90-20-5396

Keio Business School

DMG MORI: Cross-Border Management Integration

The integration of Mori Seiki Co., Ltd. ("MORI SEIKI"), a Japanese maker of machine tools, and Germany-based GILDEMEISTER Aktiengesellschaft ("GILDEMEISTER"), began with a capital tie-up in March 2009, involved a name change to DMG MORI Co., Ltd. in March 2013, and concluded with the execution of a Domination Agreement in August 2016. GILDEMEISTER was established in Germany in 1870, and as of December 2008, annual sales were approximately 242 billion yen (approximately 1.904 billion euros) and the company boasted a dominant market share and name recognition in Europe. MORI SEIKI was established in 1948, and with its shorter history, had annual sales of 152 billion yen as of March 2009, making it a small company. It is said that in general, cross-border M&A is more difficult than M&A within the same country because of geographic and cultural differences as well as the effects of legal restrictions.[1] In the background to the success of this supposedly difficult integration with GILDEMEISTER, a long-established and larger German manufacturer of machine tools, were efforts that differ from those of typical cross-border M&A (see Appendix 1).

1. History of MORI SEIKI

MORI SEIKI, which was established in 1948, achieved growth throughout its history described below. The company was established in Mie Prefecture, Japan, by three brothers — Rinpei Mori (the first president), Shigeru Mori, and Yukio Mori (the second president) — and initially it was a small-scale enterprise that manufactured and sold textile machines for work glove fabric. With the special demand generated by the Korean War in the 1950s, the company changed business domains to manufacture of machine tools with a focus on lathes. Following the start of manufacture and sale of numerical control (NC) machines in 1968, the company made a substantial leap forward. MORI SEIKI used the capital gained in conjunction with increased sales NC lathes to build a new plant in Mie Prefecture, and in

[1] Kazuhiro Asakawa, 2011, Introduction to Global Management, Nikkei Business Publications, Inc., p. 240.

This case was prepared by Hidehiro Ito under the supervision of Professor Kazuhiro Asakawa of Keio Business School.

the 1980s entered the machining center field, which remains its strength to the present. Following the collapse of the bubble economy in 1991, MORI SEIKI posted losses continuously from 1995 to 1998. It was under these circumstances that Yukio Mori, the company's second president, was forced to retire in 1999 because of deteriorating health, and his son, Masahiko Mori, became the company's third president at the age of 37.

President Masahiko Mori drove the company's growth by actively merging with other companies in the industry. First, MORI SEIKI rescued Taiyo Koki Co., Ltd., a subsidiary of the bankrupt Ikegai Corp., by acquiring it in 2001. President Mori made the following statement, looking back at the time: "The acquisition of Taiyo Koki in 2001 was not the company's first M&A. When my father was president, MORI SEIKI acquired Yoshida Tekkoujo, a listed company that had fallen on hard times."[2] He also said, "At that time, Ikegai, Taiyo Koki's parent company, had petitioned for protection under the Civil Rehabilitation Act, and notes issued by Taiyo Koki were about to be dishonored. President Noboru Watanabe of Taiyo Koki believed that the situation was untenable and made contact with me through a distributor. We used Taiyo Koki machines in our plants and understood their high performance. We thought that this was a good opportunity and immediately decided to invest in Taiyo Koki."[3] In 2002, MORI SEIKI merged with HITACHI SEIKI as a rescue measure. HITACHI SEIKI was a maker of cutting machine tools with a customer base of some 7,000 companies including Hitachi and Nissan Group companies. According to President Masahiko Mori, "HITACHI SEIKI had a lot of customers in the Kanto region, an area where we were weak, and we could also learn from its ability to make effective proposals to customers, so we decided to acquire it. I believe that no matter how far the industry fell, it would definitely recover, so I wasn't at all uncertain about the acquisitions."[4]

2. President Masahiko Mori's Career

President Masahiko Mori grew up thinking about corporate management from an early age. He listened to his father Yukio discuss the events of the company and rival companies for an hour and a half at the dinner table every evening.[5] He also heard from his father about a crushing failure when an acquisition did not go well. "In the 1980s, he tried to buy up all the shares of a company called OKK in an attempt to acquire it, but he began purchasing shares without holding any talks with OKK, and the company opposed the acquisition, which ended in failure. Because of this failure, my father appeared in the Nikkei Business series "*Haigun no Sho, Hei wo Kataru*" (Defeated generals discuss their battles). Of course, listening to him talk my ears off about the details of this every night at the

[2] Nikkei Business, November 12, 2018, p. 94.
[3] Nikkei Business, November 12, 2018, p. 95.
[4] Nikkei Business, November 12, 2018, p. 95.
[5] Nikkei Business, October 29, 2018, p. 72.

dinner table led me to the conclusion that a company is something that can be bought and sold and to believe that combining companies is more interesting, despite my young age."[6] President Masahiko Mori graduated from Kyoto University with a degree in engineering and worked for eight years in the sales division of Itochu Corporation, a major Japanese general trading company. At Itochu's head office in Osaka, the accounting department, legal department, and personnel department are adjacent to one another and in addition to gaining sales knowledge and experience, he was able to acquire the knowledge necessary for the corporate management. While working at Itochu, he also had the opportunity to learn about M&A. "I was working in textile machinery sales, but I was also involved in the formation of a technical tie-up between a Japanese company and an overseas company."[7] President Mori says that because of such experiences, M&A is something he was familiar with even before the Taiyo Koki acquisition.[8] He worked hard to gain expertise relating to machine tools, and after he was appointed president, he acquired a doctorate in engineering from the University of Tokyo in 2003.

3. History of GILDEMEISTER

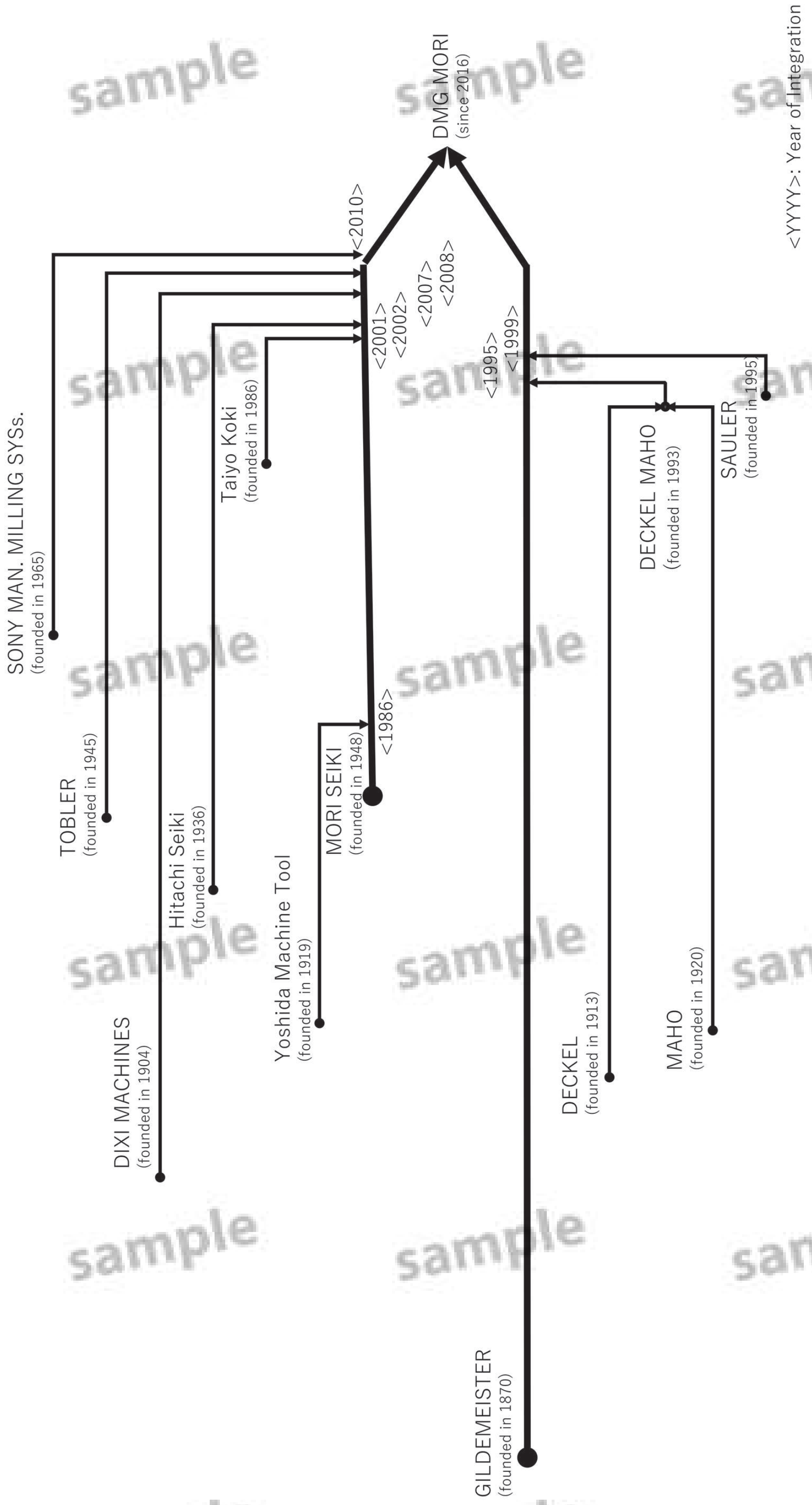
GILDEMEISTER, founded by Friedrich Gildemeister, a locksmith, as Werkzeugmaschinenfabrik Gildemeister & Comp in Bielefled, Germany on October 1, 1870, was a small company with about 100 employees. From about 1906, the company expanded the business by focusing on mass production of machine tools and by overcoming a number of historic upheavals. In 1918, after the First World War, business, which had been temporarily suspended during the war, was resumed, and the company formed alliances with parts suppliers and expanded business by focusing on the manufacture of machine tools for the production of locomotives. During the period of global crisis in the 1930s, the company survived by taking advantage of large-scale orders from the Soviet Union, and its workforce grew to 600 employees. During the Second World War, however, the company was subjected to extensive bombing and its plant was completely destroyed. Operations resumed in 1947 with 25 employees, and riding the wave of miraculous economic recovery in the 1950s, the company developed new products for customers in the automobile, motorcycle, machinery, textile, and other industries. As a result, it was able to secure a leading position in the European market. The company experienced solid growth until the 1960s and constructed a new massive plant of 300,000 square meters in size in the Sennestadt region.

In 1995, GILDEMEISTER rescued DECKEL MAHO AG, which had gone bankrupt due to the economic repercussions of the Gulf War and the collapse of the Soviet Union, by acquiring the

[6] Nikkei Business, November 12, 2018, p. 95.
[7] Nikkei Business, November 12, 2018, p. 94.
[8] Nikkei Business, November 12, 2018, p. 95.

company through mediation by the government and its workforce to increase to 2,700 employees. DECKEL MAHO had advanced milling and machine center technologies, and with this acquisition, GILDEMEISTER gained new expertise. The integration was led by Rüdiger Kapiza, who became CEO in 1996. President Kapiza participated in the establishment of DMG Vertriebsund Service, which handled GILDEMEISTER's sales and service. He oversaw sales, marketing, and strategic planning as a director starting in 1992. The company reached sales of approximately 75 billion yen (1 billion German marks) for the first time in 1998, solidifying its position in the European market. President Kapiza was trained as a machinist at GILDEMEISTER and obtained a doctorate in marketing from the Johannes Gutenberg University.

Figure 1. Genealogy of the Integration of MORI SEIKI and GILDEMEISTER



Prepared by the Author

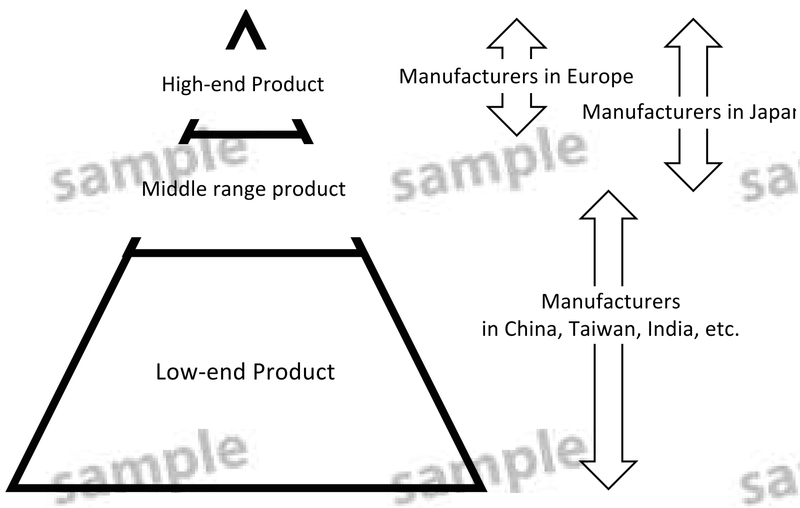
4. Features of Machine Tools

Machine tools are machines that cut materials such as iron to make products with the intended shape and are said to be mother machines in the sense that they are machines that produce other machines. The history of machine tools can be traced back to the 19th century, but they have made particularly significant contributions to the expansion of production in and rationalization of manufacturing industries starting in the 1950s with the appearance of numerical control (NC) lathes, which use a computer for automated operation.

One of the features of machine tools is that the precision of processing is the most important indicator that determines quality. High-end machine tools require extremely high precision, and evaluations are performed on the micron (10^{-6} m) level. It would be difficult to use products with an error of 20 microns in the production of medical devices or aerospace equipment. As shown in Figure 2, machining precision tends to vary depending on the country where a machine tool is produced. Products with error ranges of 6 microns or less are manufactured primarily by Japanese and German machine tool makers.[9] Although Japan and Germany have an advantage in technological levels, competition on precision with Chinese and other companies is intensifying. Although there is still room to respond to the calls for reducing error ranges even further, there are some in the industry who believe that the limits of what can be achieved through technology are being reached.

A second feature of machine tools is that since they are used as capital investment, they are susceptible to economic fluctuations. For example, as Figure 3 shows, both supply and demand plunged following the 2008 economic crisis and many companies declared bankruptcy.

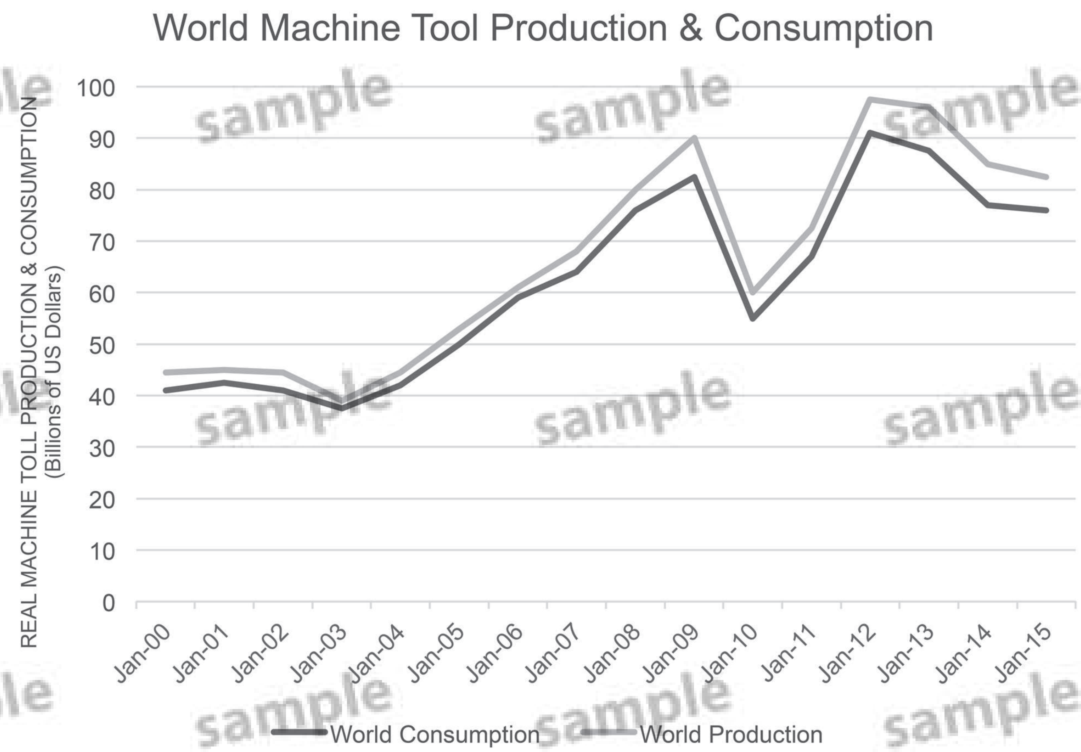
Figure 2. Categorization of Machine Tool Makers by Country/Region



Prepared by the author

[9] Ministry of Economy, Trade and Industry, Final Report on the Survey of Manufacturing Infrastructure Technology Conditions for Fiscal 2016 (2016), p. 7.

Figure 3. Changes in Machine Tool Production and Consumption in the Global Market



Source: Gardner Research, 2015 World Machine-Tool Output & Consumption Survey, p1

5. Overview of the Machine-Tool Market

In 2010, the global market for metal cutting machine tools was in the 5 trillion yen to 6 trillion yen range, and total consumption by Japanese manufacturers was approximately 1 trillion yen. As shown in Table 1, China has been in the number one position for total consumption since 2002, making China the largest market for machine tools. As can be seen in Table 2, China, Japan, and Germany account for about 60% of the total production value (machine-tool makers in the United States have been declining since the 1970s as a result of delayed standardization of CNC machines, which appeared at that time).[10]

Table 1, Machine Tool Consumption (2010)

Country	Consumption (Billions of yen)	Ratio to Total Consumption
China	2,547	45.0%
Japan	437	7.7%
Germany	418	7.4%
United States	386	6.8%
South Korea	381	6.7%
Italy	239	4.2%
Brazil	166	2.9%
Others	1,087	19.2%
Total	5,662	100.0%

Source: The 2012 World Machine-Tool Output & Consumption Survey, 2012, p3

Table 2.Global Machine Tool Production (2010)

Country	Production (Billions of yen)	Ratio to Total Consumption
China	1,870	30.4%
Japan	1,071	17.4%
Germany	849	13.8%
Italy	449	7.3%
South Korea	402	6.5%
Taiwan	347	5.6%
United States	299	4.9%
Others	871	14.1%
Total	6,156	100.0%

Source: The 2012 World Machine-Tool Output & Consumption Survey, 2012, p2

[10] The Nikkei, morning edition October 28, 2019, p. 18.

6. Players in the Machine-Tool Market

In 2008, there were five leading machine-tool makers with cutting tools as their main products that had sales in excess of 100 billion yen: GILDEMEISTER, MORI SEIKI, Yamazaki Mazak Corporation, Okuma Corporation, and Makino Milling Machine Co., Ltd. At that time, in China, there were more than 100 small-scale machine-tool makers, of which Shenyang Machine Tool Group and Dalian Machine Tool Corporation stood out from the crowd in terms of size and posed a threat to leading Japanese manufacturers.

Shenyang Machine Tool (Group) Co. Ltd. (SMTCL), established in 1993, is a publicly-traded, state-owned stock company (government owned), and in 2009 was China's largest machine-tool maker group. The company's origins go back to 1953 when Shenyang First Machine Tool began manufacturing machine tools. Its shares were listed on the Shenzhen Stock Exchange in July 18, 1996. In 2008, sales were approximately 98.9 billion yen, and in 2010 the company had 13,459 employees (7,556 (56%) in manufacturing divisions and 1,373 (10%) in technology divisions). SMTCL manufactured primarily low-cost, low-precision machine tools and generated profits through high volumes, but according to President Tomohisa Yamazaki of Yamazaki Mazak Corporation, "Precision has increased rapidly compared to several years ago, and the company's products are starting to be equipped with numerical control devices, which are the brains of machines."[11] The company has acquired technology from advanced machine-tool companies including the merger, in October 2004, with Schiess Aktiengesellschaft, a German machine tool manufacturer with a 150 year history that had declared bankruptcy in August of that year. SMTCL has started to market products on the intermediate level, a business domain in which Japanese manufacturers have had a leading position. At the time of the acquisition of Schiess, the SMTCL person responsible for the acquisition commented that the company acquired not only assets but also a brand name at extremely low prices, opening up a path to starting design and manufacture of high-end products.[12]

Dalian Machine Tool Group Corporation (DMTG) is a manufacturer whose main products are lathes and vertical-and-horizontal machining centers. It started as Dalian Machinery in 1946, with the current corporation forming from the merger with and reorganization of loss-generating state-owned companies in 1996. DMTG steadily increased in size and in 2011 had 14,893 employees (9,250 (62%) in manufacturing divisions and 1,519 (10%) in technology divisions). DMTG was the first Chinese machine tool maker to acquire a foreign company, purchasing U.S.-based Ingersoll Production Systems in 2002 and purchasing the specialty machine division of Ingersoll CM Systems in 2003. DMTG also acquired F. Zimmermann GmbH of Germany in 2004.

---

[11] The Nikkei, morning edition June 6, 2010, p. 5

[12] China Daily, November 16, 2004

Yamazaki Mazak Corporation started as an iron works founded by Sadakichi Yamazaki in Aichi Prefecture, Japan in 1919. It is a family-managed company that continued to be managed with a member of the Yamazaki family at its head. It has remained unlisted based on the idea that "stock listing is not suitable for the machine-tool industry, which experiences large differences between highs and lows in the economy."[13] Public information regarding the company's management is limited, but in the fiscal year ended March 2007, annual sales were approximately 250 billion yen, and in 2016 the company had 7,848 employees. In 2017, the company was renowned as the world's largest machine-tool maker with 8,330 employees and was a giant in the machine-tool industry. Yamazaki Mazak has operated under the principle of conducting business without going through trading companies and without borrowing money. In the late 1980s, the company was among the first to engage in global development with the commencement of operations of its first overseas plant in the United States, and by 2016, it had become a global company with overseas business accounting for 80% of total sales. Yamazaki Mazak has production sites in Japan, the United States, the United Kingdom, Singapore, and China, has built a parts supply chain that spans the world, and has technological capabilities to produce products with high machining precision.

Okuma Corporation was established in 1898 in Aichi Prefecture, Japan and initially manufactured and sold noodle production machinery. The company began manufacturing machine tools in 1904 and developed into a company with a reputation for strengths in large-scale double-column machining centers and technological capabilities. Following the development of an NC lathe with an internal minicomputer in 1972, Okuma has manufactured and sold NC lathes. The company has advanced technological capabilities including the invention of a thermo-friendly function that minimizes changes in machining dimensions caused by temperature fluctuations and of technology that eliminates vibrations known as chatter, a technical problem in the industry for many years.

Makino Milling Machine Co. Ltd. is a Japanese company founded in 1937 whose strengths are medium and small-sized machining centers for precision dies and aircraft. Competition in the machine-tool industry was becoming increasingly fierce, and the company was cautious about expanding. In 2006, sales were approaching 140 billion yen, but orders fell. When the sales declined to 57.9 billion yen in 2010, President Jiro Makino said, "Even at this scale, the company is big enough to worry that it may be too big."[14] Starting in the mid-1970s, Makino began to establish business in the U.S. and Europe and later expanded into China, India, Singapore, and other parts of Asia, resulting in a large proportion of overseas business. The company has adopted a cautious stance regarding M&A. President Makino commented, "I can't say that it will never happen, but even if we undertake M&A, the results will likely be minimal. Machines are developed and produced according to the processing

[13] TYamazaki Mazak Corporation website: https://www.mazak.co.jp/recruit/company/index.html, accessed May 20, 2020

[14] The Nikkei Business Daily, February 7, 2011, pl9

methods of each customer. If we were to integrate with another company, the features of the acquired company would be lost, and user options would become more limited.”

Table 3. Profiles of Major Machine Tool Manufacturers

Company	Headquarters	Establishment Year	Family-owned Company	Listed/ Unlisted	Employee Headcount
Moriseiki	Japan	1948	Yes	Listed	4,150
Gildemeister	Germany	1870	No	Listed	6,451
SMTCL	China	1953	No	Listed	13,459
DMTG	China	1946	No	Unlisted	14,893
Yamazaki Mazak	Japan	1919	Yes	Unlisted	N/A
Okuma	Japan	1898	No	Listed	2,908
Makino Milling	Japan	1937	Yes	Listed	1,276

* The numbers of employees of MORI SEIKI, GILDEMEISTER, Okuma, and Makino Milling Machine are from fiscal 2009.
* The number of employees of SMTCL is from fiscal 2010.
* The number of employees of DMTC is from fiscal 2011.
Source: Annual reports of each company.

Table 4. Gross Sales of Major Machine Tool Manufacturers (fiscal 2006 – fiscal 2008)

Company	2006	2007	2008
Moriseiki	172,262	202,260	157,203
Gildemeister	209,744	256,523	242,061
SMTCL	80,385	90,098	98,936
DMTG	N/A	N/A	N/A
Yamazaki Mazak	250,000	N/A	249,500
Okuma	188,800	213,827	167,369
Makino Milling	137,597	132,739	100,355

Unit: Million yen

* The fiscal years of GILDEMESITER, SMTCL and DMTG end in December.
* The fiscal years of MORI SEIKI, Yamazaki Mazak, Okuma, and Makino Milling Machine end in March.
Source: Prepared from S&P’s Capital IQ database (accessed May 20, 2020)

Table 5. Sales by Region of Major Machine Tool Manufacturers (fiscal 2008)

Company	Asia	Europe	America	Others	In Total	Ratio to Total Revenue
Moriseiki	20,938	46,359	34,700	0	101,997	64.9%
Gildemeister	21,785	96,824	14,524	2,421	135,554	56.0%
SMTCL	–	–	–	–	–	–
DMTG	–	–	–	–	–	–
Yamazaki Mazak	–	–	–	–	–	–
Okuma	29,293	28,341	33,569	0	91,203	54.5%
Makino Milling	25,291	13,888	26,071	2167	67,417	67.2%

Unit: Million yen

Source: Annual reports of each company.

7. The Start of Integration

The beginnings of the integration of the two companies was the receipt of a fax from President Rüdiger Kapiza of GILDEMEISTER saying, “I would like to meet.” President Masahiko Mori and President Kapiza had frequently talked at exhibitions, and President Mori was initially positive about a tie-up with GILDEMEISTER. Following the financial crisis of 2008 and with a rising sense of crisis regarding the acquisition of European and American companies by Chinese machine tool manufacturers as shown in Table 6, the two companies agreed to form a capital alliance in 2009.

Table 6. Main Examples of Acquisitions of European and American Companies by Chinese Machine Tool Makers

Year	Chinese Machie Tool Companies (Buyers)	Western Machine Tool Companies, the Sellers	
		Company Name (Sellers)	Country
2002	DMTG	Ingersoll Production Systems	US
2003	Shanghai Mingling Machine Tool Works	Wohlenberg	Germany
2004	SMTCL	Schless	Germany
2004	DMTG	Zimmermann	Germany
2005	Beijing No. 1 Machine Tool Plant	Waldrich Coburg	Germany
2006	Hangzhou Machine Tool Group	Anaz&b	Germany
2008	Tianshui Spark Machine Tool	SOMAB	France
2011	Wolong Motor Control Technology	ATB	Austria
2011	Guangdong Greatoo Molds	OPS-INGERSOLL	Germany
2012	Beijing No. 1 Machine Tool Plant	C.B.Ferrari	Italy
2013	Chongqing Machinery & Electric	Tooling&Equipment International Corp	US
2014	RIFA Group	MCM	Italy
2015	Chongqing Machine Tool (Group)	KAPP GmbH&Co.KG	Germany
2016	SMTCL	GAZDEVICE	Russia

Source: Ministry of Economy, Trade and Industry, Survey of Manufacturing Infrastructure Technology Conditions for Fiscal 2016 (Survey and Research on Understanding Supply Chains for Technologies Key to Enhancing Industrial Competitiveness) (2016), p. 10.

8. Integration Process: Organizational Culture

In March 2009, President Masahiko Mori formed an alliance with GILDEMEISTER and announced that the companies would seek to integrate by 2020. The alliance between companies was premised on integration from the beginning, but it was not anticipated that the integration would take the form of MORI SEIKI acquiring GILDEMEISTER. First, from 2009 to 2012, the companies would seek to achieve a "fusion of personnel." This was because they believed that among internal company resources, "people are the most important," and without people it is not possible to secure goods and capital. It is a fact, however, that with integration, organizational friction arose, and on the Germany side, there was a strong sense of being craftsmen and there was some backlash asking "why Japan?" Some employees quit in the first and second years. Under such circumstances, the "spirit of equality" was emphasized and caution was exercised to avoid the use of language in media announcements and so on such as "making GILDEMEISTER into a subsidiary" that would result in a backlash. President Mori made the following statement: "Respect for an acquired company and enhancement of working conditions at the company are essential. It is necessary that wages and other work conditions such as employee cafeterias and uniforms be made the same on the acquiring and acquired sides. I believe that if they are the same, respect will naturally arise for the technologies and knowledge that the companies and their employees have, and the integration of cultures can proceed."[15]

In this way, the alliance proceeded in accordance with the "spirit of equality," but there were many differences between the companies, such as differences in manufacturing techniques, and clashes also occurred. In response to these clashes regarding manufacturing techniques–the foundations of the manufacturing industry–MORI SEIKI adopted many of GILDEMEISTER's techniques. President Mori explained, "Take the method of notating design drawings as an example, MORI SEIKI and DMG [author's note: GILDEMEISTER] were making the same kinds of machine tools, but our design drawing notation methods were different. I knew that if we adopted DMG's techniques, complaints and dissatisfaction would arise at MORI SEIKI worksites. Nonetheless, I adopted the German labeling methods without hesitation. I imposed this measure from the top down, even though it could have led to me being hated."[16] "Some employees at worksites may have believed that the methods that each company had were different, but from the perspective of a manager, they were 95% the same." "When we compared the two companies' methods of doing things, there were instances where DMG's methods were superior and we adopted them. One of the reasons for doing so was that by aligning ourselves to DMG, we would gain the gratitude of DMG employees. If they felt this gratitude, the MORI SEIKI employees would also be happy. We weren't going to die if we adopted the other side's methods, and

[15] Nikkei Business, November 12, 2018, p. 97.
[16] Nikkei Business, May 25, 2015, p. 70.

we simply had to swallow our pride a little."[17] There were other differences between the cultures of the two companies, as shown in Table 7, and MORI SEIKI intentionally left those differences as they were or skillfully incorporated them within the company. President Mori commented that "the thinking regarding contracts of the Japanese people and German people is similar. They are both fond of cleanliness. The personnel of both MORI SEIKI and DMG are country folk. Therefore, their thinking is similar,"[18] and this similarity also contributed to promoting the alliance (see Appendix 2: German Individualism and Work Attitudes Different from in Japan).

Table 7. MORI SEIKI's Responses to Cultural Differences

Cultural Difference	Mori Seki's Response
Rules on scope of work: German employees perform only the work stated in their job descriptions. Legal regulations prohibit companies from ordering workers to perform work outside the scope of their job descriptions.[19]	Left as-is: In order to raise production quality on the German side, measures, such as Japanese-style improvement activities or frequent proposals among divisions, were considered to be applied. Yet, since the work of each employee is made clear through the job descriptions, work can be performed efficiently in a short time, so caution needed to be exercised regarding the introduction of measures that would contradict this premise.[20]
Restrictions on working hours: In Germany, if for example, a service engineer is performing off-site work, and the worktime reaches 10 hours, the engineer must stop working regardless of the current status. In Japan, however, work will be continued late into the night based on the idea that a customer who is having problems cannot be abandoned or that work should be concluded at a good stopping point.[21]	Work style reforms were implemented in imitation of Germany's high productivity. The total annual working hours of 2,400 hours per employee in 2015 (compared to 1,650 in Germany) were reduced by at least 15% and average monthly overtime was reduced from 34 hours to 20 hours. The number of days of paid vacation time that employees took increased from 13 days to 17.5 days.[22]

In order to overcome the cultural differences of the two companies, ingenuity was also exercised with regard to communication. Awareness was generated of emphasizing direct communications rather than relying on email and teleconferencing, and periodic "retreats" where employees engaged in the same types of work could comprehensively discuss things and other programs were held. President Mori commented: "many Japanese people may believe that it is possible to come to a consensus without a lot

[17] Nikkei Business, May 25, 2015, p. 70.
[18] Nikkei Business, November 12, 2018, p. 96.
[19] Nikkei Monozukuri, February 1, 2018, p. 43.
[20] Nikkei Monozukuri, February 1, 2018, p. 44.
[21] Nikkei Monozukuri, February 1, 2018, p. 5.
[22] Nikkei Monozukuri, February 1, 2018, p. 41.

of discussion simply by anticipating each other's reactions, but in the case of an international marriage, it is not possible to understand the other person without a lot of talking. With some exceptions, most Germans cannot speak much English. As a result, even if English is used as the common language, the discussion becomes one between two poor speakers of English, so they are unable to refute one another and can discuss things fully and properly."[23]

9. Integration Process: Leadership

Following the March 2009 announcement of the capital alliance, President Mori of MORI SEIKI was appointed to GILDEMEISTER's board of corporate auditors, and President Kapiza of GILDEMEISTER was appointed as a senior executive officer of MORI SEIKI. The role of the board of corporate auditors in German corporations is to supervise management, and the main duty is to supervise the executive officers including appointing and dismissing executive officers and determining their compensation, supervising and providing advice, and formulating work regulations. The board of corporate auditors also participates in the execution of business with respect to some important matters. In contrast to in Japan, where corporate auditors' main duty is to conduct legal compliance audits and accounting audits of the work of executive officers, the authority and responsibilities of the board of corporate auditors in Germany is broader, which is one of the key features of corporate governance in Germany.[24] President Mori was called upon to bear this important responsibility.

With respect to integration of leadership, the "spirit of equality" manifested in other ways. A "two-headed" structure was adopted whereby top management and officers responsible for development, marketing, finance, and so on were appointed from both companies rather than selecting persons from either MORI SEIKI or GILDEMEISTER. A joint committee was established as the decision-making body for both companies, and a steering committee made up of executives from both companies met on a monthly basis. Working groups were established under the steering committee. Although the Japanese side commented that the German officers were nearly 10 years younger, which made things a little difficult,[25] a structure that enabled one company to monopolize managerial decision-making was intentionally avoided. After the 2009 announcement of the capital alliance, President Mori reformed the GILDEMEISTER management team and reinforced his initiative. President Mori commented, "the earlier directors were, of course, superior and knowledgeable personnel, but the people that I appointed were able to work on the integration based on the same thinking. But rather than change things all at once, the personnel were replaced one at a time when their terms expired. It is important to exercise authority regarding personnel matters."[26]

[23] Nikkei Business, November 12, 2018, p. 96.
[24] Mizuho Sangyouchosa, No. 50, June 10, 2015, p. 341.
[25] Interview of Michael Mühlegg, Manager of Corporate Education & Training for DMG MORI AKTIENGESELLSCHAFT.
[26] Nikkei Business, November 12, 2018, p. 96.

MORI SEIKI was managed under the strong initiative of President Mori, but as the integration proceeded, his management style also changed. “To be perfectly honest, although a general schedule had been decided, under my leadership alone, things became disorganized. Whenever an idea popped into my head, I would just blurt it out. Even so, the consolidated company still had only about 4,000 employees, and a company couldn’t function like that with an organization of about 12,000 employees like we have now.”[27] “Since we [i.e., President Mori and President Kapiza] made our ideas known while listening to everyone’s opinions, it was no longer necessary to do things as ideas occurred to us, and waste decreased.”[28] President Kapiza , who had led GILDEMEISTER and see announcement of the capital alliance with MORI SEIKI in 2009, resigned on April 6, 2016, and Christian Thoenes, who had been involved in manufacturing and development at GILDEMEISTER, took his place. The reorganization and integration of leadership continues even now.

10. Integration Process: Sales and Manufacturing

The work of integration with GILDEMEISTER was “fundamentally the same in terms of the order adopted in the integration with Taiyo Koki and with Hitachi Seiki,” according to President Mori.[29] To begin, marketing and sales functions were reinforced. The heads of the two companies, i.e., President Mori and President Kapiza, split up their top 100 global customers (global key accounts) and each personally conducted sales activities targeting 50 of those companies. For example, President Mori handled Japan’s leading automobile manufacturers and main automotive parts makers, while President Kapiza targeted Europe’s leading automobile manufacturers. They also developed their sales networks: They divided the world into approximately 1,000 regions, appointed sales and service personnel for each of those regions, and made it possible for everyone to understand the status of global sales. In July 2011, approval to integrate the sales networks of MORI SEIKI and GILDEMEISTER was received from Germany’s Federal Cartel Office (FCO), and a new company was established in Switzerland to manage sales companies in each country. MORI SEIKI’s sales system conducted sales through distributors, but President Mori listened to the opinions of customers of GILDEMEISTER’s direct sales system and determined it to be reasonable and began establishing a direct sales system.[30]

Integration also proceeded in the area of production. A Japanese-German team was formed in the summer of 2010, conducting development at a site in Germany for about a year and a half. The two companies jointly designed and developed small products from the ground up, and they later standardized their parts and units. President Mori made the following comment regarding the features of each company with respect to production: “In the manner typical of Japanese companies,

[27] Nikkei Monozukuri, February 1, 2018, p. 7.
[28] Nikkei Monozukuri, February 1, 2018, p. 7.
[29] Nikkei Business, November 12, 2018, p. 96.
[30] Nikkei Information Strategy, June 1, 2013, p. 9.

MORI SEIKI paid attention to the minutest of details and was proficient at fine improvements and enhancements. In contrast, GILDEMEISTER created the general design of the machine and conceptual drawings of the assembly and could skillfully adjust the specifications of its parts to the drawings. In Germany, small and medium-sized companies are strong, and they purchase components for assembly. MORI SEIKI handled everything down to the screws and ball screws. GILDEMEISTER's lathes used a lot of components that were the same as other machines, and costs were lower. On the other hand, MORI SEIKI listened to every aspect of detailed customer requests, and for this reason, we never attempted to use standard parts even if cost reductions could be expected. German customers are not particular about the parts. They believe that, in the case where a small part needed to be bigger due to parts standardization, such a change is acceptable if the part becomes less expensive. In contrast, Japanese customers want us to make the machines small by making the parts as small as possible. This is because saving space in Japan's small plants is crucial."[31] In light of these differences, the Japanese method was followed and GILDEMEISTER started to make key components in-house. At the same time, model updates and model integration were handled with great care. "It took time to pool the knowledge of both companies and make use of reviews of past quality problems in order to create products," said President Mori.[32] For this reason, following the integration of sale networks, in 2013 the two companies announced that their approximately 200 models of machines tools would be consolidated and discontinued to half that number by 2020.[33] After even further consolidation in the future, they plan to reorganize production sites around the world, consolidate and shut down adjacent plants, and adjust production items.

11. Integration Process: Personnel Systems

As integration proceeded, MORI SEIKI's workforce became more international, with Japanese and German employees accounting for about 60% and the remainder made up of Americans, Swiss, and others. MORI SEIKI Executive Vice President Hiroaki Tamai stated, "MORI SEIKI is a Japanese-German joint enterprise, and we believe that there are three types of workplaces: global, national, and local. Employees can pursue sales jobs that allows them to travel throughout Japan, or they can focus on machine design at the Iga Campus in Mie Prefecture. They can also aim for a management position and work overseas." He also said, "Eventually, we intend to standardize personnel systems including hiring in both Japan and Germany. We are making the initial preparations now. We plan to start by categorizing the employees of both companies by job type and build a database. For example, a general affairs division is a given in Japan, but they are not commonly seen in Germany. We aim to optimize personnel globally by subdividing employee information in detail according to job type."[34] An issue

[31] Nikkei Information Strategy, June 1, 2013, p. 66.
[32] Nikkei Business, November 12, 2018, p. 95.
[33] The Nikkei, morning edition, September 14, 2013. p. 10.
[34] Nikkei Information Strategy, July 22, 2014, p. 21.

90-20-5396

to be addressed in the future achieving balance between the compensation of MORI SEIKI directors and GILDEMEISTER directors, as shown in Table 8.

Table 8. MORI SEIKI and GILDEMEISTER Director Compensation in FY 2017

Name	Company	Title	Total Annual Compensation (thousand yen)
Masahiko Mori	Moriseiki & Gildemeister	President & Representative Director (Chairman of Supervisory Board of Gildemeister)	148,000
Hirotake Kobayashi	Moriseiki	EVP, CFO & Executive Director	101,000
Hiroaki Tamai	Moriseiki	EVP & Director	102,000
Takayama Naoshi	Moriseiki	Executive director	L
Oishi Kenji	Moriseiki	Executive director	L
Christian Thones	Gildemeister	Chairman of the Executive Board & Labor Director	248,430
Björn Biermann	Gildemeister	CFO & Member of Executive Board	148,590
Maurice Eschweiler	Gildemeister	Chief Representative	148,590

* L: Less than ¥100,000,000
* Total Annual Compensation includes Salary, Bonus, and Other Compensation
Source: Prepared from Mori Seiki FY 2017 Securities Report and S&P's Capital IQ (accessed May 20, 2020)

12. Integration Process: Capital

The capital alliance between MORI SEIKI and GILDEMEISTER was announced in March 2009. MORI SEIKI acquired new shares issued by GILDEMEISTER, GILDEMEISTER acquired MORI SEIKI shares from the market and other sources, and each company came to hold 5% of the voting rights of the other through these reciprocal share acquisitions. MORI SEIKI increased its equity stake in GILDEMEISTER in stages, and on March 16, 2011, MORI SEIKI subscribed to a third-party allocation of shares conducted by GILDEMEISTER, raising its holdings from 5% to 13.6%. MORI SEIKI further increased its stake in GILDEMEISTER to 20.1% in April 16, 2011, and GILDEMEISTER became an affiliate of MORI SEIKI subject to application of the equity method (when a non-consolidated subsidiary or affiliated company whose parent company holds at least 20% and no more than 50% of voting rights prepares consolidated financial statements, in principle, it is an affiliated company subject to the equity method (a method of correcting the investment amount of an investor company according to changes in the portion of the net assets and profit and loss of the investment target company that is attributable to the investor company)). On August 2, 2011, GILDEMEISTER acquired additional shares of MORI SEIKI, increasing its stake from 3.74% to 5.1%, surpassing the holdings of President Masahiko Mori (3.9%) to become the largest shareholder and further strengthening the alliance. On March 21, 2013. MORI SEIKI increased its holdings of GILDEMEISTER to 24.9%, and GILDEMEISTER increased its holdings of MORI SEIKI to 10.1%. As a result, restrictions under European Union competition law (EU laws on the prohibition of monopolies) were relaxed, allowing the two companies to share information on designs, costs, and customers and enabling the exchange of technical information and technical collaboration. In addition, a cooperation agreement was executed at this time; it was decided that MORI SEIKI would change its trade name from Mori Seiki Co., Ltd. to DMG MORI Co., Ltd., GILDEMEISTER would change its trade name from GILDEMEISTER AKTIENGESELLSCHAFT to DMG MORI AKTIENGESELLSCHAFT, and the corporate brand would be unified as DMG MORI. A decision was made for both companies to conduct cooperative business through a joint committee. On September 9, 2013, GILDEMEISTER increased its holdings voting rights in MORI SEIKI from 5.5% to 9.6%.

The efforts of the two companies with an initial objective of integration by 2020 were accelerated in response to the appearance of competitors including Chinese companies and the stabilization of business confidence. In May 2015, DMG MORI GmbH, a MORI SEIKI consolidated subsidiary (MORI SEIKI's European management company), conducted a takeover bid (TOB) and increased its stake in GILDEMEISTER from 24.33% to 52.54% to make GILDEMEISTER into a consolidated subsidiary. Through this procedure, the restrictions on personnel transfers between the two companies' technical divisions were lifted. The total cost of the shares corresponding to the 28.21% obtained through individual purchases and TOB was approximately 85.3 billion yen, and the acquisition funds were procured through bank loans and other means. President Mori made the following comments regarding the use of a TOB: "The term M&A is outdated. I personally believe that the term takeover bid or TOB is no longer a possible expression. I never used the word 'acquisition' even a single time in any context. This was entirely a 'merger of equals,' and as a result of obtaining various information on how to implement the merger, we determined that borrowing money from banks to buy more DMG [GILDEMEISTER] shares was the best means."[35] Following implementation of the TOB, MORI SEIKI purchased all of its shares held by GILDEMEISTER in November 2015.

MORI SEIKI further increased its stake in GILDEMEISTER from 60.67% to 76.03% in April 2016. With this acquisition, it became possible for MORI SEIKI and GILDEMEISTER to execute a domination agreement (an agreement under German law that allows one company to directly issue instructions to the board of directors, the decision-making body, of another company), which requires the approval of more than 75% at the general shareholders meeting. At this time, President Rüdiger Kapiza announced his resignation as chief executive officer. The domination agreement was executed on August 24, 2016, the complex procedures relating to personnel changes were eliminated, MORI SEIKI became able to directly issue instructions to GILDEMEISTER, and complete integration was achieved.

[35] Nikkei Business, May 25, 2015, p. 71.

13. Effects of Integration

In the December 2016, MORI SEIKI's annual sales reached 370 billion yen, overseas sales accounted for 85.3% of the total, and it became the world's largest machine tool company, as shown in Table 9 and Table 10. The global development of business advanced as result of the integration, and MORI SEIKI became able to propose "responding anywhere" to customers conducting business in regions around the world, such as Toyota Motor in Japan, Volkswagen in Germany, Boeing in the United States, and Rolls Royce in the United Kingdom.[36] President Mori stated that the company was able to enjoy economies of scale and amass substantial knowledge, such as understanding the needs of customers in each country.[37]

Table 9. Total Sales of Major Machine Tool Manufacturers (FY 2009 – FY 2016)

Company	2009	2010	2011	2012	2013	2014	2015	2016
Moriseiki	66,402	120,428	155,320	148,559	160,728	174,660	–	–
Gildemeister	158,478	150,755	170,302	233,449	298,986	325,583	–	–
DMG MORI	–	–	–	–	–	–	374,654	376,631
SMTCL	91,714	121,632	145,271	117,701	111,537	118,125	96,494	94,377
DMTG	N/A	N/A	N/A	N/A	254,137	249,622	243,326	N/A
Yamazaki Mazak	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Okuma	60,336	100,966	140,566	133,774	134,351	166,230	183,478	162,679
Makino Milling	57,881	95,164	110,460	126,809	123,896	149,506	161,979	153,641

Unit: Million yen

* In fiscal 2015, GILDEMEISTER was made subject to MORI SEIKI's consolidated accounting (integrated with DMG MORI).
* The fiscal years of GILDEMEISTER, SMTCL, and DMTG end in December.
* The fiscal years of MORI SEIKI, Yamazaki Mazak, Okuma, and Makino Milling Machine end in March.

Source: Prepared from S&P's Capital IQ database (accessed May 20, 2020)

Table 10. Sales by Region of Leading Machine Tool Manufacturers (FY 2016)

Company	Asia (Unit: Million yen)	Europe (Unit: Million yen)	America (Unit: Million yen)	In Total (Unit: Million yen)	Ratios to Total Revenue
DMG MORI	46,786	218,701	55,860	321,347	85.3%
Yamazaki Mazak	–	–	–	–	c80%
Okuma	9,213	21,989	41,546	72,748	44.7%
Makino Milling	13,071	40,361	48,140	101,572	66.1%

* c: circa

Source: FY 2016 securities reports of each company; with respect to Yamazaki Mazak, The Nikkei, morning edition, June 5, 2019, p. 12.

[36] Nikkei Information Strategy, June 1, 2013, p. 11.

[37] Nikkei Business, May 25, 2015, p. 71.

Appendix 1. Flow of a Typical Cross-Border M&A

The general flow in practice of a typical cross-border M&A is as follows. The seller company, which plans to sell all or part of the company, finds a financial advisor (M&A broker) to facilitate future negotiations and executes an M&A broker agreement and a nondisclosure agreement with the M&A broker. The financial advisor prepares a "non-name sheet" that abstractly summarizes the company profile and M&A conditions, providing information to an extent that does not enable identification of the seller company. The financial advisor selects several tens of companies that appear to meet the conditions and prepares a written "long list (or shortlist)." The financial advisor sends the non-name sheet to the companies on the long list, and interested buyer company candidates respond. It's the exchange of information proceeds to a certain degree, a "name clear" that provides detailed information to the buyer candidate is performed. The heads of the companies then meet for the first time. The primary participants in this meeting are the managers and owners of the seller company and the management team and M&A personnel of the management planning division at the buyer company. The financial advisor often performs facilitation at that time, and to prevent information leaks, the meeting is often held at a hotel, the financial advisor's office, or the seller's or buyer's office on a holiday when employees will not be there. If necessary, inspections of the seller's plants and offices are conducted in secret at this stage.

Subsequently, the seller and buyer execute a provisional agreement in the form of a letter of intent (LOI) or memorandum of understanding (MOU). The agreement sets forth the M&A method (share transfer, etc.), purchase price, due diligence schedule and duty of cooperation, exclusive negotiating rights, duty of confidentiality, allocation of expenses, court of competent jurisdiction, governing law, and other such conditions.

Due diligence is an examination by the buyer of the seller's business, finances, taxes, legal matters, personnel, IT, and so on. The seller's management information is uploaded to a virtual data room (VDR) created online with a robust security environment. Experts in various fields (including attorneys, accountants, and consultants) engaged by the buyer examine the information and calculate the purchase price, identify risks relating to the acquisition, calculate synergies, and so on. At this time, measures to retain outstanding employees and how long the seller's management team will remain in office after the purchase (retention plans) are also investigated. The details of the final contract are determined through the due diligence, the final buyer is selected from among several buyer candidates, and a final agreement is executed. This is referred to as the "closing." After the closing, the M&A is announced to the stakeholders of the seller and buyer (employees, trading partners, shareholders, etc.). A so-called 100-day plan that was prepared in advance is implemented to generate synergies from the M&A in a short period. The 100-day plan includes a communication plan intended to prevent a decline in employee motivation and the loss of outstanding personnel as a result of organizational changes. Following implementation of the 100-day plan, integration proceeds over time.

Appendix 2. German Individualism and Work Attitudes that Differ from those in Japan

It is often said that Japanese people and German people are similar in that they are both diligent and strict about time. Germany and Japan were allies during the Second World War, and remarkable economic recovery in the post-war period and strong manufacturing industries including automobiles are also grounds for links to similarities in national character. On the other hand, a Japanese journalist living in Germany made the following observations regarding differences in work attitudes in Japan and Germany based on disparities in national character (Toru Kumagai, Germany: A Surprising Developed Country [in Japanese], (Shincho Bunko, 2004), pp. 15, 268).

Germany is believed to be a country with strong individualism, even within Europe, and this German individualism is the most substantial difference from Japan. In Japanese society, teamwork, consideration and care for others, and group harmony are emphasized, but Germany is the complete opposite with an emphasis on the will of the individual, and it is seen to be proper to directly state one's opinion or feelings regardless of what others think. As long as it makes sense, acting differently from others and making statements contrary to the group are not seen as nearly as much of as issue as in Japan. For example, in a Japanese company, when one's supervisor or colleagues are working busily, it is believed to be unacceptable to leave work promptly, but in Germany, everyone respects private time after work, and no one would disapprove of doing such a thing.

On the other hand, although there is a strong tendency to avoid mingling personal matters with business in German companies, there is also a familial aspect that is not present in Japan. At many companies, is permissible to celebrate a birthday, wedding, and so on during working hours with approval from a supervisor. An employee celebrating a birthday may provide beer, champagne, snacks, and cake in their office or a conference room and invite supervisors and colleagues. Also, colleagues may collect money to give flowers or a card. Compared to Japan, the sense of teamwork is lacking, but this is a moment of relaxation in the German workplace, where normally efficiency is rigorously pursued.

In this way, although it cannot be said that Germany is partial to individualism, there is still a significant difference from the national character of Japan in terms of the strength of individualism.

Keio Business School

KCC 2020.11 PDF