can say it, I can also say it!" (author's translation)

So far, the discussion regarding the attitudes has mainly concerned individual perceptions of M&As, but the question of attitudes does not stop here. Looking at cases from the manufacturing and service sectors (not included in the summary of the case studies of Table 5.4 below; cf. JASMEC, 2000), there is the tendency that many SME M&As initiated in the Kansai region are more strategic than those initiated elsewhere - even though the triggering factors might not be different from other firms in Japan, such as financial rescues or successor difficulties. The regional differences in attitudes towards M&A were also a topic raised by the interviewees. Generally, the large firm M&As did not show any obvious differences in M&A goals due to regional factors, but when it came to SMEs, firms showed regional differences by putting emphasis on different strategic considerations¹⁵⁵. One M&A consultant illustrated this point by taking an example from Osaka. During the period of rapid growth for telecommunications in the 1990's, Osaka was an exception to the rest of the country by having a number of local and independent non-*keiretsu* firms building the mobile phone infrastructure. One of them identified the lack of capital as the main hindrance to continued growth, and started to contemplate an M&A as a strategic measure to keep up with its local competitors. Another firm within a related business was then willing to acquire the mobile network construction firm. The acquirer looked for an op-

¹⁵⁵ Fuji Research Institute Corporation, pp. 36-61; Recof (2003).

portunity to diversify his firm's business portfolio after a revision of the current strategy, when he realized that his firm could not only rely on one high-growth area. The outcome was fruitful, and including the selling founder's happy retirement, the acquired firm gained the necessary capital and obtained a better credit rating from the banks. For the acquiring firm, it got a company with an established brand name and could broaden its business portfolio.

A small technology firm in Osaka, specializing in R&D, provides another example of strategic M&A planning. The owner speculated on what the outcome would be if the technicians in his company were "exposed" to the know-how of the technicians in a partner company. With a firm conviction that such a merger would lead to positive synergies, the Osaka entrepreneur arranged a merger¹⁵⁶. Although this type of SME M&A is still rare relative to the total number of SME M&As in the Kansai area, the influence of the local business culture on the view of M&As cannot be dismissed. Therefore, by considering these examples, it is no coincidence that the first M&A advisory bureau for SMEs was founded by the Osaka Chamber of Commerce and Industry in 1997, as a response to the rapidly increasing demand from its member firms.

A firm's reputation is universally a matter of great concern for managers. In Japan, this issue is taken a step further by also extending the concern to M&As. We have seen above that M&As can be very sensitive for some circles within the Japanese business world. In the M&A statistics, the single most common M&A mode, besides acquisitions, is the transfers of business units¹⁵⁷. According to an interviewee, some SME owner-managers were very sensitive to the idea of selling their firms. In local business communities, social control and self-perception are more "tangible" compared to large firm communities, such as in industrial organizations. Therefore, some SME owners prefer to sell their firms discreetly:

"It is common that business transfers are in fact acquisitions, but for the sake of the seller's continued reputation, it is very common that an acquisition is camouflaged as a business transfer. Many sellers are afraid that they are regarded as 'failures' if they sell their companies openly as an acquisition. [...] the majority of the business transfers [in the SME

¹⁵⁶ JASMEC, pp. 115-116.

¹⁵⁷ Recof (2003).

sector] are in fact acquisitions. [...] The usual procedure is to have a business transfer, after which a 'shell' company remains with just one employee or so, with a small office with a telephone. After a couple of years, when people start to forget about the 'old' company, it is liquidated. Meanwhile, the entrepreneur has usually started a new company, and the entrepreneur can continue to do business without being afraid of having had his business reputation damaged by the sell-off of the 'old' company." (author's translation)

One concern surrounding the M&A attitude is the fear of a subsequent bad reputation by breaking the loyalty. It works not only upwards from shop floor to the manager, but also in a top-down direction in a Japanese company. So far, we have looked at the managerial attitudes towards M&As, touching upon the differences that exist between large and small firms. The analysis will now continue to investigate the differences in character of the M&A behavior among Japanese firms, depending on size.

5.3.2 On M&A features: Large firms vs. SMEs

The case of large firms

As mentioned above, the attitudes towards M&As and the motives for doing them may differ significantly between large firms and SMEs. As reflected in the large firm attitudes towards M&As, the nature of their M&As has changed considerably during the last two decades, and in particular after the deregulations during the latter half of the 1990's. Granstrand and Sjölander (1990) described the Japanese large firm acquisition strategy as *ad hoc*, and Tōshiba constitutes a good example of this, a large firm's M&A strategy, or the non-existence of one before the 1990's. Using the words of the interviewee:

"M&As in a 'modern sense' – as they are today – were completely unthinkable before the 1980's. It is only in the 1990's that the atmosphere changed. However, even then, it was felt [at Tōshiba] that it was easier to join efforts with foreign firms rather than searching for domestic partners. For example, it was only after 1995 that Tōshiba started strategic cooperation with Mitsubishi. The reasons for this were basically [the international] competition. Foreign competitors grew bigger through M&As, while the Japanese electrical machinery firms were still the same

size – or grew smaller relative to the foreign competitors. The competitive edge in the electrical machinery industry is the ability to utilize the factories to a high degree rather than to concentrate on scale economy as in the chemical industry.” (author’s translation)

A contributing factor to why Tōshiba lacked a centrally formulated strategy for its M&As was simply the independence in operational strategy enjoyed by the divisions of Tōshiba. This also included M&A activities. This was not unique for Tōshiba, as this organizational structure was common for the large electrical machinery firms. The ex-Tōshiba interviewee continued:

“Toshiba has done M&As for long time... Actually is one of the firms in the industry that has done the most M&As. But for the domestic M&As, Toshiba has done mostly ‘kyūsai’ [financial rescue] acquisitions – no considerations from a strategic point of view or [identifying] possible synergies. Up until the 1980’s, nobody [in the electrical machinery industry] considered profits when a domestic firm was bought. Even though a firm [subcontractors and also larger firms] was full of debts and had a long loss record, a typical owner reasoned with resignation ‘[...] the firm will go bankrupt anyway, so why not sell it?’. A firm that was up for sale on the market was usually a bad-performing company. It was like that in Japan. Otherwise you would not sell it!” (author’s translation)

Thus, the obligations as a large company and the structure of the home and foreign markets fostered a “double standard” M&A strategy. Overall, the bulk of Tōshiba’s M&A activities occurred overseas. This was also the general tendency for all M&As that originated in Japan. The domestic M&A activity during the five year period between 1986 and 1990 (in other words, the final years of the “bubble” economy period) was on average only 41% of the total number of domestic and outward M&A combined¹⁵⁸. The interviewee also stated that most of the overseas M&A activities concerned either the acquisition or the sale of existing JVs from or to the foreign partner firms. It

¹⁵⁸ Author’s calculation from Recof (2003); due to their rarity, mergers are excluded from this figure.

was only during the latter half of 1980's that Tōshiba started to acquire foreign, "non-JV" firms. However, on the domestic market, Tōshiba still preferred to limit its M&A activities to financial rescues of firms within Tōshiba's sales or production networks.

In 1992, Tōshiba set up a division for "corporate planning" at their headquarters. This division was also given the task of analyzing M&As. What made this step special was the actual focus on M&As compared with before. A good performance by this group was, however, doubtful according to the interviewee, since the members of this division literally started to study M&As from scratch without any prior knowledge of corporate finance. The major deficiency, as he saw it, was the lack of unit members who had higher level education in finance and know-how in valuation and evaluation of M&As. Also, the focus on post-M&A assets and technology synergies was made at the expense of pre-merger performance planning and analysis, such as profitability (due diligence) and managerial synergies.

As mentioned above, the apparent weakness in the analysis is having only Tōshiba as an example of large firm M&As. However, there are reasons to believe that Tōshiba is not atypical judging from media reports and interviews. Also, when scrutinizing the comments regarding M&A cases recorded in the Recof (2003) data, the same picture emerges. Outward M&As appear to be different in nature compared to domestic M&As in terms of both the type and the size of target firms.

The case of SMEs

SME M&As share some common features with the larger firms, but other features make M&A activities for SMEs more unique. These features are important to consider when investigating the reasons for the wave of M&As in the 1990's. One such characteristic, which is not found in large-firm M&As, is demographic factors. One interviewee at the Fuji Research Institute pointed out that a significant part of SME owners founded their firms in the post-war years of national rebuilding, and these owners were now growing old. As seen in the JASMEC (2000) survey (summarized in Appendix 4), one of the major concerns among SME managers was the successor problem. The typical example is an elderly owner-manager, who fails to find a successor from among his children or the company's employees. He is then presented with three choices, either let a relative inherit the firm, sell the firm or liquidate the firm. From a taxation point of view, an M&A is more favorable than to let a relative inherit the firm. The reason is the progressive inheritance tax in Ja-

pan, compared to the taxes paid in connection with an M&A, when the tax is calculated using the value of assets and reserves. The same logic applies to the liquidation scenario, but also the jobs of the employees are then jeopardized.

In addition to the successor problems, a large number of SMEs have recognized M&As as a means to *obtain* funds, by selling the whole or parts of a firm to another company. However, this type of strategic motive for an M&A is still relatively unusual. An example is Fuji Kikō Denshi, an SME in the electronics industry, based in Osaka, which suffered from negative sales and eventually filed for company reconstruction under the 1952 Company Reconstruction Law. An M&A then became a solution for these difficulties, where Advantage Partners, an investment fund, rescued and acquired the majority of the firm through a so-called "MBI fund"¹⁵⁹ co-financed by the general trading firm Marubeni. At the same time, the employees formed a shareholders' association and acquired a minority share of the firm. The main concern for the founder was the survival of the firm and the protection of jobs. Due to the sale of the firm to an investment fund, the firm succeeded not only in surviving, but also in obtaining funds for future product development.

Hence, together with the interviews, the picture given by the Recof (2003) data suggested that the logic of large firm M&As and SME M&As is basically different, however some similarities exist. The main difference is found in the distance between management and employees, where the SMEs are more of a family relationship rather than a traditional employer - employee relationship. The discussion about organizational issues is continued in Chapter 7.

5.3.3 The role of manager networks in M&As

The discussion will now turn to the question of partner choice, and the importance of personal relationships in Japanese M&As. All interviewees, some more than others, acknowledged the role of personal contacts or networks as important in the M&A partner selection process. In addition to this, there are a large number of cases from medium- and large sized firms where pre-M&A contractual relationships were an important factor¹⁶⁰, the interviews also showed that personal relations became increasingly important the smaller a firm was.

¹⁵⁹ MBI = Management buyin, which means that new management or owners invest in the acquired firm.

¹⁶⁰ See e.g. Table 5.4.

The SMBC Daiwa Securities interviewee gave concrete examples of how personal networks were utilized in an M&A deal:

"There are two types. For example, one type is when two firms in the same industry want to merge or establish a strategic alliance, and the CEOs or managers are usually acquainted from an industrial organization meeting [...]. The big plans the managers can do themselves, but when it comes to the detailed planning and execution [...], they want to ask a third party for help. The second type is – for domestic M&As – one manager who knows through his personal network a suitable firm [for an M&A], but asks an mediator to propose an M&A in his place, because the manager on the initiating side feels that he could jeopardize the personal relationship with the target firm manager, or that the target firm manager could be offended if asked directly." (author's translation)

The second type cited here is interesting, since it is directly connected with what generally is discussed in this thesis regarding M&As as a sensitive issue in the Japanese society. An M&A consultant, from his neutral position, can play a crucial role in facilitating an M&A proposition and execution without any "hard feelings" or jeopardizing a long-term business relationship. However, the interviewee doubted whether these M&As based on personal acquaintances were always rational from a strictly economic point of view. He gave yet another example where rational motives for a merger not were in the forefront:

"An SME manager approached me by saying 'I know an owner [manager] who seems to contemplate an M&A when I have asked him... if someone talked to him, maybe he will listen... can you ask him for me?' [...] It was nothing strategic about this proposition at all – the owner wanted an M&A only because he knew this other manager. Because they were friends, he thought an M&A would be easy to do. [...] Even today, among non-listed firms, I think [this example] is pretty Japanese, to be together just because they have been old-time pals, and think of a suitable reason [for the M&A] afterwards." (author's translation)

Another interviewee, who was a private equity fund manager, maintained, however, that the importance of personal contacts was diminishing and according to his view, the general acceptance of M&As was increasing. The change was especially pronounced on the *seller's* side, where the previous image of M&As was the one of defeat and shame, and that M&As were not something to be open about. It is important to stress that this view is not shared by the majority of the interviewees. Many still believed that personal relations continued to be an important factor in the pre-M&A probing process.

If there are examples of successful M&A negotiations¹⁶¹, there are examples of failed ones as well. The interviewee at SMBC Daiwa Securities gave one example of talks held between two SME owner-managers that were abruptly abandoned after a rather sinister move made by one of the owners:

"There were two manufacturers, who [...] gradually became very interested in each other. When talks began between two top managers [...] of the respective firms, [...] one party suddenly started to ask very personal questions about the owner-manager, such as health status etc, which they had discovered through a private detective. The other party was of course taken aback, and when the owner heard about it, he got extremely upset and the negotiations were immediately stopped. [...] even when it is talks between two Japanese, [...] some fail due to a bad sense of EQ." (author's translation)

Here we have seen examples of the role inter-personal relationship play in both initiating and damaging M&A negotiations. Furthermore, there are M&As without any rational economic reasons, but where personal acquaintances have been more important. One general conclusion that can be made at this stage is that personal contacts within managerial networks are still a significant factor in Japanese M&As.

5.3.4 The role of M&A mediators

The extensive literature on firm network relations in economics, business administration and sociology (e.g. studies in cost-benefit calculations and relation-specific investments, Telser, 1980; Klein and Leffler, 1981; William-

¹⁶¹ Whether they became operationally successful is a different story, told in Chapter 6.

son, 1985; in business networks, Hedlund and Kverneland, 1984; and Anderson et al., 1994; Blankenburg Holm and Johansson, 1997; in sociology, Granovetter, 1985; Joskow, 1987; Baker, 1990) has underlined the importance of an extensive network when doing business. Japan is no exception to this, as seen in the previous section. However, an extensive business network is not always sufficient when planning and executing an M&A, and the lack of "how-to-do-it" information was something that was often raised by SME managers (cf. Economic Planning Agency, 1996; JASMEC, 2000; see also in Table 5.4 below). It is here where the M&A mediators and advisors step in.

The interviews with the M&A advisors also gave details from the day-to-day dealings with customers, which concurred with what was told in the surveys and reports, as reported above. Again, depending on the size of the firm, there are differences in the choice of mediators and the kind of specialist services that a firm demands.

The role of mediators is not as obvious as one might expect to find, for example, in North America and Europe. On the contrary, professional advisors were usually involved only in the later stages of an M&A process, when the terms of a deal were already agreed upon and all that remained were the practical matters. The professional advisor services were primarily provided by company auditors and lawyers and not from external advisors, which is quite natural given the sensitivity surrounding the M&A issue. The fact that specialized M&A consultancy divisions were virtually non-existent, even at domestic banks and securities firms, reflected not only the low number of M&A deals that took place in Japan before the 1990's, but also the lack of a sense of necessity among firm managers to value and measure strategic dimensions of an M&A deal¹⁶².

The demand for professional M&A advisor services has, however, increased as a direct result of the financial reforms of the 1990's and the subsequent increase in the number of M&As. Domestic financial institutions have, in recent years, set up specialized M&A consultancy divisions modeled after European and North American financial firms, many of which have set up business in Japan with the explicit aim of utilizing their competitive advantage by offering special competence in the Japanese M&A market. The presence of foreign and domestic consultancy firms has, however, led to a

¹⁶² In the Economic Planning Agency (1996) survey, a majority of the M&A consultants interviewed also cited that there was no money in the M&A advisory business since M&As in Japan suffer from severe inertia, or in other words, it takes too long to reach a deal compared to the M&As of US or Europe (pp. 189-202).

division of the M&A advisor services' market in the country. Firstly, foreign firms and large Japanese firms tend to hire the large, foreign M&A consultant firms. Secondly, the domestic M&A consultants focus on domestic M&As of any size that could yield revenues. There are two major reasons why this rather distinct division of the market has taken place. One is the distinction between volume in deal value and volume in the number of deals. The large foreign consultants pursue high returns on every deal, which by definition leads to a focus on large firm M&As. On the other hand, the domestic firms, mostly the M&A consultancy divisions of major financial institutions, pursue as high a volume of clients as possible, which also includes low-value SME M&As. A question that is justified here is what would happen if the foreign consultants also turned to the low-value M&A market. The foreign M&A consultants would then have to overcome – in addition to possible negative attitudes toward M&As in general among SME owner-managers – the low firm brand awareness, as well as the trust they would have to win, since the foreign investment banks and advisors, which only in recent years have started to operate in Japan on a larger scale, are little known. Also, in order to build brand awareness, the foreign consultants would have to invest a substantial amount of money in marketing – an investment for which no positive short-term returns are guaranteed. Therefore, considering that the foreign M&A advisors would have to fight for market share from a very disadvantageous position, *vis-à-vis* the domestic M&A advisors, such a scenario is less likely in the short run.

A good example of how a large domestic M&A consultant operates is SMBC Daiwa Securities. Often they are contacted by their customers to work out a deal with conditions fitting to the circumstances, but they also act as a go-between for firms which have shown interest in M&As, either as buyers or sellers. The interviewee said that the broad customer base of the merged financial firms – the Sumitomo Bank, the Mitsui Bank and the Daiwa Securities – facilitated the coordination of their customers' needs¹⁶³. In particular, the large companies tended to hire the services of the SMBC Daiwa Securities as a result of their main bank relationship with former Sakura and Sumitomo Banks. Thus, matchmaking has become an important way of finding an M&A partner for Japanese firms. Like SMBC Daiwa Securities, other domestic M&A consultants, such as the chambers of commerce and industry in To-

¹⁶³ This was also expressed by the bank-affiliated M&A advisor interviews in the Economic Planning Agency (1996) survey.

kyo, Osaka, Kobe and Nagoya, have started to work in a similar manner. Recently, the internet has also become a tool for M&A matchmaking (a good example is the Osaka Chamber of Commerce and Industry's on-line M&A services), where firms register on-line and can search for appropriate candidates anonymously¹⁶⁴.

While large firms usually ask for consultations with their main banks or foreign consultants, SMEs usually do not. A complication reflecting the concern among SME managers towards M&As is the fear of sending unfavorable signals to stakeholders in general (e.g. suppliers/buyers or shareholders) and the main banks in particular. Rather, they prefer to ask other M&A consultants or auditors. The SMBC Daiwa Securities consultant said:

"When the contacts with the [main] bank are really good, they [the SME managers] come for consultations. But on the other hand, when they want to ask for advice about M&As during bad times, they are concerned whether their banks will question their soundness [for future credits]. Therefore, it happens quite often that they go secretly to other advisors or to their auditors. This is when they still are not on the verge of bankruptcy [...] especially SME managers are afraid of giving the impression that they are abandoning ship." (authors' translation)

Whether there exist cases where an SME manager has been treated unfavorably for this reason is unknown. In cases where SMEs have been denied credit, it has not been due to a proposed M&A *per se*, but rather a result of the credit crunch Japan experienced in the aftermath of the financial crisis of the 1990's.

Valuation disputes between firms is another area where the M&A mediators can help. Occasionally, the view of the true value of a firm or the basis for valuation is a cause of conflicts in opinion between sellers and buyers. SME M&As prefer that their firm is valued on its material and immaterial assets (which was traditionally the most common way of valuing firms; a good example is the recent bank mega-mergers that have taken place in Japan). Contrary to this, many buyers have started to value firms based on more

¹⁶⁴ The first firm to set up venues on the internet for M&As in Japan was the now-defunct Yamaichi securities, which started such services in March 1996 (Economic Planning Agency, p. 129).

sophisticated methods, such as due diligence analysis and discounted cash flow analysis. This difference in valuation method preferences is easily explained by the sellers' and buyers' self-interest, since the respective valuation method is preferential to each side respectively. This discrepancy regarding the valuation method can also be explained by the perception gap between the two groups, where the sellers still follow the "old" order of asset-based valuation, and the buyers are more interested in the "new" order of cash flow-based valuation. The interviewees were of the opinion that this is something that will converge in due time, as M&As become more common and firms begin to be valued after a set of standard valuation methods.

Ironically, the *willingness to pay* for M&A consultancy services also varies between customers. Over the years, managers' attitudes have varied regarding the correlation between quality of service and money paid for the service. In the governmental survey conducted by the Economic Planning Agency in 1996, interviewees associated with the domestic M&A advisors at city banks and securities firms expressed a low preparedness to pay for consultant services, since the firm owners were customers of the bank or the securities firm¹⁶⁵. Again, in later years, more and more managers have started to accept that they have to pay for specialized services even though they are provided by their main bank or the industrial organizations of which they are members. Yet, as obvious as this seems, many managers have considered M&A consultancy services as a part of the customer service package of the main banks. However, the interviewees also reported that the number of complaints regarding a perceived discrepancy between the level of advisor fees and the quality of service has increased, reflecting a more critical attitude towards M&A consultants¹⁶⁶. Still, some managers put such a high degree of trust in their main banks, that they seem to expect a resultant degree of success in their M&As. The SMBC Daiwa Securities' interviewee said:

"Even if we introduce two customers to each other [as a part of the business], we emphasize that the M&A contract is signed only between them [and not with the consultants] [...] However, some managers have reasoned 'because it is banks with excellent reputation that helps us, nothing can go wrong', and consider the consultancy services as a guarantee for a successful M&A. Even though we in a broader sense

¹⁶⁵ Economic Planning Agency, pp. 189-202.

¹⁶⁶ See e.g. case A in Table 5.4.

value a deal, we are after all only advisors; we cannot give any guarantees. I believe that [some of] our customers – in particular those from the SMEs – have misunderstood our role. But this is a result of the high trust the banks have [among its customers] in Japan compared to other countries [...] There are still many managers who think that 'because the [main] bank is doing it for us, we can relax.'" (author's translation)

The interviewee continued to explain, however, that they did provide free post-merger advice for their clients after the deals, upon discovering that there existed a need for such service. There were also other, "hidden", reasons for providing such post-M&A advising services:

"After talking [with clients] after the M&As, [they told us that] things that the firm did not expect happened [...] therefore, we needed to make clear what was said during the pre-M&A talks, and what course these talks took. [...] we wanted to confirm what we decided together [with the clients] and what kind of negotiations we did. [...] We, and other firms, cannot give guarantees [for the desired outcome of M&As]." (author's translation)

Another reason to provide post-M&A services is to establish a long-term customer relationship, which inevitably will be one of the "spin-offs" for the Japanese M&A consultants. This is the main difference between the domestic and foreign M&A consultant firms. Foreign advisor firms strive for high returns on one-time deals, while the domestic advisors have a longer-term perspective by building up a broad customer base through many low-value deals.

The mediators have an important role in creating platforms that make way for M&As, especially in cases where an owner-manager himself has not found a suitable M&A partner. Overall, few M&As have been done exclusively without help from an M&A specialist. The difference between the large firm M&As and the SME M&As is the level of services demanded, as the large firms usually have resources in-house or externally through auditors and lawyers to evaluate a possible M&A, while the SMEs usually lack

these internal resources. Therefore, SME M&As require more involvement compared to the service given to larger firms.

5.3.5 M&As and organizations

Organizational issues are also a crucial factor in M&As, especially the sentiments and attitudes among employees *after* an M&A. We have seen earlier in this chapter how the industrial newspapers and the popular management literature have radiated a positive image of M&As. The question then is, how do the real-life examples of post-merger organizational integration fair in the wake of the wave of M&As at the end of 1990's. The investigation of the media debate reveals that the post-merger organizational integration in the Japanese bank mega-mergers did not happen without friction. Also in the interviews, bank mergers were frequently brought up as examples of bad organizational integration both prior to and during the wave of mergers after the Tokyo Big Bang reform in 1998. One interviewee at an insurance company asserted that:

"The banks' problems are owed very much to the conservative thinking among top managers. [...] the organizational culture in the banks does not promote new ways of thinking. New employees to the banks are not encouraged to voice views different of their superiors, and the will of the top managers is forced on them [the employees]. [...] [In combination with] the strong sense of organizational pride, [...] they [the banks] have difficulties integrating the employees into a new 'group feeling'."
(author's translation)

All interviewees confirmed the post-merger difficulties in organizational harmonization of the earlier major bank mergers – the Dai-Ichi Kangyō Bank, the Tokyo-Mitsubishi Bank and the Asahi Banks – where identification with the pre-merger entities still lingered after many years, or, as in the case of Dai-Ichi Kangyō Bank, even decades. One of the interviewees affiliated with one of the city banks also believed that the post-merger organizational difficulties were the result of the lack of vision:

"[...] it is difficult to make an organizational merger [...] still after many years, people are thinking 'he's ex-that and that' etc. Bank mergers are

not strategic – they [the top management] react on [simple] things like low credit rating [...]. The rationale for the Japanese mega-mergers is insecurity. They seem to only look at the asset size and strengthening of business – the bigger, the more beautiful. The current merger wave [in the financial sector] is more cartel building. The [merging] banks' operations are overlapping, and it is hard to see any synergies."
(author's translation)

The quotations above give an idea as to the importance of getting the members of an organization to support the new organization after an M&A, in order to make that M&A meaningful. The linkage between organization and post-M&A efficiency is not only limited to the banking sector. Yoshida (2000) recounts a number of severe cases where the intra-organizational fighting between employees belonging to the acquiring firm and those belonging to the target firm had destroyed potential organizational synergies because of key employees being pressured to quit or defecting to other firms. As discussed later, this is also evident among the cases summarized in Table 5.4. In all M&A cases where organizational integration has been successful, from Renault's major stock acquisition of Nissan to small firm M&As such as case G in Table 5.4, members on all levels of the organizations have supported the M&A.

The Renault-Nissan case provides an interesting example when juxtaposed with another, not as widely published, inward M&A case of Ford-Mazda. From an organizational perspective, Nissan and Mazda approached the M&A in two different ways. For Nissan, Ghosn's management style had been to do things *his* way, yet at the same time he apparently put emphasis on trying to learn the organizational culture of Nissan¹⁶⁷. But the most interesting factor in the Ghosn story is that he had the total support of the former CEO and the board of Nissan. An equally interesting factor is that the Nissan management *wanted* a foreigner to shake up the company in a way that they could not do themselves, as it would be considered too straight-forward and risk being regarded as "inconsiderate" by the employees and the public. Contrary to Mazda, Nissan was lucky to get a man who had broad experience in international management. On the other hand, the Mazda acquisition was less successful for Ford.

¹⁶⁷ Interview with Emiko Magoshi, 3 December 2001.

After having five American CEOs in succession between 1996 and 2003, they continue to experience organizational difficulties. The local patriotism in Hiroshima – the home base for Mazda and the location of the largest of the two manufacturing plants – is strong and both white-collar and blue-collar workers have been feeling “pressured” by the majority owner Ford to accept foreign managers. In this way, the Mazda story seems to confirm the common view of *foreign* takeovers as “the worst-case scenario” M&A. One suggested reason for the less successful organizational integration at Mazda is the stricter American-style leadership of the foreign CEOs, which has fed the feeling of “Americans don’t understand our way of thinking” among the Japanese workers¹⁶⁸. The organizational support for changes has therefore been limited at Mazda compared to what Ghosn has experienced at Nissan, where he succeeded in getting the whole firm to support his restructuring program.

The Japanese labor unions’ attitude towards M&As has been surprisingly positive, compared to the experiences of other OECD countries. None of the interviewees could pinpoint any actions initiated by labor unions during the last decades to oppose plans for M&As, and neither could a review of news articles for the same period¹⁶⁹. This is not all that surprising, however, since the situation on the Japanese labor market can be labeled as the worst since the end of the Second World War, and the main concern for the unions has been to protect the job opportunities for as many members as possible. However, we must also consider the fact that the rate of union membership in Japan is low, and the unions are firm-based, which has made them weaker than their counterparts in Europe. The ex-Tōshiba interviewee said:

“Labor unions were strong up until 1970’s, but have lost power since. The performance of the large firms became so good that they could accept whatever the unions demanded. [...] The relationship between firms and unions are very peaceful nowadays. You should not forget that in Japan, there are firm unions and not industrial unions. The unions understand that if the firm goes out of business, its members will lose jobs. And the

¹⁶⁸ Ibid.

¹⁶⁹ However, in the Economic Planning Agency (1996) survey, an interviewee of a bank-affiliated M&A advisor had experienced cases where the labor union had blocked takeover plans of foreign acquirers (p. 195).

most important issue of the 1990's is to keep jobs." (author's translation)

On the whole, the interviews suggest that the organizational support for an M&A and identification with the new firm is as important as increased productivity and cost efficiency in order for the M&A to be successful.

5.3.6 The regulatory system and the business environment

On several occasions the interviewees also touched on the issue of corporate governance. Even though the interviewees recognized the increased importance of transparent corporate governance among large firms, no one believed that the discussion regarding business ethics and corporate governance would spill over to the SME sphere in significant way. Obviously, there is no need to open up SMEs, especially family-owned SMEs, because the majority of the shares and voting rights are kept within a family or a narrow circle of owners. The reasoning of the interviewees closely reflected the discussions of agent theory (see e.g. Jensen and Meckling 1976, Fama 1980, Fama and Jensen 1983, and for a more formal treatment, see Bamberg and Spremann, 1987), where transparency becomes increasingly important as the distance between owners and appointed managers grows larger and where there is the risk making decisions that are not in the owners' interest. The reason is the problem of asymmetric information, where the discrepancies in information level between the principal (the owners) and the agents (hired managers and employees) are large and thus, the risk of moral hazard is likely to be higher. In the Japanese setting, the transparency of large and listed firms has been increased by law amendments and the tightening of accounting rules, whereas for SMEs, the need for transparency is limited as long as they are managed directly by the owners and are not listed.

For large firms, the weight of the corporate governance structure has transferred slowly from company executives to owners. The interviewee at SMBC Daiwa Securities described the common behavior of large firm executives:

"Because shareholders have started to voice their opinion [regarding the governance of the firm], the managers have [...] to take the shareowners into account [...]. The standards are nearing those in Europe and US, and firm executives are starting to take these issues [corporate

governance] seriously. The firms have to justify their [M&A] decisions, and for example, when they announce the merger ratios, [it is common to] get a fairness opinion from foreign-owned consultancy firms regarding merger contract conditions in order to secure against possible lawsuits by shareholders. They [the large firms] all do that." (author's translation)

The private equity fund manager interviewed did, however, think that the level of transparency was still too low in Japan as a base for investment or M&A decisions. According to him, due diligence was still *the* tool to value a firm and its future potential earnings. However, he believed that transparency is moving closer to the standards of listed companies in America and Europe. For smaller, "owner companies", where transparency is not an issue, due diligence is *the* prime valuation tool.

In addition to greater transparency in the manufacturing sector, another reason for the large number of strategic M&As can be found in the industrial structure. Contrary to the firms in the service sector, such as wholesaling and banking, the competitiveness and survival of engineering companies has ultimately depended on the innovative capabilities of R&D. An interviewee believed that R&D planning promoted more strategic thinking among managers, which was different from the former protected sectors, such as financial institutions, where managers were not required to be "innovative" in developing new technology or products, and therefore were more easily "stuck" in traditional thinking. According to the interviewee, this type of mentality still lingers in the service sector. Another interviewee at an insurance company also supported this view, and thought that the banks' response to liberalization was very slow. He offered, however, strictly economic reasons for the sluggishness in the banking sector, which included uncertainty from bad loans, low turnover and organizational restructuring.

5.3.7 Summary of the interviews

Loyalty, trust and reputation: A major concern

As we saw in Chapter 2, trust and reputation built over many years are exemplified by Porter (1980) and Barney (1991) as resources that give a firm a sustained competitive advantage. Also, trust and reputation can be path dependent and subject to time compression diseconomies (Dierickx and Cool, 1989). This reasoning can also be applied to the Japanese conditions, where -

according to the interviewees – managerial attitudes, supplier-customer relationships, and the public perception of the firms are still major issues for managers when considering M&As. However, *for the large firms*, the importance of these issues has faded gradually during the 1990's, leaving the field wide open for measures that were virtually unthinkable 20 years ago. For example, one of the interviewees mentioned the bold steps Nissan took in the mid-1980's by closing a factory. Nowadays, as the traditional *keiretsu* structures are dissolving and the institutional changes allow Japanese firms to use M&As as a viable restructuring tool to improve firm performance, the large firms have started to behave more as European and North American firms. On the other hand, *among SME managers*, M&As are still regarded with a certain skepticism in some circles, especially in low-tech manufacturing firms. As for initiating M&As, it is not all that obvious that an SME owner-manager sees M&As as an attainable growth strategy. It may be difficult for an SME manager to initiate an M&A due to the very same reasons for *not* engaging in M&As, that is, existence of close business and social contacts within a network, which might be jeopardized if a owner starts to probe the possibility of an M&A. There is also the reluctance of managers to sell their business when the close ties between managers (especially owner-managers) and employees are considered. We have seen that such ties have hindered the use of M&As as a way out of various difficulties (e.g. successor or financial problems). This view was similar to that expressed in the results of the JASMEC (2000) survey.

Having said that, not all SMEs regard M&As as something that might damage the firm's reputation or the trust in it. The interviewees suggested that the attitude toward M&As among SMEs also depends on the industry and/or geographical location. There are examples of firms that have purposefully pursued a growth strategy by doing M&As with other firms. In the interviews, regional culture was mentioned as a possible reason why SMEs in some regions have done more "strategic" M&As compared to firms in other parts of the country. Furthermore, the propensity to do M&As for strategic development might also differ between industries. For example, the interviewees named SMEs in the telecom sector as doing strategic M&As, while the Recof (2003) data has registered few such M&As among SMEs in the electrical machinery industry.

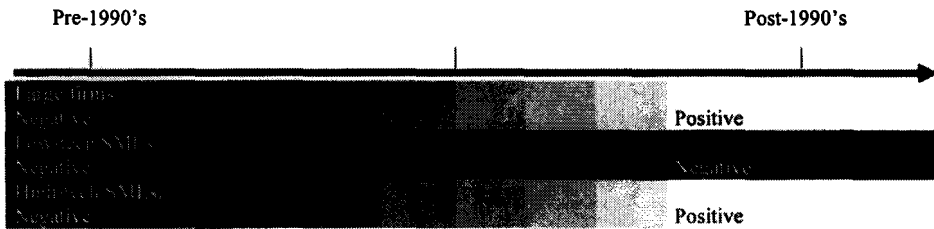


Figure 5.2. Schematic longitudinal representation of changes in large firm and SME managerial attitudes towards M&As.

Thus, there seems to be three important influences on M&A behavior: (1) sensitivity to a possible negative reputation, (2) firm size, (3) industry affiliation, and (4) geographical location of the firm. The fear of being perceived as a "bad" company by the employees, suppliers, customers, banks, and most of all by the public, is still an important factor among SME managers when considering an M&A. This also explains the existence of piecemeal sell-offs or the disguise of acquisitions as "mergers" in order to save face. Furthermore, this behavior is dependent on the firms' industry affiliation and its geographical location.

Different considerations in large firm M&As and SME M&As

It is apparent that large firms have motives differing from those of SMEs. The major reason is simply the size of the firms' operation. In the interview section, the Tōshiba strategy was elaborated on at length, but the behavior is not significantly different from other firms in the same industry (and possibly also other manufacturing industries). A large firm could act as a creditor to e.g. suppliers, and then are able to carry out small M&As as a matter of routine. Also, the nature of M&As done by Tōshiba at home and abroad differed considerably. While the M&As performed outside Japan were often a result of careful planning and were labeled as resource-seeking M&As, the domestic ones were more or less limited to financial rescues of *keiretsu* firms. In other M&As, the asset size and acquisition of key technicians was emphasized disproportionately more than whether the M&A would yield positive returns for the company. This is of course a matter of opinion, as the acquisition of assets and key personnel can be critical resources that lead to positive returns or rents, but the point here is that the post-M&A performance was not the subject of profound analysis in the M&A planning of the larger firms. Eventually, a corporate planning division was established at Tōshiba, where

M&A strategy was developed. Other firms have chosen to outsource such services to M&A consultants. As a result, the large firm M&As have characteristics that are more similar to the M&As of North America and Europe.

Also the SME M&As are more carefully planned than in the past. Many SME owner-managers recognize M&As as a viable tool for obtaining resources that are lacking in the firm. The increased use of M&As as a source for raising necessary funds to *realize expansion plans* or *product development* is pointed out by the interviewees. This contradicts the stereotypical perception of target firms as bad-performers, and thus they have no other choice than to let themselves be acquired by another firm. Rather, the interviews suggest that there is at least some degree of freedom in choice when a firm searches for a solution to a current problem. This picture is reinforced by a number of cases, where the shortages of funds have hindered further expansion or product development, and the solution to such problems has been M&As. Therefore, it must be emphasized that more and more M&As are different in nature from the "traditional" type of financial rescue M&As, since there are no problems with the finances or the fundamental business ideas, and the need for funds is purely related to growth issues.

Thus, the interviews suggest that the *past* domestic M&A behavior of Japanese firms was determined by network structures and obligations rather than having a carefully formulated strategy or aim. Alternatively, one could argue that large firm management hoped for some causal ambiguities or luck (Dierickx and Cool, 1989; Peteraf, 1993) that would be realized post-M&A. However, nothing in the material suggests such a conscious "strategy" for past M&A behavior. This pattern is changing, due to central strategy planning (for large firms) and an increased use of M&A consultants (for both large firms and SMEs). Explicit aims for the acquisition of resources critical to obtaining competitive advantages have become a feature of the M&As of the 1990's. Therefore, it is correct to say that, from a resource-based perspective, the awareness of the strategic dimensions of acquisitions has grown among Japanese firms. The M&As are increasingly performed as a part of a firm's quest for resources, and the use of M&As to save firms based on long-run obligations is declining.

In addition, M&As have become an attractive alternative for SMEs to overcome successor or financial difficulties or to liquidate the firm. The tendency for SMEs to use M&As as a solution to successor problems is well-known, but the interviewees raised yet another issue associated with this phenomenon, the problem of the aging society. Obviously, the demographic

prospects of Japan naturally encompass the owners of the SMEs, which to a large extent were started in the post-war years. Now, as the owners grow old, the successor problem has become more urgent, frequent, and pronounced. Traditional solutions to this problem were that a child or an employee succeeded the manager, but today, an owner cannot expect someone to step forward and assume management of the firm. Consequently, the SME owners have, depending on the view, "discovered" or "resorted to" M&As. Furthermore, there also exists purely institutional incentives in choosing M&As over letting a child continue the business, namely, a progressive inheritance tax. As a result, the M&A consultants are now often commissioned by SME owners, who are in search of suitable firms to take over the operations through an acquisition.

Networks play an important role in the M&A process

As expected, the networks of the firms and managers play an important role in the M&A process involving Japanese firms. For the large- and medium sized firms, the intra-industrial supplier-customer networks are natural arenas for M&A partner selections. Also for the SME managers, *personal* relations in a network (industrial or local business community networks) are important for partner selection. In some cases even the network membership itself has been the triggering factor for an M&A. M&A partners are not only found in networks, but, as in other cases, network members have also been utilized as mediators. This is obvious in the cases where the SME owners ask their main banks (and their consultancy divisions) for assistance, but individuals have also been engaged as matchmakers. However, personal acquaintances as a triggering factor for M&As have not always been a blessing. One of the interviewed consultants gave an example of an SME manager who asked him to mediate an M&A with a friend who was a manager of another SME. The inquiry was made for no other reason than the friendship between the managers. Since the M&A lacked any apparent economic or practical value which would improve the competitive position of the merged firms, this M&A was labeled by the consultant as "non-strategic" from a resourced-based perspective.

It is interesting to note that an interviewee disagreed with the general picture given by other interviewees by saying that the role of networks is now diminishing in Japan. He pointed out that more and more managers are open about the M&A strategies of their firms, which, according to him, gave an indication of the increased acceptance of M&As. It is true that the reliance on

M&A consultants as matchmakers is increasing (especially for foreign firms and a number of SMEs), but nevertheless, it is evident from the available statistics (Recof, 2003) that the share of "anonymous" (no prior contact) M&A matchmaking is low compared to those M&As initiated as a result of network connections, which shows that networks continue to be an important route for M&A partner search. In other words, it can be said that networks are used as a substitute for underdeveloped M&A markets, as predictability increases when the target firm is already known and therefore the risk of information asymmetries is lower. This behavior follows the pattern suggested by the transaction cost theory. Also when the predominant use of networks is seen from the resource-based perspective, the information asymmetry explanation is valid (cf. Lieberman and Montgomery, 1988). If firm A considers an M&A, and as a result of network connections has unique knowledge about firm B and therefore wants to acquire it, it would be a more natural action for firm A to approach firm B informally instead of searching for an anonymous target firm, about which firm A would have less information, on the "open" market. The fact that the interviewees emphasized the important role networks still play in M&A matchmaking, suggest that the Japanese M&A markets are still not developed enough to be comparable with the M&A markets of Europe or North America.

Mediators are used as matchmakers and advisors

Despite the continued important role of business networks, the number of firms outside of these networks or firms that choose not to utilize these networks is gradually increasing. In those cases, mediators have played a crucial role, by matching firms providing assistance and advice at various stages throughout the M&A process. In the interviews, it was suggested that the use of mediators differed between large firms and SMEs, as the large firms, both domestic and foreign, sought the services of M&A consultants of the large international consultancy firms or investment banks, while the SMEs tended to hire the services of domestic M&A advisors. The reasons for this pattern are simple. The international M&A advisors focus on high-value deals, while the domestic advisors accept any firm. Also, the time horizon for the customer relations is longer for SMEs and domestic advisors want to build a future customer base, while the foreign M&A advisors are content with one-shot high value deals. Another important factor for SMEs choosing domestic advisors is simply that they are the M&A consultancy arm of their main banks. While this is not surprising, an interviewee told about cases where

SME owner-managers have turned to M&A advisors *not* affiliated to their main banks out of fear of giving their creditors the “wrong” impression of their financial status. This connects to what was said earlier about attitudes, trust, and reputation, and also in the choice of mediators, such considerations play a part. Thus, it may not be all that obvious that the choice of an M&A advisor will always be the firm’s main bank.

As creators of the platforms for M&A matchmaking, mediators have played a great role in the industrial restructuring process that has been taken place in Japan during the latter half of the 1990’s. Also, as advisors, they take on an important role as a back-up resource for the post-merger process by handling the necessary practicalities surrounding an M&A deal, which is particularly important for firms that lack in-house resources to handle M&As.

Asanuma (1989) discusses network relations in Japanese business, using the Japanese automobile industry as an example. The automobile manufacturers often take on the role as input coordinators for contacts between second and third tier subcontractors. As observed in the interviews, the very same pattern can often be identified in the negotiations of M&As, where a firm in an industry network can act as a mediator or matchmaker for two other firms¹⁷⁰.

Organizational support influences the post-merger outcome

The success of the Renault acquisition of Nissan, and its post-M&A organizational harmonization, has been described earlier. However, the organizational issues behind the success of the new Nissan management are worth another look. The interviews pointed out examples of less successful organizational integration within the banking sector and Ford’s acquisition of Mazda. These examples from large firm M&As suggest that when doing M&As, the level of organizational support for the M&A plans influences the outcome of an M&A deal. Similar difficulties in harmonizing the post-M&A organizations was also detected by James (2002) in the pharmaceutical industry, where post-M&A management faced great challenges in identifying tacit capabilities. Another example is presented by Suzuki and Unno (2002), where some M&As were planned without transparency and executed so fast that bewildered employees only read about the M&A in the newspapers. The

¹⁷⁰ More examples are found in Table 5.4.

issue of organizational harmonization will be further elaborated on in the next section.

5.4 Overview of case studies

In the summary of the case studies, the selection of industries is identical with the selection for the econometric study later in the thesis, and includes the electrical machinery, the chemical and the pharmaceutical industries. Since we are dealing with traditional manufacturing industries, changes in M&A behavior and the effects from it are expected to be reflected clearer than in other industries. As explained in the previous section the coding scheme of Table 5.3 was applied to the first level categories 2 and 3¹⁷¹. Of the firms in the case studies, 13 are also found in the M&A group sample of the econometric analysis¹⁷².

There are some weaknesses in summarizing several existing case studies. Firstly, because the case studies are taken from other studies, the selection is, per definition, not random, and secondly, the cases cannot cover a whole industry. Furthermore, the number of observations is small compared to the number of observations that can be compiled in panel data. Also, some of the information is often given by managers, whose answers could be biased due to various reasons, such as personal prestige or stakes held in an M&A project (see Gertsen and S  derberg [2000] for an elaborated discussion regarding this problem when doing case studies of M&As). Finally, since the case studies are taken from the M&A literature, the purpose, the research questions, and/or the operationalization of these case studies are not uniform, which can limit the scope for generalized conclusions.

¹⁷¹ Issues concerning special features related to *firm size* (first level category 1) and the institutional setting (first level category 4) were not major topics *per se* of the summarized case studies and were therefore excluded in this part of the analysis.

¹⁷² The total number of M&A firms, following the definition detailed in section 6.2 in Chapter 6, is 21.

	Industry affiliation	M&A direction	Firm size		Pre-M&A target- investor network relationship	Motives for the M&A				Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal
			Large firm	SME		Investor ME	Exp FD	NS	Target Exp FD			
A	El Mach	Domestic	✓		None		✓	✓		Domestic advisors & the main bank of <i>target</i> firm	Rather smooth integration, owing to the openness of the management about its plans for the target firm.	Manager wanted a public M&A consultancy service due to dissatisfaction with expensive private consultants.
B	El Mach	Domestic	✓		Customer		✓		✓	None	Smooth <i>structural</i> integration due to the close prior Customer – Supplier relationship; however, a persistent “us and them” feeling.	–
C	El Mach	Domestic	✓		Supplier		✓	✓		Personal business acquaintance to both firm founders	NA	A third party – a manager of a supplier common to both firms – was chosen as mediator because of his experience from a prior M&A deal.
D	El Mach	Domestic	✓		Supplier		✓		✓	None	No problems experienced post-M&A <i>by the management</i> .	Acquirer had long experience in dealing with venture capital firms in the US, and exercised this know-how in this deal (performance of due diligence etc.).

Table 5.4. *Continued.*

180 MOTIVES, PARTNER SELECTION AND PRODUCTIVITY EFFECTS OF M&AS:
THE PATTERN OF JAPANESE MERGERS AND ACQUISITIONS

Industry affiliation	M&A direction	Firm size		Pre-M&A target- investor network relationship	Motives for the M&A		Target		Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal
		Large firm	SME		Investor ME	Exp FD	NS	Exp FD			
E	El Mach	Inward	✓	✓	Licensee	✓		NA	None	NA	(Friendly) TOB attempt failed. The target firm manager refused a deal due to alleged cultural differences – still he was positive to M&As.
F	El Mach	Domestic		✓	None	✓		✓	Consultancy branch of the target firm's main bank	Being a group company, no particular difficulties were recorded. The acquirer did not carry out any post-M&A changes.	An important provision from the target firm founder was that an acquirer had to make a pledge that all employees were to be kept post-M&A.
G	El Mach	Inward	✓	✓	None	✓		✓	Foreign M&A advisor firms	Smooth integration due to the target firm's previous experience from an inward JV. Furthermore, the acquirer's efforts to make the target firm employees feel a part of the acquiring firm through theme camps paid off.	This particular deal and the post-M&A was easier due to the integration of management's and employees' previous long-time experience of foreign management <i>in combination</i> with the foreign acquirer's traditional emphasis on post- M&A integration.

Table 5.4. Continued.

	Industry affiliation	M&A direction	Firm size		Pre-M&A target-investor network relationship	Motives for the M&A		Target		Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal
			Large firm	SME		Investor ME	Exp FD	NS	Exp FD			
II	El Mach	Inward	✓		Sales agent		✓		✓	None	Increased cooperation in R&D, and expansion in sales of the initiator firm products.	Deepening of existing relationships, by initiative from both sides. A new co-developed product released within a year from the capital injection.
I	El Mach	Inward	✓		None		✓		✓	NA	Sell-off of non-core businesses along with cuts in the no. of employees. Opposition from the employees of the initiator firm as the production systems were integrated after the <i>target</i> firm standards.	<i>Friendly</i> TOB. The target a major <i>keiretsu</i> subsidiary to NEC, suffering from large-scale deficits along with the <i>keiretsu</i> parent. Aim for increased sales to large industrial buyers such as NEC and NTT.
J	Chem	Inward	✓		Supplier		✓		✓	NA	The merger was rushed through before in-house routine details were settled. E.g. problems in integrating the accounts of the respective firms.	Investor (the initiator), no. 2 on the domestic market for industrial gas with stable profit development, merge with a firm in financial difficulties. The target's <i>keiretsu</i> group becomes the majority owner of the new entity.

Table 5.4. *Continued.*

182 MOTIVES, PARTNER SELECTION AND PRODUCTIVITY EFFECTS OF M&AS:
THE PATTERN OF JAPANESE MERGERS AND ACQUISITIONS

Industry affiliation	M&A direction	Firm size		Pre-M&A target-investor network relationship	Motives for the M&A				Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal	
		Large firm	SME		Investor ME	Exp	FD	Target NS				Exp
K	Chem	Domestic	✓		Keiretsu		✓		✓	None	Large problems due to different in-house routines, aggravated by a persistent “us-and-them” feeling within the post-M&A organization.	Serious problems in the post-M&A organization, despite belonging to the same <i>keiretsu</i> group and having common historical roots in the same zaibatsu. Attempted to merge four years earlier, but the plans were aborted.
L	Chem	Inward	✓		None	✓			✓	NA		M&A result of expansion plans after period of restructuring (employee and cost cuts). The foreign firm acquires stocks from the <i>keiretsu</i> parent. The target firm gets access to foreign technology within fields related to the core business.
M	Chem	Inward	✓		Previous technology cooperation		✓		✓	NA	NA	Earlier merger plans realized only through product-specific subsidiaries. New merger talks result in making the <i>foreign</i> firm the <i>largest minority owner</i> of the Japanese firm.

Table 5.4. Continued.

Industry affiliation	M&A direction	Firm size		Pre-M&A target- investor network relationship	Motives for the M&A		Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal
		Large firm	SME		Investor ME	Target Exp FD NS Exp FD			
N Chem	Inward	✓		None	✓		✓	NA	The initiator becomes the <i>second largest owner</i> after Kaneka Kagaku Kōgyō. The aim is to gain access to local market knowledge and brand names of the target firm.
O Chem	Domestic		✓	None	✓			Domestic consultancy firm	Hotel owner asked a financial consultancy firm to find an acquirer. The chemical firm was approached, which judged the geographical region to be an expanding area.
P Chem	Domestic	✓		Keiretsu		✓	✓	NA	<i>Defensive</i> merger with “follow-the-herd” motives following other mega-mergers in the industry. The merged firm no. 3 on the domestic market.
Q Chem	Domestic	✓	✓	Keiretsu		✓	✓	NA	The foreign JV owner withdraws from the Japanese market, selling its shares in the bad-performing JV to the Japanese partner (an industrial <i>keiretsu</i> firm)

Table 5.4. *Continued.*

Industry affiliation	M&A direction	Firm size		Pre-M&A target- investor network relationship	Motives for the M&A		Target		Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal
		Large firm	SME firm		Investor ME	Exp FD	NS	Exp FD			
R Chem	Domestic	✓		R&D Cooperation		✓	✓		NA	NA	Both firms merge for development of core competences and market expansion (no forward integration). An earlier cooperation in R&D, which developed into a full-scale merger.
S Chem	Domestic	✓		Supplier		✓	✓	✓	NA	NA	Through this capital injection, the target firm gained access to investor's worldwide sales network. The investor becomes the second largest owner after the seller Takeda Yakuhin Kōgyō.
I Phar	Inward	✓		Licensee	✓	✓		✓	Consultancy arm of domestic brokerage firm	R&D units of the firms merged, but otherwise "business as usual". No changes at management level (manager member of founding family).	Friendly TOB. The initiator acquired all the stocks owned by Monsanto Japan and 50% of the founding family stockholdings for a price <i>lower than the market price</i> (the reasons for this were not made public).

Table 5.4. *Continued.*

	Industry affiliation	M&A direction	Firm size		Pre-M&A target- investor network relationship	Motives for the M&A				Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal	
			Large firm	SME		Investor ME	Exp	FD	Target NS				Exp
U	Phar	Inward	✓		None	✓				✓	Domestic institutional investor	NA	Essentially, the deal was a result of direct negotiations between the Japanese subsidiary of the foreign firm and the domestic non-bank investor, i.e. the initiator firm did not actively participate in the negotiations.
V	Phar	Domestic	✓		None		✓			✓	Domestic M&A consultancy firm	NA	
X	Phar	Inward	✓		None		✓			✓	City Bank consultancy arm	Full merger between the two firms a year after the acquisition. No post-M&A employee cutdowns.	

Table 5.4. Continued.

Industry affiliation	M&A direction	Firm size		Pre-M&A target- investor network relationship	Motives for the M&A			Mediator	Post-M&A outcome: organizational restructuring	Other notes on the M&A deal
		Large firm	SME		Investor ME	Exp	Target NS			
Y Phar	Inward	✓		None		✓		Foreign consultancy firm	No organizational	A European chemical giant selling its pharmaceutical division along with <i>all</i> foreign subsidiaries to the subsidiary of an US pharmaceutical giant. The formal buyer of this particular deal is the former pharmaceutical subsidiary of the European firm (see case <i>T</i> above), which was sold at an earlier stage to the American firm; at that point, the European parent company retained control over the target firm of this deal. After this deal, the ownership transfer was completed.

Table 5.4. Summary of M&A case studies. Chem – Chemical; El Mach – Electrical Machinery; Exp – Expansion of core business/Market expansion; FD – Financial Difficulties; Inw – Inward; ME – Market entry; NS – No Successor; Phar – Pharmaceutical. NA – No account. Cases with shadowed designations are M&A cases included in the quantitative sample. *Sources:* Miyamoto and Muramatsu (1999), JASMEC (2000), Suzuki and Unno (2002), Recof (2003), Osaka Chamber of Commerce and Industry, Nihon Keizai Shimbun, Nihon Kōgyō Shimbun, Kagaku Kōgyō Nippō, Nikkan Kōgyō Shimbun, Mokuzaï Shimbun, Nikkei Sangyō Shimbun, Medical&Test, Nikkei Kinyū Shimbun.

There are some weaknesses in summarizing several existing case studies. Firstly, because the case studies are taken from other studies, the selection is, per definition, not random, and secondly, the cases cannot cover a whole industry. Furthermore, the number of observations is small compared to the number of observations that can be compiled in panel data. Also, some of the information is often given by managers, whose answers could be biased due to various reasons, such as personal prestige or stakes held in an M&A project (see Gertsen and Söderberg [2000] for an elaborated discussion regarding this problem when doing case studies of M&As). Finally, since the case studies are taken from the M&A literature, the purpose, the research questions, and/or the operationalization of these case studies are not uniform, which can limit the scope for generalized conclusions.

However, there are merits to a summarization of case studies, in that they provide insights to qualitative aspects of individual M&A cases that are not possible to capture in a large panel data set. Also, the deficiencies from using previous case studies have been supplemented by using information about the circumstances and parties involved (where stated in the cases) from newspaper and magazine articles regarding each individual deal (case). In addition, records of Japanese M&As, given in Recof (2003) have been used to trace deals that have been anonymous in the existing case studies. The focus of study here is partner selection and the use of mediators, as well as the actual significance network members have had or not had in the cases. In addition post-M&A organizational issues and issues related more broadly to M&As are highlighted.

5.4.1 The motives for M&As

Most firms initiating M&As usually state that their particular merger or acquisition is “strategic”, aiming for “synergy effects”. Naturally, it is questionable whether all M&As are really as strategic as management would like, yet in some cases it is true. However, “non-strategic” M&As, which were previously discussed, have often been called “strategic” by the participating firms when discussing them in the media. The lack of apparent strategic aims from a resource-based perspective in some of the domestic M&A case studies (the cases *J*, *K*, *O* and *P* of Table 5.4) raises the question as to whether the purposes were really as publicly stated, or if there existed hidden agendas that did not surface.

A number of authors (e.g. Porter, 1980; Berger et al., 2000; Görg, 2000; Bjorvatn, 2001) have argued that M&As are used as a tool for market entry

and expansion, and this is also well documented in the summarized case studies and studies conducted by the Japanese government¹⁷³. The investing firms of the inward M&A cases have used M&As to enter the market or to expand existing operations. Clearly, these are M&As aiming for tacit capabilities in the form of unique and valuable knowledge of local markets in order to pursue a strategy of competitive advantage (cf. Barney, 1991). Since we are dealing with human capital intensive industries, we can establish that some of the domestic M&As (cases R and S in particular) have also been resource-driven, aiming for resources that the investing firms lacked.

While the use of M&As for market entry is an obvious strategy for a firm, it should not be overlooked that M&As are also used as an *exit* strategy. Case Q is an example which involves a foreign firm that withdrew from the Japanese market as the sales and profitability of the JV with a Japanese partner started to decline. These market exit M&As (sell-offs) are common, but surprisingly are discussed less often in the general M&A literature, which mainly focuses on the market entry situation. This is somewhat unexpected, since such exits are common internationally, and the Recof (2003) data shows that market exit M&As done by Japanese firms have been very common both at home and abroad. It is important to consider the possibility that firms use M&As in this manner, underlining the importance of looking into the "black box" when analyzing M&A statistics.

From the perspective of the target firms, the M&A motive, in most cases, was the need for money. The most apparent reason for the target firms to do M&As was that they were in dire straits. As shown in the case studies summary, the most common reason for the target firms to do M&As was the immediate need for capital injection due to financial difficulties or declining profitability. Another common reason for firms to engage in M&As as targets has been the difficulty in finding successors to the owners. As noted in cases A, C, F and O, the reason these firms entered the M&A market as target candidates, was the anticipated future difficulties in continuing the business due to the owners' health or age. In particular, SMEs have stated successor problems as a major or even the sole reason for sell-off. In other words, these reasons for sell-off can also be viewed as a result of resource deficiency. Since human capital is a precious input factor in production, it requires suitable individuals to run a business or capital to *develop* a financially healthy firm.

¹⁷³ E.g. Economic Planning Agency, pp. 189-202.

Therefore, it is also justified to view M&As that are a result of development or successor problems as being driven by a need for unique resources.

So far, we have discussed M&As that have had clear motives. However, cases *O* and *P* are prime examples of M&As that have no apparent motives or economic rationale. These M&As can be labeled as "traditional", as this type of M&A was more common before the 1990's. The reasons for such behavior have been discussed at length in the interview section, and therefore, it would be repetitious to discuss them again. We will stop here by noting that M&As without a clear aim to acquire a strategic resource (as defined by e.g. Barney, 1991) still occur, but have become less common as the view of M&As has started to change in the late 1990's.

The majority of the M&A case firms on both the initiating and the target side have primarily used M&As to obtain resources. Even though there are M&As not specifically done for economic reasons, the cases still show that the need for resources is the major driving force behind M&As, enabling firms to pursue a strategy for sustained competitive advantage. This picture of a "paradigm shift" of M&As in Japan, drawn by the interviewees, is supported by the cases in Table 5.4.

5.4.2 Networks and mediators

It is a well-known fact that vertical supplier-customer networks in Japan are extensively tight-knit compared to what is often observed in Western counterparts (see e.g. Hedlund and Kverneland, 1984). The involvement of firms (especially large firms) in these networks includes financial support, marketing services and cross-ownership. This is also true for SME networks, where one party takes on a "financier" role that is more commonly associated with the larger *keiretsu* networks. In the context of M&As, a firm participating in such a network can benefit from it in a number of ways. As we see in Table 5.4, it is apparent that many *domestic* M&A cases have a common denominator in network affiliation. They share a common history in terms of traditional vertical network relationships, or more loosely in terms of belonging to the same industrial organization or federation. For network-embedded SMEs, which often lack resources (such as capital) to pursue an independent M&A strategy for expansion, a network affiliation provides a shortcut to product development and survival. In the present data, this has typically meant financial bailouts and acquisitions in order to keep the firm integrated in the existing supplier chain. This is not only a way to keep an established

chain of supplies, but also a means to handle or even eliminate an uncertain situation for both the buyer and the supplier.

In connection with this, the current tendency to *move away* from the extensive cross-ownership structures needs some comment. As shown previously, most interviewees agreed that the *keiretsu*, or cross-ownership, structures have begun to loosen up, and that the large Japanese industrial groups increasingly have started to engage in M&As with competitors. Case *L* is therefore representative of the diminishing role of cross-ownership structures. There, the main *keiretsu* owner even sold a part of its holdings to a foreign firm, which is a behavior that was unthinkable in earlier waves of Japanese M&As.

Looking now at the role of mediators in M&As, the case study summary suggests a differing partner choice pattern between the domestic and the inward M&As. As can be observed later in section 6.4.4 of Chapter 6, there is a tendency among the domestic sample M&As to choose partners from within existing networks (in a broad sense), and for the inward M&As, the Japanese target firm tended to be one with which the foreign firm did not have any previous deep-level connection (such as licensing, JV or buyer/supplier relationship). This is a rather expected pattern, since the foreign firms, which in most cases have been new entrants, did not have *a priori* established network relations. This also applies to domestic firms without any network contacts, or those that choose not to use network contacts for M&As. The information regarding the use of mediators is somewhat limited in the cases, but it is still possible to extract a pattern here as well. Needless to say, the involvement of a mediator has been the key factor for both domestic and inward M&A cases where *no previous contacts existed* between the initiator and the target. The central role of mediators is illustrated by cases *V* and *U* in Table 5.4. Both cases involved domestic firms that had no prior contact with the target firms, and therefore relied heavily on consultant services for M&A mediation. In case *U*, the initiating firm did not even participate in the negotiations, and let the consultant handle the whole M&A process.

Finally, when discussing the heavy dependence some firms have on M&A specialists, case *A* illustrates an issue that is a main concern for SME managers when hiring services from an M&A advisor (this was also discussed earlier in section 5.3). There, the SME manager who was generally positive towards M&As, was pleased with the realization and outcome of the acquisition. However, this manager was dissatisfied with one major point, the fees charged by the private M&A advisors. In his view, these fees were incom-

patible with the quality of service he had received. The manager therefore called on the public sector to provide less expensive M&A consultancy services for SMEs. The fairness of this claim is hard to verify, but at the time acquisition A was done (in 1998), the general know-how level of the domestic M&A advisors was low, due to the prior rarity and relative novelty of M&As. In fact, the only specialists that could offer high-quality services at that time were the foreign M&A advisors, but they refused to take on SME M&As due to their low values (see further in the interviews below). In addition, the M&A consultancy bureaus of the Tokyo and Osaka Chambers of Commerce, designed for the SME M&A market, were not in operation at that time. This situation is also seen in the results of the Economic Planning Agency (1996) and the JASMEC (2000) surveys where SME managers have avoided doing M&As due to the lack of knowledge about them. Even though the manager in this case viewed M&As positively, and the M&A in question was carried out, high advisor fees can be a hindrance for some SME managers, who lack money and knowledge of M&A practicalities, and then may choose other less favorable solutions, from a taxation point of view, such as a liquidation of the firm.

5.4.3 The process and outcome of M&As: Only successes?

In reviewing the case studies, an interesting issue in connection with the M&A process surfaced, that of M&A negotiations. This issue is rarely addressed in the literature about Japanese M&As (there are extremely few cases of failed Japanese M&A talks described in Japanese or international literature), yet case E provides an example of *failed* M&A discussions between a foreign and a domestic firm. Also in case K, which represents a domestic M&A, an earlier attempt to merge had been unsuccessful (although they eventually realized the merger). Thus, disagreements about M&As obviously occur between domestic partners. There are no figures which show exactly how many of the initiated M&A discussions actually lead to a deal, but an estimation made by the Fuji Research Institute Corporation says that over 70% of all M&A talks in Japan end in failure¹⁷⁴. In the JASMEC (2000) survey (see Appendix 4), one part investigated the question of failed talks. Of 82 firms, 29.3% stated "too high risks" and 25.6% stated "poor prospects of an M&A". There were also more intriguing reasons given by the SME managers, such as "the culture of the M&A partner firm feels too foreign" (19.5%), "re-

¹⁷⁴ Interview with Osamu Yasuda on October 26, 2001.

sistance from M&A partner firm's middle management or employees" (9.8%), and "warnings from a friend or a third party" (8.5%)¹⁷⁵. The Economic Planning Agency (1996) survey discussed the issue of owners – positive to M&As – refusing takeover inquiries regardless of the conditions of a proposed deal. Therefore, since nothing suggests that discussions about domestic M&As have a higher rate of success than inward M&As in the present data, the preference for a domestic M&A over an inward M&A is probably determined more by factors such as perceptions and preferences in partner characteristics¹⁷⁶ – but can also be the result of available information about the initiating or the target firms. The JASMEC survey results also support such view, as the survey answers indicated a prevailing fear about the leakage of company secrets. Such fear is, however, not only confined to SMEs, but also exists among large firms¹⁷⁷.

Another issue raised by the cases is the emphasis owner-managers put on pledges from acquirers to keep the workforce intact. In this chapter, there are examples of cases (case F of Table 5.4 and in Appendix 5), where the target firm managers placed a heavy emphasis on the protection of jobs for the existing workforce. Whether such pledges are kept, and to a larger extent in Japan than in other countries, is difficult to assess, but – as seen from the interviews – these pledges are frequently a part of SME M&As, which is probably due to the different sense of responsibility SME managers feel as a result of the short management-employee distance in the smaller firms compared to the larger firms.

The *post*-M&A organizational integration has been more or less successful in the cases below. One lesson that can be learned is the importance of having the whole organization support the plans for an M&A (case A), or alternatively, to make a special effort to integrate the acquired firm's employees (case G). Another example of a successful M&A, from an organizational point of view, is the Renault *de facto* acquisition of Nissan. On the failure side, section 5.3.5 provides examples from the banking sector and mergers of for-

¹⁷⁵ JASMEC, p. 95.

¹⁷⁶ Traditionally, Japanese firms have preferred an arm's-length relationship with other firms (see e.g. Hennart, 1991; Hennart and Reddy, 1998), foreign or domestic alike, rather than having close cooperation with more strategic dimensions (e.g. integrated R&D units).

¹⁷⁷ One concrete example is the accounting procedures and the lack of transparency before the Tokyo Big Bang financial reform in 1998. The main rule was to keep as much of the detailed company information "in-house", such as R&D expenditure, bad credits and reserves for credit losses, greatly reducing the value of information in Japanese annual reports.

mer *zaibatsu* sister firms where the top-down approach has led to a long-time persistence of an "us-and-them" feeling within the organizations. In the cases at hand, this has also happened in cases B, J and K, where the M&A (in cases J and K, merger) was decided at top-level managerial meetings and was never anchored to the organization. Yet an interesting variant of a less successful post-M&A integration is case I, where the acquiring firm abandoned its production system in favor of the target firm's standards, which met strong opposition from the employees of the acquiring firm. They regarded such a move as unnatural, as they were of the opinion that the target firm should comply with the acquiring firm and implement its systems. Ravenscraft and Scherer (1987) report similar tendencies, such as motivational deficiencies and decrease in morale, among US cases with less successful post-M&A organizational integration¹⁷⁸. Also Harrison et al. (2000) report on the importance of compatibility between pre-merger and post-merger processes, in which the organizational harmonization (meaning here organizational support) decides the post-merger performance, while James (2002) stresses the challenges that face post-M&A management in detecting and coordinating the capabilities of a merged organization.

The above-mentioned cases J and K were found in the chemical industry, which also stands out as the one industry where the best and the worst examples of M&As are represented. These two cases stand in sharp contrast with the other M&As of this industry, where the strategic aspects have been in the forefront (such as to gain access to markets or technology), by following "the bigger, the more beautiful" philosophy or where financial rescues have been the prime aim. The result has been built-in conflicts within the organizations by running the new firm *de facto* as two independent entities, and each part defending the interests of the "old" firm. Another apparent reason for a less successful post-M&A organizational integration has also been failure to integrate in-house routines, such as production and/or accounting (financial control) systems. This is probably one of the most universal and common post-merger problems, and is often reported in organizational studies (see e.g. Ravenscraft and Scherer, 1987; JASMEC, 2000; Harrison et al., 2000; Suzuki and Unno, 2002). Again, Ravenscraft and Scherer (1987) conclude from their cases that the information asymmetries between acquirers and acquired firms played an important role in several negative post-merger "surprises", which included incompatibility between patents, weaknesses in

¹⁷⁸ Ravenscraft and Scherer, pp. 135-139.

managerial positions, or even criminal acts like acquisitions financed with the acquired firm's liquid assets¹⁷⁹.

5.4.4 Summary of the case study overview

So far, the discussion has concerned individual aspects of the cases described in Table 5.4. These cases combined provide important insights into individual M&A deals, allowing for some general conclusions, albeit these cases are a narrow representation of M&A cases in the 1990's.

The majority of M&As are aimed at acquiring some resource or resources held by the acquiring or the target firm

In the studies using the resource-based view, the focus is generally on how firms use their resources to create and sustain economic rents, and by doing so remain competitive or obtain a superior market position compared to their competitors. This can also be extended to M&As, where the initiating firm acquires resources that it lacks, which is a pattern seen in the summarized M&A cases¹⁸⁰. However, not all M&As have strategic aims from the viewpoint of *internal growth* for the firm. In connection to the discussion by Clark and Ofek (1994) and Gonzales et al. (1997), the firms of this study all belong to mature industries, where two growth strategies dominate. One strategy is to obtain strategic resources for internal growth, and the other strategy is to make horizontal mergers and acquisitions in order to obtain a larger market share. From a societal viewpoint, the latter type of M&A is less desirable, since it is doubtful whether it stimulates industrial growth, and theoretically could curb the competition (cf. the welfare and game theoretical discussion in the literature on M&As). It is equally doubtful whether the M&A firms themselves can use such M&As as an efficient growth strategy from a *long-term* perspective (that is, if their aim for the M&A is growth).

The case studies summary has also shown the importance of yet another dimension, the reasons for the *target* firms to engage in M&As, which has not been discussed at length in the literature. To regard target firms as "victims" of the acquiring firms' expansion strategy is generally futile, and risks disregarding a large part of the M&A process. Target firms also strive for resources that they lack, which in most cases are financial, in order to *develop* their business rather than to bury debts. Thus, financial resources provide a

¹⁷⁹ Op. cit., pp. 132-135.

¹⁸⁰ This process is also very well described for US firms in e.g. Harrison et al. (1991) and Capron et al. (1998).

medium for internal development of resources that enables the target firm to obtain a sustained competitive advantage (cf. the discussion of Dierickx and Cool, 1989). By engaging in M&As, firms can quickly obtain a capital injection, and by doing so, secure the long-term survival of the firm (however not necessarily under the same company name). It is equally futile to regard M&A target firms, which experience difficulties in finding successors to the current owner-managers, as "victims". Firms that are available on the M&A market as targets can have motives equally as strategic as those of an acquiring firm, such as the continuity of product development for future growth. Therefore, the results of the case studies suggest that the underlying purpose for almost all firms involved in M&As are resource-based.

Domestic firms tend to do M&As with firms within the same network, while foreign firms to a large extent rely on mediators

This pattern is rather expected, considering what is known from the empirical studies from other countries (see e.g. for acquisitions in Italy, Benfratello, 2002; for *guanxi* business networks in China, Luo and Chen, 1996) and from the Japanese newspaper reports from the 1990's that were discussed in section 5.2. There is strong evidence to support the belief that firms within the same network of any sort (contractual or non-contractual networks alike) have more information about each other regarding financial status and market situation, than the foreign entrants would have¹⁸¹. Foreign firms have to rely to a larger extent on second hand information provided by M&A advisors, rather than being able to acquire it directly from potential targets, giving their large-firm Japanese competitors a distinct advantage.

Firms (both domestic and foreign) that chose to do an M&A with firms unrelated to their previous network contacts, relied on the services of a mediator to a higher degree than firms that did an M&A with a network partner

Also here, the pattern of M&A firm behavior described in the cases is rather intuitive and expected. Since firms are unknown to each other, help with matchmaking and initial introductions is necessary for an M&A. A disadvantage of the matching process, connected to the previous discussion, is that the firms have to rely on second hand information, as well as trust the

¹⁸¹ This is also what the technical efficiency estimations of the econometric analysis suggest in Chapter 6: the domestic firms that did M&As were on average more efficient than the M&As with foreign firms.

mediator and his competence. Here, two categories of M&A behavioral patterns emerge. On one hand, we have the large firms which can do M&As without advisors, and, on the other hand, we have foreign firms of all sizes and the domestic SMEs, which need mediation assistance in order to find a suitable M&A firm. Having said that, there are again differences between the foreign firms and the Japanese SMEs, where the former group usually relies on the services provided by the *foreign* M&A advisors, while the latter group, which typically are smaller in value and therefore yield lower commission earnings, often hire the services of *domestic* M&A advisors.

Organizations need to understand and support the M&A in order to provide a basic infrastructure that facilitates post-M&A integration and operation

We have seen from earlier studies that post-M&A performance among firms has varied *mostly* by being negative or neutral at best. Profitability problems have often been caused by unanticipated costs from coordinating the organizational structures of production and administration. Likewise, management of new entities can have difficulties in coordinating and efficiently utilizing human resources, as described by James (2002). As elsewhere in the world, Japanese M&As have been less successful when top management pursued the M&A project without support from the rest of the organization, thus giving the sense that the motivation for and the understanding of the M&A itself, as well as necessary post-M&A measures, was low. To suggest from a limited number of cases that the profitability or the productivity must necessarily decline after an M&A would be too bold, but obviously, the risk for defection and lower performance among unmotivated employees tends to be higher where organizational support is low. If we allow ourselves to leave Table 5.4 for a moment, we find several interesting examples particularly in the Japanese manufacturing and banking sectors, where the management has paid little or no attention to organizational issues in connection with an M&A (see e.g. JASMEC, 2000; Yoshida, 2000; Suzuki and Unno, 2002)¹⁸². In the cases of Nissan and Mazda, management of the former firm mobilized the entire organization to accept the far-reaching restructuring measures taken by Renault in order to reduce the huge debts and to eliminate the heavy losses, while Ford's restructuring measures in Mazda

¹⁸² Some are publicly known, such as Mazda, Mizuho Bank and Tokyo-Mitsubishi Bank. However, most remain anonymous in studies due to perceived sensitivity of the M&A issue.

were not anchored to the organization and breded uneasiness among the members of the organization. Case K firms had an experience similar to Mazda. On the surface, these two firms were expected to experience a smooth marriage since they belonged to the same *keiretsu* group. However, the outcome proved to be less successful. The reason was, as pointed out here, the merger decision was badly anchored to the respective organizations, and no efforts were made post-merger to build up a new organizational identity among the employees.

5.5 Concluding discussion of the results from the qualitative study

The aim of the qualitative study was to put the Japanese M&As in context by investigating the differences in firm characteristics and motives of the M&A firms. Together with the overview of the news articles, the results from the interviews and the summary of the case studies yielded insights into the process of contemporary M&As that is not found in the M&A literature written about Japan.

Not surprisingly, the M&A behavior of Japanese firms is influenced by their individual firm characteristics, which are determined by history, individuals, firm size, and overall characteristics of the industry to which the firm belongs. Above all, the macroeconomic environment, regulations and other structural factors define the institutional framework, which ultimately decides whether the firms can or want to execute M&As. It is also interesting to note that the frequency of M&As in an industry can be an influencing factor, as proven by some of the interviews and the summary of the case studies. However, this pattern can also be found in other industrialized countries. So what makes Japanese M&As different?

While it would be interesting to compare the current Japanese M&A pattern with that of other countries, the purpose of this thesis is to exclusively analyze Japanese M&As. Therefore, the interesting question is how the pattern of purely domestic and inward M&As has changed from the pattern before the large-scale deregulations were implemented in the 1990's.

Attitudes towards M&As are one factor that is changing among the Japanese managers. Traditionally, M&As have been regarded as a phenomenon that was unsuitable to Japanese business customs, but these negative values are now diminishing, as suggested by the M&A debate in the Japanese busi-

ness and industrial newspapers and in the interviews. This change in views is, however, mainly occurring in the large firm sphere and among high-tech SMEs, while still lingering among "traditional" manufacturing SMEs, which is also suggested by earlier surveys done among Japanese SME owner-managers (Economic Planning Agency, 1996; JASMEC, 2000). The new institutional setting, which promotes M&As, might have influenced the managerial attitudes towards M&As by making managers believe that M&As are positive as more and more well-known firms carry out M&As without becoming a target of public disapproval. However, the change of managerial attitudes is a slow process, and the interviewees strongly believed that the attitudes depended on the generation, and as new generations of managers and corporate leaders replace older generations, attitudes toward M&As will also change.

Influenced by the changing attitudes, the *needs identification* and *M&A motives* of Japanese firms also undergo a significant change. Previously, it was not obvious that M&As were preceded by an explicit identification of firm-specific *needs*. As was pointed out by the interviewees, and illustrated by some of the cases in Table 5.4, these M&As could be done on an *ad hoc* basis, without any prior due diligence. Prime examples of such M&As are *financial rescues* and M&As that are undertaken out of *obligation* to long-term relationships with business network partners, such as suppliers and customers within the same *keiretsu* sphere as the investing firm. Typically, the large firm M&As that occurred domestically were examples of such behavior, while their outward M&As followed a more "Western" pattern, where the M&As did not differ much from those done by its foreign host market competitors. Now, the Japanese firms are starting to recognize the value of doing M&As, and have begun to explicitly formulate M&A strategies by identifying the needs required to develop and secure future growth. A major finding of this study is, however, that such M&A behavior is valid also for *target* firms, which initiate M&As by actively searching for potential investors in order to secure product development and future growth. Furthermore, it was also found that M&As with an explicit aim to acquire resources were mainly undertaken by the large firms and the high-tech SMEs, while the "old-time" M&As without an explicit rationale are still occurring among the SMEs in mature industries, such as manufacturing and tourism.

Here, we can clearly see the limits of the resource-based theory when explaining Japanese M&A behavior. On one hand, the changing M&A behavior follows the expected assumptions of the theory, in the sense that firms are

identifying certain resources that they lack, and use M&As as a means to procure that resource due to the difficulties in obtaining it through other channels, depending on the special characteristics of the resource (following the definitions of Dierickx and Cool, 1989). Prime examples of such special characteristics of resources given in this chapter are time compression diseconomies (for example, acquisition of technology and R&D know-how) and interconnectedness of asset stocks (where horizontal M&As are most typical, but also acquisition of market know-how in connection with market entry). On the other hand, the theory has difficulties explaining the M&As that do not have any clear resource-based motives, such as those that are performed as a result of friendship relations or long-term obligations to business partners suffering financial difficulties. In order to understand the current pattern of M&As in Japan, it is therefore important to recognize both rent-maximizing and non-profit maximizing M&A behavior.

The next stage in the M&A process is the use of *networks* to find M&A partner firms. Also here, distinct differences between large domestic firms, and foreign firms/SMEs exist. The interviewees emphasized the importance of networks as venues for partner firm identification in M&As, and this was also confirmed by the case studies. Large firms that are part of *keiretsu* networks tend to organize M&As without the participation of a third party such as an M&A consultant, while firms outside such networks – that is, foreign firms and SMEs – often rely on *mediators*. Also, the use of M&A advisors is highly biased by the client selection policy of these advisors. In Japan, there exist large domestic and foreign M&A advisors (such as the major Japanese banks, securities firms and the international investment banks), parallel to the minor domestic M&A advisors (represented by smaller consultancy bureaus, law firms and local chambers of commerce). While the domestic M&A advisors accept deals of any size, the foreign advisors generally only accept M&A deals that yield high commission fees. This leads inevitably to discrimination between small and large firms, since the M&As involving SMEs seldom have enough value to be accepted by the international M&A advisors. Thus, as mentioned in the interviews and also seen in case C in Table 5.4, it is not unusual for SMEs to use a member of the manager's *social* network as a mediator. Thus, social networks are equally as important as the more formal venues for networking in M&A partner selections.

The increasing use of M&A advisors has contributed to the revitalization of the corporate merger and acquisition market by taking on three roles. Firstly, as collectors of corporate and market information, the M&A advisors

possess knowledge regarding the requested resources and where they can be found. In other words, the advisors are *matchmakers*. Secondly, as matchmakers, they help firms –in particular foreign firms and Japanese SMEs – overcome the lack of network connections (and the Japanese SMEs that *refrain* from using network connections). Thirdly, by mediating M&A deals, the advisor firms also become substitutes for the initiating firms that lack reputation or trust among potential investing or target firms. In other words, by utilizing the M&A advisors' reputation, firms outside the networks circumvent these hindrances to an M&A. Therefore, by taking on these three roles, the M&A advisors facilitate M&A transactions. This is another feature of M&As that is little discussed in the resource-based theory literature: how firms utilize a third party in order to acquire resources that gives the owning firm the possibility to pursue a strategy for sustained competitive advantage. Evidently, the M&A mediators play an important role in a firm's resource procurement process.

Several interviewees also discussed the relevance of the *institutional reforms* of the 1990's to the changing pattern of domestic M&As in Japan. Overall, the interviewees believed that the reforms had a significant impact on the M&A *behavior* of larger firms due to the increased external information flow and the increased credibility of the information. The *effects* of the reforms were, however, an issue for disagreement. Some of the interviewees stressed the importance of increased transparency, while others emphasized the superiority of due diligence to evaluate potential M&A targets. In any case, the reforms affect the larger firms to a greater extent than the SMEs. The ownership structure and the limited scope of operations for most SMEs make them little affected by the new requirements of increased transparency. As target firms, however, the SMEs are more affected by the abolition of the mandatory prior notification to the authorities, which facilitates confidential M&A proposals. In addition, the SMEs have increased their activity level on the M&A market as the M&A consultancy services have improved as a direct result of the increased *large firm* M&A activity.

Finally, the study also resulted in important observations regarding the post-M&A *organizational* outcome¹⁸³. In the cases, the commitment level of the firms' management to make the M&A decisions transparent in the organizations tended to influence the speed of organizational harmonization in

¹⁸³ Not to be confused with the upcoming analysis in Chapter 6, which measures the post-M&A performance by estimating *technical inefficiency*.

terms of shared goals and sense of equality between the employees of the merging entities (see Table 5.4). Such a connection is also found elsewhere in the M&A literature (Yoshida, 2000; Suzuki and Unno, 2002). In this study, clear communication was a particularly strong contributor to a smooth post-M&A integration in three cases, while the opposite was true for two cases, where bad internal communication about the M&A plans led to non-existent organizational support for the mergers. As a consequence, these merged firms continued to exist as separate entities in the minds of the employees at all hierarchical levels.

Taken together, the information given by the news articles overview, the interviews and the summary of the case studies concordantly suggests that the Japanese domestic M&As are changing in terms of need identification, motives, partner selection, and use of M&A specialists, driven by changes in managerial attitudes and institutional frameworks. In taking the next step, the second research question about the post-M&A productivity and technical efficiency will be analyzed.

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Appendix 5

Two M&A Cases¹⁸⁴

The analysis in this chapter can be illustrated by two cases from the electrical machinery industry. The purpose here is not to present a full account of the M&A cases, but rather as an illustration. The interesting points here are the *motives for an M&A*, the *partner selection process* and *concerns regarding the firm's internal and external environment*.

Domestic M&A – Electric fan manufacturer

Royal Denki, a market-leading manufacturer of small electric fans for large air conditioning systems, was seeking an M&A partner in 1994, due to difficulties in finding a successor to the founder of the company. The investment consultancy arm of a large Japanese brokerage firm, Kankaku Shōken, was contacted to find a suitable M&A partner¹⁸⁵. After a short selection process, three partner candidate firms remained, of which one was also a foreign firm. The founder of Royal Denki met the CEO of each firm, including the foreign firm, and eventually one of the domestic firms emerged as the preferred M&A partner. The founder and the CEO of the chosen acquirer, Ono Sōko, entered into more serious discussions, which concluded with a personal promise from the CEO of Ono Sōko to the founder of Royal Denki that no post-M&A changes would take place affecting the management or the number of employees. The acquisition was further complicated, however, by the fact that the acquirer wished to acquire the stock majority, and the ownership was spread over several minority stake owners, one of which was Sumitomo Heavy Industries. The founder could only pull together about 30% of the shares from his own sphere of interest, and had to humiliate himself and beg Sumitomo Heavy Industries at its headquarters to sell its shares to the acquirer. Yet another complication arose which was the minority post held by the suppliers and customers to Royal Denki. They voiced the concern as to whether the supply route was to be cut off due to this acquisition. This type of concern was understandable, since this type of cross-shareholding relationship is common in Japanese business, and is regarded as a security for long-term business-to-business relationships. However, the suppliers and

¹⁸⁴ This section draws heavily on the case studies from Muramatsu and Miyamoto (1999).

¹⁸⁵ Muramatsu and Miyamoto, pp. 181-188.

customers eventually gave up their shares, and the acquisition deal was successfully concluded in about two years.

Even though the acquirer was an experienced firm in terms of growth by M&As, and the deal eventually was constructed technically as a TOB, making this particular M&A a rare bird among the Japanese M&As at the time, and this pattern of partner selection is still common, especially among SMEs. The choice of a domestic partner was made because of the profile of the acquiring company and the promises it made, which were in line with the wishes of the founder of the target company. It is particularly interesting to note the concern the suppliers and the customers expressed regarding the continuation of the business relationships after their sales of shares in Royal Denki.

Inward M&A – Special light bulb manufacturer

The M&A story of Kondō Denki Kōgyō, a specialized light bulb manufacturer for electrical equipment, begins in the early post-war years¹⁸⁶. The Allied occupation authority searched for Japanese manufacturers who could produce replacement bulbs for the US made presentation equipment used for the post-war re-education scheme. Kondō Denki Kōgyō, which was one of the companies designated by the occupation authorities, faced a big challenge in making special-purpose light bulbs to US standards. Even in the US, only two makers produced these types of bulbs: GE and Sylvania. Kondō Denki Kōgyō decided to produce bulbs after the GE design, and eventually, the firm expanded and even started to export its products.

In the 1960's, Sylvania accused Kondō Denki Kōgyō of patent infringement, but settled the dispute out of court in 1967, and then approached the Japanese firm with the suggestion to merge the firms for the purpose of product development and export production. One year later, a new company was already set up, where the "original" Japanese firm constituted 50% of the stock capital and Sylvania (technically the holding company General Telephone Electric, or GTE) contributed the remaining half of the stock capital¹⁸⁷. Through this new company (which retained the name of Kondō Denki Kōgyō), the Japanese firm was able to incorporate new technology developed by Sylvania into its production. Kondō Denki Kōgyō continued to develop in a positive direction throughout the 1970's and 1980's, when the firm experi-

¹⁸⁶ Op. cit., pp. 171-181.

¹⁸⁷ In other words, Sylvania chose this approach as a shortcut alternative to a greenfield investment.

enced a steady growth in both production volume and product line expansion, as a direct result of access to Sylvania's R&D and technology.

Thus, Kondō Denki Kōgyō had a deep-rooted positive experience of cross-border interaction and foreign ownership. The co-owned firm was put up for sale by GTE in 1991, which by then owned 70% of the capital. The reasons for the sale were the dismantling of Sylvania assets and the restructuring of GTE to core businesses. In the turbulence that followed, several interested firms, both Japanese and foreign, showed interest in becoming potential acquirers, at the same time that the CEO of Kondō Denki Kōgyō planned an MBO. Eventually, GTE chose to sell its 70% stake to Philips, who bought the firm because of its 25-year successful experience of foreign ownership and cross-border management of Japanese firms. This acquisition benefited both parties, as Philips gained a firm foothold in the notoriously hard-to-enter Japanese lighting equipment market, and at the same time, it gained competence in the fields where it was weak. The Japanese firm could continue to utilize foreign R&D resources and export under the flag of internationally well-known brand. The post-merger coordination went smoothly, including the divisions for manufacturing and sales functions, the relocation of the headquarters from the manufacturing plant to Philips Japan's head office in Tokyo and the organization of get-togethers and training camps for new and old employees of both firms. Today, this M&A is regarded within Philips as one of the most successful in its history.

From this case, it is easy to identify some typical features of the Japanese inward M&A firm. Firstly, Kondō Denki Kōgyō had a long pre-M&A experience of close technical cooperation with a foreign firm, utilizing foreign technology in its product development. Secondly, with the US partner's profound commitment to management selection, the Japanese firm learned US management practices, and later, as a subsidiary, learned how to meet the profitability requirements set by GTE. Therefore, it was not a question of whether or not to accept the choice of a foreign firm as the new owner for the Japanese firm, but rather, that the Japanese management welcomed the change in ownership and smoothly executed all practical changes before and after the acquisition by Philips.

Chapter 6

6 The Outcome of Japanese M&As: Firm Productivity and Efficiency Effects

The purpose of this chapter is to analyze the *direct* efficiency effects of M&As by using firm-level productivity data and employing two models. First, the technical efficiency of the M&A group firms is compared to the technical efficiency of non-M&A firms, while simultaneously controlling financial strength, size, industry and M&A direction (inward or domestic). Secondly, the magnitude of production inefficiencies during the periods immediately before and after an M&A event are estimated in order to verify whether an M&A has affected the firm's technical efficiency over time. Together with the results from the previous chapter, the productivity estimation results of this chapter form the basis for the concluding discussion of the M&A process in Japan today.

6.1 Hypothesis for the quantitative analysis

The performance of firms is defined in this thesis as being the technical efficiency (TE) of production, given the utilization pattern of input factors of the individual firm. The question is whether there are any performance differences, measured by TE, between the firms that have been engaged in M&As and firms that have not been involved in M&As. As seen earlier, the number of M&As in Japan has historically been very low compared to other OECD countries. Therefore, it is relevant to examine performance characteristics, if any, among the M&A firms and non-M&A firms. Thus, the first hypothesis is:

H1: *There are no differences in the TE between M&A target firms and non-M&A firms.*

The next question is whether there are any TE differences between the firms that have been engaged in *purely domestic* M&As and firms that have been engaged in *inward* M&As. In the M&A debate, it has been argued that Japanese firms prefer domestic M&As due to the similarity of cultural norms and values. As a result of such a view, Japanese firms that have partnered with foreign firms are regarded as firms with a particularly bad financial situation since they are rejected by domestic investing firms (e.g. Economic Planning Agency, 1996), or in other words, that inward M&As are "fire sales". In recent years, a competing view has also emerged, represented by some of the M&A advisors interviewed for this research, that foreign owners, by definition, make the firms more efficient by introducing state-of-the-art management techniques to their Japanese M&A partner firms. This is also what we would expect according to the FDI spillover theory. However, it is not obvious that such a connection exists between an introduction of foreign technology and management practices to Japanese firms and post-M&A firm efficiency. The second null hypothesis is therefore:

H2: *There are no differences in the TE between inward and purely domestic M&As.*

There are also reasons to believe that performance differences exist between pre- and post-M&A periods. The question of whether M&As have had a positive effect on post-M&A performance is obviously a central issue for M&A research, and there are examples of both positive and negative effects from M&As in the empirical literature. An example of a study using the same econometric method as the one employed in this analysis is Benfratello (2002), who found statistically significant *positive* effects from M&As. However, as seen from the history of Japanese M&As, many *keiretsu* M&As have been performed out of obligations nurtured by long-standing business relationships, or have been financial rescues, where no changes have been made within the management. Therefore, it is not possible to assume a priori that M&As have positive effects on firm productivity. The third hypothesis for the quantitative analysis is therefore:

H3: *There are no differences in the M&A target firm performance, in terms of TE, between the pre- and post-M&A periods.*

6.2 Data selection and collection

Based on the frequency of annual inward and domestic M&A deals in Japan using the Recof (2003) data, the electrical machinery, the chemical and the pharmaceutical industries were selected for analysis. Besides having the highest occurrence of domestic *and* inward M&As *combined* (see section 4.4 in Chapter 4), these industries were also selected because of the relative straightforwardness by which the financial data can be analyzed in a production function model. Compared to these industries, the financial and service industries are more complex, making it difficult to estimate a production function in a similar manner to the manufacturing industry. For example, the valuation of assets, the nature of the products produced, and the use of various provisions in the financial industry makes inter-industrial comparisons with the manufacturing industry difficult. Similar reasoning can be applied to the service industry, where the intra-industry diversity of these firms (including everything from entertainment and IT sectors to restaurant and transportation companies) is much larger than in the machinery, chemical and pharmaceutical industries. Thus it is difficult to value the immaterial assets and the output of service firms, such as IT firms, making a productivity analysis difficult to interpret.

The core of the dataset consists of firm level financial data¹⁸⁸, which was obtained from the Nikkei Needs company database¹⁸⁹. The original list of firms included in this database contained a total of 2,821 firms (1,576 firms in the electrical machinery industry, 1,035 firms in the chemical industry, and 210 firms in the pharmaceutical industry), and represented all current and past registered firms¹⁹⁰ by respective industry. Due to deficient data re-

¹⁸⁸ Data from balance sheets and income statements. The accounting standards for the financial data registered in Nikkei Needs follows the Japanese standards for the manufacturing industry.

¹⁸⁹ The Nikkei Needs company database keeps records of all listed and non-listed firms operating in Japan.

¹⁹⁰ As of May 2002.

ording¹⁹¹ including blank records and in-group inconsistencies regarding fiscal periods, financial records, data series etc., the final panel set of sample firms was selected according to the following criteria:

- First, firms with any one of the following deficiencies were sorted out:
 - less than seven consecutive years of observations
 - incomplete data set or time series
 - change of fiscal year periods from one year to another (over a quarter, i.e. difference of ± 3 months between two given years)
 - extreme residual outliers.
- After this selection, the sample group consisted of 644 firms with comparable balance sheets and income statements. These firms were distributed as follows:
 - 262 firms in the electrical machinery industry,
 - 315 firms in the chemical industry, and
 - 67 firms in the pharmaceutical industry.
- From this sample group, M&A firms were distinguished from those that had not done any M&As during the period under analysis. The M&A firms were extracted from this sample group by meeting one of the following criteria:
 - Firms that have participated in mergers (both initiating and target firms),
 - Firms that have been acquired (target firms),
 - Firms that have *received* capital injections, as the benefit to the investor is unclear from the viewpoint of efficiency analysis and hard to retrieve from accounting data, or
 - Firms that have engaged in M&As before 2000, since the efficiency effects of M&A activities undertaken in 2000 and 2001 cannot be observed after only one year.

After this selection process, the final M&A firm sample consisted of 21 firms, derived from the larger group of 644 firms.

¹⁹¹ The responsibility for this deficiency can not be laid only on the owner of the database, since the individual firms are ultimately responsible for reporting and updating the financial data kept by Nikkei Needs.

	Value added (in mill. yen)	Capital (in mill. yen)	Labor (no. employees)
Mean	27440	19440	589
Minimum	37.25	1.94	2
Maximum	1261075	683300	81488
Std. deviation	91993.23	57694.49	5920.29
No. of firms		644	
Observations		6873	

Table 6.1. Descriptive statistics for the pooled sample (in millions of yen in 1995 prices). Labor denotes no. of employees at the end of the fiscal year for respective sample firms. *Data Source:* Nikkei-Needs financial database.

	Value added (in mill. yen)	Capital (in mill. yen)	Labor (no. employees)
Mean	38613	25253	3090
Minimum	37.25	1.94	2
Maximum	1261075	683300	81488
Std. deviation	131777.00	79540	8902.71
No. of firms		262	
Observations		2797	

Table 6.2. Descriptive statistics for the electrical machinery industry sample (in millions of yen in 1995 prices). Labor denotes no. of employees at the end of the fiscal year for respective sample firms. *Data Source:* Nikkei-Needs financial database.

	Value added (in mill. yen)	Capital (in mill. yen)	Labor (no. employees)
Mean	15493	15563	884
Minimum	65.66	30.32	21
Maximum	484742	408120	17576
Std. deviation	41195.14	37144.05	1631.73
No. of firms		315	
Observations		3373	

Table 6.3. Descriptive statistics for the chemical industry sample (in millions of yen in 1995 prices). Labor denotes no. of employees at the end of the fiscal year for respective sample firms. *Data Source:* Nikkei-Needs financial database.

	Value added (in mill. yen)	Capital (in mill. yen)	Labor (no. employees)
Mean	40303	14917	1535
Minimum	328.30	99.96	63
Maximum	452531	135169	11137
Std. deviation	64645.28	23062.91	1981.52
No. of firms		67	
Observations		703	

Table 6.4. Descriptive statistics for the pharmaceutical industry sample (in millions of yen in 1995 prices). Labor denotes no. of employees at the end of the fiscal year for respective sample firms. *Data Source:* Nikkei-Needs financial database.

6.3 The profit development of the sample industries during the 1990's

Since profits not are included in the econometric analysis, the purpose of this section is to provide a general background for the continued discussion of the sample industries. As mentioned earlier, the 1990's meant a decade of dropping profits and harsher competition both at home and abroad for the Japanese industries. 1991 was a turning point for the Japanese economy, when the speculation economy of the 1980's ended dramatically and the decade-long recession began. For the electrical machinery firms included in the sample, the *average* profit level per employee in 2001 was a mere 26% of the 1991 level (in 1995 prices), and for the chemical industry sample firms, the average profits per employee in 2001 had dropped to 56% of the 1991 level. For the sample firms in the pharmaceutical industry, there was the opposite effect with average industrial profit levels 41% higher than the 1991 level. For the top 10 sample firms (in terms of sales) in each industry, the corresponding profit levels dropped by about 50% and 19% in the electrical machinery and the chemical industries respectively, while the 10 largest firms in the pharmaceutical industry increased their average profit levels by 59% between 1991 and 2001. Thus, the 10 largest firms in the electrical machinery and the pharmaceutical industries performed better than the industrial average, while the 10 largest firms in the chemical industry performed worse than the average in terms of profit per employee. However, derived from the firm sample used in this thesis, this result still gives some indication of just

how hard the deep recession of the 1990's hit the firms in the sample industries. In the next section, the involvement in domestic or inward M&As among the sample firms, given earlier experience of foreign firms and foreign management, will be explored.

	1991-1997	1998-2001	For the whole period
Mean	1.03	0.96	1.00
Minimum	-113.15	-110.81	-113.15
Maximum	28.01	60.64	60.64
Std. deviation	3.36	4.72	3.91
No. of firms	644	644	644
Observations	4368	2505	6873

Table 4.5. Descriptive statistics of profit development for all firms in the sample (measured in million yen/employee in 1995 prices). *Data Source:* Nikkei-Needs financial database.

	1991-1997	1998-2001	For the whole period
Mean	0.77	0.72	0.75
Minimum	-113.15	-98.09	-113.15
Maximum	20.71	22.21	22.21
Std. deviation	4.57	14035.90	4.83
No. of firms	262	262	262
Observations	1750	1047	2797

Table 4.6. Descriptive statistics of profit development for the electrical machinery industry sample firms (measured in million yen/employee in 1995 prices). *Data Source:* Nikkei-Needs financial database.

	1991-1997	1998-2001	For the whole period
Mean	1.05	0.89	1.00
Minimum	-28.79	-110.81	-110.81
Maximum	28.01	60.64	60.64
Std. deviation	2.10	4.47	3.16
No. of firms	315	315	315
Observations	2169	1204	3373

Table 4.7. Descriptive statistics of profit development for the chemical industry sample firms (measured in million yen/employee in 1995 prices). *Data Source:* Nikkei-Needs financial database.

	1991-1997	1998-2001	For the whole period
Mean	1.91	2.30	2.05
Minimum	-12.20	-10.95	-12.20
Maximum	11.78	18.56	18.56
Std. deviation	2.47	3.18	2.75
No. of firms	67	67	67
Observations	449	254	703

Table 4.8. Descriptive statistics of profit development for the pharmaceutical industry sample firms (measured in million yen/employee in 1995 prices). *Data Source:* Nikkei-Needs financial database.

6.4 Partner choice of the M&A firms in the panel data¹⁹²

Before continuing with the econometric analysis, it is worthwhile to briefly investigate whether there are any connections between past international contacts and present choice of M&A partner. In other words, have the 21 M&A firms in the panel chosen foreign partners over domestic ones, based on their level of previous foreign exposure¹⁹³?

¹⁹² The purpose of this section is merely to describe the history of foreign connections of the 21 M&A sample firms. The methodology of this section is therefore somewhat arbitrary.

¹⁹³ Defined here *primarily* as opportunities to internalize foreign technologies and *secondly* as exposure to foreign management practices.

The coding was done in descending order following three levels of contacts, and by investigating the official company history of each respective firm¹⁹⁴:

- Any involved contact with the foreign M&A partner firm before the M&A
- Any contact with foreign firms at all before the M&A
- No direct contact with or any exposure to foreign firms.

“Involved contact” is defined as licensing, JV, capital injection, or alliance with a foreign firm, either in Japan or abroad *prior* to the sample period (i.e. before 1991). Furthermore, overseas subsidiaries are included in this category. The rationale behind this definition is to see whether the Japanese firms have had a prior opportunity to experience – in a broad sense – foreign management of some sort (managerial and/or production level contact through e.g. technical cooperation or joint management of an entity).

¹⁹⁴ These were obtained via the internet homepages of each respective firm; for details, see the reference list.

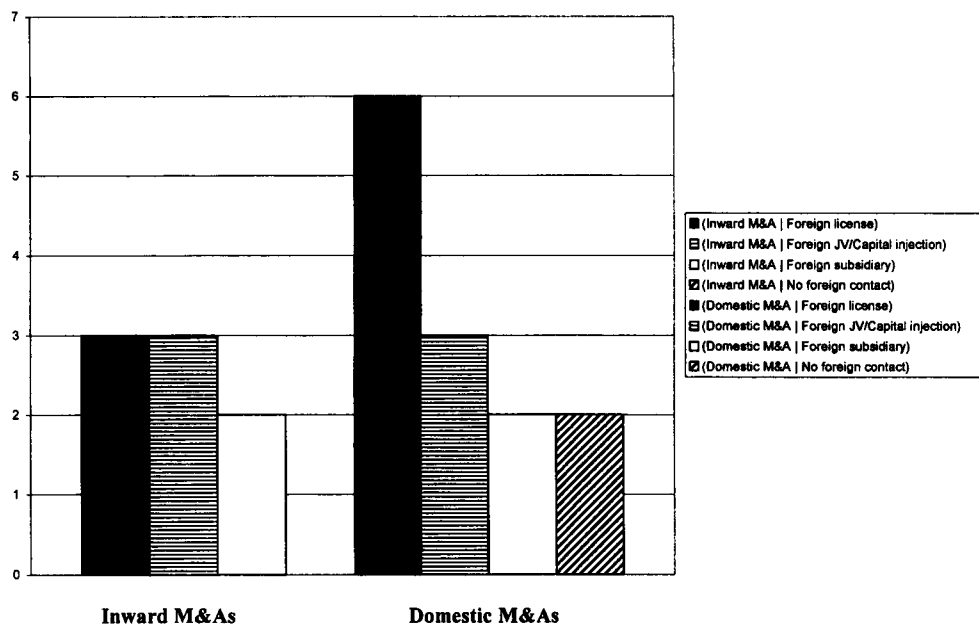


Figure 6.1. Distribution of M&A firms in the sample used for the stochastic frontier production function estimation ($n = 21$). Observe that no inward M&A took place where a Japanese firm lacked previous experience of foreign contacts on managerial and/or production levels, i.e. (Inward M&A | No foreign contact) = 0. Numbers indicate the number of cases in each subcategory.

The sample firms involved in *inward* M&As were *large firms* (that is, no SMEs¹⁹⁵), having prior experience with foreign firms of *licensing*, *JV* or *capital injection*. The absolute number of firms engaged in inward M&As in the sample is not large (only 8 firms), but when the group is used for comparison with the domestic M&A group, an interesting pattern emerges. Most apparent is the numerical domination of domestic M&As over inward M&As, which is a rather expected pattern as the same tendencies are found in all developed countries, and does not in any way represent distinct feature unique to Japan. For this reason, it is more interesting to step down one level and study the pattern on an industry level. There, the chemical industry

¹⁹⁵ The definition of SMEs used here is the standard definition used by the Japanese Ministry of Economy, Trade and Industry (METI; former MITI) for the manufacturing sector. SMEs are firms that fulfill the criteria of employing a of maximum 300 people or having a stock capitalization under 300 million yen.

dominates the group of M&A firms (61% of the sample cases). However, when considering the proportion of *inward* M&As to the total number of M&As in this limited sample, the group of chemical industry sample firms has the lowest share of the three industries. One can ask why the proportion of inward M&As among the 21 firms is not higher, since most of these firms have or have had licensing agreements or JVs with foreign firms. One possible answer is that a Japanese firm, seeking a suitable M&A partner, may anticipate difficulties in terms of high cultural barriers, differing views on management etc., with an inward M&A compared to a domestic one, and therefore refrains from doing M&As with foreign firms (cf. the survey results of the Economic Planning Agency, 1996, reported in Chapter 5). In other words, the cultural differences might be perceived as too great for an outright M&A with a foreigner. Also from the *target firm's* perspective, a domestic M&A might be perceived as more convenient. The following quantitative analysis will highlight these issues, by focusing on the technical efficiency effects from M&As and the influence of foreign ownership on post-M&A firm performance.

6.5 The research model and its operationalization

Since a production function is used here for estimating the performance effects from M&As, a set of the most frequently used variables for estimating productivity is employed. In the economics literature, and in particular the production economics literature (cf. Coelli et al., 1998), the conventional method of estimating productivity is to regress input variables on output variable(s). The analysis here will therefore not diverge from the convention of the economics literature.

6.5.1 The production function model

The parametric frontier production function model can be estimated in two ways. The first approach is to use fixed values of inefficiency, using the most efficient company in the sample as a benchmark. The results of this kind of estimation are within the sample space and the entire inefficiency is addressed as firm-dependent (fixed effects model). The second approach is to take the random (exogenous) disturbances into account and use the estimations to measure the variance of firm *i*'s output around the deterministic part of the production frontier (random effects model; see also Figure 3.1, Chapter

3)¹⁹⁶. Obviously, there are advantages and disadvantages to both approaches. The former gives an estimate of the sample group of firms, based on the observed values of performance. The latter method indicates the marginal rate of efficiency change between firms in the particular industry, which generally gives stronger results. The drawbacks are that the former model only gives predictions for the sample group, while the results of the latter model are just *estimations* of the real relationship between productivity and inefficiency, since the (true) population mean or variance is not known.

In the production economics literature, where the stochastic production function has been used empirically, two main production functions have been used: the classic Cobb-Douglas (CD) production function and the translog production function. The popularity of the CD function is easy to understand, since it is easy to employ, and the results are easy to interpret. The drawbacks of using the CD production function are the *a priori* assumptions of technology, which restrict the production structure. The translog production function is somewhat more complex, since the model is sensitive to multicollinearity and to data sets with a low number of observations. On the other hand, the translog function does not impose any restrictions on the production structure by *a priori* assuming a certain technology or shape of the frontier as the CD function does, and can therefore in many cases better represent the "true" shape of the production function¹⁹⁷. As a result, the technical effects parameter results from the CD and the translog models usually diverge. In the methodological and empirical literature on stochastic frontier production models (cf. Battese and Broca, 1997; Coelli et al., 1998), the translog model has been used in most applications due to its greater ability to extract and represent technologies embedded in the panel data¹⁹⁸. Therefore, for this analysis, both a CD production function model and a translog production function model were formulated and estimated. The purpose of constructing two production function models was to test which of them best represented the "true" production function of the firms in the panel data¹⁹⁹.

¹⁹⁶ Simar, p. 175; Coelli et al., pp. 185-187.

¹⁹⁷ Coelli et al., pp. 18-21; pp. 34-37.

¹⁹⁸ Nearly all studies using the stochastic frontier production function model have employed translog models except for some special cases. See also the literature discussed in Chapter 3.

¹⁹⁹ The tests are presented in the section 6.5.4.

Model description			
Model	Functional form	Dependent variable	Purpose of the model
(6.2)	Cobb-Douglas	Value Added	Model specification test; Elasticity estimation (Time invariant model)
(6.3)	Translog	Value Added	Model specification test; Elasticity estimation (Time invariant model)
(6.5)	Translog	Value Added	Main TE estimation model (Time variant model)
(6.8)		Mean of firm-specific technical inefficiency [$u_{it} \sim \text{i.d. } TN(\mu_{it}, \sigma^2_{u_{it}})$]	Estimation of TE by controlling for financial strength, size, industry, involvement in M&As, and direction of M&A
(6.9)		Mean of firm-specific technical inefficiency [$u_{it} \sim \text{i.d. } TN(\mu_{it}, \sigma^2_{u_{it}})$]	Estimation of TE by controlling for effects from post-M&A increase of equity, size, pre- and post-M&A productivity, industry, and direction of M&A

Table 6.9. Description of the models employed in the analysis of Chapter 6.

The production function for each firm in the sample is assumed to be a function of capital and labor such as

$$Y_{it} = f(K_{it}, L_{it}) + (v_{it} - u_{it}), \quad (6.1)$$

where

Y_{it} = output of firm i in period t ,

K_{it} = capital input of firm i in period t ,

L_{it} = labor input of firm i in period t ,

v_{it} = random disturbance ("luck" - "bad luck") of firm i in period t ,

u_{it} = technical inefficiency of firm i in period t ,

i = firm i , and

t = time period t .

Thus, given the production function (6.1), a Cobb-Douglas stochastic frontier production function model becomes

$$\ln VA_{it} = \beta_0 + \beta_1 \ln K_{it} + \beta_2 \ln L_{it} + (v_{it} - u_{it}), \quad (6.2)$$

where VA_{it} is the value added of firm i in year t in 1995 prices, which will be the output measure employed in this analysis. Other variables have the same definition as in equation (6.1).

Furthermore, the translog stochastic frontier production function model will be

$$\ln VA_{it} = \beta_0 + \beta_1 \ln K_{it} + \beta_2 \ln L_{it} + \beta_{11} (\ln K_{it})^2 + \beta_{22} (\ln L_{it})^2 + \beta_{12} \ln K_{it} \ln L_{it} + (v_{it} - u_{it}), \quad (6.3)$$

where the variables are identically defined as in of equation (6.2).

However, to use a production function model that does not take the time dimension into account is not realistic for a panel data set that covers longer periods of time, since it is reasonable to assume that managers accumulate experience over time, and by doing so, affect the level of the firm's technical efficiency (Coelli et al., 1998). For this analysis, which covers 11 periods, a time variable is introduced to allow for variation in technical efficiency over time. Therefore, as a variant to equation (6.3) with a time variable, where each individual sample firm is assumed to have a production function such as

$$Y_{it} = f(K_{it}, L_{it}, t) + (v_{it} - u_{it}), \text{ is} \quad (6.4)$$

$$\ln VA_{it} = \beta_0 + \beta_1 \ln K_{it} + \beta_2 \ln L_{it} + \beta_3 t + \beta_{11} (\ln K_{it})^2 + \beta_{22} (\ln L_{it})^2 + \beta_{33} (t)^2 + \beta_{12} \ln K_{it} \ln L_{it} + \beta_{13} \ln K_{it} t + \beta_{23} \ln L_{it} t + (v_{it} - u_{it}) \quad (6.5)$$

where t is the rate of technical progress (RTP; time trend variable not in natural logarithms), which is identical to the definition of t in equations (6.1) to (6.3). All other variables are identically defined as in equation (6.2).

6.5.2 The technical efficiency estimation models

As defined in Chapter 3, the fundamental assumption of the stochastic frontier production function model and the estimation of the firm-specific technical efficiency is (TE) that the error term is a composite of two errors. v_{it} represents a random factor that affects firm i 's operations at time t . The second error component, u_{it} , is the part of the error term that derives from tech-

nical efficiency, as specified in Aigner et al. (1977). As the reader recalls from the discussion in Chapter 3, the TE u_{it} for firm i at time t is generally defined as²⁰⁰

$$TE_i = \frac{y_i}{\exp(x_i\beta)} = \frac{\exp(x_i\beta - u_i)}{\exp(x_i\beta)} = \exp(-u_i) \quad (6.6)$$

where the numerator is the production function and the denominator represents the stochastic frontier. Thus, technical efficiency is defined as the observed output of firm i relative to what a fully efficient firm using the same input vector would have produced, given the production function. Furthermore, the TE is assumed to be individually distributed $u_{it} \sim \text{i.d. TN}(\mu_{it}, \sigma^2_u)$, and where μ_{it} has a linear function

$$\mu_{it} = \delta_0 + \delta z', \quad (6.7)$$

where δ are the inefficiency coefficients and z' are the vectors of inefficiency variables z or inefficiency dummy variables (the subscripts i and t defined as firm and time period respectively).

In this study, the main technical inefficiency model (6.8) is

$$\begin{aligned} \mu_{it} = & \delta_0 + \delta_1 \text{EAR}_{it} + \delta_2 \text{Market Share}_{it} + \delta_3 \text{Chemical Industry Dummy}_i \\ & + \delta_4 \text{Pharmaceutical Industry Dummy}_i + \delta_5 \text{M\&A firm}_i \\ & + \delta_6 \text{Foreign}_i + \delta_7 \text{M\&A}_{it} \end{aligned} \quad (6.8)$$

where

EAR_{it} = equity-to-asset ratio of firm i in year t

Market Share_{it} = market share of firm i in year t

$\text{Chemical Industry Dummy}_i$ = dummy for firms in the chemical industry (taking value of 1, others 0)

$\text{Pharmaceutical Industry Dummy}_i$ = dummy for firms in the pharmaceutical industry (taking value of 1, others 0)

M\&A firm_i = dummy for firms involved in an M&A (taking value of 1, others 0)

²⁰⁰ Coelli et al., p. 184.

$Foreign_i$ = dummy for inward M&As (taking value of 1, others 0)
 $M\&A_{it}$ = post-M&A performance dummy (taking value of 1 the year after the M&A event, other years or where no M&A has been done 0)
 i = firm i
 t = year t

The purpose of model (6.8) is simply to assess the influence of the control variables, directly related to the M&A event, on the individual firm's technical efficiency. Also, the significance of financial strength and firm size, as well as the inter-industrial differences, are estimated in order to control for these attributes that can influence the TE.

In addition, an auxiliary model (6.9) was formulated to measure the direct effects of M&As on the sample M&A firms. The auxiliary technical inefficiency model, which measures the TE during the periods immediately before and after the M&A event of the individual firm, is

$$\begin{aligned} \mu_{it} = & \delta_0 + \delta_1 Dummy_{7firm} + \delta_2 EAR_{it} + \delta_3 (EAR_{it} \cdot Dummy_{7firm}) \\ & + \delta_4 Market Share + \delta_5 M\&A_{t-4} + \dots + \delta_8 M\&A_{t-1} + \delta_9 M\&A_{t+1} \\ & + \dots + \delta_{12} M\&A_{t+4} + \delta_{13} Chemical Industry Dummy_t \\ & + \delta_{14} Pharmaceutical Industry Dummy_t + \delta_{15} Foreign_{it} \end{aligned} \quad (6.9)$$

where

$Dummy_{7firm}$ = dummy for the seven firms that increased their equity by more than 5% after the M&A (taking value of 1, others 0)

EAR_{it} = equity-to-asset ratio of firm i in year t

$Market Share_{it}$ = market share of firm i in year t

$M\&A_{i(t-4;t+4)}$ = dummy for the time periods prior to and after an M&A (taking value of 1 in respective period prior to and after the M&A year, others 0)

$Chemical Industry Dummy_i$ = dummy for firms in the chemical industry (taking value of 1, others 0)

$Pharmaceutical Industry Dummy_i$ = dummy for firms in the pharmaceutical industry (taking value of 1, others 0)

$Foreign_i$ = dummy for inward M&As (taking value of 1, others 0),

i = firm i

t = year t

The technical inefficiency model for the auxiliary model (6.9) is basically similar to the one for the main model. The major exceptions are the dummy estimation (the variable *Dummy* γ_{firm}) of the seven M&A firms, which have had over a 5% increase in equity as a result of the M&A (affecting the equity-to-asset ratio), and the time period dummies ($M\&A_{t-4}$ to $M\&A_{t+4}$), which are modeled to represent pre- and post-M&A periods²⁰¹. Similar to the interpretation of parameters in translog models, the parameters of the inefficiency models measure marginal effects and are non-linear. They indicate the direction (positive or negative) of the variables' effects on technical inefficiency and the relative size of the effect in comparison with other inefficiency variables in the model. In models (6.8) and (6.9), a *negative* coefficient implies an *efficiency-increasing* effect (and vice versa).

6.5.3 Variables

6.5.3.1 The production function models

By using financial data described in section 6.2, output, labor force and net book value of assets adjusted for depreciation were estimated for each individual firm. Since the lowest level of production unit reported in the financial data was firm level, no detailed estimations of the productivity on, for example, plant level could be executed, which put some constraints the analysis. In order to adjust the financial data set to constant prices, industry deflators with the base year 1995 were used²⁰².

²⁰¹ Details of these variables are discussed in section 6.5.3.

²⁰² For the electrical machinery and chemical industries, industry specific deflators were available, but not for the pharmaceutical industry, for which the deflator for the chemical industry was used. The data was obtained from OECD.

List of variables

Variable name	Function	Type	Included in Models	Definition
VA	Dependent	Logarithmic, (6.2), (6.3), Discrete (6.5)		Value added of firm output
K	Independent	Logarithmic, (6.2), (6.3), Discrete (6.5)		Net book value of assets that are subject to depreciation
L	Independent	Logarithmic, (6.2), (6.3), Discrete (6.5)		No. of employees
t	Independent	Discrete	(6.5)	Time (as proxy for technical progress)
Dummy _{7 firm}	Control	Dummy	(6.5) + (6.9)	Firms that increased their equity by 5%≤
EAR	Control	Discrete	(6.5) + (6.8) (6.5) + (6.9)	Equity-to-asset ratio (control for financial strength)
EAR _{7 firm}	Control	Dummy	(6.5) + (6.9)	Firms that increased their equity by 5%≤
Market Share	Control	Discrete	(6.5) + (6.8) (6.5) + (6.9)	Market share (control variable for size)
Chemical	Control	Dummy	(6.5) + (6.8) (6.5) + (6.9)	Firms belonging to the chemical industry
Pharmaceutical	Control	Dummy	(6.5) + (6.8) (6.5) + (6.9)	Firms belonging to the pharmaceutical industry
M&A firms	Control	Dummy	(6.5) + (6.8)	Firms engaged in an M&A during the period under analysis
Foreign	Control	Dummy	(6.5) + (6.8) (6.5) + (6.9)	Firms engaged in an inward M&A during the period under analysis
M&A (model 6.8)	Control	Dummy	(6.5) + (6.8)	Post-M&A productivity effects on TE
M&A (model 6.9)	Control	Dummy	(6.5) + (6.9)	Pre- and post-M&A productivity effects on TE (M&A year ± 4 periods)

Table 6.10. List of variables included in the models.

Value added

There exist several definitions of output and value added in the economics literature. In the present work, where the relative efficiency of firms is analyzed, the appropriate measure of output is the *net* contribution of a firm to

the total value of goods sold. Among studies that use output as the dependent variable, Kwong et al. (2000) have defined the output variable explicitly, as being the sum of the value of sales, repurchases and change in stocks. The reason for not taking the gross sales value as the value of output is the difficulty in using gross sales as a measure for the firm's net contribution to the value of the sold goods at time t . The argument here is that the stock value at time t , which in fact contains "shelved" value added from previous periods valued at time t , needs to be taken into account when calculating the net sales value (at time t). The reason for using the sum of the value of sales, repurchases and change in stocks, minus the cost of goods sold, as a measure for the value added content of a firm's production is because this definition of the output variable is straightforward and facilitates the application of the firm-level empirical data. The availability of good quality firm-level data is usually a restriction to empirical research, and this analysis is no exception. As discussed in the previous chapter, the data used here is firm-level financial accounting data, which is cruder than, for example, plant-level or product-level data.

Again, from the sum of the

- sales value,
- net repurchases²⁰³,
- change in the stock value (manufactured items *and* raw materials²⁰⁴), and
- change in the value of work-in-progress,

the costs for goods sold subtracted in order to obtain the value added. Thus, the value added is basically defined as the net of sales and cost of goods sold for firm i at time t , adjusted to 1995 prices:

²⁰³ "Net repurchase" is defined as the net of gross profits from installment sales minus the costs for unsold goods.

²⁰⁴ The costs for raw materials are eventually deducted under "cost of goods sold" at the time of the sale.

$$VA_{it} = ([\text{Sales value}_{it} + \text{Net repurchase}_{it} \\ + \Delta \text{Manufactured goods in stock}_{i(t,t-1)} + \Delta \text{Work in progress}_{i(t,t-1)} \\ + \Delta \text{Stocks}_{i(t,t-1)}] - \text{Cost of goods sold}_{it}) \\ \cdot \text{Industry deflator}_t (100 = 1995) \quad (6.10)$$

Capital

The definition of capital in the emirical literature is rather diverse, and the reason for this is quite simple. There are many valuation methods for assets, and there exist lengthy debates regarding the use of assets as a tool for valuation of firms and performance analyses (cf. Barth et al., 1998; Bild, 1998; Zhang, 2000; Lockett et al., 2002). However, capital is, for this analysis, defined as the net value of assets that is *subject to depreciation*.

$$K_{it} = \text{Net book value of assets}_{it} \cdot \text{Industry deflator}_t (100 = 1995) \quad (6.11)$$

An obvious weakness in using the net book value at the end of the fiscal year is that the value of the net investments over the current year is included in the figure *together* with existing vintage capital minus accumulated depreciation, which is not explicitly taken into account (see further the discussion in Kwong et al., 2000). This problem is often present when using firm level financial data. For the present analysis, we have accepted the net book value as the value of the capital stock, following the convention of the empirical literature (cf. Coelli et al., 1998; Benfratello, 2002; Hadri et al., 2003).

Labor

The definition of labor input in this study is the number of employees at end of the fiscal year. A possible alternative is to use the number of working hours. A common critique of the use of labor quantity or working hour measures when used in productivity analysis is the roughness of such data, since it does not explicitly include qualitative factors such as human capital or professional skills²⁰⁵. In the obtained data, working hours and measurements of human capital on firm level were not available, and therefore the size of the labor force was used as the labor input variable. Labor is defined in this analysis as:

²⁰⁵ However, these qualitative characteristics are implicitly included in the data; see the discussion on elasticity in section 6.6.1.

$$L_{it} = \text{Number of employees}_{it} \quad (6.12)$$

Time variable

This variable is used as a proxy for the RTP, that is, the technical development among the sample firms. It is possible to ignore time effects in short-run data series, but for longer time periods, it is not realistic to assume that no technical changes occur within an industry. The parameter for this variable is interpreted as the relative change in efficiency due to technical development over time, such as production technology innovations, new management techniques. A *negative* sign on the time variable (in the translog model, the β_3 parameter; see the results in tables in Appendix 6) is an indication of existence of *positive* technological progress.

6.5.3.2 The technical efficiency variables: The Main Model

Equity-to-asset ratio

The first variable in the inefficiency models (6.8) and (6.9) is the equity-to-asset ratio (EAR). Its measurement reflects the firm's long-term ability to honor debts, pensions and other payment obligations to employees, financiers, and business partners (such as suppliers and subcontractors). The argument for including this variable is that a higher EAR (that is, a higher ability to honor long-term payment obligations), indicates an overall stable financial status of the firm. The assumption is that by having a substantial financial strength, the management has larger degrees of freedom compared to a situation where creditors, doubtful about the long-term survival of the firm, become more reluctant to give new credit to the firm. Arguably, low ability to raise funds makes the management reluctant to expand operations and spend money on R&D, advertising etc., which in turn affects the overall efficiency of the firm by not being able to grow and utilize possible scale benefits in certain functions such as R&D, distribution and advertising.

$$EAR_{it} = \text{Equity}_{it} / \text{Total assets}_{it} \quad (6.13)$$

where

EAR_{it} = Equity-to-Asset ratio of firm i at time t

Equity_{it} = Value of the total equity (i.e. total assets minus total liabilities) of firm i at time t

Total assets_{it} = Value of the total assets of firm i at time t

Because of the inverse relationship between a negative coefficient and technical efficiency effect, a negative (positive) parameter implies higher (lower) technical efficiency.

Market share

This variable is a control variable for size and is defined as the share of total industrial sales of firm i at time t ²⁰⁶. The purpose of including this variable is, in other words, to investigate whether the size of a firm, by using market share as a proxy, has an effect on the TE. The argument here is that large firms benefit from lower unit costs by utilizing economy of scale in production, R&D, advertising, distribution, etc., which gives an efficiency advantage over smaller firms. The assumption here is the larger market share of a firm, the larger the scale of its operations and hence, also the size of the firm. The interpretation of the parameter is the same as for the previous variable.

Industry dummies

Since the panel is pooled, industry dummies were included to see whether there are inter-industrial differences. The base is the electrical machinery industry. Thus, a positive (negative) parameter indicates a less (more) efficient industry than the electrical machinery industry.

M&A firms

This dummy variable is included to assess whether any statistically significant differences in TE between the M&A firms and the non-M&A firms, *already existed before* an M&A event. Thus, this dummy variable separates possible M&A efficiency effects from original TE characteristics that the M&A firms had before the M&A event. A positive (negative) parameter indicates that M&A firms were less (more) efficient than firms that did not engage in M&As.

Foreign

Here also, a dummy variable is used to estimate the influence of inward M&As. There has emerged a widespread belief in the Japanese popular man-

²⁰⁶ Due to inconsistency in Japanese industrial sales data and the lack of industry sales statistics for the years 1999 to 2001, the total industrial sales for these years were approximated by taking the total sales of all sample firms in the respective industries. Test of using this approximation to earlier years (1991 to 1998) corresponded well with the statistics on industrial sales released by MITI, and was therefore used for the analysis.

agement literature (cf. Chapter 5) that foreign owners, by definition, make target firms more efficient by introducing state-of-the-art management techniques²⁰⁷. However, it is doubtful whether such a simple connection between foreign or foreign-influenced management and firm efficiency exists. The purpose of this dummy variable is therefore to investigate any statistically significant effect on firm TE from foreign engagement in M&As. Firms that have been involved in an inward M&A, given the categorization specified above, are labeled 1 for post-M&A periods, and 0 for pre-M&A and the M&A periods. The interpretation of a positive value of the dummy parameter means that inward M&As have had a negative influence on firm efficiency (and the opposite relationship for a negative parameter).

M&A

There are also reasons to believe that performance differences exist, not only between firms that have and have not engaged in M&As, but also between forms of M&As. However in the present study, M&As are narrowly defined to distill performance effects from *receiving capital* through acquisition or using capital injections. In addition, mergers have been included using the same logic. By receiving capital in one of these forms, we would expect firms to surrender some management power to the acquirer, either by the acquirer influencing the old management or by appointing members to the acquired firm's board. In the Japanese setting however, this has not historically been a natural consequence of an M&A. Many *keiretsu* M&As have tended to be merely "bush fire extinctions", where less successful management was rarely replaced and allowed to remain in charge of operations. Again, as we have seen in Chapter 5, the corporate governance features of Japanese M&As, which were changed in the 1990's, when radical post-M&A restructuring measures become more common. Therefore, by defining this dummy, the purpose is to measure whether any post-merger inefficiency decrease is present among the sample firms.

²⁰⁷ An example that has been disproportionately exposed in the Japanese media over the last few years is the *de facto* acquisition of Nissan by Renault and the management style of the Lebanese-Brazilian Nissan CEO Carlos Ghosn.

Briefly, the cases included in this dummy group have been selected by:

- Mergers²⁰⁸
- Acquired firms that have continued operations as separate legal units within the acquiring firms²⁰⁹
- Firms that have received capital injections.

Those firms that have been engaged in at least one M&A during the period of study are labeled 1, others 0²¹⁰. The parameter interpretation is similar to the previous ones in the μ_{it} firm-specific TE function of the technical inefficiency model.

6.5.3.3 The technical efficiency variables: The Auxiliary Model

Following the analysis of Benfratello (2002), the purpose of model (6.9) is to distill the efficiency effects from doing M&As in a more specific manner, particularly pre- and post-M&A performance. As for TE model (6.8), the interpretation of the parameters of TE model (6.9) is that a negative (positive) parameter indicates higher (lower) efficiency. Furthermore, only the variables, different from model (6.8), are commented upon.

Equity-to-asset ratio

The definition of this variable is identical to the one in TE model (6.8). However, in the auxiliary model (6.9), a new dummy is introduced (*Dummy*_{7firm}), where the M&A firms that have increased their equity by more than 5% following an M&A are differentiated from the rest of the M&A firms. Log-likelihood tests²¹¹ indicated that models which included an intercept dummy for this group of M&A firms had a better fit than models without this inter-

²⁰⁸ The financial data for the company listed in Nikkei Needs as the predecessor to the merged entity is used for pre-M&A periods.

²⁰⁹ The form of the acquirer-target relationship is treated equally, that is, regardless of the actual form of association (whether the acquired firm is under a holding company, exist as a subsidiary or other relationship forms where the acquirer has a substantial say in the acquired firm's operation). The interesting point here, for the efficiency analysis, is to measure changes in performance *given* the definitions above.

²¹⁰ Multiple M&A deals within one and the same year are, for measurement reasons, treated as one observation. This is a weakness, but the reason for this treatment is the difficulty distinguishing the efficiency contribution from each individual deal within one and the same year, given the data at hand.

²¹¹ Not reported here.

cept dummy. The interpretation of this dummy parameter is dual. First, it indicates differences in the intercept between the dummy group and the non-M&A control group, and second, it measures whether the M&A firms that have increased their equity by more than 5% are significantly different in technical efficiency from the group of M&A firms that did not increase their equity as a result of the M&A event.

Pre- and post-M&A effects

As a variant of the TE model (6.8), the auxiliary TE model (6.9) was constructed in order to sift out possible pre- and post merger effects. This model also includes 8 dummies controlling for efficiency effects, and represents a time period from four years *before* the M&A event ($t-4$; $t-1$) to four years *after* the M&A ($t+1$; $t+4$). The acquisition year t is defined as the base year. The model seems complex, but in the M&A literature, the usual time spans reach between $t \pm 3$ to $t \pm 10$ years (see e.g. Muramatsu, 1987; Benfratello, 2002). The distribution of observations for the M&A firms, where t is the acquisition year, is described in Table 6.11 below.

	t-4	t-3	t-2	t-1	t	t+1	t+2	t+3	t+4
No. of firms	20	21	21	21	21	21	21	16	12

Table 6.11. Distribution of the number of observations in each period for M&A firms in the sample; t denotes the M&A year. * = t is the base period in the regression.

6.5.4 Test of model specification

Before launching the econometric analysis of the Stochastic Frontier production function, specification tests were done to determine whether the Cobb-Douglas or the translog production function (models 6.1 and 6.2 respectively) was best qualified to represent the data. Using a Monte Carlo simulation, Coelli (1995) found that Wald tests on maximum likelihood (ML) estimations had a high probability of Type I errors (that is, the risk of accepting a false null hypothesis), and suggested the use of a one-sided generalized likelihood-ratio (LR) test on ML estimations since the test had the correct size (the term "size" means the probability of a Type I error). Generally, the LR test is used to test the null hypothesis that the firm-specific error μ_{it} equals zero (such that all disturbances stem from an exogenous random error). Shown differently, the null hypothesis is $H_0: \gamma = 0$, or in other words, that the estimated ML model is equivalent to a *deterministic* frontier, which can be

estimated by using the usual OLS method. However, it can also be used to test the consistency between two models estimated with ML²¹², where the null hypothesis is $H_0: \beta_{ij} = 0$, that is, that there are no differences between the parameters estimated with the Cobb-Douglas model and the parameters estimated with the translog model.

The LR test statistics are calculated by using the formula²¹³

$$LR = -2\{\ln [L(H_0)] / [L(H_1)]\} = 2\{\ln [L(H_1)] - \ln [L(H_0)]\} \quad (6.14)$$

where the null hypothesis H_0 is the log-likelihood value ($L(H_0)$) of the model which is to be tested against the log-likelihood value ($L(H_1)$) of the model estimated under H_1 , or in this case, the Cobb-Douglas model (6.2) versus the translog model (6.3).

Under the null hypothesis, the LR statistics are assumed to be an asymptotically distributed random variable, following a χ^2 distribution²¹⁴ with degrees of freedom equivalent to the number of restrictions in the ML model. In this case, the number of restrictions is 2²¹⁵, which implies that the degree of freedom for the χ^2 distribution is 2 with the critical value of 4.60 at the 5% level ($\chi^2_{2(2\alpha)}$, where $\alpha = 5\%$) for a *one-sided* LR test²¹⁶.

Model specification test (the pooled panel) at the 5% level

One-sided Generalized Likelihood-ratio (LR) test: $H_0: \beta_{ij} = 0$

	Log-Likelihood Value	Critical value $\chi^2_{2 \text{ d.f. } (2\alpha)}$	Observed value	Decision (Accept = choose the C-D model)
Cobb-Douglas (model 6.2)	-2116.782			
Translog (model 6.3)	-2059.955	4.60	113.6548	Reject H_0

Table 6.12. Model specification test. The log-likelihood values are taken from the estimation outputs found in Table A6.1 in Appendix 6.

²¹² Coelli et al., pp. 215-218.

²¹³ Coelli et al., p. 191; Taymaz and Saatçi, p. 474.

²¹⁴ Coelli et al., p. 192.

²¹⁵ The number of restrictions is the extra parameters estimated compared to the basic OLS model; it is calculated automatically by the FRONTIER 4.1 software.

²¹⁶ Usually, the LR test is two-sided, but Coelli (1995) has shown that this yielded an incorrect size (reported in Coelli et al., p. 192). Thus, the critical value for a test of size ($\alpha = 5\%$) is 4.60 instead of 5.99.

The test results show that the null hypothesis (that the Cobb-Douglas frontier model is a correct representation of the data) is strongly rejected at the 5% level. Therefore, in the continued discussion, the results from the translog frontier model are used.

6.6 Econometric results

The ML estimations are performed using the statistical software FRONTIER 4.1, written by Tim Coelli (1992, 1994). The estimation results for the pooled panel are presented in Table A6.1 in Appendix 6.

6.6.1 Elasticities

In discussing industrial production, it is important to pay attention to scale elasticities, as they convey a great deal of substantial information in a compact manner. Generally, elasticities are measures of the sensitivity of certain variables to proportional changes, such as change in inputs, outputs, factor allocation, etc. Thus, it is widely used in economics, although less so in IB studies. However, it is still useful for the IB context as well, since the elasticity measures establish the return to scale of production, labor, and capital intensity of a particular industry. In the end, this information can be utilized for structural analyses, such as consequence analyses of changes within and outside the industrial environment and changes in corporate strategy, etc.

The elasticity of scale gives an indication of the nature of the industry's return-to-scale, or in other words, whether the returns on production are increasing, constant or decreasing with every extra unit of input. While the scale elasticities from the Cobb-Douglas model are simply the input parameters, the elasticities from the translog models are computed using the formula

$$\varepsilon_i = \beta_i + 2\beta_{ii}\bar{i} + \sum_{\substack{j=K,L,t \\ j \neq i}} \beta_{ij}\bar{j} \quad (6.15)$$

$$i = K, L, t.$$

where \bar{i} and \bar{j} are sample means of outputs transformed to natural logarithms.

K , L and t^{217} are defined in the same way as in section 6.5.

²¹⁷ The time variable t is a measure for the rate of technical progress (RTP), and not any measure for elasticity. However, the calculation method is by and large the same as for K and L .

The scale elasticities in Table 6.13 show that these industries have decreasing returns to scale²¹⁸ ($\varepsilon_{\text{Total}} < 1$), which is expected since we are analyzing a relatively short time period, where the input factors are relatively fixed²¹⁹. The partial production elasticities (ε_K and ε_L) show by how many percentage points the output will change with an increase of one unit of that particular input factor (labor or capital in this case), given that all other input levels are held constant.

		Pooled panel (models 6.2 vs. 6.3)	Electrical machinery industry	Chemical industry	Pharmaceutical industry
ε_K	Cobb-Douglas	0.18	0.18	0.18	0.05
	Translog	0.21	0.21	0.15	0.07
ε_L	Cobb-Douglas	0.76	0.70	0.82	0.89
	Translog	0.74	0.66	0.77	0.88
$\varepsilon_{\text{Total}}$	Cobb-Douglas	0.94	0.88	1.00	0.94
	Translog	0.95	0.87	0.92	0.95

Table 6.13. Elasticities of input variables for the pooled panel and for each industry (from the fixed inefficiency effect models 6.2 and 6.3).

Here, we can see that, compared to the electrical machinery industry, the chemical and the pharmaceutical industries differentiate themselves by having a high elasticity for labor input, but much lower for capital. This follows

²¹⁸ That is – everything else held constant – the rate of marginal productivity decreases for every extra unit of input that is used in the production, or in other words, that every extra input produces less output compared to the previous unit of input.

²¹⁹ If a longer time period was used, covering e.g. two merger waves or more, the scale elasticity could have taken any direction, given that the production function is non-homogenous (for a *homogenous* function, the left-hand side variable will increase by a factor of α^λ if all right-hand side variables are increased by some positive factor α ; such function is called a *homogenous* function of degree λ ; the Cobb-Douglas function is an example of this). The reason is that the input factors (labor, capital, factory space, supplies etc.) are assumed to be fully variable in the long run and the productivity should increase over time as technology develops.

the same pattern as in other industrialized countries, and is a reflection of the higher level of skilled labor that is employed in the chemical and the pharmaceutical industries compared to the electrical machinery industry. In the two former industries, the concentration of educated workers is much higher than in the electrical machinery industry, since, for example, batch production of chemicals and drugs requires more educated workers than line production of electrical machinery products. Generally, firms with a high content of R&D and highly skilled labor tend to have high partial production elasticity for labor, while more traditional manufacturing sectors, such as the machinery industry, have relatively high partial production elasticity for capital, since it yields higher returns than labor. In this case, labor elasticity is a comparison between the primarily white-collar workers of the chemical and pharmaceutical industries and the primarily blue-collar workers of the electrical machinery industry. The weakness of this analysis is, however, the measurement of the labor force in the data, which includes both blue- and white-collar workers regardless of their level of human capital. A more precise estimation would therefore have been possible if such data were obtainable. However, the elasticity estimations of Table 6.13 still convey valuable information about the nature of the chemical and the pharmaceutical industries as compared to the electrical machinery industry.

Furthermore, these results also show that the elasticity estimates from the Cobb-Douglas and the translog models are approximately within the same range for the electrical machinery and pharmaceutical industries, but very different for the chemical industry. This difference is probably caused by the ability of the two models to appropriately represent the "true" production function of an industry (cf. the discussion in section 6.5.1). However, the earlier LR test indicated (see Table 6.12) that the translog model is the preferred frontier model.

As seen in Tables A6.1 to A6.5, the RTP was positive for all models. Also, the log-likelihood function for the time-variant translog models indicates a better fit compared to the log-likelihood function of the time-invariant translog models. This was expected, but the causes of this positive technical progress is however hard to assess, as they can diverge between industries²²⁰. In the empirical literature (e.g. Taymaz and Saatçi, 1997; Benfratello, 2002), in-

²²⁰ RTP address only the *technical progress*, and should not be confused with the overall growth of firms in terms of sales and profitability, which on average has been negative except for the pharmaceutical industry (cf. section 6.3).

troductions of new production process innovations, general upgrade of production equipment, as well as savings in input material costs are usual causes for positive RTP. From the data at hand, however, it is difficult to specify exactly which new technology is behind the positive growth in each industry. An intuitive explanation would be some sort of spillover effect, either direct or indirect, from foreign presence in the Japanese market. However, as observed later in the chapter, no such spillovers existed, at least in terms of direct effects, from foreign ownership. Rather, introductions of new production process innovations and a general upgrade of production equipment are more probable explanations for the positive RTP. Therefore, we conclude the discussion regarding time effects by establishing that they exist for this panel.

6.6.2 Results of the TE parameter estimation: The main model

The FRONTIER program executes a separate regression for the mean μ_{it} of the firm-specific inefficiency component u_{it} while simultaneously calculating the ML estimation of the production function ²²¹. Since the properties of the error terms have already been described and explained above, only the significance and the interpretation of the technical inefficiency parameters will be discussed here. First, the estimation results of the main pooled model will be discussed (Tables A6.1 to A6.4 in the Appendix 6). Thereafter the discussion will concern the estimation results of the auxiliary model (Table A6.5 in Appendix 6).

Industrial differences

The parameters of the industry-specific dummies show statistically significant inter-industrial differences in efficiency. On average, the pharmaceutical industry is more efficient than the chemical industry (see Table 6.14), which in turn is more efficient than the electrical machinery industry (last industry serving as the base group). The reasons for this result might not be obvious from only the regression estimations. However, an important factor that might explain these results is the factor (here, labor and capital) intensity of the three industries. The electrical machinery industry is by far the most labor intensive of the three industries, and also has the highest average number of employees (triple that of the chemical industry, and double that of the pharmaceutical industry; see section 6.2). However, the productivity of the

²²¹ See Chapter 3 for a formal definition.

workers in the electrical machinery industry is lower than those of the chemical and pharmaceutical industries. Table 6.13 shows the elasticity of the input factors, and it is clear that the electrical machinery industry has lower labor elasticity than the other industries. In other words, holding other input factors constant, an additional worker in the electrical machinery industry affects the final output less than additional workers in the chemical and pharmaceutical industries. Thus, the knowledge about the labor intensity and the partial production elasticity tells a lot about the skill level of the employees, which has also been discussed in section 6.6.1.

Efficiency comparison of the chemical and the pharmaceutical industries, given the efficiency level of the electrical machinery industry, Two-sided t-test on the 5% level: $H_0: \delta_3 = \delta_4$ (No difference between the chemical and the pharmaceutical industries)

Observed value	Critical value	Decision
8.234	1.96	Reject H_0

Table 6.14. Efficiency comparison of the chemical and the pharmaceutical industries (from the TE model 6.8).

Equity-to-asset ratio

The first efficiency variable, which is a control variable for financial stability, indicates that the long-term solvency level is an inefficiency-reducing factor. The parameters have the expected signs, since the higher the capital-to-asset ratio, the better the prospects of financial survival and development of future business by having resources for e.g. R&D and the ability to honor liabilities. Good financial status affects production efficiency as well, and therefore, the results are in line with what is expected.

Size effects

The results of the size effects are also interesting. In the results, shown by the market share dummy parameter δ_2 in Tables A6.1 to A6.4, the effects from scale efficiency in production (that is, the larger the scale of production, the lower the cost of one extra unit produced) are particularly clear. A negative inefficiency parameter is expected, or in other words, the size of the firm, using the market share size as a proxy, has an effect that *increases* the TE of the firms. This connection between size and TE is also apparent when represented graphically (see Figures 6.2 and 6.3 below). There, it is clear that the

firms with the largest market share also tend to have the highest TE compared to smaller firms²²².

The results from the pooled panel estimation are also confirmed by the industry-level estimations, where a similar picture is drawn. Naturally, for all sample firms, the firm size (in terms of market share) and the scale of operations affects the unit costs for such things as marketing, general overhead and distribution, which are shared by all products that a firm produces. Therefore, these results are rather obvious and expected, in that the regression results suggest that the more dominant a firm is on a market, the more technically efficient it is as well²²³.

²²² A criticism of the traditional panel data method is that all firms, both efficient and inefficient, contribute equally to the shape of the estimated frontier. However, this problem is not present when using the ML estimation, where the most efficient firms have the largest influence upon the shape of the estimated frontier. The FRONTIER 4.1 software, which is used here, estimates panels and cross-sectional data sets by using the ML method. See also the discussion in Coelli et al., pp. 199-204.

²²³ However, it is also important to consider the competition structure of a market. The connection between size and efficiency in production might be true only up to the point where one or few firms have attained a monopoly-like market position. If so, a firm sets prices where the marginal cost (MC) curve intersects the marginal revenue curve instead of setting the prices where the MC curve intersects the average cost curve (which is assumed under perfect competition), and by doing so, accrues monopoly rents. Therefore, it is not necessarily true that a large firm size, measured by the size of the market share, leads to higher technical efficiency.

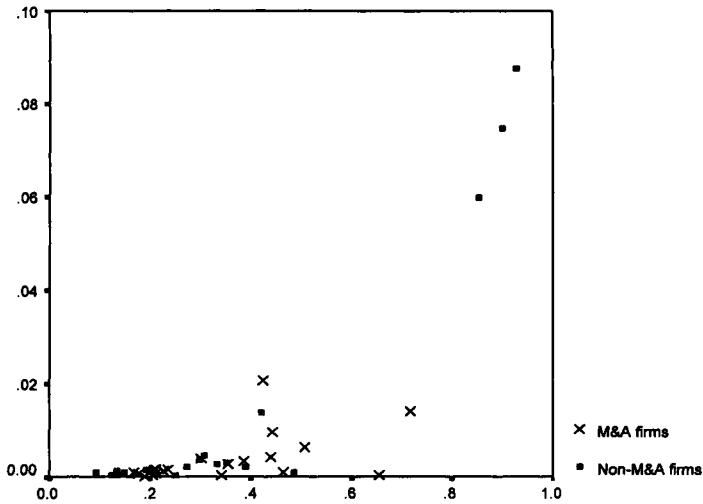


Figure 6.2. TE of the sample firms in 1991 (from the pooled panel estimation). The y-axis represents market share, and the x-axis indicates TE. The dots represent clusters of firms. **Note:** The firms indicated as “M&A firms” had not yet been involved in M&As.

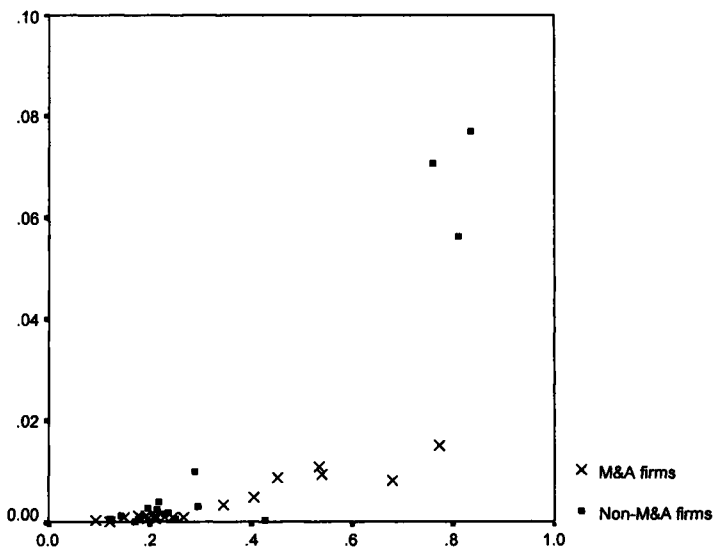


Figure 6.3. TE of the sample firms in 2001 (from the pooled panel estimation). The y-axis represents market share, and the x-axis indicates TE. The dots represent clusters of firms.

M&A firm characteristics

For the pooled panel, the estimation results (Table A6.1 in Appendix 6) suggest that the M&A firms had significantly higher TE *compared to the non-M&A control group* both before and after an M&A. There is, however, a disparity in the direction of these effects between the industries. When disaggregated on industry level, the same picture for the pooled panel is shown in the chemical industry. However, for the electrical machinery and the pharmaceutical industries, the M&A firms were no more efficient than the non-M&A firms.

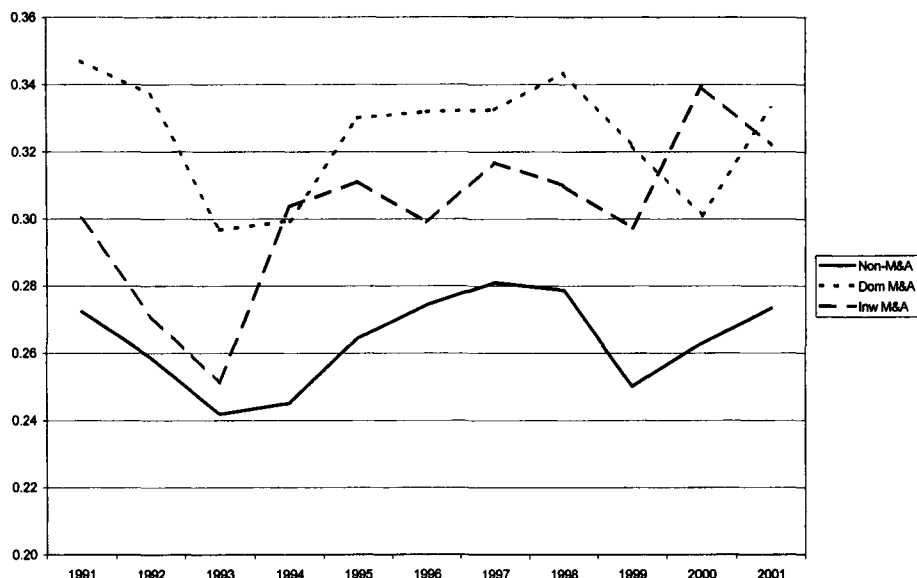


Figure 6.4. Mean TE for the sample firms over the whole period.

Looking at the average TE for all firms during the whole period of 1991 to 2001, a similar pattern emerges. Given the model specification and the M&A definitions, as specified above, it is clear that the firms that have engaged in M&A activity during the 1990's were, on average, more efficient than the firms that did *not* engage in M&As during the same period. For the *entire* period, a t-test of mean TE between the non-M&A and M&A firms on the 5% level confirmed that the M&A firms had significantly higher TE than the non-M&A firms (see Table A6.6). Furthermore, the TE estimation seems to

suggest that the inward M&A firms were, on average, less efficient than the firms that chose domestic M&As (see Figure 6.4). However, a t-test of mean TE between the domestic M&As and inward M&A firms suggested only a weak support for such relationship (see Table A6.7).

Two earlier studies by Gonzales et al. (1997, 1998) have shown that both bidders and targets in mature industries tend to be on the decline, or the industries they belong to are declining. Considering that the industries chosen for this study are mature, one would expect that the M&A firms exhibit a lower performance than the average performance for firms in the industry. However, looking at the mean TE for the M&A firms, the graph suggests that for these three industries, *only the most efficient firms* engaged in M&As, which contradicts the findings of Gonzales et al. Still, *all* M&A firms have been more efficient than the control group prior to the M&A events, which indicates a bias towards a choice of only relatively efficient firms as targets.

If the results here are viewed considering the discussions in Chapter 5 about large firm M&A processes and the use of mediators, together with the sample firm choice of M&A partners described in section 6.4, these combined results suggest an asymmetry in information between domestic and foreign M&A investors. This discussion will be elaborated on in Chapter 7.

Inward M&A

Looking at the influence of *inward* M&As on the domestic firms' post-merger performance in terms of technical efficiency, the estimation results *did not show any statistically significant effects overall*, which was also confirmed by t-tests (see Table 6.15). In other words, there was *no significant effect* on the performance from inward M&As. On the industrial level however, statistically significant effects were found for inward M&As in the electrical machinery industry (efficiency-increasing effect) and in the pharmaceutical industry (efficiency-reducing effect), while the effect was insignificant for the chemical industry.

Effects of inward M&A, One-sided t-test on the 5% level: $H_0: \delta_6 = 0$ (No effects on TE from inward M&As)				
		Observed value	Critical value	Decision
Inward M&A	δ_6	0.724	1.96	Accept H_0

Table 6.15. Test of effects from inward M&As (model 6.8).

These results *can* be an indication that inward M&As in Japan have not been statistically significant to the *overall* post-merger performance. The industry-level results show weak indications of positive (the electrical machinery industry) and negative (the pharmaceutical industry) effects on post-M&A efficiency from foreign involvement. However, since the sample size of the inward M&As on an industrial level is small for the electrical machinery and the pharmaceutical industries, it is hard to make any far-reaching conclusions from the industry-level parameter results. Compared to similar studies, the results from the pooled panel data confirm what is found elsewhere. On the issue of nationality of owners and productivity effects of M&As, Baldwin (1998) has found no difference in post-merger performance between foreign and domestic acquisitions within the Canadian manufacturing industry²²⁴. Moreover, Baldwin's results showed that the foreign-owned firms performed best in industries with a *low* degree of foreign ownership. No such connection was found here, however, since the share of foreign ownership is generally low for all industries in Japan.

Previously, the most prominent approach to studying post-merger effects from cross-border M&As has been to examine variances in stock prices or post-merger profitability. In some rare cases, the pre- and post-merger productivity of input factors has also been measured²²⁵. In general, it is widely recognized in the M&A literature (cf. Chapman and Edmond, 2000; UNCTAD, 2000; Zhan and Ozawa, 2001) that cross-border M&As play an important role in improving corporate restructuring and performance, but for this sample, the estimation results do not support such arguments. The reason can either be a larger distance in corporate and national cultures in Japan than in the cross-border M&As of North America and Europe (for negative effects), or simply that nationality of management does not matter at all (for insignificant effects). Other reasons for the estimation results ob-

²²⁴ Baldwin, pp. 291-297.

²²⁵ UNCTAD, p. 138.

tained here could simply be the small number of inward M&As in Japan, or that there are other qualitative factors that are not captured by the data.

Effects from M&As on post-M&A performance

For the pooled panel data (Table A6.1), post-M&A performance of the M&A firms was statistically insignificant. At the industry level, the same pattern can be observed in the chemical industry, while the M&A firms of the pharmaceutical industry experienced a statistically significant increase in TE after the M&A event. However, the firms in the electrical machinery industry became less efficient, as the M&A event contributed negatively to firm efficiency. Why do M&As negatively affect firm efficiency in the electrical industry? Previously, we saw in section 6.3 that profit development in the electrical machinery industry was not very impressive during the 1990's. In fact, the profit per employee in 2001 had dropped on average to a mere 26% of the profit levels of 1991, which was the year after the bubble economy peaked. A similar story can be told about the chemical industry. So what is the difference? The electrical machinery industry, primarily represented by small and large manufacturers of office equipment and household appliances, struggled with a *simultaneous* demand shock both at home and abroad, triggered by the long-run domestic recession and the soaring exchange rate of the yen, making Japanese exports expensive. Furthermore, the electrical machinery industry was sensitive to the demand of individual consumers and dependent on the ability to exploit the domestic and the foreign markets by introducing products attractive to consumers. The chemical industry, on the other hand, responded to the falling demand by emphasizing production scale increases and cuts in production costs by attaining high production volumes. Therefore, while the firms in the chemical industry to a certain degree could benefit from increased size in production capacity and so attain increased efficiency by cutting production costs per unit, the electrical machinery companies had to struggle for market share at home and abroad, as their survival was based on increased sales. Any possible positive efficiency effects from M&As would have therefore been curbed due to different market and demand structures for the firms in the electrical machinery industry compared to the firms in the chemical industry, despite the fact that both industries experienced falling profitability during the 1990's.

The size of firm-specific inefficiency

Looking at the gamma parameter $\gamma = \sigma^2_u / \sigma^2_s$, which can be described as the ratio of the TE variance to the total error term variance and *a measure of how large a part of the total error term the firm-specific inefficiencies account for*, the econometric results suggest that the inefficiencies are generally derived from firm-specific features (e.g. misallocation of inputs) rather than from random industrial shocks ("noise"). The share of firm-specific inefficiency within the total inefficiency for the pooled and industry level panels (see Tables A6.1 to A6.4) ranges from about 40% to 84%, which means that on average and given the model specification, a large part of the error term (except for the chemical industry, where well over half of the error variance is due to random exogenous factors), is derived from firm-level inefficiencies of input allocation²²⁶.

6.6.3 Technical efficiency parameters: The auxiliary model

In addition to TE model (6.8), for which the results have just been discussed, an auxiliary TE model (6.9) was estimated to assess the pre- and post-M&A effects, having the M&A year as the base period. The purpose here is to group the M&A firms and investigate in more detail the changes in productivity during the pre-and post-M&A periods and to estimate the relative differences in productivity in each period compared to the M&A year TE. The auxiliary model follows the translog production function of model (6.5) with TE estimation model (6.9), which contains additional dummies for the pre- and post-merger time periods.

Industrial differences

As in the estimation of pooled main TE model (6.8), it was clear from the TE estimations using model (6.9) that the firms in the chemical and the pharmaceutical industries were more efficient than those in the electrical machinery industry.

EAR and the EAR dummy

Based on the definition of M&As in this thesis, equity and stock capitalization can change significantly after an M&A.^oAs a result, the equity-to-asset ratio would also change, hence, a strengthened financial status would be directly linked to the M&A event. If this situation is present, then the intercept

²²⁶ See the discussion of the significance of the gamma parameter in Coelli et al., p. 188.

and the parameter estimations would be different between the M&A firms that did not have any increase in equity, and the M&A firms that increased their equity after the M&A. To control for the possibilities of such an event, changes in equity following an M&A were controlled for every firm included in the panel of the auxiliary TE model (6.9) estimation. This resulted in a selection of seven firms out of the 21 M&A firms, to which a dummy for the equity increase event was assigned. The regression results confirmed that the group of seven firms had a different intercept compared to the rest of the M&A group, and not surprisingly, these firms benefited from the increase in equity by enjoying a higher inefficiency-reducing effect compared to the other M&A firms. These results were also statistically significant on the 1% level²²⁷.

Size effects

As in the main model, the respective parameters for size (market share) were statistically significant and also contributed positively to the technical efficiency of the M&A firms.

M&A effects

The main purpose of constructing model (6.9) was to estimate the TE of the M&A firms 4 periods prior to and 4 periods after an M&A event in order to explore any changes in productivity during the pre-and post-M&A periods, and by doing so, verify whether the M&A firms were more or less efficient before and after the M&A. Similar to the earlier results from the estimation using TE model (6.8), the regression of TE model (6.9) yielded no statistically significant effects from the M&A on productivity, in the sense that the M&A firms performed neither better nor worse before or after the M&A (see Table 6.16). This counters the findings of Baldwin (1998) from Canadian data on post-merger productivity²²⁸ and, to a lesser extent, the results from Benfratello's (2002) study of post-acquisition TE in the Italian pasta industry, where, in both studies, the TE increased after the M&A.

Thus, the results from the auxiliary model support the overall pattern from the main model. The conclusion of these estimation results is that while M&A firms were more efficient compared to non-M&A firms, there is no evidence that M&As have any *efficiency-enhancing effects* on performance for

²²⁷ See Table A6.5.

²²⁸ Baldwin, Ch 10.

firms that have merged, or have received capital through an acquisition or capital injection.

Efficiency before and after the M&A, One-sided t-test on the 5% level: $H_0: \delta_5 = 0, \dots, H_0: \delta_{12} = 0$
(No difference in TE between the periods t-4, \dots , t+4 and the year of the M&A event t)

		Observed value	Critical value	Decision
Period t-4	δ_5	0.591	1.96	Accept H_0
Period t-3	δ_6	0.455	1.96	Accept H_0
Period t-2	δ_7	1.064	1.96	Accept H_0
Period t-1	δ_8	0.592	1.96	Accept H_0
Period t+1	δ_9	0.564	1.96	Accept H_0
Period t+2	δ_{10}	0.683	1.96	Accept H_0
Period t+3	δ_{11}	0.657	1.96	Accept H_0
Period t+4	δ_{12}	0.147	1.96	Accept H_0

Table 6.16. Test of differences in TE before and after the M&A year t (model 6.9).

Inward M&As

Naturally, since the effect of foreign involvement in an M&A did not show any statistically significant results in the main TE model (6.8), and the definition of the variable remained unchanged here, the parameter was also insignificant in the auxiliary model. For the sake of form, however, the parameter was formally tested (Table 6.17).

Effects of inward M&As, One-sided t-test on the 5% level: $H_0: \delta_{15} = 0$ (No effects on TE from inward M&As)

		Observed value	Critical value	Decision
Inward M&A	δ_{15}	0.197	1.96	Accept H_0

Table 6.17. Test of effects from inward M&As (model 6.9).

6.7 Concluding discussion of the econometric results

As Rhoades (1998) has pointed out, the definition of "performance effects" from M&As differs between managers and researchers. While the former group focuses on profitability, the scholarly concern is often the effects on productivity of the post-merger organization. It is important to discuss the definition of performance, especially since there exists a wide variety of definitions in the empirical literature (cf. Baldwin, 1998). When discussing the concept of performance from the M&A point of view, it is not interesting to only investigate stock price movements or read the bottom line of the income statements. Profits can stem from both physical production and non-physical production. Consider the following case²²⁹. A capital intensive manufacturing firm with physical production engages in an M&A. The new management then decides to layoff all employees, sell off all machines and invest the takings in securities. However, since it makes a handsome profit from financial transactions and royalty incomes, the firm remains a cash cow for the new owners. If we were studying productivity by measuring technical efficiency, would the post-merger profit development tell anything of whether this firm gained in efficiency from the M&A or not? In other words, has the firm become more productive due to the M&A? Obviously, this is impossible to ascertain, as, for example, a manufacturing firm can become profitable after an M&A, but still the productivity of the physical production can have dropped substantially. Therefore, if we are interested in estimating the productivity of input factors among firms, it is more interesting to analyze the post-M&A *productivity* rather than *profitability*.

The aim of this part of the thesis was to analyze the Japanese M&As in terms of efficiency differences between the Japanese firms that are involved in purely domestic M&As, and those involved in inward M&As. By estimating the stochastic frontier production function of Japanese M&A and non-M&A firms, the quantitative analysis produced results that showed interesting properties of these firms regarding the productivity effects from participating in M&As.

Everything else held constant, the results in this chapter suggest that an M&A is not *the* tool to raise productivity of a firm. Even though we could see on average that M&A firms performed better by having higher TE compared

²²⁹ For simplicity, the price paid by the acquirers is disregarded in this example.

to non-M&A firms, M&As as a corporate growth strategy did not have, in statistical terms, any significantly positive influence on improving the technical efficiency of the M&A firms.

The results also indicate that the effects of a post-M&A increase in EAR have helped firms improve their TE. The possibility of such an effect is discussed above, but the interesting question here is what are the actual reasons for such a statistically significant improvement in TE from an increase in EAR. It is difficult from the financial data at hand to verify exactly what event corresponds to the increase in equity and improved TE in each individual case. In order to do this, it would require lengthy *individual* case studies on corporate governance structures, resource deployment etc. to find the connection between an increase in EAR and an increase in TE. Therefore, we stop here by establishing that the TE estimations suggest the existence of such a connection. For the other control variable, measuring the effects from size, it is clear that firms with a large market share tend to be more efficient than firms with a small market share. Concretely, this result suggests scale benefits in operating a business in the industries concerned, which is an expected result since we are dealing with traditional manufacturing industries.

The efficiency effects from foreign involvement in an M&A were statistically insignificant for the pooled panel and the chemical industry estimations. For the electrical machinery and the pharmaceutical industries, the parameter estimation showed significant efficiency-increasing and efficiency-decreasing effects respectively. However, since the sample size of inward M&A cases is small for these two industries, the results should be taken with some caution and attention should instead be directed towards the estimation results of the pooled panel model. Also the estimation from auxiliary model (6.9) showed that the inward M&A firms did not perform better in any statistically significant way after an M&A.

In conclusion, if the aim is to raise productivity, or to attain better input allocation and by doing so lower production costs, firm management should consider other choices for strategic productivity development rather than relying on M&As as a turnkey solution to all the problems in the world. Although the estimations from the main model suggest an efficiency-enhancing effect from M&As, these firms were, on average, more efficient than the non-M&A group *before* the M&A. Also, foreign ownership or capital participation of a firm does *not necessarily* have any positive effect on the post-M&A performance as the estimation results do not suggest any such effects on an aggregated level.

Thus, the econometric results suggest that a manager, behaving rationally, should refrain from initiating M&As, since they not affect firm productivity. But still, we know that M&As occur in Japan. Does this necessarily mean that the managers of the *non*-M&A firms are more rational by not engaging in M&As? The results also suggest that the M&A investors consciously pick firms that show good performance from the beginning, and systematically disregard "bad" firms. Also we have seen a weak tendency towards the domestic M&A target firms being more efficient in TE terms than the inward M&A target firms. This can be interpreted in two ways. One is information asymmetry between domestic and foreign firms, where the domestic investors have gained information about certain firms through networks, and therefore systematically discard the firms with low productivity, while foreign firm, which are not inside any networks, have less information by having to rely on second hand information from M&A mediators and advisors. The other possibility is the time frame involved in an inward M&A. In Chapter 5, it was suggested in some cases that domestic firms were to prefer as M&A partners, and the same tendency was also found for the partner choices among the 21 M&A firms included in the SFP function estimation. In addition did some M&A advisors interviewed in the Economic Planning Agency (1996) survey state that domestic firms were to be preferred due to the long *pre*-M&A negotiation process that he connected to foreign takeovers²³⁰. If the tendency among Japanese firms to choose domestic M&A partners is exclusively an expression for a preference for a certain nationality of the target or investing firm, it would only follow the pattern found in e.g. Europe (see Mucchielli and Kohler, 2000), where firms also preferred domestic firms over foreign ones, and the choice of domestic firms with the highest TE we have seen in Japan only be coincidental. However, given the results presented in this chapter, and the differing utilization pattern of network and M&A advisors between domestic and foreign firms that was found in the previous chapter, the former answer seem at this stage more plausible. Together with the findings of the previous chapter, these observations form the starting point for the concluding discussion.

²³⁰ Economic Planning Agency, pp. 189-202.

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Appendix 6

Table A6.1. ML estimation results for the pooled dataset: Main model

Variable	Parameter	C-D model Model (6.2)	Translog model		Models (6.5) and (6.8)
		Model (6.2)	Model (6.3)	Model (6.5)	
Constant	β_0	3.606** (46.079)	5.430** (27.052)	5.865** (29.797)	3.682** (28.198)
ln K	β_1	0.176** (14.775)	-0.061 (-1.329)	0.046 (0.959)	-0.288** (-6.616)
ln L	β_2	0.761** (39.745)	0.429** (5.592)	0.189** (2.392)	1.524** (29.673)
t	β_3	-	-	-0.074** (-9.563)	-0.076** (-5.350)
ln K ²	β_{11}	-	0.008 (1.232)	0.001 (0.157)	0.066** (8.335)
ln L ²	β_{22}	-	0.011 (0.820)	0.036** (2.646)	0.002 (0.163)
t ²	β_{33}	-	-	0.006** (14.364)	0.005** (5.993)
ln K · ln L	β_{12}	-	0.020 (1.151)	0.015 (0.844)	-0.099** (-5.259)
ln K · t	β_{13}	-	-	0.001* (1.892)	0.000 (0.350)
ln L · t	β_{23}	-	-	0.002* (1.647)	0.002 (0.905)
Constant	δ_0	-	-	-	1.931** (43.097)
EAR	δ_1	-	-	-	-0.419** (-13.563)
Market Share	δ_2	-	-	-	-44.205** (-43.653)
Chemical	δ_3	-	-	-	-0.099** (-5.184)
Pharmaceutical	δ_4	-	-	-	-0.349** (-11.867)
M&A firms	δ_5	-	-	-	-0.222** (-4.026)
Foreign	δ_6	-	-	-	0.088 (0.724)
M&A	δ_7	-	-	-	0.080 (0.837)
Variance parameters					
$\sigma_s^2 = \sigma_v^2 + \sigma_u^2$		1.838 (15.818)	1.606 (15.400)	1.829 (15.469)	0.283 (53.893)
$\gamma = \sigma_u^2 / \sigma_s^2$		0.960 (352.376)	0.955 (303.392)	0.962 (365.313)	0.840 (38.312)
Log-likelihood		-2116.782	-2059.955	-1920.702	-5131.040
Rate of Technical Progress					
(average per year)		-	-	8%	5%
Pseudo R ² ***		0.203	0.181	0.213	0.123
No. of observations (all models)		6873			

Notes: Models (6.2) and (6.3) are the technical efficiency models (Cobb-Douglas and Translog models), while Model (6.5) includes a time variable. Model (6.5) in combination with the TE estimation model (6.8) includes dummy variables. t-values are in parentheses. ** = significance on the 5% level, * = significance on the 10% level. *** Pseudo R² = 1 - [llf₀ / llf₀]; For definition of Pseudo R², see e.g. Laitila (1993).

Table A6.2. ML estimation results for Electrical Machinery Industry: Main model

Variable	Parameter	C-D model Model (6.2)	Translog model Model (6.3)	Model (6.5)	Models (6.5) and (6.8) (Without control dummies for industry affiliation)
Constant	β_0	3.784** (39.688)	4.902** (18.089)	5.223** (20.838)	4.453** (19.776)
ln K	β_1	0.179** (8.695)	0.216** (2.591)	0.200** (2.191)	-0.102 (-1.136)
ln L	β_2	0.702** (25.322)	0.276** (2.309)	0.254** (2.038)	1.045** (8.902)
t	β_3	-	-	-0.081** (-5.133)	-0.086** (-3.423)
ln K ²	β_{11}	-	0.050** (3.055)	0.041** (2.524)	0.151** (8.412)
ln L ²	β_{22}	-	0.106** (3.218)	0.107** (3.122)	0.179** (5.861)
t ²	β_{33}	-	-	0.007** (10.142)	0.007** (5.378)
ln K · ln L	β_{12}	-	-0.125** (-2.714)	-0.114** (-2.404)	-0.335** (-7.209)
ln K · t	β_{13}	-	-	0.008** (2.240)	-0.005 (-0.801)
ln L · t	β_{23}	-	-	-0.009** (-2.011)	0.006 (0.908)
Constant	δ_0	-	-	-	1.814** (22.366)
EAR	δ_1	-	-	-	-0.480** (-8.264)
Market Share	δ_2	-	-	-	-54.048** (-28.886)
M&A firms	δ_3	-	-	-	-0.110 (-0.769)
Foreign	δ_4	-	-	-	-0.551* (-1.790)
M&A	δ_5	-	-	-	0.675** (32.806)
Variance parameters					
σ^2		1.639 (11.035)	1.392 (9.974)	1.600 (9.541)	0.355 (32.806)
γ		0.934 (142.901)	0.922 (110.642)	0.936 (129.308)	0.837 (25.836)
Log-likelihood		-1352.583	-1331.131	-1270.754	-2377.818
Rate of Technical Progress					
(average per year)		-	-	9%	7%
Pseudo R ² ***		0.093	0.078	0.095	0.052
No. of observations (all models)			2797		

Notes: Models (6.2) and (6.3) are the technical efficiency models (Cobb-Douglas and Translog models), while Model (6.5) includes a time variable. Model (6.5) in combination with the TE estimation model (6.8) includes dummy variables. t-values are in parentheses. ** = significance on the 5% level, * = significance on the 10% level. *** Pseudo R² = 1 - [llf_b / llf₀]; For definition of Pseudo R², see e.g. Laitila (1993).

Table A6.3. ML estimation results for Chemical Industry: Main model

Variable	Parameter	C-D model Model (6.2)	Translog model Model (6.3)	Model (6.5)	Models (6.5) and (6.8) (Without control dummies for industry affiliation)
<i>Constant</i>	β_0	2.934** (27.075)	7.785** (23.227)	8.321** (22.833)	2.181** (10.312)
ln K	β_1	0.184** (12.122)	-0.207** (-2.813)	0.005 (0.061)	0.396** (5.296)
ln L	β_2	0.816** (40.069)	-0.137 (-1.243)	-0.618** (-5.573)	1.057** (10.117)
t	β_3	-	-	-0.070** (-6.669)	-0.096** (-4.898)
ln ln K ²	β_{11}	-	0.035** (3.738)	0.025** (2.694)	0.001 (0.121)
ln ln L ²	β_{22}	-	0.095** (5.265)	0.152** (8.523)	0.010 (0.612)
t ²	β_{33}	-	-	0.004** (8.205)	0.005** (4.057)
ln K · ln L	β_{12}	-	-0.035 (-1.558)	-0.051** (-2.328)	-0.047* (-1.781)
ln K · t	β_{13}	-	-	-0.001 (-1.007)	0.001 (0.387)
ln L · t	β_{23}	-	-	0.006** (4.769)	0.005** (2.017)
<i>Constant</i>	δ_0	-	-	-	1.594** (14.654)
EAR	δ_1	-	-	-	-0.312** (-9.290)
Market Share	δ_2	-	-	-	-69.561** (-18.256)
M&A firms	δ_3	-	-	-	-0.243** (-3.966)
Foreign	δ_4	-	-	-	0.168 (1.025)
M&A	δ_5	-	-	-	-0.016 (-0.160)
Variance parameters					
σ^2		1.193 (10.672)	1.429 (12.849)	1.541 (10.099)	0.217 (39.844)
γ		0.958 (213.981)	0.967 (325.749)	0.971 (306.018)	0.404 (9.103)
Log-likelihood		-433.519	-338.571	-255.929	-2171.394
Rate of Technical Progress					
(average per year)		-	-	5%	4%
Pseudo R ² ***		0.358	0.462	0.560	0.054
No. of observations (all models)			3373		

Notes: Models (6.2) and (6.3) are the technical efficiency models (Cobb-Douglas and Translog models), while Model (6.5) includes a time variable. Model (6.5) in combination with the TE estimation model (6.8) includes dummy variables. t-values are in parentheses. ** = significance on the 5% level, * = significance on the 10% level. *** Pseudo R² = 1 - [llf_b / llf_o]; For definition of Pseudo R², see e.g. Laitila (1993).

Table A6.4. ML estimation results for Pharmaceutical Industry: Main model

Variable	Parameter	C-D model Model (6.2)	Translog model Model (6.3)	Model (6.5)	Models (6.5) and (6.8) (Without control dummies for industry affiliation)
<i>Constant</i>	β_0	4.223** (5.635)	6.950** (8.455)	7.825** (8.302)	1.239** (2.691)
$\ln K$	β_1	0.049* (1.695)	-0.570** (-4.360)	-0.097 (-0.642)	-0.308* (-1.879)
$\ln L$	β_2	0.886** (8.938)	0.758** (2.903)	-0.007 (-0.022)	1.761** (7.845)
t	β_3	-	-	-0.003 (-0.119)	-0.061* (-1.683)
$\ln K^2$	β_{11}	-	-0.037 (-1.511)	-0.017 (-0.633)	0.178** (5.066)
$\ln L^2$	β_{22}	-	-0.123** (-2.499)	0.011 (0.185)	0.120** (2.343)
t^2	β_{33}	-	-	0.002** (2.411)	0.005** (2.981)
$\ln K \cdot \ln L$	β_{12}	-	0.200** (3.062)	0.073 (1.016)	-0.330** (-4.077)
$\ln K \cdot t$	β_{13}	-	-	-0.010** (-2.078)	-0.028** (-3.059)
$\ln L \cdot t$	β_{23}	-	-	0.014** (2.444)	0.036** (3.212)
<i>Constant</i>	δ_0	-	-	-	0.884** (7.242)
EAR	δ_1	-	-	-	-1.333** (-6.985)
Market Share	δ_2	-	-	-	-9.104** (-2.080)
M&A firms	δ_3	-	-	-	-0.152 (-0.606)
Foreign	δ_4	-	-	-	3.532** (3.591)
M&A	δ_5	-	-	-	-2.888** (-2.594)
Variance parameters					
σ^2		1.336 (2.857)	1.076 (3.817)	1.764 (3.333)	0.237 (6.726)
γ		0.974 (98.547)	0.968 (108.320)	0.982 (172.450)	0.653 (12.761)
Log-likelihood		18.515	36.281	54.732	-318.159
Rate of Technical Progress					
(average per year)		-	-	5%	6%
Pseudo R^2 ***		0.698	0.407	0.116	0.112
No. of observations (all models)			703		

Notes: Models (6.2) and (6.3) are the technical efficiency models (Cobb-Douglas and Translog models), while Model (6.5) includes a time variable. Model (6.5) in combination with the TE estimation model (6.8) includes dummy variables. t-values are in parentheses. ** = significance on the 5% level, * = significance on the 10% level. *** Pseudo $R^2 = 1 - [llf_0 / llf_0]$; For definition of Pseudo R^2 , see e.g. Laitila (1993).

Table A6.5. ML estimation results for the pooled dataset: Auxiliary model (Model 6.5 with the TE model 6.9)

Variable	Parameter	
Constant	β_0	3.628** (25.911)
ln K	β_1	-0.247** (-5.101)
ln L	β_2	1.473** (26.772)
t	β_3	-0.068** (-4.554)
ln K ²	β_{11}	0.067** (8.335)
ln L ²	β_{22}	0.004 (0.343)
t ²	β_{33}	0.005** (6.337)
ln K · ln L	β_{12}	-0.102** (-5.336)
ln K · t	β_{13}	-0.006** (-2.080)
ln L · t	β_{23}	0.009** (2.636)
Constant	δ_0	1.915** (41.175)
Dummy γ_{firm}	δ_1	0.494** (2.834)
EAR	δ_2	-0.413** (-12.867)
EAR γ_{firm}	δ_3	-2.126** (-4.253)
Market Share	δ_4	-43.830** (-37.478)
M&A _{t-4}	δ_5	-0.091 (-0.591)
M&A _{t-3}	δ_6	-0.064 (-0.455)
M&A _{t-2}	δ_7	-0.146 (-1.064)
M&A _{t-1}	δ_8	-0.088 (-0.592)
M&A _{t+1}	δ_9	-0.084 (-0.564)
M&A _{t+2}	δ_{10}	-0.115 (-0.683)
M&A _{t+3}	δ_{11}	-0.120 (-0.657)
M&A _{t+4}	δ_{12}	-0.028 (-0.147)
Chemical	δ_{13}	-0.097** (-4.830)
Pharmaceutical	δ_{14}	-0.355** (-11.502)
Foreign	δ_{15}	0.023 (0.197)
Variance parameters		
$\sigma_s^2 = \sigma_v^2 + \sigma_u^2$	0.281 (48.201)	Rate of Technical Progress (average / year) 5%
$\gamma = \sigma_u^2 / \sigma_s^2$	0.831 (32.729)	Log-likelihood -5121.725; Pseudo R ² *** 0.125
		No. of observations 6873

Notes: t-values are in parentheses. ** = significance on the 5% level, * = significance on the 10% level. *** Pseudo R² = 1 - [llf₀ / llf₁]; For definition of Pseudo R², see e.g. Laitila (1993).

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	NONM_A - M_A	-.0582	.00897	.00271	-.0642	-.0522	-21.519	10	.000

Table A6.6. Test of significance between non-M&A firm TE and M&A firm TE between 1991 and 2001.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	DOMM A - INWM A	.0165	.03353	.01011	-.0080	.0390	1.634	10	.133

Table A6.7. Test of significance between domestic M&A firm TE and inward M&A firm TE between 1991 and 2001.

Correlations

		LNVA	LNK	LNL	EAR	MKTSHARE
LNVA	Pearson Correlation	1	.873**	.919**	.137**	.643**
	Sig. (2-tailed)	.	.000	.000	.000	.000
	N	6873	6873	6873	6873	6873
LNK	Pearson Correlation	.873**	1	.895**	.076**	.572**
	Sig. (2-tailed)	.000	.	.000	.000	.000
	N	6873	6873	6873	6873	6873
LNL	Pearson Correlation	.919**	.895**	1	.086**	.597**
	Sig. (2-tailed)	.000	.000	.	.000	.000
	N	6873	6873	6873	6873	6873
EAR	Pearson Correlation	.137**	.076**	.086**	1	.032**
	Sig. (2-tailed)	.000	.000	.000	.	.008
	N	6873	6873	6873	6877	6873
MKTSHARE	Pearson Correlation	.643**	.572**	.597**	.032**	1
	Sig. (2-tailed)	.000	.000	.000	.008	.
	N	6873	6873	6873	6873	6873

** . Correlation is significant at the 0.01 level (2-tailed).

Table A6.8. Bivariate correlations for the variables included in the analysis models.

7 Conclusions

The aim of this concluding chapter is to investigate whether there are similarities and complements between the findings of Chapters 5 and 6, and to synthesize the results in order to make generalized conclusions. The analysis primarily concerned domestic M&As in Japan and the three manufacturing industries that have recorded the most M&A deals, but nevertheless, important results emerged regarding attitudes, identification of needs, planning, mediation, execution and outcomes relevant to M&As in general and Japanese M&As in particular.

To recapitulate the research questions, the purposes of this thesis were:

- *To describe systematic differences in firm characteristics and M&A motives between inward and purely domestic M&As in Japan, and*
- *To analyze systematic post-M&A differences in efficiency between inward and purely domestic M&As in Japan.*

Before beginning the concluding discussion, the main results from the analysis are summarized below.

7.1 The results of the qualitative study

The interviews and the summary of the case studies gave a broad picture of the M&As occurring in Japan, and the attitude and environment in which they take place. At the outset of Chapter 5, the purpose stated was to investigate the central issues connected to M&As and partner selection, by exploring the changing patterns of Japanese firms' M&A behavior in terms of attitudes, motives and characteristics of the investing and targeted firms. The major findings of the qualitative study will now be discussed in the M&A

process order, and the discussion will encompass both the investing and target firms unless otherwise specified.

Firm characteristics

The Japanese M&A process is basically determined by structural factors. Environmental and firm-specific characteristics such as the industrial structure, the regulatory system, and the size of the firm, decide the overall behavioral pattern of the firms' M&As. Also, the actions taken by individuals within a firm are equally important to the M&A process. This is not different from what is observed in other markets (Mueller, 1980, 1987; UNCTAD, 2000; Ali-Yrkkö, 2002), and obviously the historical development of an industry influences the attitudes and behavior of the actors within that particular industry.

Generally, for the *manufacturing* industries, M&As are to a large degree transacted within the same industries. This pattern is expected for mature industries, and is observed in the US by e.g. Gonzales et al. (1997, 1998). For the industries that are the focus of this analysis – the electrical machinery, the chemical and the pharmaceutical industries, which all are mature – the pattern of M&As as being intra-industrial is evident²³¹. When studying the Recof (2003) M&A data, the same pattern can also be observed for the M&As in other manufacturing industries, as well as for the *inward* M&As, where virtually no foreign firms have invested in industries outside their own.

Regarding the question of whether these M&As have been vertical or horizontal, the interviews and the case study summary suggested a tendency for the domestic mergers to be horizontal, and the domestic acquisitions to be vertical. For example, the former ex-Tōshiba interviewee provided an interesting picture of Tōshiba's M&A strategy, where virtually all domestic M&As took place in the vertical dimension, and then for financial rescue purposes (see also the continued discussion below). On the other hand, the inward M&As have to an overwhelming extent been horizontal. These observations were all supported by the Recof (2003) data.

Attitudes

The M&A debate in the Japanese business and industrial newspapers was reviewed in order to assess the general attitudes towards M&As. Contrary to what has emerged from various surveys (Economic Planning Agency, 1996;

²³¹ Except for case O.

JASMEC, 2000) about the negative attitudes of Japanese managers, the general picture regarding M&As was surprisingly positive. The newspapers were optimistic about the possibilities of M&As, and the prospects of using M&As as a tool for revitalizing Japanese industry. At the beginning of the decade, the focus was on the outward investments of Japanese firms, but over the years, the focus has shifted towards M&As that have occurred within Japan. In particular, inward M&As and the use of M&As as a strategic development tool were the topics of many debate articles and editorials. Despite this positive attitude in the media, the interviews showed that the negative attitudes of managers towards M&As, strongly colored by traditional values, still have to be taken into account. The interviewees gave, for example, evidence of "family values" extended to the firm. It is true to say that this mentality, which is a legacy of the family-owned businesses of the Edo period, involved firms of all sizes, but a shift was noted during the 1980's and 1990's towards more "market-oriented" views among the *large firms* and the *firms of new sectors* such as the IT service industry. Among the SMEs in the service and manufacturing sectors, which are mainly family-owned firms, the negative attitudes are still significant.

Having said this, the new institutional setting seems to have had a positive influence on the managerial attitudes towards M&As. Not only does the JASMEC (2000) survey suggest this, but also the statistics for M&A deals show a dramatic shift in volume after the launch of the Tokyo Big Bang reform program in 1998. The change in managerial attitudes is a slow process, and considering the older age of most Japanese managers, it is less surprising that the attitudes are the most inert factor in the institutional changes. The interviewees firmly believed that the attitudes depend on the generation, and as new blood streams into the Japanese corporate world and a new generation of managers and corporate leaders arise, attitudes toward the M&As will also change. The new liberalized institutional setting, which has facilitated the execution of M&As, has also indirectly influenced managerial attitudes. The sheer increase in the number of M&As has influenced managers to believe that M&As are positive (that is, an expression of "follow-the-herd" mentality). In addition, as more and more well-known firms carry out M&As without becoming a target of public disapproval, the negative attitudes will continue to decrease. Thus, the institutional change has been an important signal to sanction M&As as a viable means to restructure firms.

Needs

As we would expect from the resource-based theory, the motives for M&As are determined by the resource needs a firm identifies as necessary for its future development or market position. Thus, needs are defined here as the quest for resources in order to maintain or improve the current market position. Contrary to many earlier Japanese domestic M&As, there was a clear tendency among the cases discussed in the interviews and in the cases summary that a large number of firms are doing M&As after identifying the key resources that their firms lack. The results therefore strongly suggest that the number of M&As aiming for specific resources is increasing, but we also need to distinguish *what kinds* of resources the M&A firms are demanding. In the case studies summary, the M&As to obtain strategic resources, such as R&D capacity or market knowledge (in M&As aiming for market entry) are most obvious, and examples of such cases are also given in the interviews. We have also seen that firms that aim for high-value resources, such as human capital, are those that already have large financial and production capacity resources, which corresponds to what Dierickx and Cool (1989) call "interconnectedness of asset stocks". This in turn implies that only large domestic (in some cases also medium-sized firms) and foreign firms have the necessary financial resources to carry out such M&As.

More often for SMEs, the immediate needs are fulfilled through M&As, that is, the survival of the firm. However, the needs of the SMEs are not necessarily always defensive in character (that is, being an *ad hoc* solution to successor problems and financial rescues), but can also be dynamic as some of the examples cited in the interviews. In other words much of what was discussed in the interviews concerning motives for M&As has corresponded to what was already observed by Penrose (1959) in the 1950's²³² about M&As as a strategic means for the growth of the firm. In this study, the view has also been forwarded - after observing the M&A behavior of Japanese SMEs - that the quest for resources is not for the investing firms, but also for the firms that are *targets* in M&A deals, just as e.g. Capron et al. (1998) observed in European and US M&As.

Meanwhile, there are a number of "peculiarities" in the characteristics of Japanese M&A behavior, which fall outside the traditional explanations of the resource-based view, and are different from the M&A behavior seen in Europe and North America. The quotation marks are used, because however

²³² Penrose, Ch 8.

efficient the M&A markets of the West are thought to be, it is always possible to find M&As that have characteristics that make them diverge from the overall pattern – also in Europe and North America. However, these “peculiarities” are expressed primarily as *financial rescues* in this thesis, or in other words, that an M&A is only undertaken out of *obligation* and without any prior due diligence. The large firm M&As that occurred domestically were typical examples of such behavior, while outward M&As were more “Western” in the sense that they did not differ much from those done by its foreign host market competitors. Still occurring, however, the financial rescue domestic M&As have decreased during the later years and have been replaced by M&As with the explicit purpose of firm growth by acquisition of key resources.

Motives

The results from the partner selection choices in the case studies summary suggest that a substantial part of the M&As were done in order to acquire financial, organizational (R&D) or market knowledge resources. In the pharmaceutical industry this has been most obvious, where Japanese firms have always committed less resources to R&D and instead bought licenses and/or formed JVs with foreign pharmaceutical companies. On the other hand this has also led to substantial spin-off effects, in the sense that, early on, the pharmaceutical industry became one of the industries most exposed to foreign R&D and management practices. Also the foreign pharmaceutical firms have benefited from the licensing and JV cooperation relationships developed in the past. The foreign firms successfully exploited the established connections with or the experiences from the past relationships with their Japanese partners in M&As when the opportunity arose during the 1990's. The M&As initiated by the foreign pharmaceutical manufacturers constituted a short-cut market entry strategy. By acquiring Japanese firms, they attained market knowledge and succeeded in getting a firm foothold in the Japanese market.

Furthermore M&A motives are one of the features that separate the SMEs from the large firms. While the properties discussed above are also valid for SMEs, their M&As generally have additional motives and a different agenda from those of large firms. While still being rare, the examples of SME M&As in Kansai, mentioned by some interviewees, are interesting cases of *SMEs acquiring other SMEs* in order to diversify within the same industry or to explore R&D synergies with other SMEs in the same industry – something we

would otherwise expect to happen only in the sphere of large firms. Also, the presence of many *target* SMEs on the M&A market has – from a Japanese point of view – strategic and somewhat unexpected reasons. Different from the firms that are sold off due to financial difficulties, there are financially sound SMEs that lack the financial resources to develop products or ideas and therefore search for an investor. Also, there are SMEs that search for an acquirer, not because they are in financial distress, but they want to find someone who can replace an aging owner-manager. In other words, the M&A rationale of these target SMEs is basically the same as for the M&A investors, as they are in search of key resources vital to the future development of the firm.

The role of networks

The importance of networks is emphasized in the interviews and the summary of the case studies. The particular modes may differ between firms within *keiretsu* group structures and firms within other types of networks, such as industrial or local business community networks. The *keiretsu* networks tend to organize M&As without the participation of a third party (such as an M&A consultant), while firms outside such networks often rely on mediators. In addition, there are examples of members of the manager's social network acting as mediators. The role of social networks in the partner selection is therefore equally important as the more formal venues for networking, as individuals can also be mediators for M&As.

Despite the existence of *keiretsu* and business networks, the role of M&A advisors is currently increasing, not only as a response to the increasing number of M&As, but also as a result of their increased competence in these issues. Originally, the foreign investment banks were more profit-oriented by identifying and constructing high value deals, but only targeted large domestic and foreign firms. The domestic M&A consultants gave more advice on practical matters (such as taxes and notification to the appropriate authorities) than actual assistance valuing potential targets and completing due diligence. This structure was very much a result of the demand of the firms that were involved in M&As, since the M&A expert was typically hired *after* a deal was set. As the domestic demand from both large firms and SMEs for general M&A consultancy services increased, the demand for high quality service also increased, which forced the domestic consultants to expand or even establish divisions exclusively devoted to M&As, similar to the foreign investment banks already established in Japan. Nowadays, many firms rely

completely on third party mediating services that advisor firms provide, as the firms on the M&A market often lack contacts or refrain from using them. Therefore, we can conclude from the findings that network actors play an increasingly important role in both the purely domestic and the inward M&As.

Inward M&As, SME M&As and networks

Like many Japanese SMEs, foreign firms have to rely on third party mediation to identify targets and realize M&As. However, while SMEs tend to hire M&A consultancy services from their main banks or other domestic specialists, foreign firms tend to rely on foreign advisors' expertise. The case studies summary suggested that foreign firms tend to rely on consultancy help in M&As²³³ – something that was also confirmed in the interviews. Furthermore, this pattern is evident in the Recof (2003) data and in the Economic Planning Agency (1996) survey. The pattern is rather expected and not unique for the recent wave of M&As, especially when the M&A purpose is market entry. Using the market entry of Swedish firms as an example, Hedlund and Kverneland (1984) observed in the 1980's a tendency to rely on third-party mediation before establishing production in Japan. The majority of the cases in the Hedlund and Kverneland study concerned greenfield establishment, but the mechanism was very similar to what is observed today for market entries via M&As. Investing or target firms that lack or are unable to use network relationships, which typically have been built over significant periods of time, inadvertently express a lack of *trust*. Thus, compared to the firms embedded in network structures, these SMEs and foreign firms have to use a mediator. As M&A matchmakers, the well-known M&A mediators are substitutes for the trust relationships that, for example, *keiretsu* firms already share. Therefore, the network-embedded firms have an advantage over SMEs and foreign firms by being able to capitalize on *time compression diseconomies* (Dierickx and Cool, 1989) in reputation and already established trust relationships.

²³³ Case E in Table 5.4 serves as an atypical example of an inward M&A attempt, since *no third party was involved* and was not called in, even though the M&A negotiations broke down. In this sense, Case E is similar to the *keiretsu* M&As as the target firm was a licensee of the initiator's firm, and the two firms had good knowledge of each other well before the negotiations started.

Institutional reforms

The most obvious sign of the effects from the reforms of the 1990's is the dramatic increase in the number of M&As after 1998, when the first steps of the Tokyo Big Bang program were implemented. The overall opinion among the interviewees was that the reforms had a significant impact on large firm M&A *behavior* due to the more stringent rules regarding corporate governance and transparency in accounting, which have increased the external flow of information and made it more reliable than before. The interviewees had, however, somewhat differing views on the *effects* of the reforms. Some stressed the importance of increased transparency, while others emphasized the superiority of due diligence as a method to evaluate potential M&A targets.

However, for SMEs, the reforms have had little significance. Since the ownership structure and the scope of operations are limited for most SMEs, the implications of the reforms are rather limited from an M&A point of view. Probably SMEs are more affected by the reforms regarding target firms, since the mandatory prior notification to the authorities was abolished by the institutional reforms, thus facilitating confidential M&A proposals. In addition, as the M&A consultancy services have continued to improve, the SMEs have been able to "ride" the general M&A trend and increase their activity level on the M&A market. Therefore, how deeply the institutional reforms have affected Japanese firms is, in practice, a question of firm size and business type.

M&A organizational outcome

The second research question concerned post-M&A performance, and the econometric analysis in Chapter 6 treated this one aspect of performance *ex post*. However, an analysis of post-M&A performance would be incomplete without a discussion about post-M&A organizational issues. From the interviews and the case studies, it was evident that the level of organizational support influences the post-M&A organizational outcome. In the cases, the effort – or the lack thereof – made by the firms' management to communicate the M&A decisions influenced the commitment level among the employees regarding the M&A plans. Shared goals, sense of equality between the employees of the two M&A partner firms and transparency about future plans facilitated the post-M&A integration in the cases summarized in Table 5.4, and examples were also found elsewhere in the M&A literature (Yoshida, 2000; Suzuki and Unno, 2002). Among the cases in Table 5.4, clear communi-

cation was a particularly strong contributor to a smooth post-M&A integration in three cases.

In contrast, bad communication in two cases led to low commitment level among the employees, leading to the firms existing as *de facto* separate entities in the minds of the employees at all hierarchical levels. Furthermore, examples of extremely weak organizational integration have been common in the banking sector. A prominent one is the Dai-Ichi Kangyō Bank, which still referred to the employees and management as “ex-Dai-Ichi man” or “ex-Kangyō Bank man” even after almost 30 years since their merger. The merger of Tokyo Bank and Mitsubishi Bank is even more conspicuous. Even now, they still operate from their respective headquarters, albeit having allocated brotherly specialist functions between them. Therefore, the cases and the interviews suggest strong support for the inverse relationship between high organizational support level and low level of organizational commitment.

Thus, a summary of the findings from the qualitative study is as follows:

- The pattern of M&As is to a large degree determined by firm characteristics (such as size, tradition, and industrial affiliation) and the regulatory system.
- Managerial attitudes towards M&As are increasingly positive, but the formerly wide-spread negative attitudes still linger particularly among SME owner-managers.
- The need for resources drives the M&A process for both initiators and targets. However, M&As without needs or resource-based purpose (such as financial rescues) are still a prominent type of M&A in Japan.
- Motives for M&As are generally a result of prior identification of resource needs (such as R&D, human capital and market knowledge), and also target firms strategically engage in M&As in order to make endogenous growth possible by gaining access to unique resources.
- Networks play an important role in a firm's M&A process, as they provide firms with potential contacts: 1. M&A partners, 2. M&A mediators, and 3. M&A advisors.
- Few foreign firms have succeeded in entering a market based on their own M&A efforts. Since the 1990's and onward, virtually all

inward M&As have involved foreign or large domestic M&A advisors.

- In practice, the structural reforms of the 1990's have been most significant for the large domestic and foreign firms. The reforms themselves have made little difference to the M&A behavior of SMEs, as SMEs often have a different ownership structure.
- The case studies suggest that the outcome of the post-M&A organizational integration is strongly influenced by intra-organizational transparency and support for the M&A. Poor organizational integration and communication tend to negatively affect the post-M&A performance, with greater inefficiency and unanticipated costs as a result.

7.2 The results of the econometric analysis

The second purpose of the thesis was to analyze the outcome of M&As, by measuring the effects of M&As on the Japanese firms that merged, were acquired, or received capital injections from other firms. The stochastic frontier production (SFP) function analysis produced a number of results regarding the industry characteristics and the post-M&A effects on the domestic target firm. The most important results for understanding the characteristics of Japanese M&As, approximated by the electrical machinery, the chemical, and the pharmaceutical industries, are summarized below.

Elasticity

The elasticity analysis, which indicates the marginal product of each input factor when all other inputs are held constant, revealed interesting results for the industries in question. Generally, all three industries had decreasing returns to scale, that is, the marginal rate of productivity of the input factors decreased for every extra unit of input. Particularly interesting was labor elasticity, which revealed important information about the industry characteristics. As we noted in the discussion in Chapter 6, high labor elasticity indicated a high content of human capital. If this holds, the estimation results suggested that the workers in the chemical and the pharmaceutical industries were more productive than those in the electrical machinery industry. This in turn reflects the results of the M&A behavioral pattern study in Chapter 5, where, in the 1990's, the M&As in the chemical and the pharmaceutical in-

dustries, which traditionally have spent less on R&D compared to their foreign competitors, explicitly aimed for the acquisition of technology and R&D resources to a larger degree than the electrical machinery industry.

Significance of the equity-to-asset ratio

Increased equity-to-asset ratio (EAR), directly resulting from an M&A event, had a significant positive effect on post-M&A performance. This is just a direct confirmation of how increased equity levels safeguard the companies' long-term ability to honor debts. However, this result can indirectly stem from two other factors, either in combination or separately. The first factor is a change in management. This is not always true – especially for domestic M&As that often have left management intact – but there is a possibility that together, with an increase in equity as a result of a capital injection, an acquisition or a merger, management changes have led to changes in strategy, which in turn have led to increased efficiency. The other factor is an improved credit rating due to increased equity, which in turn makes it possible for a previously financially strained firm to obtain new credit in order to initiate new product development or R&D that leads to future growth.

The effects of M&As on firm performance

During the eleven-year period of analysis the M&A firms were more *overall* efficient than the firms that were not involved in M&As. The technical efficiency (TE) estimation revealed that the M&A firms were *already* among the most efficient firms in the industry, which suggests that it was their *original* productivity characteristics that made them more efficient post-M&A as compared to the non-M&A firms. Also, when broken down on a national level, the inward M&A firms were less efficient than the domestic ones, but still more efficient than the average for the industry. This result counters the “fire sale” hypothesis forwarded in the M&A literature, such that foreign firms only acquire the *least* efficient firms in the industry, because Japanese owners only sell their firms to foreigners as a last-ditch measure²³⁴. When broken down on an industry level, the direction of the M&A efficiency effects

²³⁴ In an earlier study by the author (Nakamura, 2004), involving all domestic and inward M&As occurring in Japan between 1988 and 2002, support was found for a “fire sale” behavior during the first quarter of every year. However, rather than being a matter of nationality of the acquirer or the seller, the behavior was seasonal and non-stochastic, suggesting that firms generally tended to do sell-offs just before the end of the Japanese fiscal year in order to raise cash and improve their account statements.

is ambiguous. While the pharmaceutical industry showed statistically significant *positive* efficiency effects from M&As, the technical efficiency of the electrical machinery industry worsened after the M&A event compared to the non-M&A control group in their respective industries. For the chemical industry, the efficiency effects from M&As were insignificant.

	Overall	Electrical machinery industry	Chemical industry	Pharmaceutical industry
Main TE Estimation Model (6.8)	NS	↓ **	NS	↑ **

Table 7.1. The direction of performance effects from M&As in terms of TE. NS = no statistical significance. ** = Statistically significant on the 5% level.

These results are possibly caused by the different M&A motives of these three industries. As the second largest economy in the world, the Japanese market is mainly fuelled by domestic consumption. As discussed in Chapter 6, the electrical machinery industry has a sales network structure that differs considerably in character from those networks of the chemical and the pharmaceutical industries. Mainly targeting end consumers directly through ordinary electrical appliance stores and indirectly through components in various consumer appliances, the electrical machinery industry depends, to a higher degree, on the turnover of the individual retailers. In addition, the electrical machinery industry has a wide subcontractor network. The chemical industry, on the other hand, has a different production pattern, and only a small part of the outputs sold directly to individual consumers. For the Japanese pharmaceutical industry, the production chain is similar to the one in the chemical industry, and the main sales route so far has been through individual practitioners and hospitals in a scheme regulated by the government, and the demand has therefore not been cyclically dependent. In turn, this has meant fewer, inefficient financial rescue type, M&As for the two latter industries compared to the electrical machinery industry, which has done more such M&As out of obligations to its supplier-retailer relationships.

Also when compared by *M&A year* (using TE estimation model 6.9), the M&A firms did not change their TE in any statistically significant way *after* the M&A event. Neither was the TE during the periods *prior* to the M&A year significantly different from the M&A year. In conclusion, it was not possible to establish that M&As were *the* tool that enhanced the level of firm productivity, as the firms were already among the most efficient in their re-

spective industries before the M&As. However being a somewhat weak conclusion, the result that Japanese M&A firms on average have not changed their performance after the M&A compared to the pre-M&A situation *counters* the findings from earlier studies in the production economics literature with data from other countries (cf. Baldwin, 1998; Benfratello, 2002).

Effects from inward M&As

For the pooled panel, the effect from inward M&As is weakly negative. Contrary to the "common wisdom" argument, forwarded by some Japanese M&A consultants and in parts of the Japanese media that foreign involvement has positive effects on the Japanese firms involved, the three industries under study had, other things held constant, no statistically significant overall post-merger efficiency effects on TE from inward M&As. The results are, in other words, in line with the evidence in the literature that the nationality of the acquirer has no bearing on the acquired firms' productivity or efficiency. On the industrial level, the estimation results showed a tendency towards a negative rather than a positive influence²³⁵. Given that inward M&As have a negative effect on firm performance for some industries, and that the members of these industries are aware of this, this result could be an additional clue as to why the number of inward M&As is so low compared to the size of the economy of the host country.

	Overall	Electrical machinery industry	Chemical industry	Pharmaceutical industry
Main TE Estimation Model (6.8)	NS	↗ *	NS	↓ **

Table 7.2. The direction of *direct* host industry effects from *inward* M&As in terms of TE. NS = no statistical significance. * = Statistically significant on the 10% level; ** = Statistically significant on the 5% level.

However, it is still hard to determine which of the factors – the tendency towards lower TE compared to the domestic M&A firms or the tendency towards an inconclusive effect on the post-M&A performance – have influenced the relatively low occurrence of inward M&As in Japan. In this regard, the question arises whether or not the preference for domestic M&As can be

²³⁵ The only industry with any statistically significant effect on the 5% level was the pharmaceutical industry, which showed a *negative* effect from foreign involvement.

attributed to the lack of previous international experience on the managerial and/or production levels. However, given the partner selection pattern of the sample firms in section 6.4 in Chapter 6, it is hard to arrive at the conclusion that the willingness to engage in inward M&As depends on the previous level of international experience, since the majority of the M&A firms have chosen domestic M&As *regardless* of the previous commitment level vis-à-vis foreign firms or markets. Therefore, the results from the econometric analysis suggest that for the sample firms, the *current* and the *expected* performance, defined in this study as the level of the firms' TE, has probably been a stronger influence on the foreign investing firms' M&A partner choice than the level of the target firm's prior international experience.

Thus, a summary of the findings from the econometric analysis is as follows:

- Target firms tended to be those with high TE *compared to the non-M&A firms*.
- Firms that raised their equity level as a result of capital injection improved their TE significantly compared to the firms with an unchanged equity level.
- The TE gap between the M&A firms and the non-M&A firms already existed before the M&A, such that the M&A firms were systematically more efficient than the non-M&A firms.
- M&As did not have any significant effects on the post-M&A TE compared to the firms' TE before the M&A.
- Effects from inward M&As were insignificant, that is, the nationality of the investing firm did not matter.

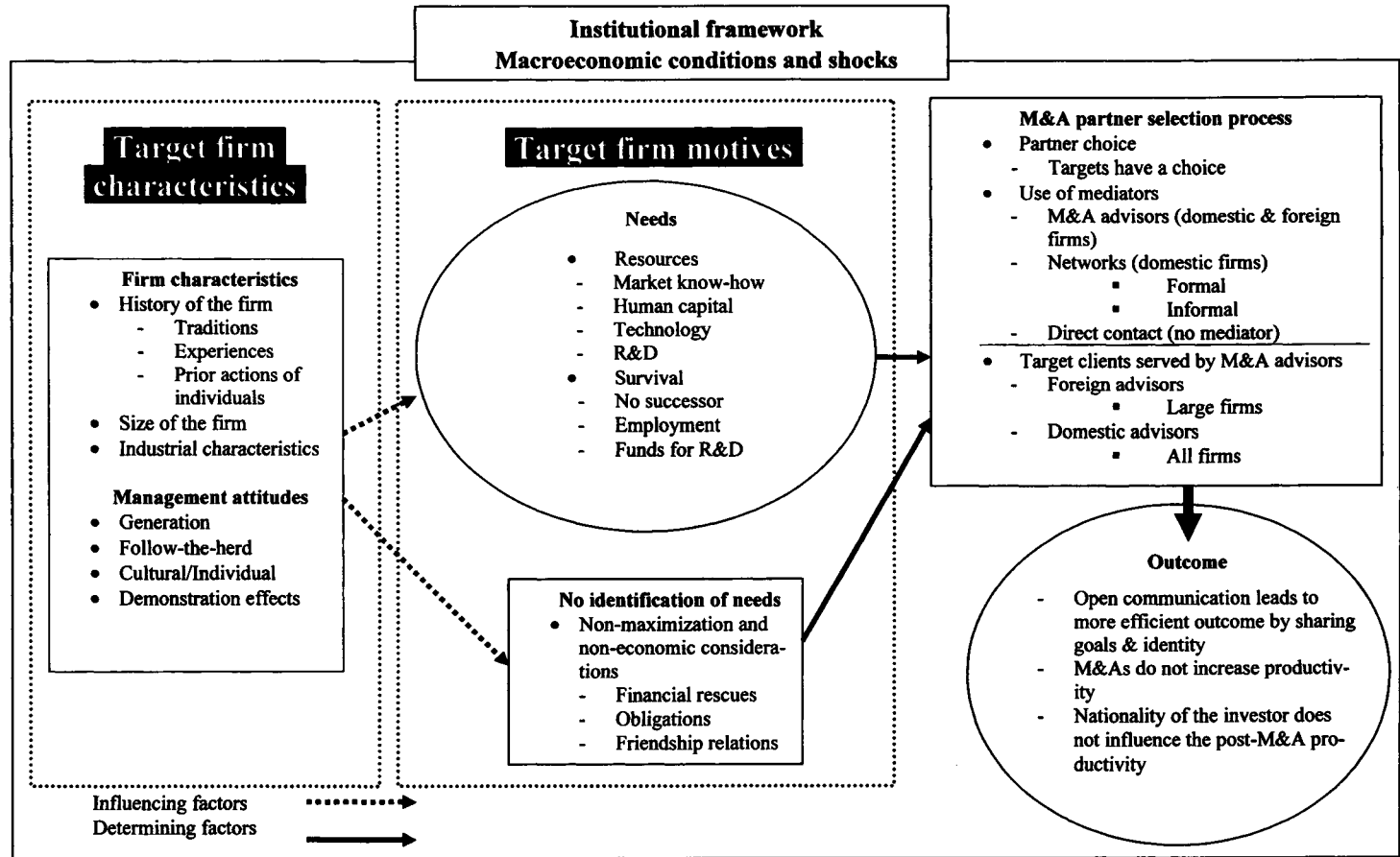
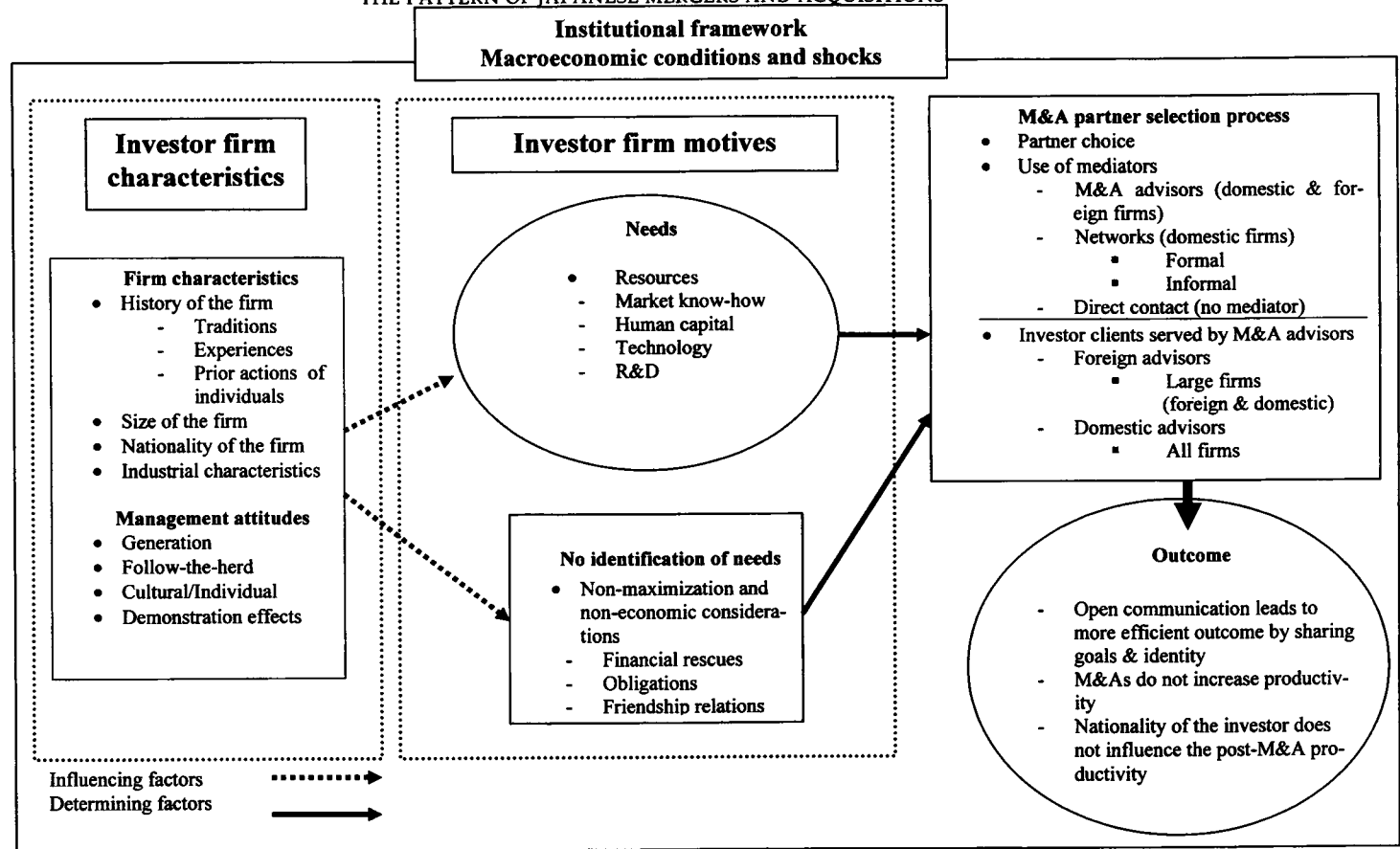


Figure 7.4. Summary of the Japanese M&A target firm process flow.



Outcome

- Open communication leads to more efficient outcome by sharing goals & identity
- M&As do not increase productivity
- Nationality of the investor does not influence the post-M&A productivity

Figure 7.2. Summary of the Japanese and foreign M&A investor firm process flow.

7.3 The Japanese M&A: A marriage of convention or love?

In this thesis, Chapters 5 and 6 have complemented one another in order to fulfill the research purposes specified in the introductory chapter. In the qualitative study, some parts of the original research question have been answered, while other parts remain to be answered by the following quantitative analysis. Combined, these analyses have drawn a picture of the contemporary world of Japanese M&As, and the effects of these M&As on Japanese firms. These results and the process of Japanese M&As are schematically described for the Japanese target firm and the investing Japanese or foreign firm in Figures 7.1 and 7.2 respectively²³⁶. In this section, the aim is to synthesize the results from the qualitative and the quantitative analyses.

7.3.1 The identification of needs: To marry or not to marry?

Firm characteristics are naturally decided by history and traditions (broadly defined) specific to the industry at large and the firms in particular. However, the interviewees and the case studies emphasized that firms engaged in M&As were not homogeneous. Consideration has to be given to firm size differences as well as the nationality of the firm initiating an M&A, as the actual continuation of an M&A process is decided by these factors. The firm characteristics then influence the type of *needs* identified by the firms as necessary for continued development. However, as discussed above, an interesting feature of Japanese M&As was that some are carried out *without a defined need for resources* and where non-economic considerations and obligations (for example, "buddy" M&As and M&As done without any prior due diligence, such as financial rescues) have a strong influence on M&A behavior. These "irrational" types of M&As are now diminishing, due primarily to changes in attitudes and increased understanding of the function and execution process of M&As, and also as a result of the institutional reforms that have made US type M&A behavior possible and profitable.

Attitude is a parallel dimension to the firms' characteristics, and is directly dependent on these characteristics. In the "old" days, even the large firms were managed with a family business mentality similar to the SMEs. The ba-

²³⁶ For details of each process step, see Chapters 5 and 6 respectively, and sections 7.1 and 7.2 above.

sic objective was to make enough money to support your family. Investors or the *keiretsu* were happy to help with start-up capital and credit, and no claims were made as long as the business did not operate "in the red" and go bankrupt, which would lead to a humiliating financial rescue acquisition, "proving" the incompetence of the entrepreneur or the manager. The results of Chapter 5 suggested a change in this attitude towards M&As, but it has differed between industries and firm size. For example, large firm *domestic* M&As became more strategic using pre-M&A analysis of the target firms, while many owner-managers of SMEs still regarded an M&A as defeat and an act of disloyalty towards their employees. There are also differences between industries, where "old" sectors, such as manufacturing, displayed more conservative attitudes compared to "new" service sectors such as IT consulting. These new service sectors have a more "Western" attitude, supported by the examples of entrepreneurs who have sold their firms to larger firms simply to cash in on the value increase of their original investment. Somewhat weaker, as the interviewees suggested, was the tendency for regional differences in attitudes *within* Japan. For example, many Osaka area entrepreneurs had been early to display strategic considerations regarding future development in their M&A behavior (behavior similar to what is discussed by Penrose [1959] and Dierickx and Cool [1989]).

7.3.2 M&As as a quest for knowledge: Why the marriage?

Obviously, the attitudes and the identified needs (or the lack thereof) affect the *motives* of the individual firms to engage in M&As. It is possible to find motives that are "classic", such as acquisition of strong brands and expansion of existing operations (for example, the acquisition of additional production capacity). However, the interviews and the summary of the case studies indicate a distinct feature that is typical for the current M&A wave in Japan, that is, the quest for human capital expressed in terms of access to expertise, R&D, and market knowledge. The results of the exploratory study therefore suggest that Japanese M&As follow the international M&A trend which emerged in the 1990's and emphasized *knowledge* as the factor that creates economic rents for firms – especially then the MNCs – in order to sustain or reach market leadership (cf. the strategic management literature, e.g. Porter, 1980). In other words, does the M&A behavior of the firms in the case studies – that is, the motives and the subsequent M&A partner choices – fit together with the explanation from the resource-based perspective, or in other words, that a substantial part of the M&As were done in order to ac-

quire hard-to-obtain or unique financial, technical or market knowledge resources. This has been most apparent in the *pharmaceutical industry*, where the Japanese firms traditionally allocated fewer resources to research and development, and instead bought licenses and/or formed JVs with foreign pharmaceutical companies. This led indirectly to making the industry one of the most exposed to foreign R&D and management, and later, with a relatively high degree of inward M&As compared to other industries. For the *foreign* pharmaceutical firms, the recession and the deregulations during the 1990's gave them the opportunity to use M&As as a short-cut to enter specific market segments or to establish local production capacity by acquiring their Japanese licensees, JV partners or domestic competitors, and in such a way access important market knowledge and increase their commitment to the Japanese market.

7.3.3 The Initiating target firm: The bride chooses her groom

When discussing Japanese M&As and firm motives, it is also important to consider the *target* side. Generally, target firms are, to a higher degree, treated superficially in the M&A literature. The reason for this is unclear, but may rest in the view that targets are "victims" of M&As, with no choices whatsoever in dealing with potential acquirers. This view is to a large extent true, but, as we have seen from the results of Chapter 5, there is the risk of misunderstanding a substantial part of the M&A process by assuming that *all* M&As are a dictate of the acquirer. From the interviews, it is apparent that target firms on the Japanese M&A market have also chosen from among several potential acquirers before deciding on a suitable "groom". Therefore, there exists a strong argument for calling this process "M&A partner choice". In this partner choice process, the target firms are usually in search of a specific resource (which is also shown by e.g. Shelton, 1988), and have identified M&As as a means to overcome obstacles for the future development of the firm. For large target firms, know-how, access to technology and capital for product development are needs that have created motives for engaging in M&As. This is also supported by the TE estimations of the M&A firms, which showed that they have been more efficient than the industrial average. For SME targets, similar needs have been present, but yet another SME specific need has been satisfied through M&As, namely the problem of finding suitable successors for aging owner-managers. Despite being a sensitive issue (cf. the view of firms as "your own son"), an M&A is an easy solution to successor problems, and also preferable from a taxation point of view.

7.3.4 The role of mediators: Arranged marriages

As expected, the role of formal and informal networks is of utmost importance in the *M&A execution planning and the M&A execution process*. A new feature of the 1990's M&A wave is the increasingly important role of professional mediators and advisors. This means not only a decrease in the importance of *keiretsu* networks, but also that the demand for expertise in pre-M&A analysis and matchmaking has grown substantially. Domestic consultants are now forced to keep up with their foreign competitors and establish M&A divisions or to expand on their current service package. The important role of M&A mediators and advisors is obvious, as they help to create a more liquid market for target firms and facilitate the M&A partner selection process. In addition, they also make it easier for foreign firms and domestic SMEs, without any prior network connection, to attain their strategic goals through an M&A, for example, for market entry, finding investors for specific projects etc. Another way to interpret the increased role of M&A mediators and advisors is to see the break-up of the traditional *keiretsu* networks, so firms previously unknown to potential investors or targets are now starting to show up on the Japanese M&A market. The M&A mediators and M&A advisors - especially those affiliated with the firms' main banks - then take on the role of the *trusted* party in M&A negotiations, making it unnecessary for the firms involved to have prior long-term network relationships.

Regarding the role of social networks in the partner choice selection, we saw in the cases summary that not only direct personal relationships eventually resulted in an M&A, but these relationships also provided an arena for M&As, where a common third party acquaintance often mediated. This is an example of unexpected spin-off effects from belonging to an existing network, and it is important to take such externality effects from network affiliation, or social embeddedness, into account when analyzing the M&A process. As was mentioned earlier, the M&A execution process is regarded in the literature as a "black box", where the interaction between network actors prior to and during an M&A process is of minor interest. Therefore, the observation that not only professional M&A mediators and M&A advisors, but that individuals can also act as mediators for M&As is an important observation in order to complete the Japanese M&A map.

7.3.5 M&A advisors: To select the couples

The question of whether there are character differences between firms that choose domestic firms or foreign firms as M&A partners has been one of the

two core issues of this thesis. From the Japanese M&A data (Recof, 2003), it is evident – with some minuscule exceptions – that only *large* foreign firms engage in M&As, and then, typically enough, often with *large* Japanese firms. The analyses of the electrical machinery, the chemical, and the pharmaceutical industries indicate that the foreign firms find their M&A targets via mediators. In turn, this pattern reveals an underlying structural difference between the Japanese firms that partner with foreign firms, and those that do M&As with domestic firms. The choice of mediators itself implies a bias, since we know that most of the Japanese firms that consider M&As are excluded from the client lists of the foreign M&A advisors based in Japan due to their small size. In other words, the domestic firms have to be large enough to be considered as customers of the foreign M&A advisors. Also in line with earlier observations, SMEs have a different rationale for doing M&As than the large firms, mainly due to their ownership characteristics. In addition, since most SMEs lack the resources and experience dealing with foreign firms, these factors combined contribute to the greater tendency of SMEs to engage in domestic M&As. Finally, the difference in the M&A pattern between the foreign and the Japanese firms becomes even more apparent as the domestic firms are readily accepted by the domestic consultants regardless of firm size, and the customer base of the main banks still constitutes a suitable place for domestic M&A advisors to find clients.

7.3.6 The selection criteria: An international or a domestic marriage?

The investigation of the inward M&As deals in Chapters 5 and 6 revealed that these M&As were preceded by a rather involved relationship with a foreign firm, although *not necessarily the same firm with which the Japanese company later chose to do an M&A*. However, from the limited sample, this result suggests that the partner selection of the Japanese M&As of today can be more easily explained from the resource-based perspective and the transaction cost theory rather than purely from the network or the portfolio theories. In other words, the results suggest that the firms involved in M&As consciously select what resources can be obtained and what an M&A can contribute to the existing operations in order to increase the economic rent from a strategy of sustained competitive advantage. The econometric analysis strengthens this argument, by showing that firms involved in M&As were those that were *more technically efficient* than the average performance of the non-M&A firms. In other words, there are strong reasons to believe that the M&A investors are well-informed about the firms with which they merge

and/or acquire, thus tending to do M&As with firms that are more technically efficient than the industrial average. Such a pattern is expected, considering that the competence and quality of M&A advisors have increased in Japan. Also, the firms involved in domestic M&As tended to have higher levels of TE than those involved in inward M&As, which suggests that the domestic firms might have the possibility to "pick" the most efficient firms, leaving the less efficient firms for the foreign investors. However, a strong contender to such a "fire sale" argument is the overall tendency of target firms to prefer domestic M&A partners over foreign ones, even though the target firms' level of previous experience with foreign firms is high. In other words, it is probable that the Japanese firms would have chosen a domestic M&A partner in any case. This is in line with the general preference for domestic M&As that can be observed elsewhere in the world (e.g. Mucchielli and Kohler, 2000), and not an expression of any unique "xenophobic" tendencies among Japanese firms. Furthermore, the inward M&A firms were also more efficient than the industrial average, making a "fire sale" hypothesis less probable. This pattern of well-analyzed and carefully planned M&As is different from the bulk of M&As done *before* the 1990's, when network considerations (which can also be branded as "company politics") and protection of existing structures rather than profitability were more important to M&A decisions.

7.3.7 The post-M&A outcome: Happily ever after?

In this thesis, we analyzed three dimensions of *post-M&A outcome*. One was efficiency effects from M&As. In Chapter 6, we saw that the efficiency of the M&A firms was the result of a higher overall efficiency and not the result of the M&A event *per se*, that is, the M&A event itself did not have any significant effects on firm performance. Furthermore, TE of domestic M&A firms tended to be higher than inward M&A firm TE. When controlled for nationality of the investing firm, there was no statistically significant effect on the post-M&A performance from inward M&As. A third dimension of post-M&A outcome included in the analysis was organizational. In Chapter 5, we saw, for the cases discussed, that the firms that had organizational support for the M&As tended to attain better post-M&A harmonization (a shared sense of organizational affiliation) than the M&As where the M&A decisions were made without prior intra-organizational notification.

Obviously, these three dimensions of post-M&A outcome are intertwined, and the eventual result depends on how well the management succeeds in

harmonizing the internal routines, the production process and the organizational identity, in addition to communicating with the employees. Results from previous studies of M&As suggest a presence of cross-country differences in the post-M&A outcome (see the literature review of Chapter 4). With the results from Chapters 5 and 6 presented above, this study suggests that differences exist not only between countries²³⁷, but also between industries and firms within the same country when it comes to the *magnitude* and *direction* of post-merger performance.

7.3.8 Discussion of conceptual issues

Freedom within coercion

Many M&A deals have been preceded by some change in the market, the business or the owner-manager's personal environment, which has forced the firm to take action and identify needs for strategic resources, and eventually decide on an M&A. The prevailing view on M&A targets in the literature is one of coercion, in which a firm is "forced" to merge or to be acquired by another firm due to the current situation of the target firm. This was also evident from the results of Chapter 5, where a similar view on M&As was found, particularly among SME manager-owners. However, we also saw that a firm that is up for sale has choice possibilities among several potential bidders. The same is actually true for firms being targeted for a takeover bid (TOB). There exist a number of defense strategies for firms, if, for example, it is the target of a hostile TOB (for M&A defense strategies, cf. Brealey and Myers, 1991). In friendly TOBs or merger situations, it is evident that the target firm has even larger degrees of freedom by being able to withdraw from the negotiations at any point. Therefore, as is evident from these simple examples, there exists a freedom within the "forced" situation, that is, the freedom of target firms to choose the M&A partner that fulfills their criteria or conditions.

In Europe and North America, such a view would probably be met with great skepticism. Such skepticism would be justified if the M&As taking place in Japan followed the logic of the neo-classic economic theory, that is, that M&As are done as a result of purely profit-maximizing economic behavior of both the investing and the target firms. Then, only firms with negative NPV would sell-off, leaving little or no room for the target firms to negotiate the conditions set by the investing firm. This type of M&A behavior is also

²³⁷ However, not included in the analysis of this thesis.

something that has been observed among Japanese firms in *foreign* markets. Having said this, the results of Chapter 5 also suggest that many Japanese *domestic* M&As have had purely opportunistic and profit-maximizing considerations. However, as described by the interviewees, other considerations may have influenced the domestic M&A decisions and the negotiation processes of Japanese firms, such as protecting existing network relationships (for example, obligations toward suppliers and retailers etc.), reputation, and discretion. In other words, it is important to stress the fact that the same Japanese firm may have pursued different M&A strategies depending on where (at home or abroad) they are doing the M&A, and therefore, it is wrong to assume that the M&A behavior of a Japanese firm on a foreign market would be the same if the M&A was done at home and vice versa.

Internationalization by not going abroad

Even though this thesis does not test an internationalization model, such as the models of Dunning (1980, 1988, 1998, 2000) or Johanson and Vahlne (1977, 1990), some interesting aspects of the foreign firm behavior on the Japanese M&A market emerged during this thesis work. Dunning's (1980, 1988) "eclectic paradigm of international production", or in short, the OLI model, is of special interest here. In this model, Dunning specifies three cornerstones on which a firm establishes itself in new markets. Firstly, *ownership* (O) refers to control of certain assets (inputs) and transactions, which gives the owning firm a competitive advantage. Secondly, *location* (L) means the advantage a firm has by locating parts of its operations in a certain geographical area or region, where the creation of firm-specific ownership advantage can be utilized in full at a low (transfer) cost. The last leg, *internalization*, (I) means the possibility firms have to internalize (through, for example, acquisition of firms) important resources, for which there are poorly developed or no markets, or simply cannot be obtained at the location. Internalization can also be interpreted as a means to capitalize on imperfect markets and seize control of resources that are sought by other firms at that particular location.

The basic assumption of the internationalization process, according to the OLI model, is that a firm strives for growth, which it attains by seizing resources to gain advantages over its competitors (Dunning, 1980). In his discussion, Dunning also leaves open the possibility that M&As are a means to diversify and to enter a foreign market. We have seen that ownership advantages can be described as competitive advantages by controlling the re-

sources necessary for production and growth, as well as the internalization advantages, by which a firm circumvents the absence of markets for a necessary resource. Both of these advantages can be obtained by domestic or inward M&As.

However, when Dunning suggested this analytical framework, it was not his intention that this reasoning could actually be applied to firms engaged in international M&As in the home country. Consider the following case. Firm A, whose operations have a purely domestic scope, has identified a need to obtain a unique resource in order to be able to pursue a strategy of sustained competitive advantage in the home market. The markets for this resource are badly developed, and the only way to acquire the resource is through an M&A. However, no other domestic competitor controls this particular resource. Meanwhile, a foreign firm, which owns the unique resource, shows an interest in entering the home market of firm A. Firm A then approaches the foreign firm and suggests an M&A in order to access the unique resource. After agreeing to this, firm A starts to use the foreign firm's unique resource and obtains a sustained competitive advantage position in the home market, since it is impossible for firm A's competitors to imitate the strategy pursued by firm A. Thus, economic rent has accrued to firm A (and the foreign firm) by accessing the unique resource made available only through an M&A with the foreign firm, while the foreign firm has obtained a quicker entry to the host country market by accessing the market know-how of firm A.

Similar reasoning can also be applied to the foreign partner's viewpoint in the internationalization process model formulated by Johanson and Vahlne (1977, 1990). In such a scenario, the only difference is that firm A already has contact with the foreign firm via, for example, a JV at the time when the M&A is considered, and chooses to deepen its cooperation with the foreign firm by fully integrating its operations with the foreign firm in firm A's home market. This pattern was also empirically found by Nordström et al. (1996) among the host country firms when the Swedish firms entered the local market and increased their subsequent local market commitment in Central and Eastern Europe.

In other words, does a firm need to go abroad to be internationalized? Obviously, it is a matter of definition regarding "internationalization". On one hand, there is the standard international business (IB) studies definition of the internationalization process, following the internationalization process models of Johanson and Vahlne (1977, 1990) and Dunning (1980, 1988, 1998,

2000), in addition to Aharoni's (1966) description and analysis of firm internationalization. On the other hand, there are also domestic firms that are "internationalized" by exposure to foreign management practices and technology (that is, direct and indirect spillover effects as defined by e.g. Parry, 1980; Kokko, 1994; Sjöholm, 1999; Harris and Robinson, 2004), and nevertheless continue to serve only the domestic market rather than begin export production. We have seen in the chemical and pharmaceutical industries that the domestic firms engaging in inward M&As have been able to utilize the resources from the acquiring or investing foreign firms²³⁸. Likewise, Nissan internationalized by letting a foreign CEO into the organization, which was earlier regarded as a bastion of Japanese management philosophy. Therefore, target firms have also been internationalized to a high degree by the investing firm due to such things as change in management, production processes, R&D, etc. Thus, an alternative view to the firm internationalization process emerges: internationalization by *not* going abroad. Here, the definition of "internationalization" is a broad-term description of a firm's exposure to international business, and its ability to internalize the experiences from the foreign exposure in a such way that the domestic firm can apply these experiences to its current and future operations, domestic or elsewhere. Thus, the definition is neutral and is not influenced by the market in which the firm operates, that is, whether it is an MNC, an exporter, or a non-exporter. This phenomenon is probably not only limited to Japan, but can be found in any country where a part of the domestic economy has been protected from international competition.

The resource-based and the FDI spillover theories are direct reflections of how domestic firms in the host country enjoy and utilize the resources of foreign firms, and how these domestic firms use those resources in order to gain a competitive advantage in the home market. In the M&A setting, it is apparent that the IB studies definition of "internationalization" and the theories of spillover and resource-based view are two sides of the same coin, that is, the internationalizing firm *and* its partner firm in the host country. This dual process can be illustrated by the industries analyzed in this thesis and other industries, such as the financial sector (which has applied foreign banking technology and product scope), and the transport equipment industry (where the Nissan-Renault partnership is a prime example). Thus, interna-

²³⁸ Here we discuss the *actual access* to foreign technology and know-how, and not the TE effects from inward M&As, which was negative for these two industries (cf. Appendix 6).

tionalization as a process description is not only applicable to firms that go abroad.

7.4 Theoretical implications of the findings

7.4.1 The resource-base theory: Are the M&As resource-based or not?

The results of the analysis suggested that the post-M&A performance effects from M&As, measured as technical efficiency, were insignificant compared to the M&A year. However, while having no significant effects on TE, we still know that M&As do occur in Japan. It is therefore relevant to ask whether there are aims of M&As *other than* to increase productivity. This leads us to ask the first research question once again: what is the difference in characteristics and motives between the Japanese firms involved in inward M&As and those that engaged in M&As with other Japanese firms? From the resource-based perspective, an M&A is one of many possible means to acquire resources that enable a firm to pursue a strategy for sustained competitive advantage. To put it simply, if a firm obtains a unique resource that other firms cannot acquire or imitate, then it has gained an advantage over its competitors. The investigation of this part of the M&A process has focused on the path that eventually leads to such a competitive advantage. As we would expect from the resource-based theory, there was evidence of a conscious pursuit of resources that the firms lacked. The best examples of this behavior were the inward M&As in the pharmaceutical industry, where both investor and target firms benefited from the M&As. The foreign investors gained access to the Japanese pharmaceutical distribution network and market know-how, and the Japanese target firms accessed the R&D resources of the large international pharmaceutical giants. But, as we remember from the theoretical discussion in Chapter 2, the resource-based theory concerns only *unique* resources, and not the acquisition of resources that competitors can also acquire or imitate. However, in the three industries under study, technology, production processes and managerial skills are all either regulated by patents or possessed by individuals. It can therefore be argued that firm specificity of resources does exist in these industries, and that the M&A behavior of firms – both Japanese firms and foreign firms entering Japan – are based on the belief that a firm possesses resources that enables them to obtain a sustained competitive advantage.

However, it was also equally evident that a significant number of the M&As done in Japan – particularly by the SMEs – falls entirely outside the framework of the resource-based theory. To a large extent, this thesis has examined M&A behavior from the *target firm* perspective. As seen in Chapter 5, a major reason for Japanese SMEs to engage in M&As is the difficulties in finding suitable successors, which in turn has its causes in the aging demographic structure of the SME owners. Although less frequent compared to the M&As that occurred before the 1990's, the qualitative study strongly suggested that M&As have been done without profit-maximizing motives, such as financial rescues of firms out of obligation based on long-term relationships or M&As that are the result of the friendship between managers and not a result of serious pre-M&A assessment such as *due diligence*. These types of M&A motives are poorly covered, or not discussed at all, by the resource-based theory. The concept in the resource-based view closest to financial rescues and "friendship-induced" M&As is *trust* and *reputation*, but then there is a need to define who is trusting whom in a long-term supplier-customer relationship, or whose reputation is regarded as most attractive by the investor or the target firm. Furthermore, it is important to consider the significance of strong *social pressures* on M&A decisions.

Another weakness in the theoretical literature is the strong focus on defining *what* resources enable a firm to pursue a strategy for sustained competitive advantage and *why* firms strive to acquire certain resources. In the discussion by e.g. Barney (1991) and Peteraf (1993), the role of a third party in acquiring resources is superficially treated. Instead, the discussion is centered on the firm aiming for unique resources, and its current and future competitors. From the study in Chapter 5, it is apparent that the position of M&A mediators and advisors is growing stronger in the Japanese M&A market, particularly in the M&A transactions where foreign firms and Japanese SMEs are involved. In other words, it is the *how* question that needs to be elaborated on in the theoretical discussion about the resource procurement process, especially M&As as a means to acquire unique resources.

The purpose of this section is not to propose new contributions to the theoretical literature of the resource-based theory, but rather to point out the possible difficulties of this theoretical perspective when studying M&As. From the discussion, it is apparent that in order to conduct research on M&As and M&A motives, an awareness of the deficiencies of the resource-based view is necessary, at least when trying to explain *Japanese* M&As. However similar in M&A rationale and behavior large Japanese firms and

SMEs seem to be, there are distinct differences between these groups of firms that are not always covered by the resource-based perspective. Also, on a general level, the little attention given to third party involvement in the acquisition process of resources is a deficiency that should be better addressed in the theoretical literature concerning the resource-based perspective. Having said this, these observations of the theoretical framework are not an attempt to dismiss the relevance of the resource-based theory in this context. Rather, it is a reminder that with continued research on this topic, certain features of Japanese M&As might be better explained using other theoretical perspectives than the resource-based view.

7.4.2 The theory of FDI and spillover effects: Do M&As matter?

There is no doubt that the long-lasting recession of the 1990's and the resulting crisis in domestic demand led to an immediate need for capital for many firms, which still held debts incurred during the 1980's. Japanese firms in general, not only those under analysis here, expanded aggressively both at home and abroad during this decade as a result of favorable macroeconomic conditions, which included a large domestic supply of cheap capital, a gigantic trade surplus, and very high levels of industrial and private consumption. When the "bubble" burst in 1991, the Japanese economy experienced a rapid contraction. Domestic demand and consumption declined sharply, and the domestic industries were pressed to reduce their overcapacity, which was built up during the heydays of the 1980's. Even worse for the economy was a financial sector burdened by bad loans with domestic firms, that could not longer honor their debts due to declining domestic demand and profits. The problem of bad loans was initially neglected by the Japanese financial firms, who seemed to believe that the "bad times" was a temporary phenomenon that would give way to another period of high growth. However, the recession dragged on, mainly due to the fact that the banks were too optimistic about the future and therefore did not write off the bad loans. The financial firms' behavior caused a vicious spiral of events and the situation worsened. Eventually, the financial institutions stopped lending money to firms and individuals. The shortage of capital that followed forced many firms to file for bankruptcy - or to restructure operations and find new ways to obtain funds. It is here that M&As came into the picture.

Together with the institutional liberalization in 1998, the sharp increase in the number of M&As might partly be explained by the immediate need for capital. However, the pressures to increase efficiency and organizational ra-

tionalization led to a change in attitudes and the dismantling of cross-ownership, not only in the financial sector (that suffered from the burden of bad loans), but also in the ownership networks of the manufacturing sector. Furthermore, the Japanese firms started to identify human capital as a key resource, now demanding specialists instead of generalists. Thus, M&As were used as a way to rapidly increase the level of human capital.

Having said this, the question still lingers whether technology diffusion through M&As has actually led to spillover effects that increase the target firms' efficiency. In the theoretical discussion of spillover theory as formulated by MacDougall (1960), it is expected, given the absence of tax distortions, that the direct effects from M&As are significant, since the underlying assumption of the theory is that the foreign firm entering the host country market is driven by the incentive to possess superior technology (defined broadly) compared to the technology of local competitors. In other words, if there was no difference between the marginal productivity of the input factors controlled by foreign firms and those of the host industry firms, no competitive advantage would exist, and therefore, the investment would not pay off. In this case, higher returns than the host industry average would not be realized, and the gain for foreign capital owners would be less than otherwise (rather, they would choose to invest in another country that yielded higher returns). The results of the econometric analysis suggest that M&As did not improve the technical efficiency of the individual M&A firms compared to the efficiency performance prior to the M&A event. Yet, have the M&As led to effects other than an increase in technical efficiency? Arguably, M&As are a multi-faceted phenomenon. The argument for using technical efficiency as a performance measure was to distill the "pure" contribution of the input factors to the final goods' value (that is, the value added), given the use of the production factors available to the firm. However, we have also seen that a change in the output performance is not the only outcome of an M&A. There are also organizational efficiency effects, which arguably are a form of spillover that can affect the overall performance of a firm after an M&A. If such organizational efficiency effects are defined as effects that lead to increased cost efficiency, then the technical efficiency estimated in Chapter 6 can be regarded as a mirror of the organizational efficiency, because factor *utilization* is the dual price of the factor *costs*. On the other hand, if organizational efficiency is defined otherwise, for example as efficient organizational integration and creation of a common identity, an analysis may arrive at

other conclusions than the ones drawn from the TE estimation results of Chapter 6.

The final conclusion regarding M&A patterns is that there existed strong indications that M&As have not increased firm performance in the analyzed industries. Therefore, it can be concluded that inward M&As did not have the effects suggested by the FDI spillover theory. However, the results implicitly suggested the existence of information asymmetry between the domestic and foreign M&As on one hand, and between the M&A firms and the non-M&A firms on the other, thus suggesting that a careful screening and selection of the M&A partner firm might have taken place prior to the M&A event. Besides suggesting that the characteristics of Japanese M&As have changed compared to M&As prevalent before the 1990's, a possible information asymmetry might explain the absence of efficiency increases from inward M&As as would be expected from the FDI spillover theory. This is an issue for future research.

7.5 Future research

The characteristics of the M&A firms, the M&A behavior of Japanese firms and the effects of M&As have all been previously discussed. The Japanese experience leads now to a discussion about some issues that can form the basis for future research in this area.

7.5.1 Managerial and organizational implications of M&As

The analysis results of this thesis also raised some topics related to cross-cultural management in connection with the realignment of the post-M&A organization after inward M&As. Attitudes are an expression of individual values and are formed within the individual's cultural context. In Chapter 5, the interviewees gave examples of the traditional resistance towards M&As in general, and inward M&As in particular. This resistance can be explained, to a large extent, by a pure lack of knowledge, in combination with prejudices about M&As and the management practices of foreign firms. But, the underlying reasons for the resistance towards M&As are found in traditional Japanese values. The most dominant antipathy against M&As is the idea of an M&A itself, that is, to buy and sell companies. This is the traditional Japanese view that companies cannot be traded like commodities, which in turn taps into the view of companies as a family or clan. Loss of face or prestige is

another related cultural view that an M&A sends the "wrong" message to main banks, suppliers, customers and fellow entrepreneurs that the firm is in financial trouble, that is, the view that "a normal owner would otherwise never sell his firm". However, as the exploratory study in Chapter 5 suggested, this view has started to fade among larger firms, but still lingers among manufacturing sector SME owner-managers. Negative attitudes founded in cultural values can therefore be a severe challenge to all firms to overcome when a Japanese firm is taken over, no matter the size or nationality.

Earlier results from cross-cultural management studies (cf. Schuler et al., 1992) have suggested that the higher the interaction level with the local culture, the more the foreign management is required to engage in a specific problem and consider the local national culture: "The difficulty of an assignment increases when task, environmental, and/or cultural variables are interrelated"²³⁹. Arguably, an M&A is a project that requires a great deal of effort and commitment. An important factor in the cases of successful integration described in the study is that the foreign firms have typically been established on the Japanese market *already at the time of the M&A* through, for example, a subsidiary, which implies that these foreign firms were at least to some degree familiar with the cultural environment of Japanese companies. This is also the general picture of other inward M&As (Recof, 2003). Also, in earlier surveys conducted by the Japanese government (Economic Planning Agency, 1996), M&A consultants reported the tendency among foreign firms already established on the Japanese market before an M&A to follow Japanese business customs by behaving as one would expect from a Japanese firm²⁴⁰. However, while Schuler et al. narrowly defined culture as *national* culture, it is not always the case that firms even consider cultural factors when planning and executing M&As²⁴¹. A discussion about culture should

²³⁹ Schuler et al., p. 369.

²⁴⁰ However, a law firm specializing in M&As reported the difficulties top executives had, especially those of US subsidiaries in Japan, in understanding Japanese business customs, which have aggravated the obstacles in M&A negotiations with potential Japanese targets. The survey interviewee stressed that it was due more to insufficient knowledge about Japanese business conditions rather than language difficulties (Economic Planning Agency, pp. 199-200).

²⁴¹ As Milliman et al. (1998) point out, there has been considerable confusion in the literature about defining "culture". Often culture has been treated synonymously with national differences, and unique characteristics of an organization have thus been treated as a function of national cultural differences (Milliman et al., p. 161). Arguably, there are considerable

therefore not be confined *only* to national cultures and inward M&As. The remarks made in the cross-cultural management literature regarding human resource management are also frequently made in organization theory, and to a large extent are also valid for firms that belong to the same national culture. For example, Suzuki and Unno (2002) report on the important influence of corporate or organizational culture on the *ex post* outcomes of a number of Japanese M&As. Mostly focusing on fuzzy perceptions of "synergies", the firms in their study seldom seriously considered the problem of integrating different corporate cultures when M&As were planned. In answer to a direct question about how many years it will take to merge the differing organizational cultures of three major domestic insurance companies involved in a merger, a mid-level manager answered²⁴²:

"First, we have to aim for the grand [business] goals, so we haven't thought of it [the integration of corporate cultures]. Because we [the employees of the three companies] have met and socialized a number of times, we believe that it will be sufficient to exercise the strengths of each firm to produce synergy effects." (author's translation)

Considering this example – which is more typical than not (see e.g. Yoshida, 2000) – it is easier to intuitively understand that managerial consideration of organizational factors such as corporate culture in planning and executing M&As strongly influences the success or failure of M&As.

Judging from the inward M&A cases in Table 5.4, there seems to be a tendency towards better post-M&A integration where the old and new owners have maintained high transparency of the M&A plans vis-à-vis the employees during the pre- and post-M&A process. This is probably the result of an active policy to dispel misunderstandings or prejudices against foreign management practices, which was supported in the interviews, and discussed in the government surveys (Economic Planning Agency, 1996). However, in the domestic M&A cases reported in Chapter 5, where top management had similar policies to inform employees pre-M&A of the post-M&A organiza-

differences between firms belonging to one and the same nationality; in other words this confusion can incorrectly point out factors as being unique to *national* characteristics, when they in fact are firm-specific.

²⁴² Suzuki and Unno, p. 3.

tional structures and lay-offs, these firms seemed to attain organizational harmonization (defined as finding a common corporate identity, integration of internal routines, and coordination of production processes) relatively fast and without any conflicts with the employees. This is also suggested by Suzuki and Unno (2002) in their organizational study on Japanese M&As. In other words, do the cases in this thesis suggest that a successful post-M&A integration of two or more organizations depends more on the managerial attitudes regarding the level of openness and transparency rather than the national background of the acquiring firm. In the end, firms where the employees have supported an M&A have tended to perform better than firms that have executed M&As without informing the employees in advance. If we put the resource-based glasses on again, this ability to smoothly integrate organizations is a clear example of firm-specific capabilities in what e.g. Barney (1991) has called an imperfectly imitable resource due to *social complexity*.

Time dimension is another factor related to culture and organizations that naturally connects to a discussion about the speed of realizing possible efficiency effects from M&As. The time required to merge two or more organizations can be substantial, and is an important organizational dimension of an M&A. Furthermore, it could be argued that firms involved in inward M&As require more time to merge than firms involved in domestic M&As, since inherent cultural differences exist between Japanese and foreign firms. In the qualitative data, there was nothing that indicated any differences in the speed of organizational harmonization between the cross-border M&As and the purely domestic M&As. Rather, there were several cases discussed in the interviews and in the case studies of Chapter 5, where M&As between Japanese firms have required a substantially longer time to integrate organizational structures than acquisitions with foreign firms. The only indication of differences concerning the time dimension between inward and purely domestic M&As was a remark of an independent domestic M&A advisor interviewed in the Japanese government survey (Economic Planning Agency, 1996). He remarked that more time was required for the pre-M&A analysis and planning for inward M&As than for M&As between Japanese firms²⁴³. Thus, considering the major examples from the financial and chemical industries of domestic M&As that experienced an extremely slow organizational integration, and the examples from the electrical machinery industry of in-

²⁴³ Economic Planning Agency, p. 200.

ward M&As that successfully implemented a rapid organizational integration, the results again suggest that it is more dependent on the properties of corporate cultures rather than national cultures that determine the ability of newly merged organizations to rapidly and fully integrate the efficiency effects from an M&A.

In summary, the relevance of national culture in connection with M&As is obvious, especially when discussing inward M&As in Japan. There still exist strong popular perceptions of foreign firms being "unsentimental" in their human resource policies, leading to the association of foreign takeovers with job loss. Furthermore there is great concern for communicating in a foreign language. Yet another example of culturally induced negative attitudes is takeover offers that are usually perceived by American or European entrepreneurs as a confirmation of his or her firm's attractiveness, but refused by a Japanese owner due to his fear of the negative perception of his capability as an entrepreneur. However, differences in corporate culture *between firms* are equally important, as they exist not only between foreign and domestic firms, but also between domestic firms. From the present selection of M&A cases, it is hard to quantitatively reach any general conclusions regarding the relationship between nationality of new owners and the speed of organizational harmonization. Despite this, there are enough cases that suggest a tendency for some M&As, regardless of the investment direction, to be more successful than others in integrating two organizations, by having transparency in M&A plans *and* communicating those plans to the employees.

This leads us to a question asked at the beginning of this thesis, namely whether the cost-benefit assessment among Japanese managers has changed or not, since we have seen an increasing trend for inward M&As despite the continued existence of negative attitudes. Undoubtedly, the attitudes are changing among top executives of large firms, and the M&A partner selection statistics alone are proof of this. The same is true for owner-managers of the SMEs, yet still lagging behind the attitude changes among the top management of large Japanese corporations. Considering the current demographic structure in Japan, where large cohorts of the post-war generation have started to retire, it is inevitable that new generations of business leaders and entrepreneurs will take up these vacant positions in the companies. Therefore, the answer to the question depends on which generation holds senior management positions in Japanese firms. The younger generations typically have more knowledge about foreign firms and have a more pragmatic view of M&As in general (JASMEC, 2000). However, the real break-

through for M&As as a phenomenon and for takeovers by foreign firms in particular will come when the *popular* view of M&As turns positive and managers – especially the SME owners – want and can do M&As without the fear of being seen as failures or heartless. Also, it is essential for top managers in large companies to communicate M&A plans to their employees and get support for the merger, instead of only letting them know about the M&A *ex post* in the newspapers. A more holistic attitude about mergers and acquisitions might be a route to more successful M&As by “bringing humans” into the M&A planning process²⁴⁴. Therefore research on Japanese M&As, which focuses explicitly on the interconnectedness of organizational and cultural aspects *given the changes in attitudes among various groups of owners and managers*, would be a promising research area that could yield significant contributions to the empirical M&A literature.

7.5.2 The continued transformation of M&A characteristics in Japan

Another upcoming issue for future research is the continued transformation of M&A characteristics. Thus far, there are no signs of significant changes in the positive trend for M&A growth in Japan. Even though the number of M&A deals has fluctuated between individual years, the overall trend shows a sustained increase. Future changes to the M&A pattern will probably instead lie in the forms in which M&As are done, as institutional incentives that particularly favor takeover bids (TOBs) – especially hostile ones – have been introduced in recent years. Currently TOBs are a major topic for Japanese M&A researchers and specialists (see e.g. Karasuno and Kitachi, 1999; Bundō, 2001; Hagiwara, 2001; Kotsuka and Saotome, 2002), and in recent years TOBs in various forms, such as hostile TOB, management buyouts (MBOs), and management buyins (MBIs), have been used in a number of M&A deals.

What makes the increased occurrence of TOBs special is the uniqueness they represent in the Japanese setting, since TOBs are supposed to contain many of the negative features that Japanese managers and owners ascribe to M&As. As described in the Appendix, there have been laws regulating TOBs well before the 1990's, but it is only with the law amendments (including the removal of the compulsory prior notification to the Ministry of Finance) at the end of the 1990's that made TOBs easier to accomplish. The institutional hindrance to an increased number of TOBs is therefore more a question of

²⁴⁴ That is, in addition to having an explicit goal and economic purpose for the M&A.

people's attitudes than formal regulations. The interviewees from the M&A advisor firms commented that it was simply a matter of time before even "hostile" M&As would be broadly accepted.

It is apparent that in a static economic environment, where an industry is protected or no changes are made to the regulations that give the actors an incentive to change their behavior, the prospects for increased efficiency through, for example, learning are rather low. The reform package of 1998 was therefore a necessary prerequisite to promote an overall efficiency increase for the economy. This also includes M&As, whose fundamental mechanism was directly affected by the deregulations in core areas such as forms of payment, cross-border capital transfer controls, and pre-M&A notification requirements to the authorities. The interviews emphasized that incentive structures, in the form of corporate governance, laws and rules, will heavily influence the eventual outcome of the 1990's M&A wave. It is crucial, however, that the same standards are applied to all firms in Japan, and not only to a few industries. This will decide whether M&As will be the future tool for increasing firm efficiency, and in the end, overall industrial efficiency. In Japan, the number of M&As will probably increase as the formal and the informal institutional settings harmonize with the European and North American standards. But there is still a long way to go before the Japanese government reaches its aim to have the number of M&As on par with the average of the OECD countries.

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Appendix

A1 Structural reforms

Reforms of the accounting rules

The reform package of 1998 not only implemented far-reaching deregulation of the previously protected financial markets, but also enforced a program of increased the accuracy in accounting methods and greater transparency in the external accounting of firms. These parts of the Big Bang reforms were expected to have stimulation effects on inward M&As in Japan, since the valuation of firms could be increasingly done through open sources and thus opening up the market for possible hostile takeovers.

In comparison with other industrialized countries, the accounting rules concerning M&As became increasingly outdated. The reason for this was very simple and was found in the existing legal framework. Since the only form of payment allowed (with minor exceptions; see below) was cash, and taxes, dividends and profitability were based on the *individual* firm's balance sheet and income statement (even if the firm was a fully-owned subsidiary), neither the regulating bodies nor the firms demanded changes to the existing accounting practices (such as mandatory statement of consolidated accounts)²⁴⁵. In addition, because virtually all M&A deals were settled in cash, no particular accounting problems arose. After 1997, the *consolidated accounting* rules were reformed as a first step in harmonizing the Japanese accounting rules to western accounting practices. This meant the valuation of assets at current value, instead of letting firms choose between acquisition value and current value when stating the asset value on the balance sheet²⁴⁶. Under the current Commercial Law, various accounting practices have been allowed *as long as they followed the law's principle of market valuation of assets*. An-

²⁴⁵ Suzuki, H., pp. 26-28.

²⁴⁶ During the post-bubble era, when the stock prices dropped and the share holdings of firms lost substantial value, this rule became a stepping-stone for many firms in order to prop up their asset value, and by doing so, hide losses.

other major change connected to the new rules regarding consolidated accounting was the amendment to mandatory divestiture accounting (that is, full accounts for flows of cash and assets between parent and daughters companies) under a new law concerning divestitures that has been in effect since 2001²⁴⁷. Combined with the new rules introduced in 2000 for accounting practices regarding payments by exchange of shares when forming groups, the Japanese practices for consolidated accounting were raised to international standards and are now on par with the practices used in Europe and the USA²⁴⁸.

Having said this, there is still an ongoing academic and professional debate in Japan about which is the most appropriate accounting method to use in connection with M&As. This issue will not be discussed here since it is out of the scope of this thesis and this discussion does not have any particular impact on the results of the present analysis *per se*²⁴⁹.

Reforms of the legal regulatory structure

At the same time that the reforms to the accounting standards were enacted, the laws directly affecting M&As were also amended. Important legal reforms, making M&As an attractive option for business restructuring, were the amendments added to the Commercial Law and the Anti-Monopoly Law. Since the main institutional consideration for M&As is, of course, the laws regulating mergers and acquisitions, the radical amendment of the anti-monopoly and business legislation have opened up a smoother and more efficient way of forming new business partnerships through M&As.

The laws, which were amended, concerned²⁵⁰:

- Lifting the ban on pure holding companies (in effect from December 1997)
- Simplification of M&A formalities (in effect from October 1997)
- Reduction and simplification of obligatory applications and notifications to the Fair Trade Commission (FTC) and the Ministry of Finance (MoF)(in effect from January 1999)

²⁴⁷ Onogi and Torikai, p. 150.

²⁴⁸ Ibid.

²⁴⁹ Interested readers are referred to Suzuki, H. (2001).

²⁵⁰ JASMEC, pp. 27-29.

- Regulations concerning acquisitions involving exchange of shares (in effect from October 1999)
- Company restructuring (amendment of the 1952 Company Reconstruction Law; in effect from April 2000)

In addition, other important non-legal institutional changes occurred in Japan to facilitate M&As²⁵¹:

- Emergence of venture capital companies
- Spreading of MBOs

The amendment to the Foreign Exchange and Foreign Trade Control Law was yet another legislative reform that has facilitated FDI in Japan in general, and M&As with foreign firms in particular. The old regulations surrounding the use of foreign capital for FDIs were far-reaching and became a hindrance to inward M&As.

The details of these amendments and their implications for the institutional setting will be discussed below.

Lifting the ban on pure holding companies

The most important reform in this respect is the amendment to the ninth article of the Anti-Monopoly Law, which forbids so-called "pure" holding companies, that is, holding companies whose only assets consist of other firms. This prohibition, which was a product of the post-war break-up of the *Zaibatsu* groups, was abolished in December 1997. In 1999, the Commercial Law was amended to allow three forms of M&As in addition to those forms already permitted²⁵².

Together with the Big Bang reforms initiated in 1998, the possibility to set up "pure" holding companies has had a tremendous effect on the Japanese corporate world. The number of mega-mergers in the financial sector has been a direct result of these relaxations in the regulatory framework.

Although the amendment to the Anti-Monopoly Law made holding companies legal, there are still certain forms that are illegal. These are²⁵³:

²⁵¹ Op. cit., p. 29.

²⁵² Actually, these three forms were variants of the M&A forms already allowed, but the difference was to allow for "pure" holding companies, i.e. companies with only shares as assets.

²⁵³ Kawaguchi et al., pp. 140-141; Suzuki, H., pp. 60-61; Ogawa, pp. 96-97.

- Holding companies that will have over 15 trillion yen *ex post* in consolidated assets or the equivalent value if assets are spread among holding company firms,
- Financial holding companies that own non-bank financial firms that are of *substantial size*²⁵⁴, or
- Holding companies that form a powerful vertical group constellation in each submarket (e.g. a car manufacturing industrial group that gains significant market power in each market of the fully owned subsidiaries), or have over 10% of the total industrial turnover.

In short, the forms of holding companies that are still illegal are the ones that will end up having considerable market power or influence.

Exceptions to this law are holding companies that are considered as beneficial for an efficiently working business environment, such as venture capital companies, holding companies with consolidated assets of less than 300 billion yen and new financial holding companies where the *investing financial firms* themselves become subsidiaries of the new entity. However, a firm that transforms its subdivisions to fully owned subsidiaries is not considered an illegal holding company.

Simplification of M&A formalities

Before 1997, an M&A process was lengthy and filled with formalities, requiring a good deal of knowledge, patience, and above all, financial resources to survive short-term during the execution process if an M&A, if, for example, the M&A was chosen before a company liquidation. All this hampered the will of managers and owners to use M&As as a tool for restructuring²⁵⁵. After the amendments to the Commercial Law, the speed of the M&A process was increased by the abolition of the extraordinary general meetings required by law in connection with an M&A, and notification to the authorities – and subsequently the public announcement of the deal – was now only required for negotiations that were successfully completed. In addition, the protection of creditors was increased by a requirement that they be notified

²⁵⁴ Defined on a case-by-case basis by regulators.

²⁵⁵ An owner or manager had also to be prepared to pay higher commission fees than expected, especially if an M&A process became prolonged and the commitment level of the M&A advisor increased.

of an M&A, and the possibility that the creditors could voice opposition to whole or parts of such plans²⁵⁶.

In connection with the amendments to the Commercial Law, the burden not only decreased for the firms involved in M&As, but also for the governmental agencies, which were designated as control institutions. The major liberalization was the abolishment of the mandatory notification to the FTC in cases of M&As between small-scale, non-listed firms (defined by the statutes in the Anti-Monopoly Law) and M&As between parent and subsidiary companies or M&As between subsidiaries.

Regulations for acquisitions involving exchange of shares

In addition to lifting the ban on holding companies, this particular liberalization is the most crucial incentive introduced to increase M&As in Japan. Before 1999, cash payment was *de facto* the main alternative for carrying out an acquisition. The only cases where the investing firm could use its own stocks as payment, wholly or partly, under the pre-1999 Commercial Law were as follows:²⁵⁷

- A complete takeover of a firm (so-called "absorption merger", where the target firm is completely integrated within the investing firm and will not continue its operations as an independent legal entity)
- In cases where target firm B *cannot* be regarded, post-M&A as a subsidiary of investing firm A or any of its other subsidiaries (i.e. target firm B cannot own shares in investing firm A if firm B is to be regarded as a subsidiary of firm A or any of A's other subsidiaries)

Besides using stocks of the investing firm as payment in exchange for the target firm's stocks, it was also forbidden for companies to acquire and own its own stocks (with some exceptions, such as use of the creditor's shares as repayment for claims on a bankrupted debtor firm and M&As with firms that hold stocks in the investing firm; for more examples, see Muramatsu, 1989).

²⁵⁶ Ogawa, p. 79.

²⁵⁷ Muramatsu, p. 434.

For firms considering an M&A, the law amendment of 1999 has significantly improved and simplified the M&A process. The implications for each party in an M&A deal are as follows²⁵⁸:

- The acquiring firm can carry out an M&A without having to rely on external financing. Also, in most cases, no extra general meeting has to be summoned in connection with such M&As under the revised law.
- The shareholder minority of the target firm can demand to be made a 100% owned subsidiary of the acquiring company, if such a solution is better for the target firm shareholders.
- In the case of a deal between a listed and an unlisted firm, the unlisted target firm can defer possible capital gains taxes, when exchanging its unlisted shares for listed shares of the buyer, until the shares are sold.

Despite the broad liberalization, not all possible forms of M&As are included in the revised Commercial Law. Some variants of share payment as seen in the US, such as a so-called "three-party M&A"²⁵⁹, are still not allowed under Japanese law. Furthermore, a potential acquirer cannot directly approach the shareholders with an offer to exchange their shares for those of the acquirer²⁶⁰.

Amendments to the Company Reconstruction Law

The amendments to the Company Reconstruction Law have helped firms (SMEs in particular) not only temporarily fend off the threat of immediate bankruptcy by using an M&A (primarily then through business transfers), but also to fend off the threat of takeover and to protect the interest of the prioritized creditors. This type of company restructuring law is common in other industrialized countries, and the basic idea is to give the ailing firm a second chance before the financial status deteriorates so much that the firm is beyond rescue. Thus, the firm can sell subdivisions or subsidiaries and decrease the mass of debts (provided that the largest creditors agree to such

²⁵⁸ JASMEC, p. 28; Ogawa, p. 85.

²⁵⁹ E.g. parent company A acquires firm C, merges it with the fully owned subsidiary B and pays firm C with parent A stocks. Currently (as of 2004), there is an ongoing discussion in the Diet to lift the ban on this type of M&A transactions.

²⁶⁰ Ogawa, p. 84.

plans). Compared to the previous situation, the current law regulating company restructurings protects the firm by giving it a more generous restructuring period and protects the creditors' claims on indebted firms without risk of illegal dispersal of assets.

Amendments to the Foreign Exchange and Foreign Trade Control Law

While important amendments were made in the 1970's and 1980's, well before the 1998 Big Bang reforms, the first substantial reform influencing M&As was first introduced with the aforementioned reforms in 1998. Before the amendment, the currency regulations were far-reaching and prevented cross-border capital movements. The currency and capital import regulations for a potential foreign corporate acquirer in Japan can be summarized as follows²⁶¹.

- A mandatory prior notification to the Ministry of Finance and the ministry in charge of the industry involved, which included all details of the foreigner or the foreign firm, the purpose of investment, the purpose of business in Japan, the investment amount, the time for the inward investment, and finally, "other mandatory information required by law"²⁶².
- No investment activities were allowed during the 30 days following the submission of the notification form.

Now, the basic requirement has changed into a system of *ex-post* notification to the ministries concerned, similar to the notifications about M&As to the government under the Commercial Law. This has facilitated the FDI process for foreign firms, as now these firms only have to report those investments (e.g. M&As) that actually *have* taken place, helping the firms to keep market entry plans and inward M&A strategies confidential until the execution of the plans.

Other important non-legal institutional changes

Coinciding with the relaxation of the legal framework, two important factors in promoting an M&A-friendly environment in Japan evolved during

²⁶¹ EHS, Vol 5; Muramatsu, pp. 448-449; Economic Planning Agency, p. 24.

²⁶² Government order regarding FDI, cited in Muramatsu, p. 448.

the 1990's: the ease of raising venture capital and the spread of MBOs²⁶³. In November 1998, a month before share payments were allowed, a new law regulating the operation of venture capital firms came into effect. This law paved the way for foreign venture capital firms to enter the Japanese market, and also allowed governmental financial institutions to enter this business segment. Thus, the Japanese M&A market was reinvigorated, as this law helped to increase the number of M&As in Japan by making the market more liquid.

In addition to opening the venture capital market, METI has worked actively since 1998 to promote MBOs as a viable entrepreneurial alternative, and has set up an organization to spread the practice. This organization's main task is to support and make MBOs easier by informing and actively helping managers and employees who are considering such a step.

This development has been equally as important as the amendments to the legal framework, laying the foundation for a positive atmosphere regarding M&As that laws alone could not foster.

A2 Tax implications from M&As

In 2001, a major revision to the taxation laws was conducted, largely closing the reform package initiated in 1997. Basically, taxes apply to all forms of profits from an M&A deal, such as profits accrued from differences between stock price and market price or between the negotiated price and the price which the selling firm paid when the stocks were acquired (so-called capital gain). Therefore, from a taxation point of view, the M&A process is relatively simple. The most significant change, compared to the pre-2001 taxation law, was the introduction of a taxation system that addressed company restructurings, where mergers, as such, were fiscally defined and market valuation was emphasized. At the same time, some tax shield effects were eliminated. However, different treatment between mergers and acquisitions still exists and will be briefly described below²⁶⁴.

²⁶³ JASMEC, p. 29.

²⁶⁴ The reader should note that only mergers and acquisitions are mentioned explicitly in the discussion. The reasons are the treatment of M&As in Japanese taxation law, which only defines M&As as either "mergers" or "acquisitions". While the definition of "mergers" from the viewpoint of taxation law is similar to the one of the Commercial Law, "acquisitions" basically encompass all other forms of M&As.

Mergers

Japanese taxation law differentiates between *qualified* and *non-qualified* mergers. Qualified mergers are defined in the taxation law as²⁶⁵:

- A merger where only new shares (and no other assets) are handed over to the stockowners of the target firm as compensation for old shares
- A merger between two or more groups of firms, where assets are transferred between the merged firms as a result of the merger
- A merger between two or more firms, where assets are transferred between the merged firms in order to conduct joint operations

Consequently, all mergers that do not qualify under any of the above criteria are considered by law as non-qualified mergers.

In the cases of qualified mergers, all assets, debts and liabilities are inherited by the new entity, and consequently, also the tax liabilities of the target firm based on these assets and debts. For the shareholders of the target firm, taxes stemming from share value increases or losses in connection with surrendering the old stocks for the new (merged) entity stocks can be deferred, as well as the dividends from these stocks. Non-qualified mergers are, on the other hand, treated exactly the opposite. All tax liabilities of the target firm are paid at its dissolution, and for the stockholders of the target firm, all taxes stemming from taxable stock value increases or deductible losses in connection with the merger are settled immediately. In addition, the investing firm cannot use reserves built up by the target firm, because all assets and liabilities are taken over at market value and not at acquisition value.

Acquisitions

Basically, three areas of taxation apply to acquisitions: corporate, income and inheritance. The basic principle is that all income and capital gains from acquisitions of all forms (such as cash acquisitions, acquisitions involving exchange of shares, etc.) are regarded as taxable income. Naturally, this applies most often to the seller. A capital gain (loss) is defined in Japanese taxation law as the surplus (deficit) value of the market value of stocks sold minus their acquisition value. In other words, the central valuation criterion

²⁶⁵ Suzuki, K., pp. 76-102.

is the current market value at the time of the M&A deal. This rule applies to all sellers, individuals and legal entities alike. If the share is not publicly traded, the income taxation law stipulates "a fair value based on the valuation of assets according to the Basic Regulation Notice of Asset Valuation (*Zaisan Hyōka Kihontsūtatsu*) [no. 178 to 189-7]"²⁶⁶. Only in some minor instances, taxes on a taxable income can be deferred²⁶⁷. An *acquirer* is seldom taxed in connection with an M&A, and one of the few instances when an acquirer is taxed is, for example, when a non-listed stock is transferred to him for a value lower than what would have been "fair" according to the notice mentioned above²⁶⁸.

Taxation of foreign entities

Naturally, foreign firms registered in Japan as legal entities are regarded as any other Japanese firm. However, in the case of firms not registered in Japan, the principle of taxation at source applies. For cross-border M&As, this means that all income and capital gains stemming from M&A activities occurring in Japan are taxable in Japan²⁶⁹. Thus, the taxation principle of foreign firms is rather simple and straightforward.

²⁶⁶ Arthur Andersen Consulting, pp. 108-109; p. 116.

²⁶⁷ For details, see Arthur Andersen Consulting, pp. 115-116.

²⁶⁸ Op. cit., pp. 116-118.

²⁶⁹ Op. cit., pp. 112-116.

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